APPENDIX 2

DEVELOPMENT MANAGEMENT REVIEW COMMITTEE

APPLICATION FOR REVIEW

ERECTION OF A WIND TURBINE AT FIELD 750M NORTH WEST OF BOLSHAN FARM, BOLSHAN, ARBROATH

APPLICATION NO 15/00415/FULL

APPLICANT'S SUBMISSION

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ITEM 2 Notice of Review Statement

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ITEM 4 Appendix 2: Bolshan Renewables Environmental Report Volume 2 - Landscape and Visual Impact Assessment Figures

ITEM 5 Appendix 3: Bolshan Renewables Planning Application Form and Planning Drawings

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ITEM 14 Appendix 12 TAYplan – Strategic Development Plan

ITEM 15 Appendix 13: '*Tayside Landscape Character Assessment'*, Land Use Consultants, on behalf of SNH

ITEM 16 Appendix 14: Ironside Farrar for Angus Council, *'Strategic Landscape Capacity Assessment for Wind Energy in Angus'*

ITEM 17 Appendix 15: Scottish Natural Heritage Guidance: 'Assessing the impact of small-scale wind energy proposals on the natural heritage.'

County Buildings Market Street Forfar DD8 3LG

Tel: 01307 461460

Fax: 01307 461 895

Email: plnprocessing@angus.gov.uk

Applications cannot be validated until all necessary documentation has been submitted and the required fee has been paid.

Thank you for completing this application form:

ONLINE REFERENCE 000133351-001

The online ref number is the unique reference for your online form only. The Planning Authority will allocate an Application Number when your form is validated. Please quote this reference if you need to contact the Planning Authority about this application.

Applicant or Agent Details

Are you an applicant, or an agent? * (An agent is an architect, consultant or someone else acting on behalf of the applicant in connection with this application) ☐ Applicant ☑ Agent

Agent Details

Please enter Agent details

Company/Organisation:	The Greenspan Agency
Ref. Number:	
First Name: *	Jack
Last Name: *	Cook
Telephone Number: *	0131 290 2262
Extension Number:	
Mobile Number:	
Fax Number:	
Email Address: *	jack@greenspanenergy.com

You must enter a Building Name or Number, or both:*

Building Name:	
Building Number:	6
Address 1 (Street): *	Castle Street
Address 2:	
Town/City: *	Edinburgh
Country: *	UK
Postcode: *	EH2 3AT

Is the applicant an individual or an organisation/corporate entity? *

☐ Individual ☑ Organisation/Corporate entity

Applicant Details

Please enter Applicant details

Title:		You must enter a Building Name or Number, or both:*	
Other Title:		Building Name:	
First Name:		Building Number:	6
Last Name:		Address 1 (Street): *	Castle Street
Company/Organisation: *	Bolshan Renewables Limited	Address 2:	
Telephone Number:		Town/City: *	Edinburgh
Extension Number:		Country: *	United Kingdom
Mobile Number:		Postcode: *	EH2 3AT
Fax Number:			
Email Address:			

Site Address Details

Planning Authority: Angus Council

Full postal address of the site (including postcode where available):

Address 1:		Address 5:	
Address 2:		Town/City/Settlement:	
Address 3:		Post Code:	
Address 4:			

Please identify/describe the location of the site or sites.

Land at Bolshan Farm, Arbroath, Angus, DD11 4UH

Northing	752652	Easting	361507

Description of the Proposal

Please provide a description of the proposal to which your review relates. The description should be the same as given in the application form, or as amended with the agreement of the planning authority: *
(Max 500 characters)

Erection of Wind Turbine of 55.6 to hub height and 79.6 to Blade Tip and Ancillary Development

Type of Application

What type of application did you submit to the planning authority? *

☑ Application for planning permission (including householder application but excluding application to work minerals).

☐ Application for planning permission in principle.

☐ Further application.

☐ Application for approval of matters specified in conditions.

What does your review relate to? *

☐ Refusal Notice.

☐ Grant of permission with Conditions imposed.

☑ No decision reached within the prescribed period (two months after validation date or any agreed extension) – deemed refusal.

Statement of reasons for seeking review

You must state in full, why you are seeking a review of the planning authority's decision (or failure to make a decision). Your statement must set out all matters you consider require to be taken into account in determining your review. If necessary this can be provided as a separate document in the 'Supporting Documents' section: * (Max 500 characters)

Note: you are unlikely to have a further opportunity to add to your statement of appeal at a later date, so it is essential that you produce all of the information you want the decision-maker to take into account.

You should not however raise any new matter which was not before the planning authority at the time it decided your application (or at the time of expiry of the period of determination), unless you can demonstrate that the new matter could not have been raised before that time or that it not being raised before that time is a consequence of exceptional circumstances.

Please refer to the accompanying 'Notice of Review Statement', dated 07 October 2015, submitted with this form

Have you raised any matters which were not before the appointed officer at the time the determination on your application was made? * ☐ Yes ☑ No

Please provide a list of all supporting documents, materials and evidence which you wish to submit with your notice of review and intend to rely on in support of your review. You can attach these documents electronically later in the process: * (Max 500 characters)

The 'Notice of Review Statement', dated 07 October 2015, contains a list on page 11 of all the appendices submitted in support of this notice of review.

Application Details

Please provide details of the application and decision.

What is the application reference number? * 15/00415/FULL

What date was the application submitted to the planning authority? * 30/04/15

Review Procedure

The Local Review Body will decide on the procedure to be used to determine your review and may at any time during the review process require that further information or representations be made to enable them to determine the review. Further information may be required by one or a combination of procedures, such as: written submissions; the holding of one or more hearing sessions and/or inspecting the land which is the subject of the review case.

Can this review continue to a conclusion, in your opinion, based on a review of the relevant information provided by yourself and other parties only, without any further procedures? For example, written submission, hearing session, site inspection. *

☑ Yes ☐ No

In the event that the Local Review Body appointed to consider your application decides to inspect the site, in your opinion:

Can the site be clearly seen from a road or public land? * ☐ Yes ☑ No

Is it possible for the site to be accessed safely and without barriers to entry? * ☑ Yes ☐ No

If there are reasons why you think the Local Review Body would be unable to undertake an unaccompanied site inspection, please explain here. (Max 500 characters)

n/a

Checklist - Application for Notice of Review

Please complete the following checklist to make sure you have provided all the necessary information in support of your appeal. Failure to submit all this information may result in your appeal being deemed invalid.

Have you provided the name and address of the applicant? * ☑ Yes ☐ No

Have you provided the date and reference number of the application which is the subject of this review? * ☑ Yes ☐ No

If you are the agent, acting on behalf of the applicant, have you provided details of your name and address and indicated whether any notice or correspondence required in connection with the review should be sent to you or the applicant? *

☑ Yes ☐ No ☐ N/A

Have you provided a statement setting out your reasons for requiring a review and by what procedure (or combination of procedures) you wish the review to be conducted? * ☑ Yes ☐ No

Note: You must state, in full, why you are seeking a review on your application. Your statement must set out all matters you consider require to be taken into account in determining your review. You may not have a further opportunity to add to your statement of review at a later date. It is therefore essential that you submit with your notice of review, all necessary information and evidence that you rely on and wish the Local Review Body to consider as part of your review.

Please attach a copy of all documents, material and evidence which you intend to rely on (e.g. plans and drawings) which are now the subject of this review * ☑ Yes ☐ No

Note: Where the review relates to a further application e.g. renewal of planning permission or modification, variation or removal of a planning condition or where it relates to an application for approval of matters specified in conditions, it is advisable to provide the application reference number, approved plans and decision notice (if any) from the earlier consent.

Declare - Notice of Review

I/We the applicant/agent certify that this is an application for review on the grounds stated.

Declaration Name: Jack Cook

Declaration Date: 08/10/2015

Submission Date: 08/10/2015

Bolshan Renewables Project

Notice of Review Statement

Appellant: Bolshan Renewables Ltd

07 October 2015

The Greenspan Agency

Prepared by:
Jack Cook, MRTPI

Checked by:
Martyn Bentley, Planning Manager

Document Reference: 14-015/JC/R003

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Contents

1. Introduction

Request for Review

1.1. This statement has been prepared by The Greenspan Agency Ltd on behalf of the appellant, Bolshan Renewables Limited, to support a request for the Local Review Body (also known within Angus as the Development Management Review Committee) to determine application 15/00415/FULL given the failure of the appointed officer to determine the application within the period allowed.

Statutory Requirements & List of Supporting Appendices

1.2. A summary of the statutory requirements under regulation 9 of The Town and Country Planning (Schemes of Delegation and Local Review Procedure) (Scotland) Regulations 2013 is included at the end of this statement to ensure these are provided.

1.3. Similarly, a list of the supporting appendices submitted with this Notice of Review Statement has been provided toward the end of this document.

The Application

1.4. Application 15/00415/FULL has been given the following description of development:

'Erection of Wind Turbine of 55.6 to hub height and 79.6 to Blade Tip and Ancillary Development | Field 750M North West Of Bolshan Farm Bolshan Arbroath'

1.5. Section 43A(8)(c) of the Town and Country Planning (Scotland) Act 1997 as amended by the Planning etc. (Scotland) Act 2006 sets out that where a person appointed within a scheme of delegation to determine a planning application fails to determine that application, the applicant may 'require the planning authority to review the case'.

1.6. Application 15/00415/FULL is not an EIA application, nor an application for major development, and was subject to a standard target for determination of two months after the validation date. Following this date, there is a three month period within which a review of the application must be requested. The relevant dates for this application are:

Table 1: Relevant Dates

Application validated	14 May 2015
Determination deadline	13 July 2015
Date by which a review must be requested	12 October 2015

1.7. This Notice of Review Statement has been prepared in line with the requirements set out in the following documents:

- Section 43A(8) of The Town and Country Planning (Scotland) Act 1997 (as amended) in respect of decisions on Local Developments;

- The Town and Country Planning (Schemes of Delegation and Local Review Procedure) (Scotland) Regulations 2013;
- Circular 5/2013 Schemes of Delegation and Local Reviews.

The Applicant

1.8. Bolshan Renewables Limited is a joint venture between the farm owner, Messrs W B Smith & Sons Limited, and Greenspan Energy Limited. The Smith family have been farming at Bolshan since 1945 and are keen to diversify the farm's activities. Further details are given on page 7 of volume 1 of the Environmental Report submitted with the planning application dated 30 April 2015.

Cause of Failure to Determine

2.1. At the time of writing the appointed officer has not requested any outstanding information from the applicant and the applicant understands that all consultees which the appointed officer requires to respond to the application before a decision is made have issued their responses. The most recent material exchange of planning information between the applicant and the planning officer was an email dated 07 July 2015 in which some of the officer's thoughts on landscape effects were responded to by Jack Cook of The Greenspan Agency. The Greenspan Agency have been in frequent contact with the case officer, speaking to him around once per week, since that date to enquire as to whether progress had been made by the case officer on his Report of Handling. Nothing further has been requested from The Greenspan Agency and the case officer has indicated to them that the delay was due solely to his own workload commitments rather than any failings in the information provided by the applicant.

2. Planning History

2.1 The key stages in the project and planning application timeline are set out below:

Table 2: Chronology of Planning Application 15/00415/FULL

Date	***Relevant Party***	***Description***
27/09/2013	Messrs G & W Smith and A D Craig	A previous application for a wind turbine at Bolshan farm of 77 metres to tip (Ref: 13/00887/FULL) was submitted. The turbine position was closer to neighbouring properties, closer to a ridgeline, and a WW2 historic site than the current turbine position. The applicants were Messrs G & W Smith and the agent was A D Craig.
24/01/2014	Messrs G & W Smith and A D Craig	The previous application (Ref: 13/00887/FULL) for a wind turbine at a different position on the farm was confirmed as withdrawn.
30/06/2014	A D Craig and Angus Council Planning	Feedback on landscape matters was received from the planning department by the previous planning agent, A D Craig, as part of a pre-application discussion for the submission of an amended wind turbine proposal (pages 13, 14 & 15 of the Environmental Report submitted with the current application discuss how the latest application seeks to improve upon the previous one).

30/04/2015	The Greenspan Agency	Application 15/00415/FULL was submitted, and Angus Council registered it the following day.
14/05/2015	Angus Council Planning	Application 15/00415/FULL was validated.
15/052015	Atkins Windfarm Support	Consultee response, radio communications links. No Objection
15/05/2015	JRC	Consultee response, radio communications links. No Objection
20/05/2015	Civil Aviation Authority	Consultee response, No Objection
20/05/2015	Historic Scotland	Consultee response, No Objection
22/05/2015	NATS (En Route)	Consultee response, No Objection
22/05/2015	Angus Council, Roads	Consultee response, No Objection, Condition Recommended
23/05/2015	Spectrum Licensing	Consultee response, No Objection
22/05/2015	SNH	Consultee response, No Objection
25/05/2014	Atkins Windfarm Support	Consultee response, radio communications links. No Objection (second response)
28/05/2015	Landscape Officer	Consultee response, No Objection (some reservations noted)
01/06/2015	MOD	Consultee response, No Objection
26/06/2015	The Greenspan Agency	A letter and three illustrations are submitted to address some of the points raised in the Landscape Officer's response of 28/05/2015
03/07/2015	Case officer	The case officer, James Wright emails Jack Cook of The Greenspan Agency to discuss landscape effects.
06/07/2015	Environmental Health	Consultee response, No Objection, conditions recommended.
07/07/2015	The Greenspan Agency	Jack Cook of The Greenspan Agency emails case officer James Wright to discuss his comments of 03/07/2015.

2.2 In addition to the consultees above, the applicant has previously asked that the Council consult internally with Gordon Ogilvie who The Greenspan Agency understands has a remit for promoting economic development and Low Carbon projects within Angus. This may help ensure the benefits of the project to renewable energy and local economic development can be properly understood. The Local Review Body may wish to consult Mr Ogilvie or someone in a similar role.

3. Focus of this Review Statement

De Novo Approach

3.1 As with any review by the Local Review Body, the De Novo approach should be applied by that body. This means that the review *'should be conducted by means of a full consideration of the application afresh'*[1].

[1] Letter from Chief Planning Officer, Jim Mackinnon, to Heads of Planning, dated 29 July 2011.

3.2 In addition, because this is an appeal against the appointed person's failure to make a decision there is no reason for refusal, something which, notwithstanding the requirement for the De Novo approach, can focus discussions at the review stage.

Landscape and Visual Matters

3.3 However, despite the above points, and respecting the review body's duty to take the De Novo approach, it is expected that landscape and visual matters will be of key interest to members of the Local Review Body. This is due to other issues being largely concluded by positive responses from consultees, although it is also noted that the Council's Landscape Officer has issued a response and did not object.

Avoidance of Repetition

3.4 The regulations[2] make it clear that *"all matters which the applicant intends to raise in the review must be set out in the notice of review or in the documents which accompany the notice of review"* (regulation 9(4)(a)).

3.5 Given the range of information provided in the 'documents which accompany' this Notice of Review Statement, The Greenspan Agency do not think that the aim of providing a clear understanding of the application is served by repeating within this Notice of Review Statement all that has been set out in the supporting information submitted with the application to-date.

3.6 Members of the Development Management Review Committee, and the planning advisor for the committee are invited to refer to the supporting information already provided. The 'Summary of Report Findings' on pages 11 and 12 of the Environmental Report submitted with the planning application (Appendix 01) provides a useful starting point.

3.7 This Notice of Review Statement therefore focuses on signposting a few of the key matters covered by the material already submitted where this deals with issues likely to be foremost in the mind of the members of the Local Review Body when they make their decision. Firstly, landscape and visual matters are considered in the next chapter.

[2] The Town and Country Planning (Schemes of Delegation and Local Review Procedure) (Scotland) Regulations 2013

4. Landscape and Visual

4.1. The following landscape and visual matters have been addressed in the supporting information. The Facts identified in the course of site selection and the turbine layout design process point to the acceptability of the proposed development in landscape and visual terms.

4.2. Key Landscape and Visual matters are:

Landscape Policy Consensus

4.3. As previously set out in the Environmental Report submitted with the planning application (Appendix 01) and within the email of Tue 07/07/2015 14:09 from Jack Cook of The Greenspan Agency to case officer James Wright (Appendix 07), there is a local planning policy consensus that the site chosen has a landscape which is suited to wind turbine development of the scale proposed. Key references are set out below:

- Angus Local Plan Review (2009)
  The turbine is within the 'lowland and hills' geographic area which is preferred for wind turbine development when compared with the 'coast' and 'highland' areas (pages 94-97).

- Angus Council*, 'Implementation Guide for Renewable Energy Proposals'* (June 2012)
  The 'dipslope farmland' landscape character type in which the project is located is 'Considered to have scope for turbines circa 80m in height' (page 48)

- Ironside Farrar for Angus Council*, 'Strategic Landscape Capacity Assessment for Wind Energy in Angus'* (2014)
  The 'Rossie Moor' landscape character area in which the project is located is stated as having 'medium' remaining landscape capacity for medium to large turbines of 50-<80m in height. (page 67).

4.4. The Greenspan Agency eliminate around 3 out of 4 wind turbine sites at the planning feasibility stage, we have proceeded at Bolshan because we think we can help deliver the planning policy vision set out by the Council across the documents referred to above.

Landscape Officer's Response

4.5. Landscape officer Nola O'Donnell provided her comments on the application in her response dated 28 May 2015 (Appendix 04-11). The Greenspan Agency have summarised her key points as follows:

- The Landscape Officer has not objected to the application
- The Landscape officer concludes in her final paragraphs that: *"The cumulative effect would be low and will not lead to significant adverse impacts."* And *"The receiving landscape has capacity to accommodate the proposed type scale or nature of change",* but;

- Her main reservation appears to be the possible effect on two of the nearby dwellings, "*However the remaining issue is the impact on Bolshan Cottage and Burnside".*

4.6. The Greenspan Agency have discussed the Landscape Officer's comments at length in our 'Discussion of Landscape Officer's Response' letter (Appendix 06-01). Please refer to the section on pages 3 and 4 of the letter headed 'Residential Effects' and the sub-headings 'Bolshan Cottage', 'Burnside', and 'Principle Views From Bolshan Cottage and Burnside', for a full discussion. Reasons given by The Greenspan Agency for the acceptability of effects on dwellings include:

- Large separation distances to the Bolshan Cottage and Burnside dwellings.
- Topography which slopes down from the closest property, meaning that the turbine base is lower than the nearest property, Bolshan Cottage.
- Views of the turbine from Bolshan Cottage are substantially screened by trees.
- The principal viewing directions from the main windows of the dwellings of Bolshan Cottage and Burnside are in a different direction to the turbine position.
- Any remaining effects on views from properties should be counter-balanced by, the substantial benefits of the project in terms of clean energy production. The electricity needs of 424 dwellings are expected to be met (by coincidence this almost exactly matches the 425 dwellings in Friockheim[3]).

Proximity to Dwellings

4.7. The project has a spacious site, which could accommodate more than one turbine. However The Greenspan Agency chose to present a single turbine proposal in order to maximise separation distances to nearby dwellings. When compared with planning applications for turbines of a similar size elsewhere in Angus, this proposal offers significant benefits. The nearest dwelling will be 623 metres from the turbine position. By comparison an application for a similarly sized turbine at Hatton, Kinnell (12/00732/FULL) which was refused in 2013 offered a separation distance of 410 to the nearest property, over 200m less. A table comparing the application which is the subject of this review, to five other projects has been provided on page 15 of the Environmental Report submitted with this planning application and substantiates this point in detail.

4.8. In addition, the figure illustrating the principal views from the dwellings of Bolshan Cottage and Burnside is useful (Appendix 06-04), together with the 'discussion of landscape officer's response' (Appendix 06-01) which it accompanies, and the Photomontage 'View Adjacent to Bolshan Cottage' (Appendix 06-02). These supporting documents all help to explain why the effect on views from the nearest properties will be acceptable.

[3] See page 21 of the Environmental Report submitted with the planning application for further details.

5. Planning Considerations other than Landscape and Visual

5.1. The acceptability of the project in the round has been demonstrated throughout the supporting documents submitted with the application by the Agent. A key starting point to understanding these considerations is the 'Summary of Report Findings' on pages 11 and 12 of the Environmental Report submitted with the planning application (Appendix 01-01). This summary provides a useful introduction to all chapters of the Environmental Report.

5.2. It is considered that the findings of the Environmental Report (Appendix 01), coupled with the fact that no consultee has objected to the application, demonstrates the acceptability of the project in terms of such matters as; microwave link interference, aviation, noise, ecology, the historic environment, hydrology, flooding, transport and turbine delivery, and construction methods, Etc.

5.3. The following important points can be quickly highlighted here:

Noise

5.4. The large separation distances to the nearest dwellings mean that the noise assessment submitted with the planning application did not need to present background noise measurements to demonstrate the acceptability of the project against standard noise limits. Instead a very clear and simple assessment based on fixed limits could be provided. (please refer to pages 138-143 of the Environmental Report submitted with the planning application, Appendix 01, and to the Environmental Health Officer's response, Appendix 04-13)

Environmental & Economic Benefits

5.5. The project will deliver clean renewable energy and diversify a local farming business, bringing investment and revenue to Angus. The environmental and economic benefits have been set out in detail throughout the supporting information provided with the application. In particular, chapters 4 and 5 of the Environmental Report submitted with the planning application (Appendix 01) cover these topics.

Improvements over Previous Design

5.6. Application 13/00887/FULL sought permission for a wind turbine at another location on Bolshan Farm. For the current application, the turbine position was moved 422m to the north-east. Chapter 3 of the Environmental Report submitted with the planning application (Appendix 01) sets out the improvements delivered by moving the turbine and members of the committee and the planning advisor are invited to refer to that document. Key points include: greater separation distances to dwellings and historic sites, avoiding principal views from key dwellings, lower elevation to reduce the perceived scale of the turbine and lower the tip height above ordnance datum[4], and avoiding the ridge-line to reduce the perceived scale and dominance of the turbine in the landscape.

[4] Despite a 2 metre increase in tip height from turbine base to ensure a more aesthetically pleasing and durable turbine model from a leading manufacturer can be used.

Appropriate Assessment, Habitats Directive

5.7. The Montrose Basin Special Protection Area (SPA) is 7.4 km north-east of the turbine position. The Basin is noted for its populations of Greylag and Pink-footed Geese. Locations out to 20km from such protected sites have 'potential connectivity' if birds use the surrounding area within this radius for foraging[5]. Given this, Scottish Natural Heritage (SNH) have provided an assessment of the effects on the basin's Geese populations in their response (Appendix 04-09), and asked that the Council undertake an 'appropriate assessment[6]' prior to issuing any planning decision. SNH have also steered the Council toward the likely conclusion of that 'appropriate assessment'. SHN have stated: *"To help you do this [carry out an 'appropriate assessment'] we would further advise that, in our view, based on the appraisal carried out to date, the proposal will not adversely affect the integrity of the site [the Montrose Basin]*".

5.8. At the time of writing it is not thought that an appropriate assessment has been completed by the planning authority. However, given the advice offered by SNH, this could be completed quickly and would not pose a barrier to the issuing of planning permission.

Planning Policy and the Development Plan

5.9. Chapter 6 on page 24 of the Environmental Report submitted with the planning application (Appendix 01) provides a detailed 'Planning Statement' testing the project against all relevant policies within the development plan. Again, members of the review committee and the planning advisor are invited to refer to that document. Chapter 6 concludes:

> *"The Bolshan Renewables Project accords with the Development Plan and other material considerations. In particular the criteria in policy ER34: Renewable Energy Developments and ER35: Wind Energy Development can be complied with…*
>
> *From the very earliest stages of the development process the applicant, and their agent, have sought to design a development that fully accords with planning policy. The result is a proposal which is in accordance with the development plan and should be granted planning permission."*

6. Conclusion

6.1 This notice of review statement has set out the reasons why the appellant considers the assessments provided with the planning application and Environmental Report provide sufficient evidence for the Local Review Body to conclude that the proposed development is acceptable in all material planning respects.

6.2 The appellant seeks for the review to be upheld and for planning permission to be granted.

[5] http://www.snh.gov.uk/docs/A675474.pdf
[6] [Under regulation 48 of The Conservation (Natural Habitats, &c.) Regulations 1994.]

7. Planning Conditions

7.1 The agent is aware that Angus' Development Management Review Committee have, in the past, re-convened to agree planning conditions for wind turbine consents. We are also aware that the environmental health officer, and roads consultee, have recommended specific planning conditions for inclusion in any decision notice. To facilitate the process of agreeing conditions, The Greenspan Agency can at this stage say they are willing to accept these EHO and roads conditions. We are also willing to work with the committee to agree any additional conditions should these be required.

8. List of Supporting Appendices Submitted under the Notice of Review

8.1. The Environmental Report and Landscape and Visual Impact Assessment (LVIA) originally submitted in support of 15/00415/FULL have been provided with this Notice of Review, as well as the relevant local development plan policies and key correspondence. The appellant has submitted such information they consider necessary to support the review.

8.2. The appendices submitted in support of the Notice of Review are:

Table 3: Appendices Submitted in Support of the Notice of Review

Appendix Number	Document Title	Dated
01	Bolshan Renewables Environmental Report Volume 1	30 April 2015
02	Bolshan Renewables Environmental Report Volume 2 Landscape and Visual Impact Assessment Figures	30 April 2015
03	Bolshan Renewables Planning Application Form and Planning Drawings	30 April 2015
04	Consultation Responses to Bolshan Renewables planning application.	Various
05	Public Letters of Representation	Various
06	Letter and three illustrations produced by The Greenspan Agency providing comments on the consultee response from the Landscape Officer	26 June 2015
07	Email to the case officer James Wright from Jack Cook of The Greenspan Agency discussing various landscape matters	07 July 2015
08	Angus Local Plan Review	2009
09	Scottish Planning Policy	June 2014
10	National Planning Framework 3	2014
11	'Implementation Guide for Renewable Energy Proposals', Angus Council	June 2012
12	TAYplan – Strategic Development Plan	June 2012
13	'*Tayside Landscape Character Assessment'*, Land Use Consultants, on behalf of SNH	1999
14	Ironside Farrar for Angus Council, *'Strategic Landscape Capacity Assessment for Wind Energy in Angus'*	March 2014
15	Scottish Natural Heritage Guidance: 'Assessing the impact of small-scale wind energy proposals on the natural heritage.'	June 2014

8.3. All documents have been provided to the Clerk of the Local Review Body in digital form. Hard copies can be provided upon request.

9. Statutory Requirements

9.1. Regulation 9 of The Town and Country Planning (Schemes of Delegation and Local Review Procedure) (Scotland) Regulations 2013 sets out some statutory requirements for the information to be provided within the 'Notice of Review'. For clarity these are set out below:

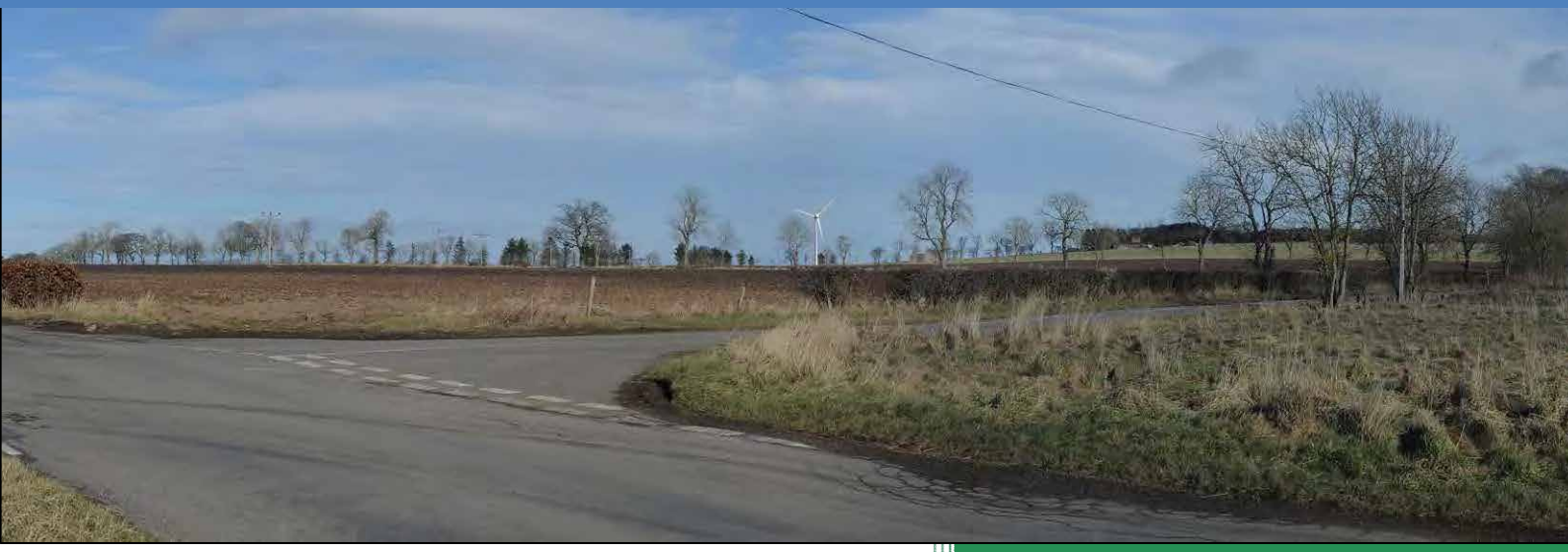
Table 4: Statutory Information Requirements Under Regulation 9

Statutory Requirement	***Answer***
The name and address of the applicant	Bolshan Renewables Limited 6 Castle Street Edinburgh EH2 3AT
The date and the reference number of the application in respect of which the review is required;	15/00415/FULL Application validated, 14 May 2015
The name and address of the representative of the applicant (if any) and whether any notice or other correspondence which is required by these Regulations to be sent to the applicant should be sent to the representative instead of the applicant	Agent: The Greenspan Agency 6 Castle Street Edinburgh EH2 3AT Correspondence should be sent to the agent
A statement setting out the applicant's reasons for requiring the local review body to review the case and by what, if any, procedure (or combination of procedures) mentioned in regulation 13(4) the applicant considers the review should be conducted	The applicant requires a review due to the appointed officer's failure to determine the application. The applicant is content for the local review body (development management review committee) to determine whether a procedure other than written representations is required.

The Greenspan Agency

Bolshan Renewables Project

ER VOLUME I: ENVIRONMENTAL REPORT



This document has been prepared on behalf of the applicant, Bolshan Renewables Limited, by The Greenspan Agency Ltd

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Preface

This Environmental Report seeks to assess the planning and environmental effects of the Bolshan Renewables Project. This report is not a formal 'Environmental Statement' for the purposes of the Planning EIA Regulations (the Environmental Impact Assessment (Scotland) Regulations 2011).

The Bolshan Renewables Project planning application comprises two separate volumes of the environmental report, together with the required application forms and drawings:

- ER Volume I: Environmental Report
- ER Volume II: Landscape and Visual Impact Assessment Figures
- Planning Application Forms and Drawings

The information provided in the above suite of information should be sufficient for the determination of the planning application.

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1. Outline Description of the Proposal

1.1. The Applicant

Bolshan Renewables Limited is a joint venture between the farm owner, Messrs W B Smith & Sons Limited, and Greenspan Energy Limited.

The Smith family have been farming at Bolshan since 1945. The business at Bolshan Farm focuses exclusively on arable farming. The applicant is seeking to diversify the business and sees renewable energy as a sustainable, environmentally sound opportunity which utilises the area's excellent wind resources.

The Greenspan Agency and the Greenspan group of companies are renewable energy developers and consultants. Together with developing their own wind and solar projects, The Greenspan Agency acts as a consultancy advising landowners and farmers in the development of anaerobic digestion, solar, wind, and hydro renewable energy projects from inception to operation.

1.2. The Proposed Development

Planning permission is sought for one wind turbine up to 79.6 metres tip height, with associated access, foundations, and hardstandings on land north of the Bolshan farm buildings, around 3km north-east of Friockheim, Angus. The proposed development is henceforth referred to as the 'Bolshan Renewables Project'.

The exact model of wind turbine would be confirmed at the time of order; however the assessment of environmental effects presented here has been based on the preferred Enercon E48 turbine model with a 55 metre hub height and a rotor diameter of 48 metres. Any variation from this turbine model would be agreed with the planning authority but the maximum tip height would not exceed 79.6 metres.

The proposed development will be an important farm diversification project, helping to secure business viability at Bolshan farm and allow investment in the local area. The electricity generated by the turbine would be exported to the National Grid, making an important contribution to the Scottish and UK Governments' climate change targets. The project would enable the farming business to be more environmentally conscious and to do its part to safeguard the natural environment and help mitigate climate change.

1.3. The Site

The proposed wind turbine would be located at the following grid reference:

361507 752652
(aka NO 61507 52652)

A first consideration of the site shows that it has the following attributes:

- The site is well exposed to the prevailing south-westerly winds. According to DECC's NOABL wind speed calculation model, the site has a strong average speed of approximately 7.8m/s at 45m above ground level. A wind turbine would harvest the wind at this location very effectively;
- The site does not support any sites of international, national or local importance within its boundaries;
- The site does not lie within a designated landscape;
- A grid connection has been agreed with Scottish and Southern Energy;
- The development offers farm diversification opportunities to the applicant, without affecting the current farming practices on-site;
- There is suitable access to the site by the trunk road system and adjacent roads.

The following page shows the proposed site layout plan.

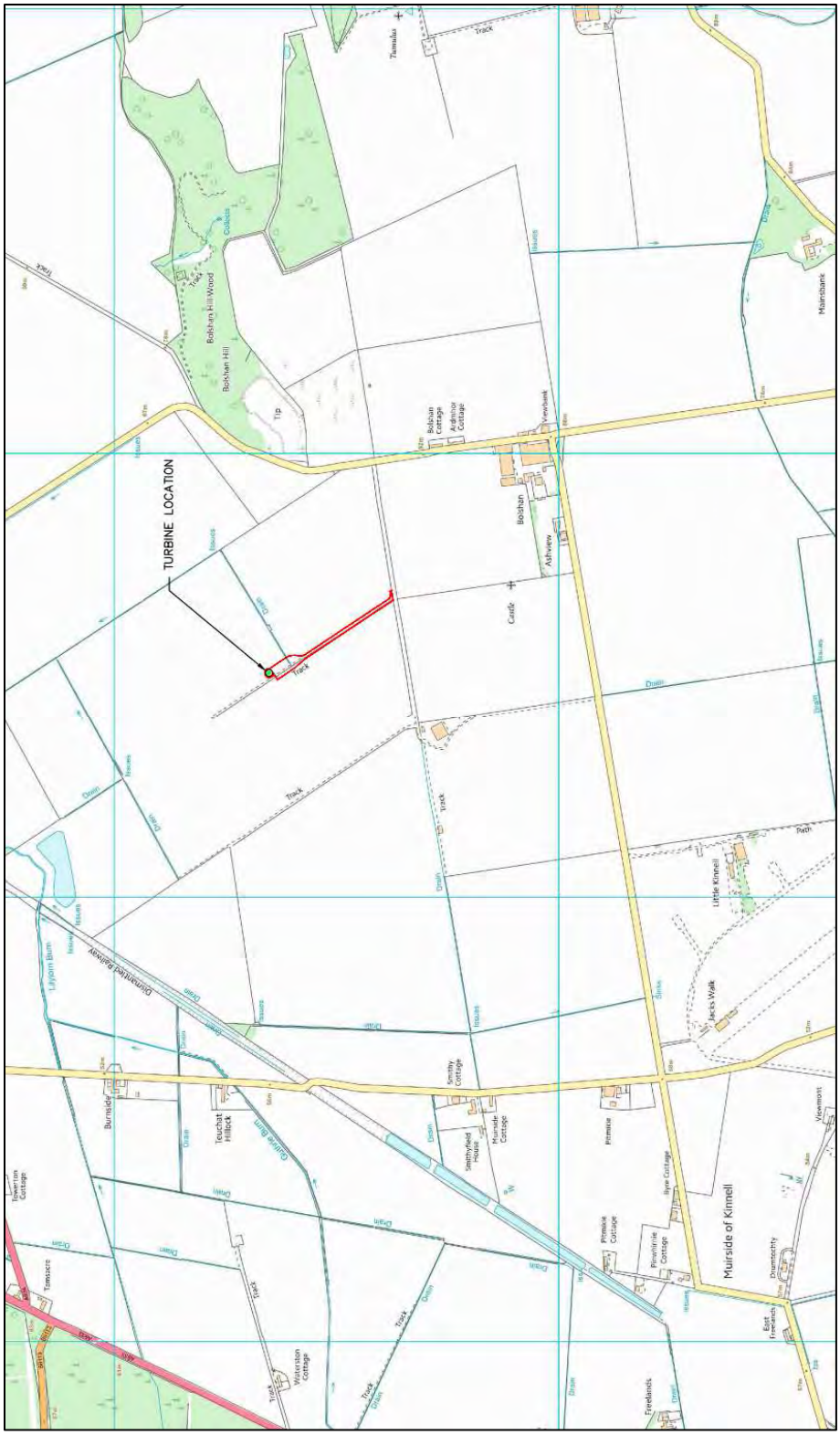


Figure 1: Bolshan Location Plan
(A detailed version of this plan with scale and key has been submitted as a separate drawing with this planning application)

1.4. Turbine Details

The Enercon E48 turbine model and manufacturer is widely considered to be the most efficient and reliable currently available. It will maximise production from the site and minimise maintenance downtime. Technical details of the E48 are shown on the next page Figure 3). The colour of the turbines would be agreed with Angus Council; however it is typically light grey/off-white with a semi-matt finish to attenuate visibility.

Figure 2: An operational E48 wind turbine at a Greenspan Agency project in Aberdeenshire. Enercon turbines are recognisable by their elegant streamlined shape which compares favourably with other wind turbine designs.

The turbine rotors would rotate upwind of the prevailing wind direction and the speed of rotation would be controlled by the nacelle yawing so that the rotor faces into the wind, whilst feathering the blades. Above maximum permissible wind speeds the turbines would shut down automatically and a brake would be applied.

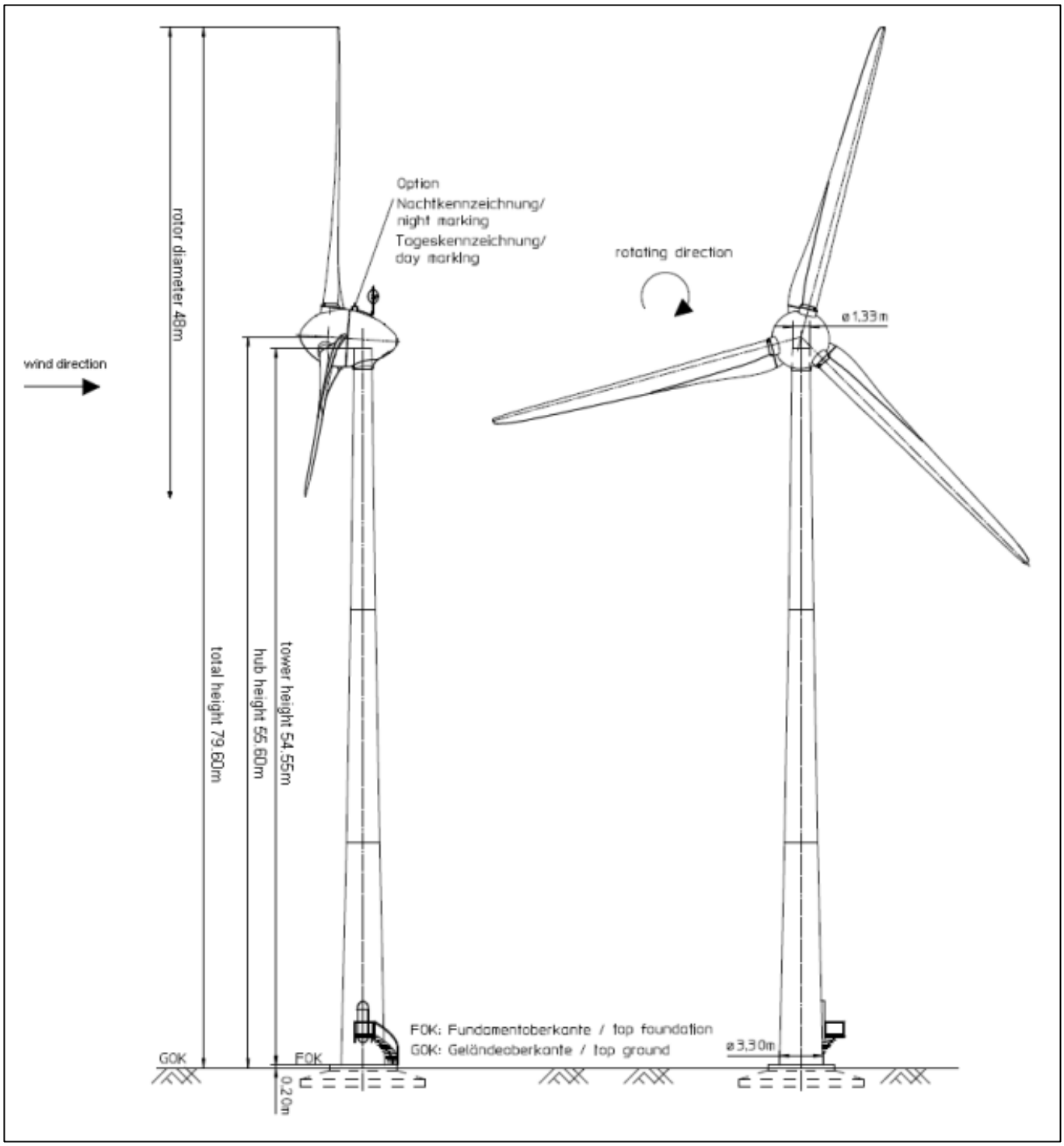
N.B. All of the environmental assessments submitted within this report have been carried out using the specifications of the Enercon E48 wind turbine.

1.5. Wind Resource

The site potentially has an excellent wind resource. The Department of Energy and Climate Change's wind yield estimation tool predicts an average wind speed of 7.8m/s at 45m above ground level. This figure indicates that a load factor of around 30% is likely for a wind turbine in this location.

Boasting an estimated 25% of the total European wind resource, Scotland is ideally suited to exploit this natural attribute in order to ensure energy security, boost the Scottish economy, create employment and increase energy exports to neighbouring countries. The Enercon E48 turbine is suitable for the sort of higher wind speed classes expected at this site. This will ensure that the turbine operates effectively in the high wind speed conditions found in this area and will also deliver a firmer output than many similar projects.

Figure 3: Technical Elevations of the Enercon E48 wind turbine [1].



[1] Enercon Technical Description E-48. VI-Technical Description E48 Rev001ger-eng.doc

2. Summary of Report Findings

The detailed assessment set out in this environmental report has identified the following key findings. A similar account of key findings with explicit reference to relevant planning policies is given in the 'Planning Assessment' section of the 'Planning Statement' chapter of this report.

Landscape Suitability

The adopted Angus Local Plan Review sets out that the 'lowland and hills' geographic area in which the turbine is proposed is the best suited in Angus for wind turbine development. In addition: two key items of supplementary guidance point to the acceptability of the Dipslope Farmland landscape character type, and the Rossie Moor sub-area, in which the site is located, as being suitable locations for a wind turbine of this scale.

To summarise, there is a very clear consensus within the following documents that the chosen site is in one of the best parts of Angus for a wind turbine of the scale proposed:

- Angus Local Plan Review (in particular pages 94-97)
- Angus Council, *'Implementation Guide for Renewable Energy Proposals'* (June 2012) (in particular, page 48)
- Ironside Farrar for Angus Council, *'Strategic Landscape Capacity Assessment for Wind Energy in Angus'* (2014) (in particular page 67)

The planning system in Scotland is 'plan led' and the applicant has designed the proposal to accord with the development plan and the guidance listed above so that the policy vision set out by Angus Council can be delivered.

Impacts on Amenity and Distances to Dwellings

The project will provide substantial separation distances to nearby dwellings. These distances will be in excess of those provided at comparable projects nearby (please refer to '*Table 2: Separation distances to closest dwellings for comparable nearby projects*' in the following section of this report for further details). These large separation distances ensure easy compliance with noise limits and reduce visual amenity effects upon nearby dwellings and their settings.
When considered together with the aesthetically pleasing turbine design chosen (details given elsewhere in this report) it is clear that the siting and appearance of the turbine has been chosen to minimise impacts on amenity.

Improvements over Previous Wind Turbine Proposal at Bolshan Farm

A previous planning application for a wind turbine on the farm, with a different turbine position (application 13/00887/FULL) was withdrawn in January 2014. This application was handled by a different agent. Subsequently pre-application discussions with the planning authority were entered into during summer 2014 by the previous agent. The understanding acquired during this process helped The Greenspan Agency design the current scheme. The new turbine position and turbine design offer the following key benefits over the previous application:

- A turbine with more balanced proportions giving a more aesthetically pleasing design
- Increased separation distances to the nearest dwelling
- Significantly shallower viewing angle gradients to the top of the turbine from the nearest dwelling
- The turbine is no-longer on the ridgeline
- Separation from the Kinnell airfield second world war historic site and its extended component parts
- Less disturbance of vegetation and buildings with potential ecological value.
- Greater separation distance to Braikie Castle, with no views of the turbine expected from the castle.
- The new turbine position is over 2km from the nearest settlement as allocated in the local plan (Kinnell) and as such complies with spatial guidance set out in the SPP and emerging Local Development Plan.

Further discussion of the previous project and the design process is given in the 'Design Stage and Early Planning Work' chapter of this report, below.

Turbine and Generation

The 79.6m turbine is expected to provide clean energy sufficient to power the equivalent of at least 424 domestic homes (based on Ofgem average annual domestic electricity consumption of 3.3MWh per household [2)]. The 2011 census data shows that there were 425 households in Friockheim. Therefore, the electricity produced by the wind turbine at Bolshan could provide for all domestic users in a settlement the size of Friockheim. This is a substantial environmental benefit.

Carbon Payback

The carbon dioxide generated in the turbine's manufacture and construction will be paid back in around 6 months and the carbon footprint of electricity generated using wind is 215 times less than that of conventional coal powered generation.

Need for Renewables

There is a scientific consensus that the increase in greenhouse gases in the atmosphere is causing global average temperatures to rise. This has wide-spread adverse effects including those on habitats, landscapes, the historic environment, sea levels and human populations. The proposed development will help address these problems.

Historic Environment

There will be no direct effects on historic sites or known archaeological remains. Any indirect effects that may be caused are considered to be acceptable. In particular, a historic site close to the previously applied for turbine position will be avoided, and views from the nearest Scheduled Ancient Monument (Braikie Castle) are expected to be entirely screened.

Social and Economic Benefits

Locally owned renewable projects offer very important economic benefits. The proposed turbine constitutes a valuable rural diversification project and will enhance the viability of other activities undertaken at Bolshan Farm.

Ecology

The ecological assessment has found that there will be negligible impact on birds, mammals, and designated sites.

Noise

All noise levels at nearby properties will be within ETSU guidelines. Given the ample separation distances to nearby dwellings no background noise survey was required and the suitability of the site in noise terms can be very clearly demonstrated using a 'simple limits' approach.

Microwave and Radar

The proposed turbine is not expected to interfere with microwave communications links or aviation radar.

Effectiveness of Wind Energy

Concerns over the intermittency of wind energy are poorly grounded and distributed generation is an effective way of generating electricity.

Energy Security

Finite energy sources, by their very nature, do not last. In order to secure energy supply into the future, the use of renewable energy must increase.

Planning Assessment

The proposal has been found to be in accordance with the development plan and as such should receive planning permission.

[2]https://www.ofgem.gov.uk/publications-and-updates/typical-domestic-consumption-values-gas-and-electricity

3. Design Stage and Early Planning Work

3.1 Previous Application

A planning application for a wind turbine at Bolshan Farm was originally submitted in September 2013 (Application Ref: 13/00887/FULL). This turbine was at a different location to the one now proposed and the turbine model also differed. The turbine has now moved 422m to the north-east (see below). The previous application was withdrawn in January 2014. The Greenspan Agency was not the agent for that planning application and the applicant was 'Messrs G & W Smith'. The Smith family, who own Bolshan Farm, are still involved in the project, but now as part of a joint venture with Greenspan Energy Limited.

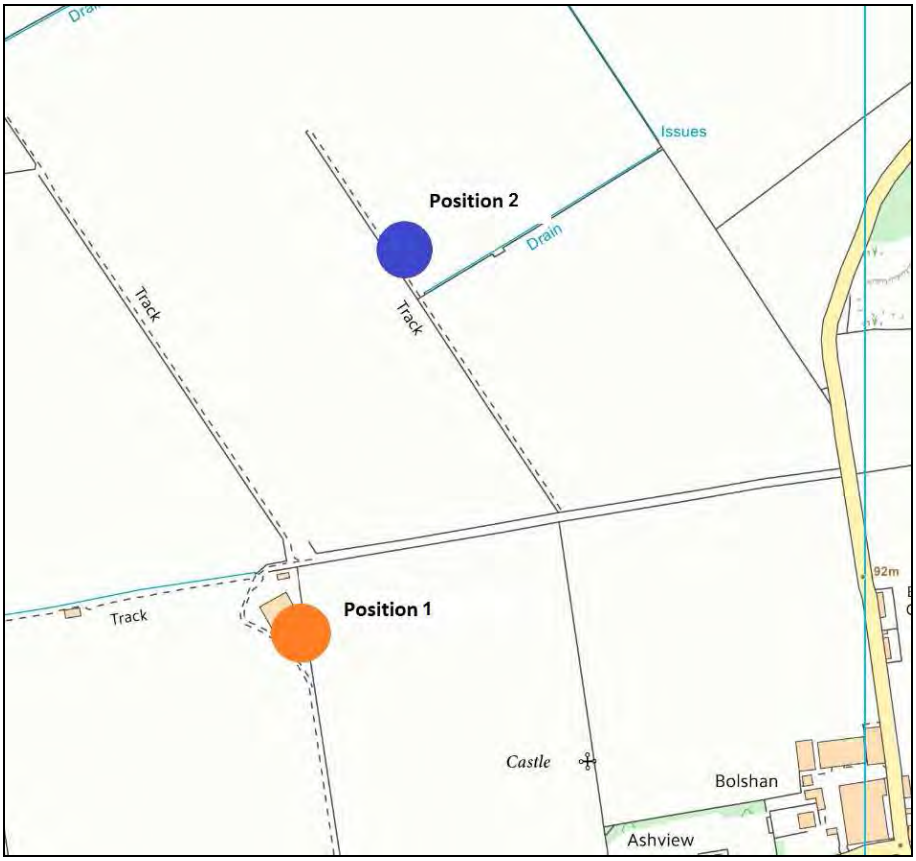


Figure 4: Original and New Turbine Positions
The turbine position for application 13/00887/FULL is shown by the annotation 'position 1'.
The new turbine position applied for under the current application is annotated 'position 2'.

While the precise details of the consultation responses received by the Council can only be understood by reference to the original responses, the following summary can be given of the responses received by the Council in respect of the earlier planning application.

Table 1: Summary of Consultee Responses to Previous Wind turbine Planning Application (13/00887/FULL)

Consultee	Response Date	Response
Ofcom	08/10/2013	No Objection
Atkins Global	09/10/2013	No Objection
JRC	10/10/2013	No Objection
Environmental Health Officer, Angus Council	11/10/2013	No Objection
NATS	23/10/2013	No Objection
Transport Planning, Angus Council	23/10/2013	No Objection
Scottish Water	23/10/2013	No Objection
SNH	24/10/2013	No Objection

The consultations responses for the previous application summarised above are very encouraging and point to Bolshan Farm being a very good site for wind turbine development.

The planning application now prepared builds upon information gathered during a pre-application consultation carried out during June 2014 by the previous agent, A. Craig. Feedback was provided by the Council's Countryside Officer and from the Case Officer (James Wright) to the agent within an email dated 30 June 2014. In this email the prospect of the turbine being reduced to 61m in height was discussed, together with some other landscape considerations. Key points made by Mr Wright in this email which the new project responds to include:

1. Reducing the turbine tip would result in a turbine design with a large rotor and short tower which would not have pleasing proportions.

2. The turbine position within 500m of the nearest dwelling was a concern

3. The ridgeline location was not favoured by the planning officer and countryside officer

4. The low height of the turbine blade above the ground (9m) as the blade rotated would lead to unfavourable comparisons with the scale of nearby trees.

In respect of points 1-4 the new turbine proposal provides the following benefits over the previous design:

1. The proportions of the turbine are more favourable. The proposed Enercon E48 uses a 48m blade diameter and a 55m tower. This provides a balanced turbine with aesthetically pleasing proportions. The proposed turbine model is also known for its elegant curved profile (please refer to photo of turbine on preceding pages).

2. The new turbine position provides greater separation distances to nearby dwellings (623m instead of 478m[3], giving a 145m increase in separation distance to the nearest dwelling). The new separation distance is significantly in excess of the 500m distance mentioned by the planning officer in his email of 30 June 2014. The elevation of the turbine base has also dropped from 78m AOD to 65m AOD, a change of 13m. These factors combine to reduce the visual impact of the turbine on nearby dwellings. The gradient of the view to the top of the turbine now proposed is much less steep than the previous viewing angle. That is, the new turbine tip is at a gradient of 1 in 12 from the nearest dwelling, while the previous application as originally proposed with a 77m turbine has a 1 in 6.6 gradient, reduced to 1 in 8.5 when the revised tip height of 61m was suggested. Please refer to the 'Nearby Dwellings' section of the Landscape and Visual Impact Assessment Chapter of this report for further details and illustrations.

3. The turbine has been moved down from the ridgeline.

[3] The distance to the nearest property at Doonbye was stated as 495.6 in the original noise assessment carried out by the previous agent but has been measured at 478m to the nearest façade by The Greenspan Agency using goreferenced 1:10,000 OS map data.

4. With the new turbine model the turbine blade will be 31m from the ground at its lowest point. This avoids the comparison with trees in the area. There are also fewer trees adjacent to the new turbine position.

Other planning benefits of the new turbine position include:

5. Separation from the Kinnell airfield second world war historic site and its extended component parts

6. Less disturbance of vegetation and buildings with potential ecological value.

7. Even lower noise levels at nearby dwellings.

8. Greater separation distance to Braikie Castle.

9. The new turbine position is over 2km from the nearest settlement as allocated in the local plan (Kinnell) and as such complies with spatial guidance set out in the SPP and emerging Local Development Plan.

The Greenspan Agency typically carries out extensive pre-application consultation with consultees and the planning authority prior to the submission of a planning application. However, in this case, because of the extent of useful information gathered during the application process for the previous project, it was not thought necessary to re-enter detailed pre-application consultation.

3.2 Comparison with Similar Projects Nearby

The distances between the proposed turbine and the nearest dwellings at this site compare very favourably with other comparable projects in the local area:

Table 2: Separation distances to closest dwellings for comparable nearby projects
(listed by increasing separation distance)

Project	***App Ref***	***Closest Dwelling***	***Planning status***	***Decision Date***	***Turbine Height to tip (m)***	***Distance from Bolshan turbine***
Hatton, Kinnell	12/00732/FULL	410	Refused	May 2013	77	2.3
Bolshan (withdrawn application)	13/00887/FULL	495	Withdrawn		77	0.4
Renmure	12/00632/FULL	558	Refused	June 2013 Nov 2013 (LRB)	77	3.7
Pickerton Farm, Guthrie	12/00365/FULL 11/00940/FULL	601	Approved	Oct 2012	77 (previous withdrawn app was for 86.5m)	5.0
Bolshan (new application)	**No reference number yet**	**623**	**-**	**-**	**79**	**0**
Stracathro (Greenspan)	12/00808/FULL	626	Approved	Jan 2013	79	11.6

The Greenspan Agency has sought to provide large separation distances to dwellings for the new Bolshan turbine application. The distance to the nearest property for the new Bolshan application would be almost identical to the distance for the Stracathro Greenspan Agency project which is operating successfully elsewhere in Angus and has the largest separation distances listed above.

In summary, although a modest (2.5metre) increase in turbine tip is now proposed, compared with the original 77m tip suggested in the original application, the new turbine location, preferable turbine design, and large separation distances to nearby dwellings, means that key visual and landscape effects are lessened and other significant planning improvements can be made.

4. The Need for Renewable Energy

Four key arguments in support of the Bolshan Renewables Project are presented here. Firstly, the need to combat climate change; secondly, the long term requirement to derive energy from a perpetually renewable source in a way that ensures security of energy supply in the future; thirdly, the need to improve the environmental and financial sustainability of the farming business. Finally, a case for wind energy is also presented.

4.1. Climate Change

The global climate is changing as a result of human activities. The UN's Intergovernmental Panel on Climate Change (IPCC) published *'the most comprehensive and up-to-date reports on the subject*[4] in their key landmark publication 'Climate Change 2007: Synthesis Report', the IPCC stated that there is "unequivocal"[5] evidence that the earth's temperature is warming, and that Greenhouse gas concentrations are now much higher than pre-industrial levels. They concluded with a high degree of certainty that the two are connected:

> *"Most of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic GHG [greenhouse gas] concentrations"*[6].

The IPCC report mentions many impacts of climate change. The following are of particular relevance to the UK:

- Extremes in weather, bringing increased frequency of damaging incidents such as severe storms and drought.
- Rising sea levels as a result of melting ice caps and flooding of many coastal areas.
- Acidification of the seas and resultant impacts on sea life.

The Working Group contribution to the IPCC's Fifth Assessment Report (AR5) considered new evidence of climate change to build on AR4. Their findings 'Climate Change 2013 The Physical Science Basis' were released in September 2013[7]. A key finding of the report is that global warming is likely to surpass the previously recognised danger threshold of a 2C average increase in temperature.

> *"Human influence has been detected in warming of the atmosphere and the ocean, in changes in the global water cycle, in reductions in snow and ice, in global mean sea level rise, and in changes in some climate extremes. This evidence for human influence has grown since AR4. It is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century.*
>
> *"Continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system. Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions."*

[4] IPCC, 2007: *Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. IPCC, Geneva, Switzerland.

[5] Summary for Policy Makers, Page 2. IPCC, 2007: *Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. IPCC, Geneva, Switzerland.

[6] Summary for Policy Makers, Page 4. IPCC, 2007: *Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. IPCC, Geneva, Switzerland.

[7] Intergovernment Panel on Climate Change (2013) *Climate Change 2013: The Physical Science Basis* [Online] Available: http://www.ipcc.ch/report/ar5/wg1/#.Uk59g9IkEUU

In addition, Scottish Natural Heritage mentions the following problems associated with climate change on their website[8]:

- Eradication of some species and the introduction of others which may become problem invasive species.
- Loss of Habitats, "Climate change is the single greatest threat to Scotland's habitats"
- Changes to soil formation and the ability of soils to support ecosystems. Coupled with changing land use practices this *"will have impacts on the character of Scotland's landscapes"*.
- Changes to the climate will effect 'dynamic environments' reliant on the interaction of flooding and deposition with knock-on effects for habitat quality.

In 2009 Scottish Natural Heritage published *'Climate Change and the Natural Heritage SNH's Approach and Action Plan*'. The document states:

> *"SNH views climate change as the most serious threat over coming decades to Scotland's natural heritage." (Page 1)*

In addition to impacts on the natural world, the human cost of climate change is already being felt. The Global Humanitarian Forum have calculated the number of fatalities already attributable to climate change in their 2009 publication *'Climate Change - The Anatomy of a Silent Crisis'.* The report concludes that "About 315,000 deaths per year" were attributable to climate change in the period 2004-2008[9].

It is clear from current national renewable energy policy that the Scottish Government is committed to tackling climate change. This is demonstrated by the passing of the Climate Change (Scotland) Act, 2009; the publication of the National Planning Framework for Scotland (NPF2), 2009; and the Scottish Climate Change Programme.

Part 1 of the Climate Change (Scotland) Act 2009 creates the statutory framework for greenhouse gas emissions reductions in Scotland by setting an interim 42% reduction target for 2020, with the power for this to be varied based on expert advice, and an 80% reduction target for 2050. To help ensure the delivery of these targets, this part of the Act also requires that the Scottish Ministers set annual targets, in secondary legislation, for Scottish emissions from 2010 to 2050.

The move to clean renewable energy is absolutely necessary if climate change is to be controlled and the proposed wind turbine forming the Bolshan Renewables Project are exactly the type of energy generation required.

4.2. Sustainable Development and Energy Security

Finite Hydrocarbon Fuels

Non-renewable electricity generation from Coal or Gas fired power stations relies on finite resources that cannot be replenished and will ultimately be exhausted. This has consequences for securing energy supply, and results in economic impacts such as rising oil prices due to the changing relationship between supply and demand.

Many of the remaining fossil fuel reserves such as deepwater oil wells, tar sands and gas shale have a higher economic cost associated with them. However, the cost of developing these finite reserves can be measured not only in high economic terms, but in severe environmental consequences as well, as demonstrated by the recent *Deepwater Horizon* oil disaster.

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[8] Scottish Natural Heritage, (2015) *Effects on nature and landscapes* [Online] Available: http://www.snh.gov.uk/climate-change/impacts-in-scotland/effects/species/
http://www.snh.gov.uk/climate-change/impacts-in-scotland/effects/habitats/
http://www.snh.gov.uk/climate-change/impacts-in-scotland/effects/geology-soil-and-landscapes/

[9] Global Humanitarian Forum (2009), 'Human Impact Report, Climate Change – The Anatomy of a Silent Crisis' [Online] Available: http://www.eird.org/publicaciones/humanimpactreport.pdf, page 11.

Having been self-sufficient in gas as recently as 8 years ago the UK now imports 40% of its gas requirements[10]. This makes us vulnerable to international markets for this finite commodity.

Changing the Energy Supply Mix

Compared to the rest of the UK, Scotland has made good progress towards increasing the percentage of our electricity produced from renewable sources. Renewable sources delivered 44.4% of gross electricity consumption in 2013 – up from 38.8% in 2012[11]. However electricity generation is but one part of total energy use. Results published in 2015 suggest energy use per sector was as follows: "55% heat; 24% transport; and 21% electricity" Scottish Government 2015[12]. To illustrate the scale of the challenge: If around 40% of electricity is from renewables, we are only 10% of the way to 100% decarbonised energy use in Scotland.

As transport and heat generation are made more sustainable, electricity will need to step in and make a greater contribution to powering these sectors. Even with efficiency savings, the use of electricity is expected to grow, as the UK government have recently explained: *"even as we improve energy efficiency, demand for electricity may need to double by 2050 – as decarbonisation of the economy means that electricity provides more of our heating and transport needs"*[13]

Given the above, it is clear that the shift to renewables is a pressing and significant issue and the process has only just begun. Overall as a country, a move towards a low carbon economy is essential, with less focus on the dwindling supplies of native fossil fuels or the ever more expensive and insecure imported fuels. To fulfil this, a focus on sustainable, long term, renewable energy supplies that are produced in the UK is crucial. As wind energy is one of the few viable renewable energy sources currently available, this will necessitate an increase in wind turbine developments, both onshore and offshore.

The proposed Bolshan Renewables Project will export electricity for distribution through the national grid. This contributes to the nation's energy security and does so in a clean and sustainable way which reduces the environmental impact of energy generation.

4.3. Sustainability of the farming business

The development of a wind turbine at Bolshan would lead to an additional sustainable source of income for the farming business. A farming business is susceptible to many external factors such as weather conditions, market prices, exchange rates and operational costs. This has prompted the exploration of alternative sources of income for the farming business. The proposed wind turbine will provide a source of additional income over the 25 years of expected operation. The proposed wind turbine will provide an income stream that is separate from the aforementioned factors and demonstrates best practice in diversification. The turbine will have a minimal footprint, and allow for the continuation of current farming operations.

The main objectives of the proposed diversification are as follows:

- To increase direct business revenue and thus support the continued viability of the existing farming business;
- To promote the use of renewable energy generation in the area and contribute towards achieving national and regional renewable energy targets;
- To improve marketability of food produce to suppliers through improved environmental sustainability;
- To support existing employment;
- To provide renewable energy to indirectly offset current electricity demand;

[10] International Energy Agency (2011) *'Gas Emergency Policy: Where Do IEA Countries Stand?*' Paris: IEA, page 5.
[11] Scottish Government (2015) *Energy in Scotland*[Online] Available: http://www.gov.scot/Topics/Statistics/Browse/Business/Energy/EIS2015
[12] Scottish Government (2008) '*Making Scotland a Leader in Green Energy*', Edinburgh: Scottish Government, page 19.
[13] Department of Energy and Climate Change (2010) '*Consultation on Electricity Market Reform',* London: DECC, page 4.

- To reduce the overall carbon footprint of the farm through offsetting energy usage; and
- To spread the farmer's risk into a non-agricultural sector.

4.4. National Renewable Energy Policy Response

The Scottish Government has adapted policy in response to the challenges of climate change and the need for a sustainable renewable energy supply.

It is clear from current national renewable energy policy that the Scottish Government is committed to tackling climate change, moving towards a zero-waste Scotland, and increasing the use of renewable energy. This is demonstrated by the passing of the Climate Change (Scotland) Act, 2009; the publication of the National Planning Framework for Scotland (NPF2), 2009; and the Scottish Climate Change Programme. Scotland has now set ambitious targets for the percentage of electricity that must come from renewable sources, announcing increases in November 2007, September 2010 and May 2011.

Part 1 of the Climate Change (Scotland) Act 2009 creates the statutory framework for greenhouse gas emissions reductions in Scotland by setting an interim 42 per cent reduction target for 2020, with the power for this to be varied based on expert advice, and an 80 per cent reduction target for 2050. To help ensure the delivery of these targets, this part of the Act also requires that the Scottish Ministers set annual targets, in secondary legislation, for Scottish emissions from 2010 to 2050.

The Scottish Government is committed to promoting the increased use of renewable energy sources. This commitment recognises renewables' potential to support economic growth.

The renewable energy industry provides new opportunities to enhance our manufacturing capacity and to provide new employment, not least in remote and rural areas. This Government has set clear targets for renewable electricity. The Government wants renewable sources to generate the equivalent of 100 per cent of Scotland's gross annual electricity consumption by 2020[14]. Similarly, a target has been set for renewables sources to provide the equivalent of 11 per cent of Scotland's heat demand by 2020.

> *"The Scottish Ministers are fully committed to increasing the amount of electricity generated from renewable energy sources. This commitment recognises the ability of renewable energy to contribute to secure and diverse energy supplies; tackle the causes of climate change; and its potential to support economic growth. The Executive's strategy for renewable energy is set out in Securing a Renewable Future: Scotland's Renewable Energy[15]."*

The approved 2012 TAYplan aims to contribute towards greater regional energy self-sufficiency. It suggests that the issue is no longer whether renewable energy infrastructure is needed, but instead helping to ensure it is delivered in the right places. Well-sited proposals such as the Bolshan Renewables Project will be necessary if this aim is to be achieved.

4.5. Wind Energy

Onshore wind energy is, and will continue to be, a major contributor towards meeting our renewable energy targets. Although wind energy cannot meet Scotland's full renewable commitment alone (especially as this commitment increases in the future), it is the most technologically mature and proven form of renewable energy generation. Locally owned developments are a perfect example of how to harness renewable energy, whilst providing economic and employment benefits to the local area.

[14] Scottish Government (2011) *2020 Routemap for Renewable Energy in Scotland*, Edinburgh: Scottish Government

[15] Securing a Renewable Future: Scotland's Renewable Energy, Ross Finnie MSP, The Scottish Executive.

Distributed Generation

Small wind developments enable the harnessing of Scotland's considerable wind resource, whilst providing minimal noise and visual disturbance. This form of decentralised energy generation allows energy to be used close to where it is generated, utilising the existing distribution network and minimising transmission losses.

This approach minimises the need for large sections of new high voltage electricity pylons, which would transport the power large distances to the hubs, which are generally a requirement for large power stations.

Intermittency Facts

Opponents of wind power often quote 'intermittency' as a major drawback of this technology. Despite the variability of wind conditions at wind farm sites, turbines in Scotland typically have a capacity factor in the order of 30% and generate electricity for at least 80% of the time, in a year of average winds. In this regard, wind turbine developments should be described as 'variable' generators of electricity. Several facts regarding the variability of wind power and its impact on the UK electricity distribution system are provided below. These points are discussed in greater detail by the National Grid (2009)[16], BWEA (2009)[17] and Pöyry (2009). UK electricity networks are designed to cope with generation outages or 'shocks', such as the sudden loss of large thermal power stations and with uncertainties in consumer demand.

All types of electricity generation require backup, not just wind. For example during the winter of 2008/09, at the time of peak demand, the metered wind electricity production was about 18% of its rated output. However, about 5000 MW of nuclear output was unavailable for various reasons – nearly 50% of the total. All electricity consumers were kept online during this event because a common pool of backup capacity (operational reserve) is always available for such a crisis.

It is extremely unlikely that 1000 MW of dispersed wind will disappear instantaneously across the whole country. As wind capacity increases, the increased geographical spread reduces the variability of generation, and so sudden changes in wind output across the whole country do not occur. This is known as "aggregation", which evens out all of the UK's wind generation fluctuations to a manageable average, with lower standard deviations. The National Grid already uses this aggregation tool every day for balancing energy supply and demand, so the addition of wind generation to the supply network will have no effect on distribution management practice.

The amount of operational reserve does not have to grow significantly to accommodate wind power. Modelling carried out by Pöyry Energy Consulting[18], the leading advisor to Europe's energy markets, showed that power response requirements did not appear to grow significantly in the British market due to wind capacity increase. The majority of increase in response requirements was due to accounting for the commissioning of new nuclear power stations, which are prone to unexpected faults and will raise operational reserve requirements. Pöyry concluded that the necessary increase in reserve capacity for accommodating wind and nuclear energy "do not appear to be critical issues for the British market."

The cost to the consumer of integrating the variable generation of wind farms is likely to be only 1% on annual domestic bills. The cost of creating extra reserves for wind power providing 20% of electricity consumption is unlikely to be no more than £1.20/MWh on electricity bills (a little over 1% on domestic bills). With 40% of electricity provided by wind, the corresponding figure would be £2.8/MWh. If wind provides 22% of electricity by 2020 (as Government modelling suggests), variability costs would increase the domestic electricity by about 2%.

The decommissioning of old nuclear facilities and the construction and integration of new ones, as well as disposing of dangerous spent nuclear fuel cells, has a much greater likelihood of being more costly to the average domestic consumer. The current estimate is that clean-up costs across the UK will be in excess of £115 billion spread over the next 120 years or so. In reality, taking account of numerous uncertainties, the range is likely to be somewhere between £90 billion and £220 billion[19]. For wind energy the current estimate is £120 million based on typical values of £15K per MW installed to cover the cost of breaking out foundations to c. 1m below ground level, some track reinstatement and removal of cables and

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[16] *National Grid (2009) Operating the system beyond 2020 [Online] Available:* http://www.nationalgrid.com/NR/rdonlyres/32879A26-D6F2-4D82-9441-40FB2B0E2E0C/39517/Operatingin2020Consulation1.pdf

[17] *British Wind Energy Association (2009) Managing Variability [Online] Available:* http://assets.wwf.org.uk/downloads/managing_variability_report.pdf

[18] *Intermittency – How wind variability could shape British and Irish energy markets. July 2009.* http://www.ilexenergy.com/pages/Documents/Reports/Renewables/Intermittency%20Public%20Report%202_0.pdf

[19] *Nuclear Provision – explain the cost of cleaning up Britain's nuclear legacy. Nuclear Decommission Authority. February 2015*

substations. The dismantling of the turbines is assumed to be paid for by the monies recovered from onward sale or scrap value of the components[20].

Carbon Footprint

The Parliamentary Office of Science and Technology (2006)[21] researched the carbon footprints of all electricity generators, accounting not only for their operation but also for their extraction, construction, maintenance and decommissioning. They found that the electricity generated from wind energy has one of the lowest carbon footprints. As with other low carbon technologies, nearly all the emissions occur during the manufacturing and construction phases, arising from the production of steel for the tower, concrete for the foundations and epoxy/fibreglass for the rotor blades. These account for 98% of the total life-cycle CO_2 emissions. Emissions generated during operation of wind turbines arise from routine maintenance inspection trips. This includes lubricants and transport.

Life cycle assessment shows that the carbon footprint of onshore wind is 4.64 g CO_2eq/kWh. The emissions generated by conventional coal combustion systems are >1,000 g CO_2eq/kWh, *at least 215 times greater.* The average wind turbine in Scotland will pay back the energy used in its manufacture within six months, and over its lifetime a wind turbine will produce over 49 times more energy than was used in its manufacture. Wind energy not only achieves carbon payback within a few months of installation but does so from a fuel that is free and inexhaustible. It is estimated that the Bolshan Renewables Project will avoid 906 metric tons of CO_2 eq emissions each year[22].

4.6. Generation in terms of 'Households Equivalent'

The 79.6m turbine is expected to provide clean energy sufficient to power the equivalent of approximately 424 domestic homes (based on Ofgem average annual domestic electricity consumption of 3.3MWh[23] per household). 2011 census data shows that there were 425 households in Friockheim. The electricity produced by the wind turbine at Bolshan could provide for a settlement the size of Friockheim. This is a substantial environmental benefit.

[20] *Research and guidance on restoration and decommissioning of onshore wind farms. Scottish natural Heritage Commissioned Report No. 591*

[21] *Parliamentary Office of Science and Technology (2006) Carbon footprint of electricity generation Issue 268.*

[22] *http://www.epa.gov/cleanenergy/energy-resources/calculator.html#results*

[23] https://www.ofgem.gov.uk/publications-and-updates/typical-domestic-consumption-values-gas-and-electricity

5. Social and Economic Assessment

5.1 Locally Owned Renewable Energy & Rural Diversification

As a joint venture with the farm owners, rather than a land rental agreement, this project will have a particular economic benefit to the local area.

Substantial revenues from the turbine are likely to be spent improving and enhancing the farm. This safeguards and increases local employment, and provides knock on benefits through orders for construction, equipment and many other services. The multiplier effect then comes into play, as the wages of those employed by the farm, or anyone who provides equipment or services as a result of the development, are spent in local shops and the myriad of other businesses in the area. Due to this, the benefit of the revenue spreads out within the immediate area, significantly enhancing the local economy and encouraging local jobs.

Compelling evidence of the economic importance of locally owned wind power has been demonstrated in *'The economic benefits of on-farm wind energy clusters in Aberdeenshire'* (2010) published by SAC Consulting. Even though this study was based in Aberdeenshire, its conclusions are also applicable to Angus. Its findings are outlined in the paragraph quoted below:

> *"On farm wind power generation represents a major opportunity to support rural incomes and employment in Aberdeenshire. These benefits are greatest where projects are locally owned and managed. Expected reductions in agricultural support under CAP reform represent a serious threat to the long term viability of farms and rural businesses in Aberdeenshire. Locally developed wind power projects offer the potential to support incomes and jobs in rural Aberdeenshire for decades to come."*

The Scottish Government's *'2020 Routemap for Renewable Energy in Scotland'* (July 2011), presents several targets in order to help Scotland meet the Government's overarching target of renewable energy generation equivalent to 100% of demand. The document highlights the importance of locally owned projects and announces a target of *"500 MW community and locally owned renewable energy by 2020"*[24].

According to the National Farmers Union, the UK's rural economy is worth £300 billion and supports 5.5 million people[25].

5.2 Public Perception

In 2003 the Scottish Executive commissioned MORI Scotland to conduct survey research among people living close to Scotland's operational wind farms[26]. A total of 1,810 adults were interviewed and all respondents lived within a 20km zone of all operational wind farms that had 9 or more turbines. The survey found high levels of acceptance and overwhelming support for wind power. The vast majority of people living within 5km of the turbines felt the turbines had had a positive effect (45% were for turbines, compared to 6% against, with the rest not responding or having no definite opinion). The results of this survey match that of an earlier Scottish Executive survey 'Public attitudes to the Environment in Scotland 2002' which found that the Scottish public would prefer the majority of their electricity to come from renewables, and rated wind power as the cleanest source of renewables.

More recent evidence shows that prevailing public perception of wind turbines remains positive. For example, a poll published by YouGov (http://today.yougov.co.uk), on behalf of Scottish Renewables, suggested that people are becoming increasingly supportive of wind farms as they become more common across the country. Poll fieldwork was carried out between 31 August and 2 September 2010, with a representative sample size of 1001 Scottish adults (aged 18+). More than three-quarters of all Scots supported the development of wind farms and 78% of those surveyed agreed that "wind farms are necessary so that we can produce renewable energy to help us meet current future energy needs in Scotland" –

[24] Scottish Government (2011) '*2020 Routemap for Renewable Energy in Scotland*', Edinburgh: Scottish Government, page 4.
[25] National Farmers Union (2009) '*Why Farming Matters More Than Ever*', Warwickshire: National Farmers' Union
[26] MORI Scotland (2003) '*A study examining the attitudes of people living close to windfarms in Scotland*' [Online] Available: http://www.scotland.gov.uk/Publications/2003/08/18050/25619

up from the 73% for this statement five years before. On 13 December 2011 a poll commissioned by the Sunday Times and carried out by YouGov shows 56% of public support for the expansion of wind energy, with only 19% against.[27]

Another poll by YouGov, on behalf of Scottish Renewables, published in 2013[28] sampled the opinion of 1,003 Scottish adults and asked 'to what extent do you agree or disagree with the following statement. "I support the continuing development of wind power as part of a mix of renewable and conventional forms of electricity generation"'. 64% of the responses agreed with this statement – this was actually higher in North East Scotland where 73% agreed with the statement. The Department of Energy & Climate change have published similar findings[29] indicating that 64% of 2,110 households surveyed support onshore wind development.

These findings do suggest that there is strong support for onshore wind development in Scotland, despite the frequent misgivings given by a vocal minority of opponents. The majority of people clearly understand the need for more renewable energy to tackle climate change and realise the social, economic and environmental benefits that these technologies can provide.

5.3 Construction Phase Benefits

The construction of the proposal would represent a large investment in the local area. The installed cost of two wind turbines of the model proposed is approximately £1,200,000. Of this sum, over £200,000 may be typically spent in the locality of the project, with a range of contracts being placed with electrical and civil engineering companies. The applicant wishes local contractors to benefit from as much of this as possible.

Smaller distributed generation projects, such as the proposed turbine, often provide more local benefits during construction because they are of a manageable scale for local contractors.

[27] Sunday Times (2011) *YouGov poll commissioned by the Sunday Times* [Online] Available: http://cdn.yougov.com/cumulus_uploads/document/gm4jg0973n/Sunday%20Times%20Results%20111125%20VI%20and%20Trackers.pdf

[28] YouGov/ Scottish Renewables (2013) *Survey Report* [Online] Available: http://d25d2506sfb94s.cloudfront.net/cumulus_uploads/document/vj66wakgzm/YG-Scottish-Renewables-Archive-results-260213-renewable-energy.pdf

[29] Department of Energy and Climate Change (2014) *Public attitudes tracking survey: wave 8* [Online] Available: https://www.gov.uk/government/publications/public-attitudes-tracking-survey-wave-8

6. Planning Statement

6.1. Introduction

This planning statement has been prepared by The Greenspan Agency to accompany a planning application for one wind turbine (79.6m to blade tip) plus associated hardstanding, foundation and service track on land at Bolshan Farm, Angus.

The applicant (Bolshan Renewables Limited) and the agent (The Greenspan Agency) have worked from the outset to design a development proposal which accords with the development plan and is acceptable given all material considerations.

The planning application must be determined in accordance with the statutory planning process and relevant policy. This chapter sets out the relevant planning policies before assessing whether the proposal should receive planning permission. It is split into the following sections:

- Legislative Framework
- Planning History and Current Uses
- Pre-application Consultations
- Relevant Planning Policy
- Planning Assessment
- Conclusions

Having considered relevant planning policy, other material considerations, and the findings set out elsewhere in the Environmental Report, this Planning Statement concludes that the proposal should be granted planning permission.

6.2. Legislative Framework

Planning etc. (Scotland) Act 2006

The 2006 planning act places 'sustainable development' at the heart of the planning system as the overriding aim planning authorities and the Scottish Government should have when preparing their respective Development Plans and National Planning Framework. For the purposes of this section of the act 'sustainable development' is defined in the Scottish Planning Policy document and this is expanded upon in the 'national policy' section of this planning statement.

Climate Change Legislation

The Climate Change (Scotland) Act 2009 sets targets for the reduction in CO_2 and other greenhouse gases (GHGs). The aim is to reduce CO_2 emissions by 80% by 2050, and by 42% by 2020, and to meet interim targets in the run-up to these dates. The legislation sets similarly ambitious targets for other GHGs. These targets are emphasised within the planning system by reference to them throughout the SPP document (Scottish Government, June 2014). Paragraph 19 of the SPP for example notes that "*planning can support the transformational change required to meet emission reduction targets and influence climate change. Planning can also influence people's choices to reduce the environmental impacts of consumption and production, particularly through energy efficiency and the reduction of waste*"[30].

Hierarchy of Development Regulations

The proposal is for a 'local development' in the terms set out in 'The Town and Country Planning (Hierarchy of Developments) (Scotland) Regulations 2009'.

Section 4 of the schedule attached to the regulations states that an electricity generating station, the capacity of which is 20MW or greater, is a 'major' development. As this is a development proposal seeking permission for 0.5MW of generation this would be classed as a 'local' development.

[30] Page 7, Scottish Government (2014) *Scottish Planning Policy* [Online] Available: http://www.scotland.gov.uk/Resource/0045/00453827.pdf

6.3. Planning History & Current Uses

The site is currently in agricultural use.

Original Turbine Application at Bolshan Farm (13/00887/FULL)

This planning application was submitted in September 2013. A turbine up to 77metres to tip was proposed at a site 422m south-west of the turbine position now proposed. Further details are given in the 'Design Stage and Early Planning Work' chapter of this report. A number of improvements in planning terms are noted in that chapter and are reflected in the planning assessment later in this planning statement.

6.4. Pre-application Consultations

Please refer to the discussion of the previous application earlier in this report for a summary of consultation responses to the original turbine planning application.

6.5. Relevant Planning Policy

Development Plan

Strategic Development Plan

Approved Strategic Development Plan

The approved strategic development plan is the Tayplan (approved June 2012).

The vision for the strategic development plan area is given on page 6 of the Tayplan document. Both economic and environmental sustainability are featured in this statement and placed at the centre of the development plan by their inclusion in it.

> *"By 2032 the TAYplan region will be sustainable, more attractive, competitive and vibrant without creating an unacceptable burden on our planet"*

The Tayplan describes itself as *'A long term plan for Scotland's susTAYnable region',* with sustainability placed at the heart of policy.

Page 18 introduces the policy on renewable energy: *"This Plan seeks to reduce resource consumption through provision of energy and waste/resource management infrastructure … This requires us to use less energy and to generate more power and heat from renewable sources…"*

The key objectives set out on page 6 of the Tayplan include the statement: *"Promote prosperous and sustainable rural communities".*

Emerging Strategic Development Plan

A consultation on the proposed Strategic Development Plan is anticipated later in 2015.

Local Plan

Adopted

The current local plan is the 'Angus Local Plan Review', Adopted 2009.

Vision, Aims & Development Strategy

The aims of the Angus Local Plan Review are set out on page 6 of the document. 'Sustainable development' is stated as the core principle tying together all of these aims. The aims 'are based on broad themes of sustainable development which underpin the strategy and policies of this Plan' – p6.

Policies

The key local plan policies for the determination of planning applications for wind energy developments are ER34 and ER35, which merit being set out in full here:

> ***Policy ER34: Renewable Energy Developments***
> *Proposals for all forms of renewable energy development will be supported in principle and will be assessed against the following criteria:*
>
> *a) the siting and appearance of apparatus have been chosen to minimise the impact on amenity, while respecting operational efficiency;*
> *b) there will be no unacceptable adverse landscape and visual impacts having regard to landscape character, setting within the immediate and wider landscape, and sensitive viewpoints;*
> *c) the development will have no unacceptable detrimental effect on any sites designated for natural heritage, scientific, historic or archaeological reasons;*
> *d) no unacceptable environmental effects of transmission lines, within and beyond the site; and*
> *e) access for construction and maintenance traffic can be achieved without compromising road safety or causing unacceptable permanent and significant change to the environment and landscape.*
>
> ***Policy ER35: Wind Energy Development***
> *Wind energy developments must meet the requirements of Policy ER34 and also demonstrate:*
>
> *a) the reasons for site selection;*
> *b) that no wind turbines will cause unacceptable interference to birds, especially those that have statutory protection and are susceptible to disturbance, displacement or collision;*
> *c) there is no unacceptable detrimental effect on residential amenity, existing land uses or road safety by reason of shadow flicker, noise or reflected light;*
> *d) that no wind turbines will interfere with authorised aircraft activity;*
> *e) that no electromagnetic disturbance is likely to be caused by the proposal to any existing transmitting or receiving system, or (where such disturbances may be caused) that measures will be taken to minimise or remedy any such interference;*
> *f) that the proposal must be capable of co-existing with other existing or permitted wind energy developments in terms of cumulative impact particularly on visual amenity and landscape, including impacts from development in neighbouring local authority areas;*
> *g) a realistic means of achieving the removal of any apparatus when redundant and the restoration of the site are proposed.*

ER34 and ER35 are comprehensive policies. Other policies which could be relevant to this proposal largely expand upon issues already dealt with by one of the many sections of ER34 and ER35. Some of these other policies with relevance to matters considered in ER34 and ER35 include:

- Policy S6: Development Principles (and accompanying schedule)
- Policy ER1 : Natura 2000 and Ramsar Sites Policy ER2 : National Nature Reserves and Sites of Special Scientific Interest
- Policy ER16: Development Affecting the Setting of a Listed Building

Other local plan policies of some relevance to the proposal include:

- Policy SC19: Rural Employment (although the title of this policy highlights development that directly results in employment in rural areas, the policy also deals with the diversification of existing rural businesses).

Pages 94 – 97 of the Angus Local Plan Review (Adopted 2009) discuss requirements for the siting of wind energy developments and set out a landscape policy for wind turbines based on SNH landscape character areas and three different geographical areas within Angus. The Bolshan site is placed within geographic area number 2, 'Lowland and Hills'. This is the preferred location for wind energy development within Angus.

Material Considerations

Supplementary Planning Guidance

The following documents are discussed in more detail under the 'planning assessment' sub-heading below

- Angus Council, *'Implementation Guide for Renewable Energy Proposals'* (June 2012)
- Ironside Farrar for Angus Council, *'Strategic Landscape Capacity Assessment for Wind Energy in Angus'* (2014)

National Policy

The latest Scottish Planning Policy (SPP) was published in June 2014.

National planning policy in Scotland is driven by the following overarching vision:

> "*We live in a Scotland with a growing, low-carbon economy with progressively narrowing disparities in well-being and opportunity. It is growth that can be achieved whilst reducing emissions and which respects the quality of environment, place and life which makes our country so special. It is growth which increases solidarity – reducing inequalities between our regions. We live in sustainable, well-designed places and homes which meet our needs. We enjoy excellent transport and digital connections, internally and with the rest of the world.*"[31]

The planning system is outcomes led and has accordingly set four planning outcomes to achieve this vision. These are outlined within Table 3 below.

Table 3: Scottish Planning Outcomes[32]

Outcome No.	Outcome Name	Description
1	A successful, sustainable place	Supporting sustainable economic growth and regeneration, and the creation of well-designed, sustainable places.
2	A low carbon place	Reducing our carbon emissions and adapting to climate change
3	A natural, resilient place	Helping to protect and enhance our natural and cultural assets, and facilitating their sustainable use
4	A connected place	Supporting better transport and digital connectivity.

These outcomes set the tone and content of both the Scottish Planning Policy, and the National Planning Framework 3, which provides a framework for spatial development in Scotland.

Many aspects of these documents are relevant to the Bolshan Renewables Project; in particular outcomes 1, 2 and the overarching principle of sustainability. These are discussed below.

<u>Sustainability</u>

Sections 3E and 3D of the Planning Etc (Scotland) Act 2006 place a duty upon Scottish Ministers and Local Planning Authorities to prepare the national planning framework and development plans with the objective of contributing to

[31] Page 6, Scottish Government (2014) Scottish Planning Policy [Online] Available: http://www.scotland.gov.uk/Resource/0045/00453827.pdf
[32] Page 6-7, ibid

'sustainable development'. 'Sustainability' is now an overarching principle policy of the SPP. As such, and in line with the aforementioned requirement, there is now a "presumption in favour of development that contributes to sustainable development"[33]. According to the policy this means that "the planning system should support economically, environmentally and socially sustainable places by enabling development that balances the costs and benefits of a proposal over the longer term"[34]. A number of principles are set out within the policy to guide these decisions. This list includes, amongst others, supporting climate change mitigation.

Outcome 2: A Low Carbon Place

The National Planning Framework commits to taking action to help "generate the equivalent of 100% of Scotland's gross annual electricity consumption from renewable sources by 2020, with an interim target of 50% by 2015"[35], to deliver "500MW of community and locally-owned renewable energy"[36] and to achieve the ambitious climate change targets; the Climate Change (Scotland) Act 2009 sets a target of reducing greenhouse gas emissions by at least 80% by 2050, with an interim target of reducing emissions by at least 42% by 2020. The SPP notes that "efficient supply of low carbon and low cost heat and generation of heat and electricity from renewable energy course are vital to reducing greenhouse gas emissions and can create significant opportunities for communities".

Subject Policy: Heat and Electricity

In line with the above, the subject policy on Heat and Electricity of the SPP reiterates that planning should "support the transformational change to a low carbon economy, consistent with national objectives and targets"[37]; this includes an "equivalent of 100% of electricity demand from renewable sources by 2020"[38]. To deliver this emphasis is placed on ensuring development plans achieve "an area's full potential for electricity and heat from renewable sources". The SPP goes on to set out guidance on the preparation of local planning policy for wind energy developments, including the adoption of a spatial framework for onshore wind farms, and a set of considerations development management departments should include when assessing proposals for energy infrastructure. This list includes the scale of contribution to renewable energy generation targets, effect on greenhouse gas emissions, net economic benefit and cumulative impact. The latter is defined as including "existing developments of the kind proposed, those which have permission, and valid applications which have not been determined. The weight attached to undetermined applications should reflect their position in the application process"[39].

Outcome 1: A successful, sustainable place

Rural diversification remains a key theme underpinning Planning Outcome 1. The SPP for example notes that planning "has an important role in promoting strong, resilient and inclusive communities". This is reflected in the aspiration that planning should "encourage rural development that supports prosperous and sustainable communities and businesses whilst protecting and enhancing environmental quality"[40]. Additionally, the National Planning Framework makes a link between this and renewable energy developments. This states that "local and community ownership and small-scale generation can have a lasting impact on rural Scotland, building business and community resilience and providing alternative sources of income"[41]

Subject Policy: Promoting Rural Development

There is a subject policy on rural development linked with Planning Outcome 1 with the SPP. This reflects the importance planning has in rural areas and indicates that plans should set out a strategy which:

[33] Page 9, ibid
[34] ibid
[35] Page 68, Scottish Government (2014) National Planning Framework 3 [Online] Available: http://www.scotland.gov.uk/Resource/0045/00453683.pdf
[36] ibid
[37] Page 36, Scottish Government (2014) Scottish Planning Policy [Online] Available: http://www.scotland.gov.uk/Resource/0045/00453827.pdf
[38] Ibid
[39] Page 71, Ibid
[40] Page 21, Ibid
[41] Page 34, Scottish Government (2014) National Planning Framework 3 [Online] Available: http://www.scotland.gov.uk/Resource/0045/00453683.pdf

- "Reflects the development pressures, environmental assets, and economic needs of the area, reflecting the overarching aim of supporting **diversification and growth of the rural economy**";
- Promotes economic activity and diversification, including, where appropriate, sustainable development linked to tourism and leisure, forestry, farm and croft diversification and aquaculture, nature conservation, and **renewable energy developments**, while ensuring that the distinctive character of the area, the service function of small towns and natural and cultural heritage are protected and enhanced"[42].

A number of other points are made in relation to promoting rural development in spatial strategies relating to housing leisure and transport. Additionally, this states that development on prime agricultural land should not be permitted unless it is essential. Where the land is being used "for the generation of energy from a renewable source"[43] is an example given of an essential use.

Subject Policy: Onshore Wind

The SPP requires the preparation of spatial frameworks for onshore wind development but the Angus Local Plan Review, the 2014 capacity assessment, and the implementation guide (details above) pre-date the specific approach set out in the June 2014 SPP. However, reference to the spatial frameworks methodology table on page 39 of the SPP and to the previous documents above suggests that the turbine is within a 'group 3' area which is most suitable for wind turbine development. Specifically, it is not within any of the following:

- National Parks
- National Scenic Areas
- World Heritage Sites
- Natura 2000 and Ramsar
- SSSI
- National Nature Reserves
- Gardens and Designed Landscapes
- Historic Battlefields
- Areas of wild land identified by SNH
- Carbon rich soils, deep peat or priority peatland.
- Within 2km of an allocated settlement.

With reference to the final point on the list above, the image below has been prepared which shows a 2km buffer (red line) from the edge of Kinnell's settlement boundary, as specified in the adopted local plan (Kinnell being the nearest allocated settlement). The image shows that the turbine position now applied for is out-with this area, while the previous turbine position (application 13/00887/FULL) was within 2km of the settlement. This is yet another point on which the revised application improves upon the previous one.

[42] Page 22, Scottish Government (2014) Scottish Planning Policy [Online] Available: http://www.scotland.gov.uk/Resource/0045/00453827.pdf
[43] Ibid.

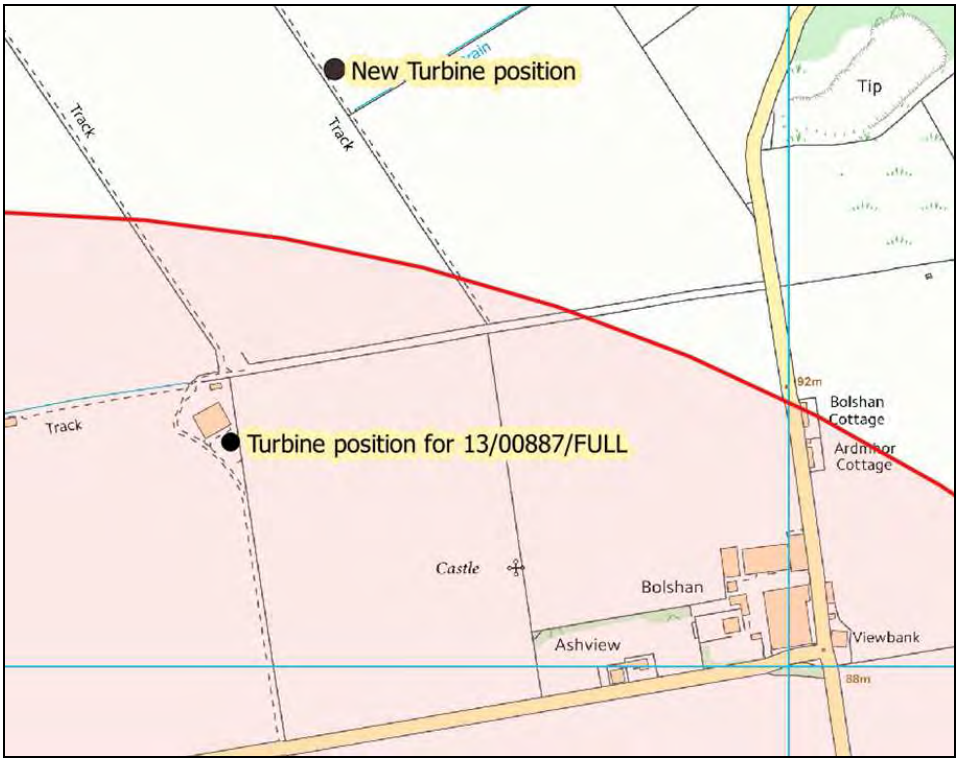

Figure 5: 2km buffer from Kinnell settlement boundary.

Scottish Government Planning Advice

Scottish Government's Planning Advice for onshore wind turbines was last amended on 28 May 2014. The 'onshore wind turbines' advice sheet provides information on local authority policy preparation, technical matters, and development management for wind turbine applications.

6.6. Planning Assessment

Section 25 of the Town and Country Planning (Scotland) Act 1997 as amended by the 2006 act confirms the primacy of the development plan and sets out that:

> *"Where, in making any determination under the planning Acts, regard is to be had to the development plan, the determination is, unless material considerations indicate otherwise—*
>
> *(a) to be made in accordance with that plan"*

This planning assessment first considers whether the proposal is in accordance with the development plan, then considers relevant material considerations.

Development Plan

Angus Local Plan Review, Policy ER34 : Renewable Energy Developments

The following assessment considers each of the criteria in this key policy in turn. Please refer to the policy which is quoted above:

Criterion (a)

The siting and appearance of this wind turbine have been chosen to minimise the impact on amenity this has been set out throughout this document. In particular, the turbine is within an appropriate landscape character area and sub-area, and the turbine is an elegant and well-designed model located a sufficient distance from neighbouring properties.

Criterion (b)
A detailed and complete Landscape and Visual Impact Assessment (LVIA) has been presented within this environmental report. It concludes that there is an overwhelming consensus within local planning policy and guidance that the location chosen is appropriate for a wind turbine of the size proposed. Detailed assessment set out in the LVIA using photomontages and other figures further supports this conclusion. Landscape character, landscape setting, and sensitive viewpoints have each been considered in the LVIA.

Criterion (c)
Effects on natural heritage have been considered in detail within the Ecological Impact Assessment chapter of this Environmental Report. No significant adverse effects were identified. The Historic Environment chapter has explained that the effects on historic sites and their settings will be very limited.

Criterion (d)
Cables linking the development to the network will be buried to reduce visual impact.

Criterion (e)
The access road for this turbine will be relatively short (approximately 290m of upgraded tracks) and have a similar appearance to many farm tracks in the area. The movement of construction traffic will be carried out in accordance with a construction method statement as required under the Construction Design Management Regulations. Further details can be found within the Transport and Delivery Assessment Chapter of this Environmental Report.

Given the above, it can be concluded that the proposed wind turbine at Bolshan project accords with policy ER34.

Angus Local Plan Review, Policy ER35: Wind Energy Development

Criterion (a)
The benefits of the chosen site have been set out throughout this environmental report. In particular, please refer to the sub-heading 'the site' within chapter 1, 'Outline Description of the Proposal', and to chapter 3 'Design Stage and Early Planning Work'.

Criterion (b)
The ecological impact assessment chapter of this report has set out that no unacceptable interference with birds is expected.

Criterion (c)
The siting and appearance of the turbine has been chosen to minimise impacts on amenity.
Shadow flicker and noise have been modelled and assessed in detail within the 'environmental health' chapter of this report. No properties are within the modelled shadow flicker zone out to 10 rotor diameters (480m) and the likelihood of annoyance is very negligible. Noise has been found to be within the required basic fixed limit of 35dB (31.4dB is the highest noise level predicted at a nearby property) because the separation distances to this turbine position are exceptionally large. No background noise assessment or 'margin over background' noise limit was required as part of the noise assessment.
Further details of the separation distances and a comparison with similar projects in Angus is set out in the 'Design Stage and Early Planning Work' chapter of this environmental report where a table of similar projects is presented under the sub-heading 'Comparison with Similar Projects Nearby'. A table showing distances to nearby dwellings from the proposed turbine is given in the noise assessment. These sections of this report clarify that the development now proposed enjoys very substantial separation distances to the nearest dwellings and underscores that criterion (c) can be complied with.

Criterion (d)
The turbine is thought to be below the radar ceiling for radar installations within the region and this has been set out in detail within the 'Aviation and Radar' sub-section of the Electromagnetic Interference chapter of this environmental report.

Criterion (e)
Microwave link operators were consulted about the previous Bolshan wind turbine planning application 13/00887/FULL. Neither of those consulted (Ofcom, Atkins Global, and JRC) objected to the proposal and their responses are expected to

indicate that the new turbine position will also be acceptable. For further details please refer to the 'Design Stage and Early Planning Work' chapter of this report, and to the Microwave and UHF link Interference sub-section of the 'Electromagnetic Interference' chapter.

Criterion (f)
Cumulative effects have been considered in detail within this environmental report. In particular, cumulative noise effects, and cumulative effects on the landscape, visual environment, and historic environment will be acceptable. There are no relevant effects across local authority boundaries.

Criterion (g)
Restoration of wind energy development sites is relatively straightforward. The turbine can be removed. The footprint of the development is small. The crane-pad is required during the lifetime of the project for servicing and this means that it is available to assist with the decommissioning.

Other Local Plan Policies

Policy SC19: Rural Employment supports *'proposals that assist diversification of an existing rural business'*. For the farm owners, the primary objective of erecting the Bolshan turbine is to diversify the existing farm business and to create an additional revenue stream that will allow re-investment into the existing business. Locally owned 'farm scale' renewables projects represent a substantial opportunity for rural Angus.

Schedule 1 to which Policy S6: Development Principles refers, and Policy ER30: Agricultural Land, support the protection of existing agricultural activities, and prime quality agricultural land respectively. The area around the turbine position can continue to be used for agriculture. The position has been deliberately maintained near to an existing field boundary to minimise loss of agricultural ground. According to the relevant land capability for agriculture map the majority of the site is not within the 'prime quality' land classifications of 1, 2, or 3.1, although the turbine position is close to the boundary between the class 3.1 and 3.2 land. The whole length of the access track would be formed from the upgrading of an existing track rather than building a new one.

As noted above, *'Sustainable development'* is stated as the core principle tying together all the aims of the Angus Local Plan Review set out in the right-hand column on page 6 of the local plan. **It is not possible to have sustainable development without renewable energy. By definition the use of finite energy sources cannot be sustained**. For this reason if Angus is to become more sustainable, more energy must be generated from renewable sources. Renewable energy projects such as the Bolshan wind turbine will be necessary to attain that aim.

Structure Plan

The Bolshan wind turbine will help meet the TayPlan's objectives of creating a more sustainable region in both economic and environmental terms.

Having considered the development plan above, it is now necessary to consider relevant material considerations.

Material Considerations

Sustainable Development, Climate Change, and Renewable Energy

As a renewable energy proposal, the Bolshan Renewables Project embodies the principles of sustainable development and seeks to contribute to the adaptation of Scotland's energy generation infrastructure to the post fossil-fuel age.

The proposal will help Scotland to meet the ambitious targets for cutting greenhouse gas emissions set out in the Climate Change (Scotland) Act 2009 and re-iterated with the SPP and NPF3 documents. It will also support the principle of 'sustainable development' which is placed at the heart of the planning system by sections 3D and 3E of the Planning etc. (Scotland) Act 2006 and SPP.

The proposal is in accordance with the SPP's policies in support of onshore wind; this report has addressed the considerations mentioned in paragraph 169 of the SPP relating to the determination of wind energy applications. Similarly, the cumulative assessment within the Landscape and Visual Impact Assessment has considered "existing developments of

a kind proposed, those which have permission, and valid applications which have not been determined"[44], as stipulated by the SPP.

Landscape, Natural Heritage & the Historic Environment

The proposal will accord with SPP policies in respect of landscape character, Natural Environment and the Historic Environment. Detailed assessments have been set out in the relevant chapters of the report and in the discussion above of development plan policies.

Rural and Economic Development

The proposal will provide additional income as part of a farm diversification project.
The Greenspan Agency strongly supports local construction companies and has a track record of ensuring such companies build projects they are involved in, helping secure much-needed jobs in a sector which is currently under particular pressure in the difficult economic climate.

Scottish Government Planning Advice – Onshore Wind Turbines

This document has been considered in detail. A thorough account of all the topics raised in this advice sheet has been provided, and the assessment has followed the methodologies it recommends.

Progress Toward 2020 Targets

The '2020 Routemap for Renewable Energy in Scotland' published in July 2011 (updated 2013) is not specifically presented as a planning document but a link to it is provided on the Scottish Government's planning for renewable energy webpage[45]. With reference to the target of generating 100% of Scotland's electricity demand from renewable sources by 2020 it states *'The successful delivery of the capacity required to deliver the equivalent of 100% of Scottish electricity consumption will demand a significant and sustained improvement over the deployment levels seen historically'.* More recently Audit Scotland reported similar findings. It issued a report in September 2013[46] stating that the rate of deployment of renewable electricity generation would need to increase in order to avoid a significant shortfall of 3,100MW of installed capacity by 2020 relative to targets.

Supplementary Planning Guidance

Implementation Guide for Renewable Energy Proposals

Angus Council's *'Implementation Guide for Renewable Energy Proposals'* (June 2012) expands upon policies ER34 and ER35 of the Angus Local Plan Review (adopted 2009).

The implementation guide sets out many of the issues relevant to the determination of a wind energy application and recommends the scope of supporting information that should be provided.

The document explains the importance of renewable energy and sets out the latest government target of generating the equivalent of 100% of Scotland's electricity use from renewable sources by 2020.

The importance of renewable energy within national planning policy and the development plan is highlighted. Page 13 states: *'The Development Plan is supportive of renewable energy in principle'.*

The landscape policy set out in pages 94 to 97 of the Angus Local Plan Review is expanded upon in the *'Implementation Guide for Renewable Energy Proposals'.* Page 48 of the implementation guide explains that turbines of around 80m in height are likely to be considered appropriate within the Dipslope Farmland landscape character area in which the Bolshan turbine is located.

Strategic Landscape Capacity Study

The latest version of the '*Strategic Landscape Capacity Assessment for Wind Energy in Angus'* known to be available is dated March 2014. It was prepared by Ironside Farrar (henceforth 'the 2014 capacity assessment').

[44] Page 71, Scottish Government (2014) Scottish Planning Policy [Online] Available: http://www.scotland.gov.uk/Resource/0045/00453827.pdf
[45] Scottish Government (2013) *Renewable Energy* [Online] Available: http://www.gov.scot/Topics/Business-Industry/Energy
[46] Audit Scotland (2013) *Renewable Energy* [Online] Available: http://www.audit-scotland.gov.uk/media/article.php?id=246

This document divides the 'dipslope farmland' landscape character type into landscape character sub-areas. The proposed Bolshan turbine is located within the Rossie Moor sub-area[47]. A red mark has been placed on the map below to show the proposed turbine location. The map base was originally taken from page 13 of the 2014 capacity assessment.

Figure 6: Landscape Character Sub-Areas. Area (vi) is the Rossie Moor sub-area.

The table on page 67 of the 2014 capacity assessment explains that Rossie Moor has some 'medium' remaining capacity for Medium/Large wind turbines, which it defines as those between 50 and 80m in height.

Consensus on Landscape Suitability

It has been explained in the preceding section that two key items of supplementary guidance point to the acceptability of this location for a wind turbine of the scale proposed.

It was also noted above that the adopted Angus Local Plan Review sets out that the 'lowland and hills' geographic area in which the turbine is located is the best suited in Angus for wind turbine development.

To summarise, there is a very clear consensus within the following documents that the chosen site is in a location suited to a wind turbine of the scale proposed, provided other policy tests are met:

- Angus Local Plan Review (pages 94-97)
- Angus Council*, 'Implementation Guide for Renewable Energy Proposals'* (June 2012)
- Ironside Farrar for angus Council*, 'Strategic Landscape Capacity Assessment for Wind Energy in Angus'* (2014)

The applicant has designed the proposal to assist with delivering the policy goals and locational guidance set out in these documents.

[47] Refer to page 63 of the 'Strategic Landscape Capacity Assessment for Wind Energy in Angus', Ironside Farrar, 2014. This part of the capacity assessment introduces the Rossie Moor area and provides a map.

6.7. Conclusions, Planning Statement

The Bolshan Renewables Project accords with the Development Plan and other material considerations. In particular the criteria in policy ER34: Renewable Energy Developments and ER35: Wind Energy Development can be complied with.

The siting and appearance of the turbine has been chosen to minimise impacts on amenity. When measured against comparable projects for which planning permission has been sought in Angus, this proposal offers some of the largest separation distances between the turbine and the nearest properties. In particular this assists with visual and noise amenity issues and compliance with policy tests ER34 (a), ER35(c).

There is a very clear consensus between the adopted local plan, the relevant 'implementation guide' and the latest 'capacity study' (full details above) that the chosen site is in a location suited to a wind turbine of the scale proposed.

From the very earliest stages of the development process the applicant, and their agent, have sought to design a development that fully accords with planning policy. The result is a proposal which is in accordance with the development plan and should be granted planning permission.

7. Ecological Impact Assessment (EcIA)

7.1 Introduction

This chapter considers the potential effects of the proposed wind turbine on the nature conservation interests on and around the position of the proposed turbine at the Bolshan Renewables Project. The survey work for the project was carried out by experienced consultant zoologist Dr Susan M. Swift and was also used to inform the ecological impact assessment for the previous planning application (13/00887/FULL). The previous ecological impact assessment is provided as an appendix to this chapter. It should be understood that the turbine locations are different so although there are findings from the original assessment that are still relevant, there are differences too.

The new turbine position is considered to have less ecological value because of the absence of abandoned buildings (something that typified the original turbine position) and less trees.

The original and new turbine positions are shown on a map in chapter 3 of this report.

7.2 Scoping Assessment

In preparation for the following ecological assessments, the Scottish Natural Heritage (SNH) document "Assessing the impact of small-scale wind energy proposals on the natural heritage" (SNH, June 2014) formed the principal guidance. This document applies to any wind energy development of three or fewer turbines and is therefore appropriate for the Bolshan Renewables Project.

Wind energy projects have the potential to have some impact on the natural heritage. The guide recommends that the four key issues are considered in respect of small scale kind development. These are:

- *"Landscape*
- *Protected Areas*
- *Habitats and Species"*[48]

Landscape is covered within chapter 8 of this report. The impact on protected areas, habitats, and species are considered within this section under separate sub-headings. The effects of construction on natural heritage is also given attention within this chapter.

SNH were consulted on an earlier iteration of the project (response dated 24 October 2013, ref 13/00887/FULL). SNH's response stated that:

> '*There are natural heritage interests of international importance at this site [in the surrounding area], but in our view, these will not be adversely affected by the proposal.*'

7.3 Protected Areas

A wind turbine proposal does not have to be in a designated site to have an effect on the habitats or species for which it is designated. Therefore, a detailed desk-based search was carried out to locate all those protected sites found within 20 km of the development in accordance with SNH guidance which states:

> *"we recommend that the developer check for all protected areas within a 20km radius of the proposal"*[49]

Sites classified as Special Protection Areas (SPA) under the Birds Directive and designated as Special Areas of Conservation (SAC) under the Habitats Directive form an EU-wide network of internationally protected areas known as Natura 2000.

[48] Page 3, "Assessing the impact of small-scale wind energy proposals on the natural heritage" (SNH, June 2014)
[49] Page 5, "Assessing the impact of small-scale wind energy proposals on the natural heritage" (SNH, June 2014)

Ramsar sites are wetlands designated under the Ramsar Convention on Wetlands of International Importance, especially as waterfowl habitat. National designations include National Scenic Areas (NSA), Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and National Parks. Local designations include Local Nature Reserves (LNR) and Local Nature Conservation Sites.

Table 4: All designated sites within 20 km of the Bolshan Renewables Project that are protected for their ecological interests

International Designations	**Classification**	**Distance from Bolshan Renewables Project**
River South Esk	SAC (*EU Habitats Directive)*	2 km N
Montrose Basin	SPA, SSSI, Ramsar	7.4 km NE
National Designations	**Classification**	**Distance from Bolshan Renewables Project**
Rossie Moor	SSSI	2.8 km NE
Whiting Ness – Ethie Haven	SSSI	8.5 km SE
Dun's Dish	SSSI	8.6 km N
St Cyrus and Kinnaber Links	SSSI	14 km NE

Table 4 shows every designated site within 20 km of the proposed turbine which has been afforded protection for its biological interests. Several other sites of national importance are found within a 20 km radius of the turbine but these are protected for their floral, geological or geomorphological interests and are therefore very unlikely to be directly affected by the development.

7.4 Habitats and Species

A survey was carried out for bats, nesting birds, and other protected species. This survey covered the derelict buildings, trees, and tracks in the area near the proposed turbine site.

The relevant guidance states:

> *"We advise that the developer collates relevant information on other protected habitats and species, and presents a preliminary assessment of the potential impacts (including any proposed further survey requirements and/or mitigation) to the planning authority. This should include a desk study and a reconnaissance visit to the development site by a competent consultant.*
>
> *A basic assessment will require:*
>
> - *a brief description of the site, its context, and the habitats and species present;*
> - *identification of the presence of any protected species, description of any potential impacts and any required mitigation.*
>
> *The need for further assessment should be determined by the planning authority following the submission of the initial appraisal."*[50]

Habitats Desktop Assessment

Introduction

The proposed wind turbine is located approximately 7.5 km south of Brechin, Angus. The site is situated amongst similar agricultural terrain, typical of the rural Angus district. Results from a search through all available SNH records revealed that the Bolshan Renewables Project land boundary does not fall within any regional or nationally important protected sites.

[50] Page 6, "Assessing the impact of small-scale wind energy proposals on the natural heritage" (SNH, June 2014)

A desktop assessment was carried out to identify and record any habitats, species and features of botanical, ecological and geological importance within the vicinity of the development area.

Legislation and Policy Guidance

Legislation exists to protect habitats and floral species from destruction, degradation and loss as a result of development activities and include:

- The Conservation (Natural Habitats, & C.) Regulations 1994[51]
- Wildlife & Countryside Act 1981 (as amended)[52]
- The Nature Conservation (Scotland) Act 2004[53]

Methodology

Desk Study

A search to check for existing habitat surveys and important flora records of the site was undertaken. Studies of Ordnance Survey maps, National Biodiversity Network database, MAGIC database[54] and publicly available internet based satellite imagery also aided familiarity with habitat features of the site.

Results

Desktop Study

Results from the desk-based search revealed that the site is located within a rural farmland locality. Contour information revealed an undulating topography. Dominant habitats present over the site comprise of arable fields and improved grassland.

Results from searches undertaken of the MAGIC and NBN databases revealed that the site does not fall within any regionally, nationally or locally important protected designation. The River South Esk SAC, via the Pow Burn, is located 2 km to the north of the site.

Satellite imagery of the site was also sourced using 2015 Google Imagery © to help aid identification of habitats, features and boundaries.

[51] Full details of The Conservation (Natural Habitats, & c.) Regulations 1994 can be viewed at: *http://www.jncc.gov.uk/page-1379*

[52] Full details of the Wildlife and Countryside Act (1981) can be viewed at: http://www.jncc.gov.uk/page-3614#download

[53] Full details of the Nature Conservation (Scotland) Act 2004 can be viewed at: http://www.opsi.gov.uk/legislation/scotland/acts2004/asp_20040006_en_1

[54] Multi Agency Geographic Information for The Countryside http://www.magic.gov.uk/website/magic

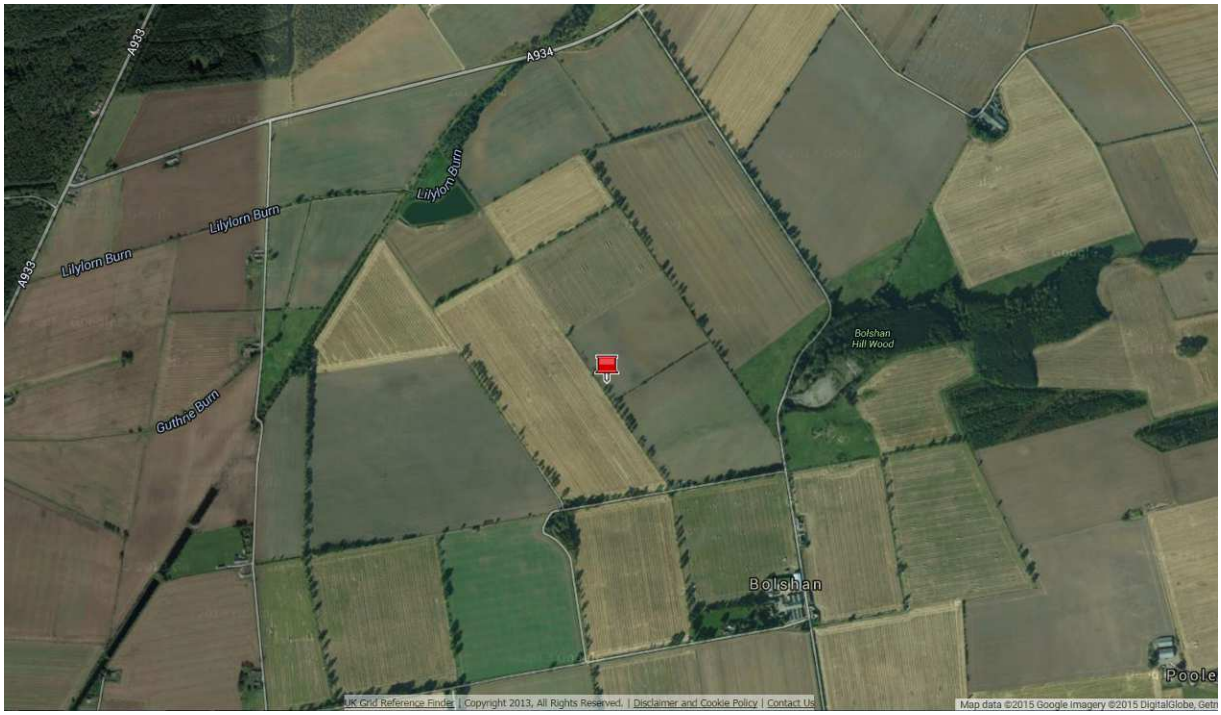

Figure 7: Satellite Image of Habitats (Source Map data © 2015 Google Imagery© 2015 Digital Globe, Getmapping Plc)

Desk-based Habitats Assessment Summary

The site is made up of improved grasslands and arable fields. No nationally or internationally protected habitats were identified during the desktop survey of the site. Botanically, the turbine and ancillary infrastructure is located on a site of low sensitivity.

The River South Esk SAC is found in the nearby area (2km). Given the nature of the development it is not anticipated that this will be affected.

The construction footprint for the proposed turbine and access track is over arable fields (see Figure 7 above). Construction activities on the arable farmland are likely to be of low impact to the habitat given these habitats are themselves formed by disturbance. The development may potentially pose impacts to habitats present through construction activities including civil works, vehicular movements and pollutants. These can be considered to be generic impacts which are typically associated with a development of this nature. During construction activities, vigilance and care would be taken by on-site contractors to minimise potential disturbance and degradation of habitats and associated flora and fauna present on site.

There are three trees near the hardstanding location, thought to be maple, horse chestnut, or oak. These are 7-10 meters in height. These would need to be removed during the construction phase. Each tree that is removed would be replaced with 3 native deciduous trees at other locations on the farm, in keeping with the pattern of tree-lined tracks and roads within the local area. This could be controlled by a condition added to the planning consent.

Figure 8: Trees Near the Turbine Position.
A row of three trees near the turbine position that would be removed to provide sufficient working space at the hardstanding. Any tree removed would be replaced by 3 native deciduous trees, as discussed above.

Protected Mammals Site Survey

Dr. Susan Swift undertook a survey for Bats, Bat Roosts, and other protected species at the site of the previous turbine position applied for under application 13/00887/FULL. The survey aimed to identify and record presence of any species, and associated suitable habitat features of ecological importance, within the development area.

The main mammals that may potentially inhabit a site of this nature were anticipated to be bats, however signs for any other protected mammals were also searched for. A search to check for existing protected mammal records present within a 10 km square of the site was undertaken. The source for this desk-based research was the National Biodiversity Network database.

In addition, studies of 1:25:000 Ordnance Survey mapping and publicly available internet based satellite imagery also aided familiarity with habitat features that may provide suitability for protected species within the site development area.

Badgers

Introduction

Badgers and their setts are fully protected from the results of lawful human activities, including the development of wind farms. A sett is defined as “any structure or place which displays signs of current use by a badger” (Protection of Badgers Act 1992). Setts can be classified into four types. The main sett is the largest within the badger’s social group’s or clan’s

territory (Kruuk, 1989)[55]. There is only one main sett for each clan of badgers. It has a number of entrances, used and disused, with active spoil heaps and well used paths radiating from it. It is in continual use.

Annex setts are usually found within 150 m of the main sett. They have well used entrances. Paths connect the annex setts to the main sett. Annex setts may not be in use all of the time.

Subsidiary setts have no obvious path connecting them to the main sett. They can have several entrances but are not always in use.

Outlier setts have only one to two entrances with small spoil heaps. They are rarely in use.

All setts should be treated as being in use during development as they may be used by the badgers. The main legislation referring to badgers is the Protection of Badgers Act 1992. Under this act, it is an offence to:

- Wilfully or attempt to kill, injure or take a badger;
- Use badger tongs in the course of killing, taking or attempting to kill a badger;
- Dig for a badger;
- Cruelly ill-treat a badger;
- Possess a dead badger or any part of a badger;
- Sell or offer for sale or control any live badger;
- Mark, tag or ring a badger;
- Interfere with a badger sett by:
    - damaging a sett or part thereof;
    - destroying a sett;
    - obstructing access to a sett;
    - causing a dog to enter a sett;
    - disturbing a badger while occupying a sett.

The act carries penalties of up to six months imprisonment or a fine of up to £5,000, or both. The fine can relate to individual badgers and has the potential to be substantial. The act also allows for the forfeiture of any badger or skin and of any weapon or article used. Dogs can be destroyed or disposed of, and the owner can be disqualified from having custody of a dog.

Other legislation includes the Wildlife and Countryside Act 1981 where Badgers are listed on Schedule 6. This prohibits methods of taking and killing wild animals. The Protection of Animals Act 1911 protects badgers from cruelty.

Under the Protection of Badgers Act 1992, licences can be issued to interfere with badger setts to allow development to take place. In Scotland, these are issued by SNH. Licences to prevent serious damage to property are issued by the Scottish Executive Rural Affairs Department (SERAD). It is recommended that local staff of SNH or SERAD are consulted before a licence is applied for.

Methodology

In addition to the desk study, a field survey to investigate the status of badgers around the proposed wind turbine development location was carried out. Habitat types (i.e. agricultural fields, boundaries, woodland, scrub etc.) were searched around the site.

Results

The desk-based survey revealed that there are known records of badger in the 10 km square surrounding the proposed turbine.

However, during the field survey no evidence of activity of badgers (Meles meles) was found around the proposed Bolshan turbine.

[55] Kruuk, H. (1989) *'The Social Badger: Ecology and Behaviour of a group-living Carnivore'*, Oxford University Press, Oxford

Conclusion

The desk-based search has confirmed there are known records of badger activity in the wider area however, the survey identified no indication of badger presence within the vicinity of the proposed development site.

Additionally, the proposed development location is in fields well away from any possible badger setts habitat and will only represent a low loss of foraging area. The works would not constitute a risk to badgers as long as the appropriate mitigation is implemented as outlined below.

Mitigation

If evidence of badgers is detected at the site at any point during in the lifetime of the development, as a result of territories expanding or new territories becoming established, standard mitigation measures will be taken to ensure compliance with the Protection of Badgers Act 1992 and the Wildlife and Countryside Act 1981.

The field survey found no evidence of badgers around the proposed turbine site, But badgers are known to be in the general area and given they are also understood to range widely, and expand territories to occupy adjacent land if it is vacant and of suitable habitat, the following mitigation is proposed during all stages of the wind development project:

- All contractors should be made aware of badgers and their legal protection;
- All personnel should be made aware that badgers may exist close to the site and are at risk from vehicles and on-site speed restrictions should be put in place for all vehicles, including construction, maintenance and visitors to the site;
- All trenches dug during construction and exposed open pipes should be covered at the end of each working day to ensure no risk to badgers, otters or any other wildlife that may have the potential to be trapped; and
- Ramps should be located within the trenches or pits that can't be covered to allow an exit for any mammal that has gone into a trench or pit.

Bats

Introduction

Bats of all species in Britain and their roosts are protected under the Conservation (Natural Habitats, &c) Amendment (Scotland) Regulations 2007. Following recent changes to legislation in Scotland under this law it is illegal intentionally or recklessly to kill or injure a bat, to disturb a roosting bat or to damage, destroy or obstruct access to any bat roost. This applies to both summer and winter roosts, which may be in different structures. Any action which is likely to disturb or damage a bat roost requires a license from the Scottish Government.

Bats and their roosts are legally protected by domestic and international legislation: Wildlife and Countryside Act 1981 as amended by the Nature Conservation (Scotland) Act 2004, and by the Conservation (Natural Habitats) Regulations 1994. The purpose of the legislation is to maintain and restore protected species to a situation where their populations are thriving, and there is sufficient habitat to ensure this will continue.

The most relevant SNH guidance on bats for large wind turbines, such as that proposed at the Bolshan Renewables Project, is Natural England Technical Information Note TIN059 'Bats and single large wind turbines: Joint Agencies interim guidance'.

In mainland Europe and North America, evidence of bat collisions has led to growing concern about the siting and operation of wind turbines. The most serious incidents have involved bat species that fly very high and for long journeys, particularly species on long distance migrations. In mainland Europe, noctules, common pipistrelles and Nathusius' pipistrelles are most frequently recorded as turbine casualties.

There are five species of bat known to be resident in north-east Scotland. These are two species of pipistrelles, commonly referred to as the 55 kHz or soprano pipistrelle (*Pipistrellus pygmaeus*), and the 45 kHz or common pipistrelle (*Pipistrellus pipistrellus*). Also present are brown long-eared bats (*Plecotus auritus*), Natterer's bat (*Myotis nattereri*) and Daubenton's bat *(Myotis daubentonii*). Common pipistrelle bats have been removed from the priority species list in the UKBAP

(Biodiversity Information and Reporting Group, 2007)[56] as the population within the UK has increased to over 2 million (Bat Conservation Trust, 2006; Battersby (ed., 2005)[57] [58]. The two species of pipistrelle are believed to be at medium risk of collision with turbines. These are both aerial feeders which can exploit open spaces. It is believed that the threat to the populations of both species is low (Natural England, 2009)[59]. The other three species are at low risk with a low threat to their populations.

Most bat species in the UK are unlikely to come into contact with the turbine blades during their normal movements. To the best of current knowledge, common pipistrelles do not migrate at high altitude and rarely fly at heights that intersect with the blades (Natural England, 2009)[59].

Methodology

A desk-based data search was carried out to find out whether any records are held of bat species sightings activity near the development site. Sources included The National Biodiversity Network and The Bat Conservation Trust. Further desk-based assessment has been completed to identify features that may be suitable for commuting and foraging bats. 1:20,000 and 1:25,000 scale Ordnance Survey map data and remote sensing satellite imagery (sourced using 2015 Google Imagery ©) was used to aid identification of habitats, features and boundaries that may potentially be attractive for bat activity.

The site was visited and surveyed in May 2013. A daylight survey, and a dusk activity survey were carried out. In the daylight, buildings and trees surrounding the turbine site were checked for potential roost sites and access holes. An ultra-sonic bat detector was used during the dusk survey to assess the presence/absence of roosts, and assess bat activity.

Results

Data Review

NBN Gateway revealed that the following bat species were recorded within the 10 km^2 around the development site.

- Brown long-eared bats (*Plecotus auritus*)
- Soprano pipistrelle (*Pipistrellus pygmaeus)*
- Daubenton's Bat (*Myotis* Daubentonii)

These species are considered to be at low and medium risk of turbine development by Natural England (TIN059).

Survey

The great majority of habitat within the vicinity of the site is arable fields which are not favoured bat foraging habitat.

No roosting bats or signs of bats were found anywhere in or around the buildings or trees near the site of the turbine. The area around the turbine was used as foraging habitat by *pipistrelles* in very small numbers. Single bats commuted to the site from roosts elsewhere and foraged around the trees and buildings for a short amount of time before moving on.

Bats are known to use linear features as commuting pathways and for foraging. There are some linear features in the vicinity of the development site, for example woodland edge. The woodland feature nearest to the turbine is 300 m distant.

The majority of the study area is barren arable fields that are not favorable foraging habitat for bats. Various areas of woodland are present in the vicinity of the proposed turbine site that would be expected to have foraging bats.

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[56] Biodiversity Information and Reporting Group (2007) *"Report on species and habitat review" UK biodiversity Partnership*, Peterborough: JNCC.

[57] Bat Conservation Trust (2006) *The State of UK's Bats, summary report from the national Bat Monitoring Programme*, London: Bat Conservation Trust

[58] Battersby, J. (2005) *UK Mammals: Species Status and Population Trends*, Peterborough: JNCC Tracking Mammals Partnership

[59] Natural England (2009), *Natural England Technical Information Note TIN051: Bats and onshore wind turbines (Interim Guidance)* [Online] Available: http://publications.naturalengland.org.uk/publication/35010

Conclusions Bats

The desk top study has found that there are known records of bats within a 10 km^2 around the development site. The habitat around the proposed turbine location is a mixture of improved grasslands and arable fields; which is not favoured by bats for foraging. There is woodland within the vicinity of the development site however this, at is closest point, is 300m distant from the position of turbine.

The overall lack of roost and foraging potential in the vicinity of the proposed turbine position means that any potential effects are likely to be negligible. Bolshan Renewables Project is unlikely to have a significant effect on local bat populations.

Ornithology

Introduction

The following section describes and evaluates the current ornithological interest associated with the Bolshan Renewables Project and the surrounding area. Additionally, this section provides an assessment of the predicted effects on this interest. The most important issues relating to birds and the proposed wind farm are as follows:

- The effects of direct habitat loss due to land uptake by the wind turbine base, tracks and ancillary structures.
- The effects of indirect habitat loss, which may occur as a consequence of construction work, or due to the proximity of the wind turbine to nests, feeding sites or migration paths.
- The effects of collision with rotating turbine blades, which is considered to be of particular relevance for sites located in areas known to support raptors or large populations of wildfowl.

Methodology

A desk-based study was carried out to check for the presence of all international, national and local designated sites within 20 km of the site, according to the recommendation given by SNH[60]. See table above.

The Angus Council planning register was also checked as part of the cumulative assessment for this EcIA. Consultations by SNH and the Royal Society for the Protection of Birds for other wind turbine developments were considered.

A Bird Sensitivity Map published by RSPB[61] which aids the location of onshore wind turbine development in Scotland was consulted. This map is based on bird species of conservation concern and Special Protection Areas (SPA) and indicates where wind turbines are more likely to conflict with bird sensitivities.

Dr Susan Swift carried out a site survey to assess the importance of the immediate area around the previous turbine position for barn owls and other nesting birds on 28th May 2013.

Results

Designations

Table 4 (above) shows every designated ecological site within 20 km of the proposed turbine. Several other sites of national importance are found but these are protected for their floral, geological or geomorphological interests and are therefore very unlikely to be affected by the development.

Of the international designations listed only Montrose Basin lists geese or other migratory wildfowl as a qualifying species. As noted below, SNH have acknowledged when consulted on the previous application 13/008887 that 'The proposal will not adversely affect the integrity of the site'[62]. They also stated:

> *The appraisal we carried out considered the impact of the proposals on the following factors: Collision mortality, displacement and barrier effects. In the absence of site specific goose survey we used generic data, which indicate*

[60] Page 5, "Assessing the impact of small-scale wind energy proposals on the natural heritage" (SNH, June 2014)
[61] Bright, J.A, *et al* (2006) Bird Sensitivity Map to provide locational guidance for onshore wind farms in Scotland, RSBP Research Report No 20, accessed on 31/03/2015 from http://waww.rspb.org.uk/forprofessionals/policy/windfarms/locationalguidance/scottish.aspx
[62] Page 2, SNH response to application 13/00887/FULL, dated 24 October 2013, authored by Fiona Mutch

very low collision mortality. There are alternative foraging opportunities in the surrounding area and a single turbine is unlikely to displace geese from accessing these areas.[63]

There is also one SAC – River South Esk, which is protected under the EU Habitats Directive – no birds are included as a qualifying interest but these sites have been acknowledged as they possess international status.

Montrose Basin SPA, SSSI, Ramsar

SPA Citation:

This site, an internationally important wetland, qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species: It provides a winter roost for an average of:

- 1,080 Greylag Geese (*Anser anser*) at least 1% of the wintering Iceland/UK/Ireland population;
- 4,500 Knot (*Calidris cantus*) at least 1.3% of the wintering Northeastern Canada/Greenland/Iceland/Northwestern Europe population;
- 31,600 Pink footed Geese (*Anser brachyrhynchus*) representing at least 14.1% of the wintering Eastern Greenland/Iceland/UK population; and
- 2,260 Redshank (*Tringa tetanus*) representing at least 1.5% of the wintering Eastern Atlantic - wintering population.

The site also qualifies under Article 4.2 of the Directive (79/409/EEC) because it regularly supports at least 20,000 waterfowl. Over winter, the area regularly supports 54,900 individual waterfowl.

SSSI Citation:

"Montrose Basin is a large, almost circular, estuarine basin on the River South Esk immediately west of Montrose in which there are extensive mudflats at low tide. Montrose Basin consists of a mosaic of saltmarsh, mudflat and transition fen habitat together with arable and pasture land, which is used annually by thousands of migrating and over-wintering birds for feeding and roosting. A section of Montrose Basin at Maryton is a key site for the illustration of post-glacial sea level fluctuations."

River South Esk SAC

SAC Citation:

"The River South Esk is a designated Special Area of Conservation (SAC) for Atlantic salmon and freshwater pearl mussels under the European directive commonly known as the 'Habitats Directive'. Thus it forms part of a network of SACs across Europe. The network of sites is known as Natura 2000."

Rossie Moor SSSI

SSSI Citation:

"Rossie Moor is located just over 6 km south-west of Montrose. It sits on a gently undulating plateau of relatively low lying hill ground which separates the flood plain of the River South Esk from that of the Lunan Water. It is important for its extensive areas of lowland heath and valley fen, together with associated insect communities, in particular water beetles and flies."

Whiting Ness – Ethie Haven SSSI

SSSI Citation:

"Whiting Ness to Ethie Haven SSSI is situated on the Angus coastline, stretching about 11 km in length from Victoria Park, on the edge of Arbroath, to almost as far as north as Lunan Bay. The site is geologically important for its exposures of Upper Old Red Sandstone and Ethie Lavas. It is also the longest continuous stretch of sea cliffs

[63] Mutch, F. (2013) Letter to Angus Council re Bolshan Turbine App 13/00887/FULL. Scottish Natural Heritage. Aberdeen

and rocky shore in Angus and supports nationally important numbers of nesting seabirds and over-wintering waders, a wide range of coastal grassland and coastal cliff communities and the small blue butterfly Cupido minimus, a Scottish rarity."

Dun's Dish SSSI

SSSI Citation:

"Dun's Dish SSSI is situated 4 km north west of Montrose Basin. It is important for its eutrophic (nutrient–rich) open water and fen plant communities and the breeding birds these habitats support.

The swamps and fens are species-rich and mark the transition from open water to drier land. Species typical of this community type include marsh marigold Caltha palustris, bottle sedge Carex rostrata, marsh willow-herb Epilobium palustre, marsh-bedstraw Galium palustre, marsh cinquefoil Potentilla palustris, and lesser spearwort Ranunculus flammula, as well as several species of plants which are very local in Angus: for example, lesser tussock-sedge Carex diandra, marsh ragwort Senecio aquaticus, and blue water-speedwell Veronica anagallis-aquatica.

The site supports a high diversity and number of breeding wildfowl which include mute swan, shelduck (the only inland colony in Angus), teal, pintail, shoveler, tufted duck and redshank. The site has also held the largest colony of common terns in Angus, nesting on the small islands in the loch."

St Cyrus and Kinnaber Links SSSI

SSSI Citation:

"St Cyrus and Kinnaber Links SSSI is located on the east coast of Scotland, on either side of the mouth and estuary of the River North Esk, about 5 km north of Montrose. The varied site consists of sand dunes, shingle, foreshore, river estuary, saltmarsh and cliffs composed of basalts and andesites of Old Red Sandstone age. The cliffs have weathered to produce a moderately base-rich soil, and for the north-east of Scotland the site enjoys relatively long hours of sunshine.

The breeding bird assemblage, about 60 regular breeding species, includes fulmar, shelduck, eider, curlew, redshank, ringed plover, oystercatcher, sedge warbler, grasshopper warbler, wheatear, stonechat, whinchat, kestrel, buzzard, sparrowhawk and peregrine".

Cumulative Assessment

It is possible that if many wind farms were operating in the local area there could be an increased risk of collision as individual birds strove to avoid each farm, or a number of individuals could be displaced from potentially large areas. The area surrounding the proposed turbine does support other wind farm developments. Development in a 5 km radius of the site is shown in the table below (Table 5). There are a number of wind developments within the vicinity of the site which are either already approved by Angus Council or currently pending consideration. The developments are primarily small to medium scale comprising mostly of single turbines.

The Bolshan turbine will occupy only 48 m of airspace (should the turbine blades be aligned perpendicular to the direction of a flight path). It is anticipated that any migrating and foraging bird species should be able to successfully navigate around the proposed turbine position without undue risk of collision with other developments or having to extend their flying distances. Therefore, the cumulative impact of the Bolshan Renewables Project on flight activity is likely to be negligible.

Table 5: Cumulative ornithological information for nearby wind developments

Application Number	Site Name	Distance to site (km)	Status	Turbine	Assessment	SNH	RSPB
07/01632/FUL	Montreathmont	2.7	Refused	11 x 126 m	Bird Surveys, Protected Species Surveys, Vegetation Survey and desktop assessment	Objects to the Proposal based on adverse landscape and visual impacts, and insufficient information regarding greylag geese and pink footed geese	N/A
07/00050/FUL	Mountboy	3.9	Refused	3 x 105 m	Desk Studies and Field Studies	Objects to the Proposal based on adverse effects on Rossie Moor	N/A
12/00365/FULL	Pickerton	5.0	Permitted	1 x 77 m	Desk Studies and Field Studies	No comment	N/A
12/00632/FULL	Renmure Farm	3.7	Refused	1 x 77 m	Desk Studies and Field Studies	N/A	N/A
12/00732/FULL	Hatton Mill Farm	2.3	Refused	1 x 77 m	Desk Studies and Field Studies	N/A	N/A
13/01069/EIAL	Rossie School	4.1	Withdrawn	3 x 80 m	Desk Studies and Field Studies	Object as further information is needed regarding effect on Rossie Mooor	N/A
14/00606/FULL	Dubton Farm	4.6	Pending	1 x 77 m	Desk Studies and Field Studies	N/A	N/A
13/00722/FULL	Waulkmill Quarry	3.1	Permitted	1 x 46 m	Desk study	No adverse effects on the integrity of the site	N/A
10/01093/FULL	Heughhead	2.9	Refused	1 x 19.9 m	N/A	N/A	N/A
11/00143/FULL	Heughhead Farm	2.9	Permitted	1 x 21 m	N/A	N/A	N/A
15/00013/FULL	Rossie School	4.1	Pending	1 x 51 m	Desk Studies and Field Studies	Natural heritage interests of international and national importance close to the site will not be adversely affected by the proposal	N/A

Bird Sensitivity Map

The proposed wind turbine falls within an area of low sensitivity in the RSPB Bird Sensitivity Map[64], which means that it is unlikely to be classed as sensitive to bird species.

Owls and nesting birds.

During the site survey on 28th May 2013 one tawny owl was recorded flying inside one of the buildings before dusk. There was no sign of a nest, and only one bird was present. Four swallows were observed foraging over the wheat fields east of the site, and one swallows' nest was recorded in the smallest of the buildings surveyed. Two chaffinches were recorded and are probably nesting in a tree or bush near the site.

Assessment of Effects

Construction Effects

Wind turbine construction is likely to last approximately 5 months. The actual turbine erection may take only a day to be completed and the impact of any other civil work such as the construction of ancillary structures, access tracks etc may be comparable in scale to activities typically carried out on agricultural land. Construction activities may temporarily displace some birds using the site and surrounding areas. The level of impact will depend on:

1. the timing of potentially disturbing activities;
2. the degree of displacement (spatially and temporally);
3. the size, suitability and proximity of habitats available for displaced birds to occupy; and
4. the capacity of alternative habitats to accommodate birds.

Disturbance during construction is generally short-term and can be readily mitigated by avoiding sensitive areas and by timing construction outside certain periods where sensitive species are present. Construction usually takes place when the weather is expected to be clement, so the migration periods will likely be avoided for this reason also. Construction impacts will be greatest on species that are intolerant of noise and other sources of disturbance.

Given the low sensitivity and numbers of the species recorded at the site the magnitude of the impact from construction is considered to be negligible.

Operational Effects

A number of studies have investigated the effect of displacement by wind farms on wintering wildfowl. A detailed Danish study conducted in an area where power lines, wind breaks, roads and settlements were all present found pink-footed geese avoided utilising areas within approximately 100 m of single rows of turbines, and 200 m of a larger wind farm (Larsen & Madsen, 2000)[65]. This study concluded that wind farms caused disturbance to pink-footed geese comparable in magnitude to hedgerows and farm buildings. A study into the displacement of white-fronted geese in Rheiderland, Germany found lower post construction densities of white-fronted geese within 600 m of turbines (Kruckenberg & Jaene, 1999)[66], which is generally accepted to be the maximum reliably recorded distance that any bird species has been affected by wind farms (Drewitt & Langston, 2006)[67].

Another scenario in which wind turbines could have a displacement impact is by affecting usual flight lines. A number of studies have shown that a wind farm can result in the alteration of flight-lines of some species. Where wildfowl do fly through wind farms, evidence suggests that they avoid flying close to turbines, hence reducing the risk of collision. For example, the only detectable effect reported from studies at Tunø Knob Offshore Wind Farm was that eider avoided flying

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[64] *Bright, J.A, et al (2006) Bird Sensitivity Map to provide locational guidance for onshore wind farms in Scotland, RSBP Research Report No 20, accessed on 31/03/2015 from http://waww.rspb.org.uk/forprofessionals/policy/windfarms/locationalguidance/scottish.aspx*

[65] *Larsen, J. K. & Madsen, J. (2000) Effects of wind turbines and other physical elements on field utilization by Pink-footed Geese [Anser brachyrhynchus]: A landscape perspective, Landscape Ecology **15**: p755-764.*

[66] *Kruckenberg, H. & Jaene, J. (1999) Zum Einfluss eines Windparks uaf Verteilung weidender Bläßgänse im Rheiderland [Landkreis Leer, Niedersachsen], Natur und Landschaft **74**: p420-427.*

[67] *Drewitt, A. L. & Langston, R. H. W. (2006) Assessing the impacts of wind farms on birds, Ibis **148**: p29-42.*

and landing within 100 m of turbines (Guillemette *et al*, 1998 and 1999)[68] [69]. A further study at the same wind farm (Tulp *et al*, 1999)[70] reported that both common scoter and eider flew through the area at night, maintaining a greater distance from turbines in conditions of poor visibility, with fewer flights within 1.5 km of turbines being recorded during darkness. These results were consistent with a study of flight behaviour of pochard and tufted duck at Lely in the Netherlands (Dirksen *et al*, 1998)[71]. Therefore, in an offshore situation at least, birds can be displaced from their usual flight paths by wind farms. This might make a foraging area less attractive due to the increased flight time and energy required to reach it from a roost site. However, given that the Bolshan Renewables Project only consists of one turbine it is unlikely that any birds would have to deviate far from their usual course and, considering greylag geese or pink footed geese (for example) may forage up to 20 km from their roosts, the impact would be negligible.

SNH (2010)[72] sets out that both the British Trust for Ornithology and Patterson (2006)[73] have concluded that *"wind farms appear to cause very few collisions of geese in United States, UK and Europe. The limited data from operational wind farms in [the] UK support this view and, and while it is still too soon to be certain, the BTO [British Trust for Ornithology] view that such events are rare is entirely consistent with all the currently available field-based evidence. In Europe, with thousands of wind turbines and large wintering populations of Arctic breeding geese, only about 9 goose casualties have been recorded – 6 barnacle geese, 1 greylag goose, 1 bean goose and 1 bean/white-fronted goose (Hötker et al, 2005[74])".*[75]

In a review of the impacts of wind farms on upland raptors, Madders & Whitfield (2006)[76] concluded that displacement appears to be negligible. Given the amount of habitat available and the relatively small area from which raptors may be displaced, the impact of displacement on any species would be negligible.

One SPA was found within 20 km of Bolshan Renewables Project. Table 6 below lists this SPA, the distance to site, the qualifying features, and the foraging range of these species as noted within the SNH guidance 'Assessing Connectivity with Special Protection Areas'[77].

Table 6: SPA within 20 km of the Bolshan Renewables Project, qualifying features and foraging ranges

Designation	Distance to Bolshan	Qualifying Feature (birds)	Foraging Range
Montrose Basin	7.4 km NE	Greylag goose	15-20 km
		Pink-footed Goose	15 -20 km
		Redshank	Forage in tidal areas (*not included in SNH guidance*)
		Knot	Forage in tidal areas (*not included in SNH guidance*)

[68] *Guillemette, M., Larsen, J. & Clausager, I. (1998) Impact assessment of an offshore wind-park on sea-ducks, NERI Technical Report No. 27, 63pp.*

[69] *Guillemette, M., Larsen, J. & Clausager, I. (1999) Assessing the impact of the Tunø Knob wind park on sea ducks: the influences of food resources, NERI Technical Report No. 263, 21pp.*

[70] *Tulp, I., Schekkerman, H., Larsen, J. K., van der Wilden, J., van de Haterd, R. J. W., van Horssen, P., Dirksen, S., Spaans, A. L. (1999) Nocturnal flight activity of sea ducks near the wind farm Tunø Knob in the Kattegat, IBN-DLO Report No. 99.30.*

[71] *Dirksen, S., Spaans, A. L. & van der Winden, J. (1998) Nocturnal collision risks with wind turbines in tidal and semi-offshore areas. In: Wind Energy and Landscape. Proc. 2nd European and African Conference on Wind Engineering, 1997, p99-108.*

[72] *Scottish Natural Heritage (2010) Use of avoidance rates in the SNH wind farm collision risk model.*

[73] *Patterson, I. J. (2006) Geese and wind farms in Scotland. Report for SNH*

[74] *Hötker, H., Thomsen, K.-M. & H. Jeromin (2006) Impacts on biodiversity of exploitation of renewable energy sources: the example of birds and bats - facts, gaps in knowledge, demands for further research, and ornithological guidelines for the development of renewable energy exploitation. Michael-Otto-Institut im NABU, Bergenhusen.*

[75] *Page 6, Scottish Natural Heritage (2010) Use of avoidance rates in the SNH wind farm collision risk model*

[76] *Madders, M. & Whitfield, D. P. (2006) Upland raptors and the assessment of wind farm impacts. Ibis **148**: p43-56.*

[77] *Scottish Natural Heritage (2012) Assessing Connectivity with Special Protection Areas [Online] Available: http://www.snh.gov.uk/docs/A675474.pdf*

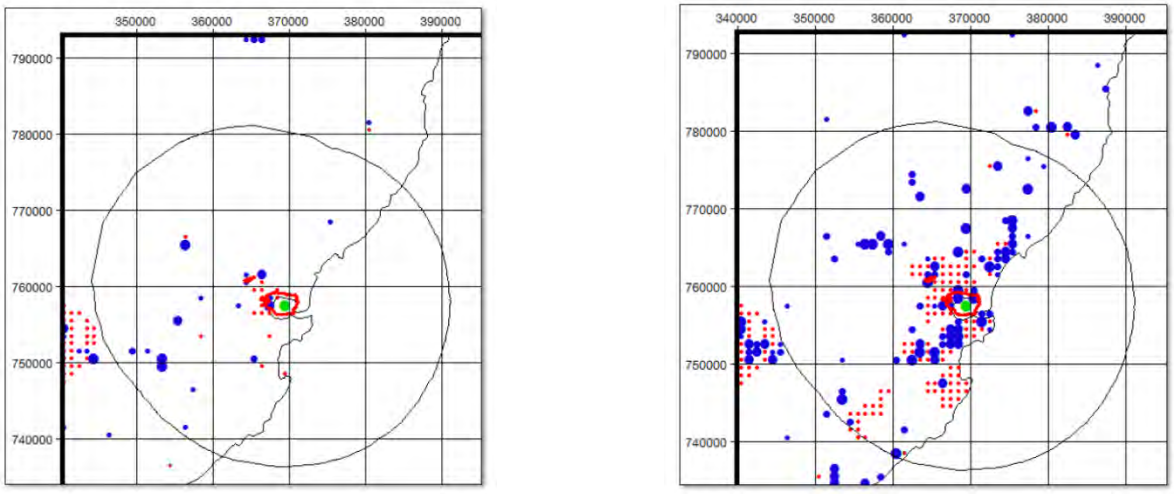

Figure 9: Feeding distribution (1986/87 to 2011/12 – all records) of Greylag Geese (left) and Pink Footed Geese (right) in relation to the Montrose Basin SPA[78]

Figure 9 shows the feeding distribution of greylag geese and pink footed geese around Montrose Basin. The geese feed around the proposed turbine site. However, SNH have said in their response to the previous turbine application: "*the appraisal we carried out considered the impact of the proposals on the following factors: Collision mortality, displacement and barrier effects. In the absence of site specific goose survey we used generic data, which indicate very low collision mortality. There are alternative foraging opportunities in the surrounding area and a single turbine is unlikely to displace geese from accessing these areas*"[79]. As already noted SNH have advised that "*There are natural heritage interests of international importance at this site, but in our view, these will not be adversely affected by the proposal*" [80]

There will be no adverse impacts upon sites of international, national or local importance. Therefore, it is fair to conclude that the magnitude of impact for all bird species during operation is likely to be negligible.

Decommissioning Effects

Turbine removal may cause disturbance to birds breeding and foraging within the site. However, the level of impact would be considerably lower than in the construction phase, as there would not need to be any preparatory works, simply the dismantling by crane and removal of the turbine for recycling elsewhere, which can be completed in a couple of days. This very short period would result in a negligible level of impact.

[78] *Mitchell, C. (2012) Mapping the distribution of feeding Pink-footed and Iceland Greylag Geese in Scotland. A report for the Wildfowl and Wetlands Trust.*

[79] *Page 2, SNH response to application 13/00887/FULL, dated 24 October 2013, authored by Fiona Mutch*

[80] *Page 1, SNH response to application 13/00887/FULL, dated 24 October 2013, authored by Fiona Mutch*

7.5 Conclusions: Ecology Impact Assessment

- The habitat within the development area is either improved grassland or arable habitat types. There are no plants of national or local importance (UKBAP or LBAP). Botanically, the area is of low sensitivity with a limited flora.

- The proposed wind turbine is likely to have negligible impacts on badgers. No badger setts were found on-site. Suitable mitigation and best practice will be included in the Construction Method Statement to ensure that badgers are properly protected during the construction phase.

- The bat survey found that there are no roosting bats and no signs of bats anywhere in or around buildings or trees on the site of the proposed wind turbine. The area around the turbine site was used as foraging habitat in very small numbers. Because of these small numbers, and extensive alternative habitat available locally, the significance of impact on populations locally will be very low. Pipistrelles are adaptive in their foraging habits and if deterred by the turbine, will use alternative sites in the area. It has been concluded that the development is unlikely to have a significant effect on local bat populations.

- The impact on designated species is considered to be negligible. There is one SPA within a 20 km distance. There are alternative foraging opportunities in the surrounding area, and a single turbine is unlikely to displace geese from accessing these areas.

- Cumulative effects have been studied as part of the EcIA. It is concluded that any effects caused by the introduction of the Bolshan Renewables Project, in the context of current wind development proposals in the area, is likely to be negligible.

Ecological Impact Assessment, Appendix 1: Ecological Survey Report

Taken from Previous Planning Application (13/00887/FULL). Deals with a different turbine position.

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SNH Bat Licence Number 15094

SURVEY FOR BATS, BAT ROOSTS AND OTHER PROTECTED SPECIES AT SITE OF PROPOSED WIND TURBINE, BOLSHAN FARM, FRIOCKHAM

Report to Alex Craig, Architectural Consultant / R & G Smith

by
Dr Susan M. Swift

May 2013

1.0 Introduction and Background

Planning permission is sought to install a single wind turbine on a site at Bolshan Farm near Friockham (**O.S grid reference NO 614 522**). Because there are several derelict buildings on the site and also trees round the buildings and along farm tracks leading to and from it, it was considered advisable to carry out a survey for bats, nesting birds and other protected species as part of the Planning application. This is in view of the known propensity for bats and owls to roost in farm buildings and because of the nesting/feeding opportunities provided by trees and bushes. The current survey was therefore commissioned by Alex Craig on behalf of the owners and carried out by Dr Sue Swift on 28th May 2013. It aimed to identify any bat roosts in buildings on the site or in trees surrounding them, to assess the importance of the site for bats in the area and to recommend measures to mitigate possible harmful effects on bats of the proposed turbine. It also aimed to assess the importance of the site for barn owls and other nesting birds and for protected species such as red squirrels.

2.0 The Conservation Status of Bats

Bats of all species in Scotland and their roosts are protected under the Conservation (Natural Habitats, &c) Amendment (Scotland) Regulations 2007. Under this law it is illegal intentionally or recklessly to kill or injure a bat, to disturb a roosting bat or to damage, destroy or obstruct access to any bat roost. This applies to both summer and winter roosts, which may be in different structures. Any action which is likely to

disturb or damage a bat roost requires a development licence from Scottish Natural Heritage.

3.0 Site Description

The site is located 500m north-west of Bolshan Farm steadings and is surrounded on all sides by arable fields. It is accessed via two hard core tracks through the fields. There are open fields on all sides, with tree lines along the field edges and along the tracks. Some of these are mature (mainly oaks and beech) and they are interspersed with younger trees (sycamore and poplar). The nearest water bodies are the River Lunan Water 2.5km to the south and Balgavies Loch 7km west. The east edge of Montreathmont Forest, a large area of coniferous forest with areas of deciduous trees, is 2km west of the site. There are no other areas of woodland within 3-4km. The nearest buildings are at Bolshan Farm (houses and farm buildings).

There are five buildings on the site, all of the same age and construction. Dating from the Second World War, when they were associated with a nearby airfield, they have not been maintained since and are currently used for storing hay and agricultural implements. All are of single skin brick construction with asbestos sheet roofs and no roof spaces. Some of the roofs have originally been board lined, but much of the boarding has rotted, leaving the asbestos sheets exposed. One of the buildings, originally a grain drier, is 12m high, but the rest are single storey and there are no dark roof voids or lofts. Trees around the buildings are mainly immature poplar, ash and sycamore, with two large Norway spruce in the NW corner. These, together, with trees along the access tracks leading south and east from the site, provide shelter for flying insects and also potential nest sites for birds.

4.0 Biology of Bats - Aspects Relevant to the Survey

4.1 Bat species

Nine species occur in Scotland, of which five are regularly found in Angus:-

Pipistrelles. Two very similar species, 45kHz pipistrelles (*Pipistrellus pipistrellus)* and 55kHz pipistrelles (*Pipistrellus pygmaeus)*, are both common and widespread in Scotland. Both may occur in rural or built-up areas and their summer and winter roost sites are usually in man-made structures such as bridges and buildings. While summer maternity colonies of females and young are usually in heated houses, small groups of males sometimes roost in crevices in cooler buildings. Foraging habitat is tree lines, woodland edges and riparian vegetation, and pipistrelles are the only species which commonly exploit small, isolated patches of habitat in open farmland..

The brown long-eared bat, *Plecotus auritus,* is also usually found in houses, particularly in rural and wooded areas. Although much less common than pipistrelles, it is frequently associated with old buildings containing large attics. Although associated with farm buildings, long-eared bats rely heavily on woodland as foraging habitat and tend to avoid areas with open fields.

Daubenton's bat, *Myotis daubentonii*, is strongly associated with water and almost always roosts within 50m of lochs or rivers. Roosts are usually in trees overhanging the water, and buildings are rarely used. They were considered unlikely to be present at this site.

Natterer's bat, *Myotis nattereri*, typically roosts in rural areas, in barns, steadings and large old houses.However, it is uncommon in Angus and prefers wooded habitat..

entrances, staining around holes or a dark streak running down the trunk. Not all tree roosts will show these signs, so any trees containing holes or cavities are normally considered to be potential roosts and should be subjected to climbing or dusk/dawn surveys.

5.0 Method

5.1 Daylight survey

5.1.1 Buildings. A search was made of the exterior of all building for signs of bats, using binoculars to search high areas. Any droppings adhering to walls, wall tops or roofs, or accumulated at wall bases, were recorded, as was staining on brickwork. A search was made for potential roost sites or access holes, in order to plan the dusk survey. A thorough search was then made of the inside of all buildings for roosting bats or signs of bat occupation.

5.1.2 Trees. All trees on the site, plus those along the tracks within 30m of the site boundaries, were first assessed for their suitability for bat roosting on the basis of trunk diameter at 1m height – any trees with a diameter of less than about 0.3m are very unlikely to offer sufficient shelter. Any suitable for bats were then checked for signs of bats and for holes and cavities usable by bats as roost sites. Binoculars were used to check high areas.

5.2 Dusk activity survey

A dusk survey was carried out to confirm the presence/absence of roosts and assess bat activity on the site. It lasted for two hours, from 15 minutes before sunset (21.20 hours B.S.T.), using an ultrasonic bat detector (Pettersson D240X) to detect bats. Bats were identified in flight, using the detector in time expansion mode to record their orientation calls. The calls were stored on a tape recorder (Sony Professional) and later downloaded to a computer and analysed using wave analysis software (Batsound; Pettersson, Sweden). This allowed accurate identification to be made to species level. A count was made of bats detected, and the time, direction of flight and behaviour of all bats was recorded. The emergence survey was carried out from outside the buildings, although checks were also made inside each every 10 minutes; this was to detect any bats flying inside. Following the emergence survey, a continuous transect was wallked around the site to record foraging bats.

5.3 Local bat records

The SNH database was checked for bat records in the Friockham and Forfar areas. Other sources of information were Tayside Bat Group records and the author's own records of data accumulated from research projects and surveys carried out over twenty years.

6.0 Findings of the Survey

6.1 Daylight survey

6.1.1 Buildings. No roosting bats and no signs of bats were found in any of the buildings on the site. With single-skin, unclad brick walls, they contained no potential roost sites behind cladding, and the asbestos roofs had no sarking. The high building (granary) had no roof lining and the rest were low (wall top height around 2.5-3m), offering little in the way of roost potential. In these low buildings, although there was a space between the lining boards and the roofs, most of these boards had rotted away, leaving large, draughty spaces and much of the roofs exposed. The remaining spaces

between boards and roofs were generally unsuitable for bat roosts, offering insufficient shelter or concealment for use by bats. No bat droppings or staining were found in any of the buildings.

6.1.2 Trees. Trees around the buildings included sycamore, poplar and ash. Many of these were self-seeded saplings, and none had trunk diameter at 1m height of more than 0.25m. None contained holes or cavities usable by bats as roost sites, and no signs of bats were found. The only larger trees were two Norway spruce in the NW corner of the site (trunk diametere 0.35m, crown height 15m) and neither of these had deep holes or cavities. Thus, although the trees on the site would provide shelter for flying insects and thus provide foraging habitat for bats, there were no potential roost sites in trees. The access tracks leading to the site had a number of mature trees along them, mainly oak and beech, in particular two large beeches along the track leading east from the site; I understand these trees will not be affected by the proposed development. No signs of bats were found in these trees, but they did contain potential roost sites and should be re-surveyed if, in future, they need to be removed.

6.2 Dusk emergence survey

No bats emerged from anywhere in or around the buildings during the dusk survey. No bats flew inside the buildings, no pre-emergence bat noise was detected and no flying bats were detected until at least 20 minutes after the expected time of emergence; this confirmed that no bats roosted on the site. Similarly, there was no bat activity around any of the trees on the site until later in the evening. There was therefore no indication any bats roosted in trees or buildings on the site.

6.3 Bat foraging

Three individual bats foraged on the site during the dusk survey. All were pipistrelles, one 55kHz and two 45kHz. The first bat, a 55kHz pipistrelle, was first detected at 22.16 (36 minutes after sunset and 20-25 minutes after pipistrelles could be expected to emerge from roosts). It approached the site from the east, commuting along the east track, and foraged for 5 minutes over the corner of a wheat field and over the tree line along the track, before leaving and not returning. A second bat, a 45kHz pipistrelle, was detected five minutes later over the NE corner of the site. Feeding buzzes were detected as it foraged on a beat in this area. The third bat, another 45kHz pipistrelle, arrived on the site at 22.45 along the south track and foraged over the high building and the tree line along the track for ten minutes. No other bats were recorded, and no bats other than pipistrelles were detected.

6.4 Weather conditions

Weather on the night of the survey was suitable for bat activity. The following conditions were recorded:-

Ambient temperature at 21.15 = 13°C, at 23.00 = 8°C. Overhead conditions clear (cloud cover 0/8), light NE breeze. Flying insects were recorded on the site.

6.5 Local bat records

The following records of bats are known within 5km of Bolshan Farm:-

Pipistrelles. There are a number of records of both 45 and 55kHz pipistrelles locally, including a maternity roost of 55kHz pipistrelles in Friockham, a report of pipistrelles at Kinnell, numerous foraging records of pipistrelles in and around Montreathmont Forest and a 45kHz roost in Guthrie.

Brown long-eared bats. A maternity colony of this species is recorded in a roost at Farnell, and another at Arrat's Mill (6.5km).
Daubenton's bats have not been recorded within 5km, but there is a large colony at Balgavies Loch (10km), and also foraging records on the Lunan Water.

6.6 Owls and Nesting birds

One tawny owl was recorded flying inside one of the buildings before dusk. There was no sign of a nest, and only one bird was present. Unlike barn owls, tawny owls more commonly nest in tree holes, although single birds use buildings for shelter. Four swallows were observed foraging over the wheat field east of the site, and one swallows' nest was recorded in the smallest of the buildings; this was not currently occupied, but swallows are nesting late this year and they could yet return to it. A pair of chaffinches was recorded and are probably nesting in a tree or bush on the site.

6.7 Other Protected Species

No signs were found of red squirrels, and the site was not considered suitable for them, being too isolated from extensive coniferous woodland. It was too far from water to be relevant for otters and not relevant for other protected species.

7.0 Conclusions

7.1 No roosting bats and no signs of bats were found anywhere in or around buildings or trees on the site of the proposed wind turbine. I could find no evidence bats roosted on the site.
7.2 In view of the above, no licences in respect of bats will be needed before work begins.
7.3 The area around the turbine site was used as foraging habitat by pipistrelles (45 and 55kHz sprecies) in very small numbers. Single bats commuted to the site from roosts elsewhere and foraged around the trees and buildings for short periods of time before moving on.
7.4. A single tawny owl roosted in the buildings. There was no sign of a nest. Swallows foraged on the site and have nested in the buildings in the past. A pair of chaffinches nested on the site.
7.5 No protected species other than bats and nesting birds were present.

8.0 Impact assessment

Since no bat roosts were identified in buildings or trees, no roosts will be lost. The effects of single wind turbines on bat foraging habitats are not currently clear, since the technology is relatively new and research is continuing. So far, no mass deaths of bats such as are known from large wind farm sites in Europe and the USA have been reported in Britain. At large sites in these countries, many of the bat deaths have been shown to be caused by barotrauma – bats drown in their own blood when they fly into massive air pressure changes around moving turbine blades. Microturbines and single farm turbines do not have this effect, but sometimes cause bats to avoid previously used habitats. In this case, because the number of bats using the site for foraging is very low and there is extensive alternative habitat available locally, the significance of impact on populations locally will be very low. Pipistrelles are adaptive in their foraging habits and, if deterred by the turbine, will use alternative sites in the area. The birds on the site are unlikely to be affected by the proposed installation.

Plate 1. Buildings on the site were essentially unsuitable for bat roosting. The high ganary had no roof lining and no wall cladding and thus no potential roost sites. Other buildings were low, in very poor condition and with very few suitable roost sites. Trees were mainly small, with no cavities usable by bats.

8. Landscape and Visual Impact Assessment

8.1 Introduction

This Landscape and Visual Impact Assessment (LVIA) considers the potential effects that the proposed Bolshan Farm Renewables Project would have on the landscape and visual resource around the development site. This LVIA focuses on a defined study area with the aim of arriving at an assessment of the 'significance' of the effects on that study area. This LVIA should be read together with the volume of figures *'Bolshan Farm Renewables Project, Landscape and Visual Impact Assessment (LVIA) Figures (April 2015)',* provided with this Environmental Report.

The assessment presented here uses established landscape and visual impact assessment methodology which relies upon a systematic analysis of verifiable facts about the landscape, the proposal, and those who would observe it. The methodology applied is set out in the appendix to this chapter.

This LVIA concludes that the Bolshan Farm Renewables Project is acceptable in terms of its effect on the landscape and visual environment, that the design of the proposal has been carefully considered, and the location is appropriate. Photomontages and other images, together with the written assessment demonstrate how this conclusion has been reached

8.2 Policy and Regulatory Context

LVIA Approach

This LVIA has been prepared in accordance with the relevant policy, and guidance documents; some of which are detailed in the list below. This framework of documents gives the impetus for the LVIA, legitimacy to the methodology applied, and ensures the methodology is consistent with studies completed for other wind energy proposals.

Guidance and Research

- *'Visual Representation of Windfarms.',* Scottish Natural Heritage (Dec 2014).
- '*Assessing the impact of small-scale wind energy proposals on the natural heritage.*', Scottish Natural Heritage (June, 2014).
- *'Onshore Wind Turbines',* Online Planning Advice, Scottish Government (revised 28 May, 2014).
- *'Strategic Landscape Capacity Assessment for Wind Energy in Angus',* Prepared for SNH by Ironside Farrar (March 2014).
- *'Guidelines for Landscape and Visual Impact Assessment'* published by the Institute of Environmental Management and Assessment and the Landscape Institute (3rd edition, 2013). Referred to as 'the GLVIA'.
- *'Implementation Guide for Renewable Energy Proposals'*, Angus Council (approved June 2012)
- *'Assessing the Cumulative Impact of Onshore Wind Energy Developments',* Scottish Natural Heritage, (March 2012*).*
- *'Photography and Photomontage in Landscape and Visual Impact Assessment, Landscape Institute Advice Note 01/11'*, Landscape Institute (2011).
- *'Siting and Designing Windfarms in the Landscape, Version 1',* Scottish Natural Heritage (Dec 2009).

Policy

- Scottish Planning Policy (23 June, 2014)
- TAYplan – Strategic Development Plan (Approved June 2012)
- Angus Local Plan Review (Adopted 2009)

8.3 Terminology

In accordance with the GLVIA Guidance, this report has been prepared using the terminology commonly employed in the presentation of an LVIA. This ensures that the LVIA is accessible to other practitioners in the field and the assessment is comparable to that undertaken in other LVIA. Where possible, plain English has been used to make the assessment more comprehensible to all readers, and to avoid introducing opaque or ambiguous concepts that make the assessment more difficult to read.

'Significance'

'Significance' within this LVIA is stated as being along a scale ranging from 'negligible' to 'high' significance and is derived by combining 'sensitivity' and 'magnitude' ratings.

For the purposes of this LVIA the various thresholds of 'significance' mentioned in the methodology given should not be confused with 'significant effects on the environment' as stated in the EIA regulations. Nor should a particular level of 'significance' be considered to indicate acceptability or otherwise of the proposal under a particular development plan policy. Such an assessment requires a more rounded consideration of the proposal.

'Effect' and 'Impact'

The terms 'effect' and 'impact' have been used interchangeably, for instance when discussing 'landscape impact', 'landscape effects', 'visual impacts', and 'visual effects'. Interchanging between the two arises because assessments such as this are generally called 'Landscape and Visual Impact Assessments', but the term 'impact' is pejorative. Hence the more neutral 'effect' is more commonly used in the analysis and this is common LVIA practice.

8.4 Aesthetic Judgements and Public Opinion

The assessment presented in this LVIA is designed to avoid subjective judgements on the aesthetic value of the wind turbine. However it must be recognised that the experience someone has when viewing a landscape is deeply influenced by the subjective ideas they bring to that experience. For example the person's values, ideals, and concept of what makes a rural landscape worthy of aesthetic appreciation, will all shape their experience of viewing the proposed wind energy development. Some people may appreciate wind turbines as signs of admirable sustainable ideals; others may not share this point of view. Conclusions as to the significance of effect on a landscape or viewpoint should not be interpreted as positive or negative aesthetic judgements. This applies both when there is a low significance of impact, and when impact is high. Because of such issues it is difficult, or perhaps impossible, to judge wind turbines simply in visual and landscape terms, without informing these judgements with an awareness of the need for such developments.

An independent survey, carried out by MORI on behalf of Cardiff University[81], found that members of the public are generally supportive of wind farms within 5 miles of their homes: *'most respondents (73%) would tend to support or strongly support the building of a new wind farm within 5 miles of their home'*[82], interestingly this survey also asked respondents whether they would support new coal or nuclear generation within 5 miles of their home, to which they were overwhelmingly more negative. A more recent poll, conducted by YouGov, on behalf of Scottish Renewables, sampled the opinion of 1,008 Scottish adults. This survey asked 'to what extent do you agree or disagree with the following statement. "I support the continuing development of wind power as part of a mix of renewable and conventional forms of electricity generation"'. 71% of the responses agreed with this statement[83], which is an increase of 7% on the 2013 result. While wind turbines can be locally contentious, the application for the Hunterston coal fuelled power station which was eventually withdrawn in 2012 received 20,000 objections. The public are far more supportive of renewable energy and understand its benefits. This support feeds through into judgements about the acceptability of landscape change.

[81] '*Public Perceptions of Climate Change and Energy Futures in Britain',* Spence et al, Cardiff University, March 2010.

[82] Spence, A., Venables, D., Pidgeon, N., Poortinga, W. and Demski, C. (2010) *'Public Perceptions of Climate Change and Energy Futures in Britain, Summary Findings of a Survey Conducted from January to March 2010',* Cardiff: School of Psychology.

[83] Article and Poll results can be accessed via: http://www.scottishrenewables.com/news/number-scots-backing-wind-power-increases/

8.5 Landscape Effects of Climate Change

It is important to understand that climate change will alter the landscape, just as measures to mitigate climate change will too.

SNH, reporting the findings of research they commissioned into the effects of climate change on Scottish landscapes state the following on their website:

> *"Climate change could result in extensive landscape change across Scotland."*

The research report[84] mentions the following direct changes that may be caused by climate change:

- Coastal flooding and loss of low lying areas
- River flooding and erosion
- Habitats and species moving north
- Changing snowfall pattern
- Changes to agricultural practices and crops

While photomontages are provided with this LVIA to show the change caused by the construction of wind turbines, photomontages are also being used elsewhere to highlight how landscapes might be altered as a direct result of climate change[85].

Changes to the landscape caused by the construction and operation of renewable energy systems can be weighed against the likely landscape effects of climate change. Globally and in the longer term, there is a choice between landscapes in which renewable energy is generated, or landscapes altered by climate change. Both outcomes will result in changes to the landscape.

8.6 Site Selection at Feasibility Stage

The actual desirable separation distance between dwellings and wind turbines will be dependent on a range of factors including the size and number of wind turbines, topography, safety issues, noise, shadow flicker and shadow throw. The separation distances to nearby dwellings are the first consideration when any turbine layout is designed by The Greenspan Agency. This ensures that visual amenity is considered from the very earliest stages of site design and feasibility.

8.7 Previous Wind Turbine Designs at Bolshan

A detailed account of how a previous planning application for a wind turbine at Bolshan Farm (13/00887/FULL) has informed the design now put forward is given in Chapter 3 of this report. Also set out in that Chapter are details of how the views of the Council's Countryside Officer, and planning officer James Wright, have been taken into account. Mr Wright set out these views in an email to the previous agent A. Craig dated 30 June 2014. In that email he discusses a previous design iteration, with a different turbine position. To summarise, landscape and visual benefits of the new turbine position and turbine design which have a direct bearing on matters raised in that email are as follows:

- The proportions of the turbine are more favourable. The proposed Enercon E48 uses a 48m blade diameter and a 55m tower. This provides a balanced turbine with aesthetically pleasing proportions. The proposed turbine model is also known for its elegant curved profile (please refer to the turbine photo in Figure 2) and the elevation drawings provided separately with this planning application.

[84] Land Use Consultants (2010) *An assessment of the impacts of climate change on Scottish landscapes and their contribution to quality of life: Phase 1 - Interim report*. Scottish Natural Heritage Commissioned Report No. 343.
[85] Stephen R.J. Sheppard, '*Landscape visualisation and climate change: the potential for influencing perceptions and behaviour'*, Environmental Science & Policy 8 (2005) 637–654.

- The new turbine position provides greater separation distances to nearby dwellings (623m instead of 478m[86], giving a 145m increase in separation distance to the nearest dwelling). The new separation distance is significantly in excess of the 500m distance mentioned by the planning officer in his email of 30 June 2014.
- The turbine has been moved down from the ridgeline.
- With the new turbine model the turbine blade will be 31m from the ground at its lowest point. This avoids the comparison with trees in the area. There are also fewer trees adjacent to the new turbine position.

Please refer to the full discussion in Chapter 3 of this report for further details.

8.8 Description of the Proposed Development and Mitigation

Detailed specifications for the proposal are given in the remainder of this Environmental Report. However it is important to give an account here with particular emphasis on the visible elements of the proposal and how landscape and visual impact has been mitigated through the design process.

Turbine design and site layout have been carefully considered to minimise landscape and visual impacts while delivering clean energy.

Turbine

The wind turbine would be the most visible part of the proposal. Planning permission is sought for one turbine located at grid reference NO 61507 52652. It would have a 55.6 metre hub height, a rotor diameter of 48 metres and a tip height of 79.6m. The tower will be solid and taper slightly, getting narrower with height. The turbine would be painted off-white and matt paint would be used to reduce the reflection of sunlight. The colour of the turbines would accord with the design advice commonly given in council supplementary guidance.

Although wind turbines are tall structures, they are also slender and may present less surface area to the viewer than large agricultural buildings or groups of houses commonly found in the landscape in Angus.

The height and movement of the wind turbine means it is the most important aspect of the proposal in visual terms (when compared with other supporting infrastructure such as the access track). This LVIA focuses on the predicted landscape and visual effects of the wind turbine. Statements given about the landscape and visual impact of the proposal should be read as references to the turbine, rather than the supporting infrastructure, unless specified otherwise.

Other Infrastructure

Some supporting infrastructure will be needed, including the following:

- The access track, which will be formed from the upgrading of an existing track and will be around 290m in length, will run across relatively flat ground and will not be widely visible from outwith the site. Access tracks for wind turbines have a greater visual impact if they are lengthy, or if they climb or traverse steep elevated slopes. There should be no problems of this nature at this site.
- The turbine foundation will not be visible after construction as it will be covered with excavated material.

Mitigation Through Design

Mitigation of landscape and visual impact is not possible after construction and during the operation of this type of development, so the design process has been the principle means by which the potential landscape and visual effects of the proposal have been mitigated.

[86] The distance to the nearest property at Doonbye was stated as 495.6 in the original noise assessment carried out by the previous agent but has been measured at 478m to the nearest façade by The Greenspan Agency using goreferenced 1:10,000 OS map data.

Turbine Size

Wind turbines tend to be large structures fundamentally because of the low density of air and the large area from which it is necessary to harness the wind. The turbine model being considered would have a tip height of 79.6m and a rated capacity of 500kW. This allows a meaningful amount of clean renewable energy to be produced while making the project viable in terms of balancing the financial benefits and required capital expenditure, taking into account the goal of diversifying farm income.

Turbines of 93m (for example, at Tealing Airfield, near Dundee) and 125m are commonly found in large wind energy developments throughout Scotland. Relatively speaking the Bolshan Farm turbine is modest in size, providing a compromise appropriate to the landscape and visual setting.

Turbine Model

The intended turbine model is specifically suited to the higher wind speeds found at this site. It delivers a great deal of power generation for the swept area of its blades. This is an important point because it means that progress can be made towards Scottish Government renewable energy generation targets which are re-iterated in the Angus Local Plan Review while minimising cumulative effects. Page 93 states that "major investment in commercial renewable energy production and distribution capacity throughout Scotland" is required to meet Scotland's renewable energy targets. More wind turbines will be needed in total if windy sites like Bolshan Farm are not utilised.

Duration of Effects

The lifespan of the project is 25 years. After this time the turbine is expected to be removed and the site re-instated. The only remaining part of the development would be the underground turbine foundation.

8.9 Defining the Study Area

The radii used to define the study area for this LVIA were based on SNH guidance and recent experience of consultee requirements for other similar developments. **A core radius of 20km has been used to define the study area for this LVIA**. This corresponds with the radius recommended for turbines of the relevant size in SNH's guidance 'Assessing the impact of small-scale wind energy proposals on the natural heritage', (June 2014).

8.10 Landscape Assessment

This landscape assessment considers the likely effects on the landscape caused by the Bolshan Farm Renewables Project.

Local Development Plan

Pages 94 – 97 of the Angus Local Plan Review (Adopted 2009) discuss requirements for the siting of wind energy developments and set out a landscape policy for wind turbines based on SNH landscape character areas and three different geographical areas within Angus. The Bolshan site is placed within geographic area number 2, 'Lowland and Hills'. According to the Local Plan Review this is the preferred location for wind energy development within Angus. When combined with the suitability of the area identified in the relevant capacity assessment, and Angus Council's Implementation Guide for Renewable Energy (fully detailed below) this points to an overwhelming consensus within the development plan, and documents which are material considerations, that this is a one of the most appropriate locations in Angus for a wind turbine of the scale proposed.

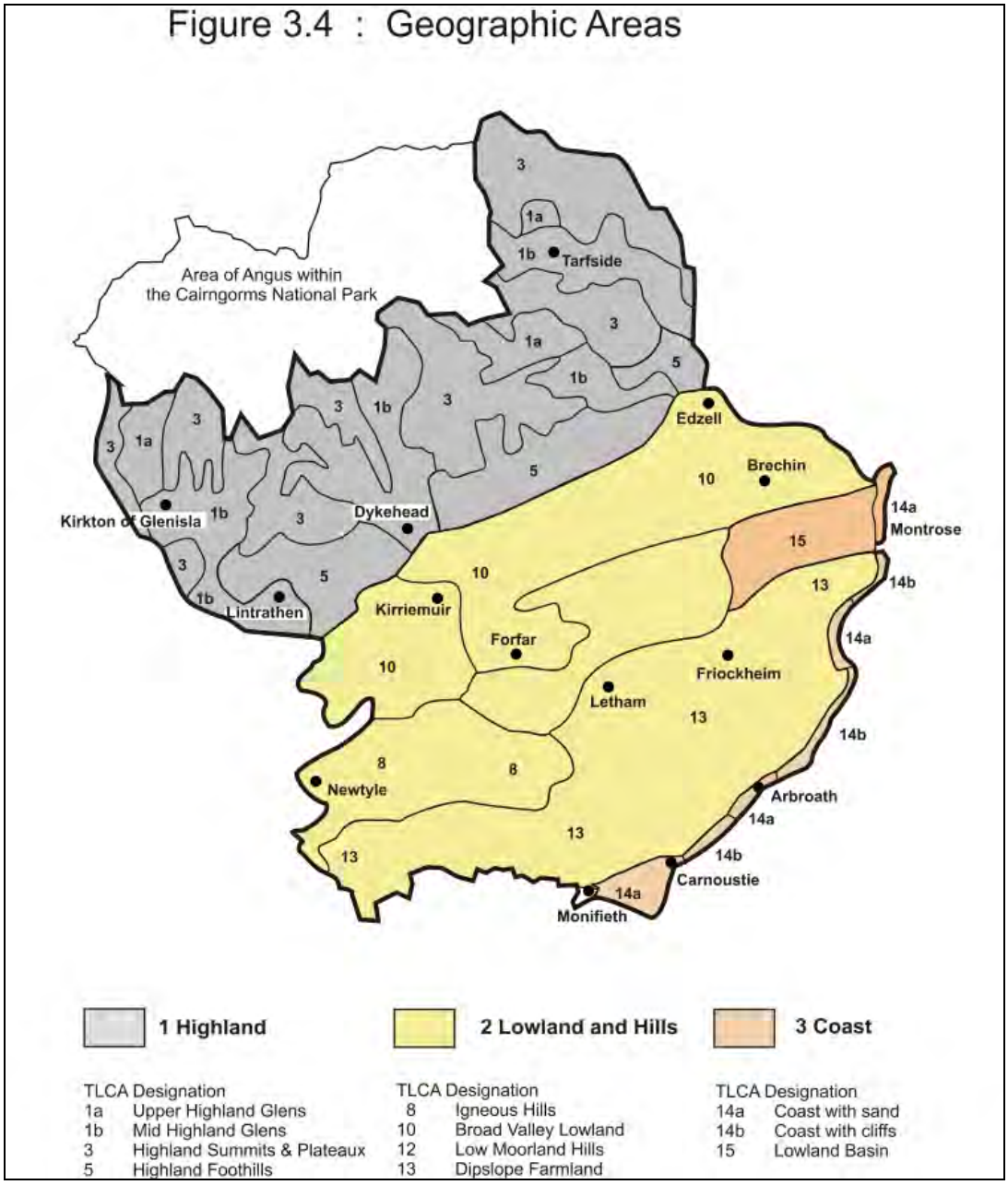


Figure 10 - Figure 3.4, page 95 'Angus Local Plan Review'

Site and Immediate Surroundings

The turbine base would be located at an elevation of 65m, on the lower eastern slopes of Wuddy Law, a low hill which rises to 132m. From a distance the hill is a gentle and low topographic feature from most directions.

Roads encircle Wuddy Law at around 75 to 105 metres elevation, isolating the hill itself. The area within these roads measures approximately 3.9km north to south-west and 2.7km north-west to south-east; an area of around 538 hectares.

The site is currently in use as an agricultural field. Aside from the agricultural land use, there are no notable landscape features within the application red-line boundary.

The scale of the agricultural land-use pattern and the abundance of space, provide an immediate landscape setting that is able to accommodate the proposed turbine.

Nearest properties

Sufficient separation distances are provided to the nearest properties. This abundance of space was key to the site's selection. Further details are given in the visual assessment below.

Study Area

The majority of the core landscape assessment study area, which extends to 20km, is within Angus Council's administrative boundary. The far north-east of the 20km area is within Aberdeenshire. Landscape character varies, and many landscape character areas have been identified by SNH within this 20km radius. According to the policy documents informing this study as noted in Section 8.2, the Dipslope Farmland character type in which the turbine is proposed is considered an appropriate land-area for wind energy development.

Zone of Theoretical Visibility Diagrams

The Zone of Theoretical Visibility diagrams (ZTVs) presented in Figures A1 to A5 of the volume of LVIA figures are key tools for understanding the magnitude of landscape effects and are referred to throughout this section. These ZTVs are produced by combining an Ordnance Survey digital terrain model with specifications for a turbine of 79.6m tip height, the resulting maps are then generated automatically by industry standard computer software and reveal areas from which the development is visible in theory.

The ZTVs presented here differentiate between complete and partial views of the turbine. Please refer to the text on the figures.

ZTVs are informative but tend to over-state the landscape impacts of wind energy developments. The ZTVs presented here have been adapted to take into account screening from large blocks of trees but do not show screening from buildings, hedgerows, or other smaller wooded areas, which are present extensively throughout the surrounding landscape. In addition, they assume perfectly clear visibility. Also, the presence of a myriad of other features (hills, roads, buildings, forests, vehicles etc) is played down. Many of these other features will be much closer to a receptor, or more fundamental to the experience of the landscape, but are not themselves represented in the ZTV. **Because of these factors, the ZTVs are likely to overstate the visibility and impact of the proposed wind turbine.**

Baseline Study

In preparing this LVIA an understanding of landscape character was acquired through desk-based research and field trips.

Zones for Landscape Assessment

It was necessary to break down the study area in order to carry out the landscape assessment and help understand the range and type of landscapes within 20km of Bolshan Farm. The study area is covered by two Scottish Natural Heritage landscape character assessments:

- No 122, 'Tayside Landscape Character Assessment', prepared by Land Use Consultants for SNH (1999).
- No 102, 'South and Central Aberdeenshire: Landscape Character Assessment', prepared by Environmental Resources Management for SNH (1998).

SNH Landscape Character Types beyond 10km, although included in the original scoping study area, have been excluded from subsequent more detailed assessment. One turbine of the size proposed would be very unlikely to have any notable landscape impacts on Landscape Character Types outwith a 10km radius.

Table 7 lists the Landscape Character Types within a 10km radius as defined in landscape character area assessment 'No 122, 'Tayside Landscape Character Assessment', prepared by Land Use Consultants for SNH (1999).

The table identifies those types which will clearly experience effects of a very negligible magnitude which can be excluded from the assessment without being considered in further detail. In this way the table helps select those Landscape Character Types for which a more detailed assessment will be presented.

The Landscape Character Types referred to are shown in the following figures included within the separate volume of LVIA figures:

- A4 – Scottish Natural Heritage Landscape Character Types, Zone of Theoretical Visibility, 10km Radius
- A5 – Index Map, Scottish Natural Heritage Landscape Character Types

The boundaries of each Landscape Character Type are specified in SNH shapefile GIS data which has been used to create these figures.

The Cairngorms National Park lies outwith the 20km study area.

There are no National Scenic Areas within 20km of the proposed turbine location.

Assessment of Sensitivity, Magnitude and Significance of Effect

The following pages assess the impact on the SNH Character Types noted above as meriting more detailed landscape assessment. In carrying out this assessment reference has been made to site visits, photographs, field notes, the relevant SNH landscape character assessments and ZTV Figures A1 to A5. The methodology set out in LVIA Appendix 1: LVIA Methodology (included at the bottom of this chapter), and the criteria set out in the tables in that appendix, have been used to determine levels of sensitivity and magnitude. For the reasons given in above, a 10km radius is focused upon.

In some instances a range of different magnitude, sensitivity or significance ratings may have been thought appropriate, with the word 'to' inserted in between. For instance a landscape Character Type may experience a 'High to Medium' impact because different parts of the area are closer or further from the proposal.

In other instances a magnitude, sensitivity or significance may be judged to be between two different ratings. This is represented by the insertion of an oblique between the two ratings, e.g. 'High/Medium'.

Table 7: SNH landscape Character Types within 10km

Landscape Character Type as numbered on Figure A5	*SNH Landscape Character Type*	*SNH Regional Character Area*	*Distance from Bolshan Farm Turbine at closest point (km)*	*Distance from Bolshan Farm Turbine at furthest point (km)*	*Impacts of negligible magnitude indicated on Figures A4 and A5 – No further assessment required*	*Selected for further assessment? See landscape assessment tables below.*
1	**Dipslope Farmland**	**Tayside Lowlands**	Turbine within this zone	Extends beyond 10 km radius.		✓
2	**Lowland Basins**	**Tayside Lowlands**	0.18	Extends beyond 10 km radius.		✓
3	**Low Moorland Hills**	**Tayside Lowlands**	0.62	Extends beyond 10 km radius.		✓
4	**Broad Valley Lowland**	**Tayside Lowlands**	6.35	Extends beyond 10 km radius.	✓	
5	**Coast with Sand**	**Tayside Lowlands**	6.91	Extends beyond 10 km radius.	✓	

Landscape Assessment Tables

Scottish Natural Heritage Landscape Character Assessment Zones

Table 8: Landscape Assessment. SNH Landscape Character Type: Dipslope Farmland

Number on Figure A5: 1
Distance from turbine at closest point: Turbine within this zone

Assessment of landscape sensitivity:

Description

This is an extensive area which lies between the steep slopes of the Lowland Loch Basin, the Low Moorland Hills and the coastal landscape areas.
Land use is predominantly agricultural with a network of generally small-scale roads. The larger roads A933, A92 and A90 run through the area connecting settlements nearer the coast.
The slopes range in height from 50m near the coastal strip to 180m in the north-west.
The landscape character is relatively coherent and balanced without degradation.
The Ironside Farrar Capacity Study[87] defines a landscape character sub-area within the Dipslope Farmland as the 'Rossie Moor' sub-area and the wind turbine is located within this sub-area. The landscape is heavily managed and not natural. It is intensively farmed with areas of low woodland interspersed throughout, field sizes range from medium to large.

Assessment

The Angus Council Renewables Implementation Guide[88] concludes that the Dipslope Farmland landscape character type is *'considered to have scope for turbines circa 80m in height'*[89].
The Rossie Moor sub-area has been identified as less sensitive to wind energy developments and the Ironside Farrar Capacity Study states: *"Due to its openness and productive farmland character the sub-area would be less sensitive to wind energy developments"* [90] The detailed table on page 67 of that document also explains that there is 'medium capacity' for turbines up to just-under 80m in height within the Rossie Moor sub-area in which the proposed turbine is located[91].
There is therefore a consensus that this one of the best areas in Angus for a turbine of the size proposed.
There is a variety of land uses, agriculture, forestry, roads, farm buildings, settlements etc. This variety would prevent wind turbine development from standing out as an isolated feature.

Landscape sensitivity is considered to be: Medium/Low

Assessment of magnitude:

This is a large character type. Around half of the area within the 10km radius is highlighted in ZTV Figure A4 with more substantial highlighting on the ZTV figure shown south-west of Friockheim and areas surrounding the A933.
It is worth noting that ZTV figures typically over-represent the importance of a wind turbine in the landscape. Experience of operational turbines has shown that the turbine's presence within the landscape diminishes quickly with distance. As distance increases, not only does the turbine take up less of an observer's field of view, but the landscape within which it is set effectively expands and the turbine is situated amongst a broad range of sizable landscape features.
In this case it also should be noted that the turbine is among the smallest 'commercial' sized turbines available, with just a 48m diameter.

Magnitude of change to this landscape character area caused by the turbine is considered to be:
High to Medium, between 0 and 0.5km from the turbine,
Medium to Low, 0.5-1.5km
Negligible to None, 1.5km - edge of landscape character type or where the turbine cannot be seen.

Significance of landscape effect:
High to Medium, between 0 and 0.5km from the turbine,
Medium to Low, 0.5-1.5km
Negligible to None, 1.5km - edge of landscape character type or where the turbine cannot be seen.
Note that this is a large landscape character type and the effect on it as a whole is expected to be very negligible.

[87] '*Strategic Landscape Capacity Assessment for Wind Energy in Angus*.' Prepared for SNH by Ironside Farrar, March 2014.
[88] *'Implementation Guide for Renewable Energy Proposals'*, Angus Council (approved June 2012)
[89] Page 48, *'Implementation Guide for Renewable Energy Proposals'*, Angus Council (approved June 2012)
[90] Page17 '*Strategic Landscape Capacity Assessment for Wind Energy in Angus*.' Prepared for SNH by Ironside Farrar, March 2014
[91] Page 67 '*Strategic Landscape Capacity Assessment for Wind Energy in Angus*.' Prepared for SNH by Ironside Farrar, March 2014

Table 9: Landscape Assessment. SNH Landscape Character Type: Lowland Basins

Number on Figure A5: 2 **Distance from turbine at closest point:** 0.18
Assessment of landscape sensitivity: **Description** *"The overall impression is of a very broad, shallow basin within which, particularly at the eastern end, water and sky, together with the enclosing hills are the dominant landscape element."*[92] The most prominent features of the area of character type which is within the 10km study radius is the Montrose Basin (a designated SSSI). This is an estuary enclosed by harder volcanic rocks to the north and south and cut off from the sea by the spit of land where Montrose is located. Proximity to the coast has resulted in the mudflats surrounding the basin being significant in terms of nature conservation interest. Land use of the character type is a mix of agriculture and conservation in the form of Kinnaird Deer Park located to the west of the area. The roads A935 and A934 run through the area connecting Montrose to neighbouring settlements, most of the smaller settlements in the character type are located along these roads. The part of this landscape character type closest to the proposed wind turbine differs markedly in character from the Montrose Basin, which is the character type's key feature, and is around 8km away. **Assessment** The sensitivity of the area is not uniform and the key sensitive landscape features, such as the coast and the Montrose Basin are about 12 and 8km respectively from the proposed turbine at Bolshan Farm. **Landscape sensitivity is considered to be:** Medium/Low, rising to High/Medium near the Montrose Basin.
Assessment of magnitude: Within 10km of the turbine perhaps around a third of the landscape character area within the study area would experience frequent views of the turbine, according to the ZTV figure A4. Montrose Basin, which is more sensitive, is not expected to be significantly impacted due to screening from large areas of woodland and the terrain. Areas highlighted in ZTV Figure 4 as experiencing views of the turbine tower are expected to occur largely occur within 0 - 2.5km and between 7.5km and 10km. **Magnitude of change to this landscape character area caused by the turbine is considered to be:** High to Medium, between 0.18 and 0.5km from the turbine Medium to Low, 0.5-1.5km Negligible to None, 1.5km - edge of landscape character type or where the turbine cannot be seen.
Significance of landscape effect: High to Medium, between 0.18 and 0.5km from the turbine, Medium to Low, 0.5-1.5km Negligible to None, 1.5km - edge of landscape character type or where the turbine cannot be seen.

[92] Page236, '*No 122 Tayside landscape character assessment*', prepared by Land Use Consultants for SNH (1999).

Table 10: Landscape Assessment. SNH Landscape Character Type: Low Moorland Hills

Number on Figure A5: 3 **Distance from turbine at closest point:** 0.62
Assessment of landscape sensitivity: **Description** The Low Moorland Hills character type can be defined as a series of "ridge-like hills with sharply defined northern edge and gentler eastern slopes" rising from 200 to 250 metres above sea level.[93] The prominent features of the character type are the continuous area around Montreathmont Moor overlooking Forfar and the smoother, isolated hills such as Dunnichen Hill and Fothringham Hill, only the Montreathmont Moor feature is within the 10km study area. Settlements within the character type take form of scattered farmsteads rather than any village having been established. The designated SSSI 'Rescobie and Balgavies Lochs' partially lies within the 10km radius study area on the far west outer reaches. **Assessment** The Montreathmont Moor, although being an elevated area of upland is extensively covered by coniferous woodland and as such the minor network of roads and paths within this area are not expected to have views of the proposed turbine. Generally, the agricultural practices range from arable to grazing highlighting the poorer soil quality found in the area. Telecommunication masts and pylons are also a common sight throughout the area. The Angus Council Implementation Guide for Renewable Energy[94] sets out that this area is considered appropriate for some wind turbines up to 80m in height, dependent upon site specifics: "Considered to have scope for turbines circa 80m in height which do not disrupt the principle ridgelines or adversely affect the setting of important landscape features …"[95] **Landscape sensitivity is considered to be:** Medium/Low
Assessment of magnitude: The turbine is not in this area and there will be no direct effect on this landscape. Less than half of the character area within the 10km study radius is highlighted in ZTV Figure 4, most of the highlighted areas which are expected to see at least the tower of the turbine lie between 2.5km and 5km. At this distance the turbine would not play an invasive role in the experience of landscape. **Magnitude of change to this landscape character area caused by the turbine is considered to be:** Medium to Low, 0.62-1.5km Negligible to None, 1.5km - edge of landscape character type or where the turbine cannot be seen.
Significance of landscape effect: Medium to Low from 0.62km to around 1.5km Negligible or less from around 1.5km, falling to none towards the edge of landscape character area or where the turbine cannot be seen.

[93] Page211 '*No 122 Tayside landscape character assessment'*, prepared by Land Use Consultants for SNH (1999).
[94] '*Implementation Guide for Renewable Energy Proposals'*, Angus Council (approved June 2012)
[95] Page 48, '*Implementation Guide for Renewable Energy Proposals'*, Angus Council (approved June 2012)

Landscape Assessment Summary

The following tables present a complete summary of the findings of the above landscape assessment for the 20km study area.

Table 11: Landscape Assessment Summary

Landscape Character Type Number on Figure A5	***SNH Landscape Character Type***	***Distance from Bolshan Farm turbine at closest point (km)***	***Detailed Assessment Required and carried out in tables above?***	***Significance of Landscape Effects***
1	Dipslope Farmland	Turbine within this zone	✓	High to Medium, 0 - 0.5km Medium to Low, 0.5-1.5km Negligible to None, 1.5km - edge of landscape character type or where the turbine cannot be seen.
2	Lowland Basins	0.18	✓	High/Medium 0.18km - 0.5km Medium/Low 0.5km - 1.5km Negligible to none from around 1.5km, falling to none towards the edge of landscape character area or where the turbine cannot be seen.
3	Low Moorland Hills	0.62	✓	Medium to Low 0.62km - 1.5km Negligible or less from around 1.5km, falling to none towards the edge of landscape character area or where the turbine cannot be seen
4	Broad Valley Lowland	6.35	×	Very Negligible
5	Coast with Sand	6.91	×	Very Negligible
n/a	Assorted landscape character types	Beyond 10km	×	All Landscape Character Types beyond 10km from the proposed turbine were assessed as experiencing effects of negligible significance or no effect at all.

Landscape Assessment Conclusions

The scale of the agricultural land-use pattern and the abundance of space, provide an immediate landscape setting that is able to accommodate the proposed turbine. The area of the lower slopes of Wuddy Law hill provides a coherent and spacious setting for the wind turbine.

The site is not within a designated landscape. There are no National Scenic Areas or National Parks within the 20km study area.

The Angus Council Renewables Implementation Guide[96] concludes that the 'Dipslope Farmland' landscape character type in which the proposed turbine is located is *'considered to have scope for turbines circa 80m in height'*[97].
The Ironside Farrar Capacity Study identifies sub-areas within the 'Dipslope Farmland'. According to this capacity study the proposed turbine is within the Rossie Moor sub-area which has been identified as less sensitive to wind energy developments. The Ironside Farrar Capacity Study states: *"Due to its openness and productive farmland character the sub-area would be less sensitive to wind energy developments"* [98] The detailed table on page 67 of this document also explains that there is 'medium capacity' for turbines up to just-under 80m in height within the Rossie Moor sub-area in which the proposed turbine is located[99].
There is therefore a consensus within relevant planning guidance documents that this one of the best areas in Angus for a turbine of the size proposed. The findings of the above landscape assessment also support this conclusion.

8.11 Visual Assessment

Landscape impact assessment and visual impact assessment are closely related, with visual impact assessment being a subset of landscape impact assessment[100]. Generally accepted practice for wind turbine analysis divides the two and focuses on the assessment of specific views in the 'visual' assessment through the production of photomontages.

The main section of this visual assessment involves the presentation and methodical assessment of photomontages showing how the Bolshan Farm turbine would look from 10 different viewpoints.

Viewpoint Selection

The viewpoints chosen for assessment were selected based on those used for the photomontage assessment of the previous turbine application for this site (13/00887/FULL). Subsequent review of these locations, supported by analysis of preliminary ZTVs, lead to the choice of viewpoints as specified in Table 12. The resulting list of viewpoints provide a clear understanding of the turbine's appearance and allow an informed analysis of the effects of the proposed development upon some of the most relevant visual receptors. Further photomontages can be provided for the planning authority upon request should they be required.

[96] *'Implementation Guide for Renewable Energy Proposals'*, Angus Council (approved June 2012)
[97] Page 48, *'Implementation Guide for Renewable Energy Proposals'*, Angus Council (approved June 2012)
[98] Page17 '*Strategic Landscape Capacity Assessment for Wind Energy in Angus*.' Prepared for SNH by Ironside Farrar, March 2014
[99] Page 67 '*Strategic Landscape Capacity Assessment for Wind Energy in Angus*.' Prepared for SNH by Ironside Farrar, March 2014
[100] Paragraph 1.3 of '*Visual Assessment of Windfarms: Best Practice*', University of Newcastle (2002), Scottish Natural Heritage Commissioned Report.

Figures B2 to B11 within the volume of LVIA figures which accompanies this Environmental Report (dated April 2015) contain photomontages and wireframes illustrating how the proposed development could appear once built. Figure B1 shows where the viewpoints are located and a list summarising the viewpoints is presented in the table below.

Table 12: Viewpoints for Visual Assessment

Figure Number	*Viewpoint*	*Distance from proposed turbine (m)*
B2	Junction on A934	977
B3	Pitmikie Crossroads	1,292
B4	A933/A934 Junction	1,526
B5	Wuddy Law Trig Point	1,537
B6	Kinnell Church	2,449
B7	Edge of Farnell	2,873
B8	Edge of Friockheim	3,314
B9	A933/B961 Legaston Junction	4,961
B10	A933 near Colliston Mill Cottage	6,932
B11	Layby on A935	8,332

Photomontages

It should be noted that although the photomontages have been prepared with great attention to detail, using advanced computer software and high quality photography, there are limitations to the images created. The images should be seen as tools for understanding how the view may change, rather than an exact replication of the experience of viewing the finished development from the specified viewpoint.

The computer program used takes into account the turbine model (exact hub height and blade length), the distance of the turbine from the viewpoint, the location of the viewpoint, topographical data, the position and brightness of the sun and other factors. Some factors, such as the size of the turbine within the view, are generated automatically by the program. Some other factors, such as how the photograph is aligned with the rendered turbine, must be done manually in a considered and methodical way. It should be noted that the experience of viewing a proposal once built is not easy to replicate on photomontages created prior to construction.

The key SNH documents providing guidance on creating photomontages is 'Visual Representation of Windfarms, Good Practice Guidance' (July 2014). But 'Assessing the impact of small-scale wind energy proposals on the natural heritage' (Version 2, June 2014) is also relevant here. The former document provides very extensive prescriptive guidance for photomontage figures but makes clear in paragraphs 6 and 7 that the standards set out there are a requirement only for EIA projects. The small-scale wind energy guidance explains on page 2 that 'small scale' wind includes proposals for up to 3 turbines, "even when the turbines themselves might be quite large"[101]. As such the requirements of the guidance for 'small-scale' schemes applies to this non-EIA project for one wind turbine, and the more exacting requirements set out in 'Visual Representation of Windfarms, Good Practice Guidance' do not.

This LVIA has taken a balanced approach informed by the SNH guidance, The Greenspan Agency's own experience of preparing many such assessments and the LVIA methodologies as used by other consultancies accompanying assessments for wind energy developments.

For this project a 68 degree included angle (field of view) has been used for all photomontages. 68 degree photomontages allow the viewer to appreciate the context of the rendered turbine and give a good balance between wider views (which make the turbine look smaller while placing it within the wider context) and narrower views (which make the turbine look bigger but remove the context). Maintaining a consistent 68 degree field of view throughout the LVIA simplifies the reader's task of interpreting the images.

The panoramic photos used for the background image were originally composed of several images taken with a Nikon D700 digital SLR camera with a full frame sensor. The images were then digitally stitched together to create panoramas

[101] SNH *'Assessing the impact of small-scale wind energy proposals on the natural heritage'*, Version 2, June 2014.

with a 68 degree field of view. The photomontages presented for this LVIA ought to be viewed at a distance of 340mm when printed at A3 size, replicating a 68 degree field of view.

Turbine Visibility

When the photos were taken the exact position of the viewpoint was chosen to maximise views of the turbine. Several photosets were taken from slightly different positions, with the clearest views of the turbine presented in the final figures. Picking viewpoints with clear views of the turbine can give a biased impression of how visible the turbine would be from locations within the study area. It is important to understand that screening from topography, vegetation, buildings etc. will usually obscure views of the turbine if an individual is to face in the direction of the turbine when at a random location within the 20km study area.

Visual Assessment Tables

The visual assessment tables below deal with each of the viewpoints in turn. The tables present an assessment of sensitivity, magnitude, and significance of effect; these are derived using the methodology set out in the Methodology appendix and the end of this LVIA. The **magnitude** of change to the view is combined with its **sensitivity** using the matrix in the appendix. In this way a conclusion as to the overall level of effect and the **'significance'** of this effect is derived.

Table 13: Visual Assessment, Junction on A934

Photomontage Figure Number: B2 **Distance to Bolshan Farm Turbine:** 977m
Reason for Selection: Nearest 'A934' road junction expected to have a clear view of the turbine providing an indicative view from local road network.
Assessment of sensitivity: With reference to Table 34: Criteria for Assessing Visual Sensitivity 'road users' are usually considered receptors of 'low' sensitivity. It should be noted that Figure 11 (below) provides a more indicative view of the junction and surrounding vegetation. Subsequent analysis and photomontage composition revealed that from this position the turbine site would be obscured by the tree in the foreground. As this assessment aims to provide a 'worst case scenario', with a clear view of the turbine, the alternative position was selected for viewpoint assessment. This viewpoint helps illustrate the gently sloping character of the agricultural landscape surrounding the proposed turbine. Deciduous trees grow along the boundaries of these fields, this can be seen in Figure 11 and has been considered in the assessment of magnitude below. The view is not especially well composed or exciting, but is pleasant none-the-less. **The sensitivity of this viewpoint is considered to be:** Medium/Low
Assessment of magnitude: Due to its proximity, the turbine is prominent in this view. The lines of trees found along field boundaries provide intermittent screening for road users restricts views toward the turbine. The view as demonstrated in Figure B2 would be experienced very fleetingly by road users through spaces in the trees. Visual composition would be changed; however the turbine does not obstruct an existing view within the landscape. The agricultural fields have a more immediate relevance to the character of the view, but the wind turbine is certainly a clearly visible and interesting addition. **Magnitude of change to the existing view is considered to be:** High/Medium
Significance of effect: High/Medium

Figure 11 - Alternative view towards Turbine Site from Junction on A934

Table 14: Visual Assessment, Pitmikie Crossroads

Photomontage Figure Number: B3 **Distance to Bolshan Farm Turbine:** 1292m
Reason for Selection: Shows the turbine from a nearby junction along the minor road network surrounding the turbine site and connecting residential properties. This figure gives some impression of the effect experienced around some of the nearest dwellings that are not owned by the applicant.
Assessment of sensitivity: The flatter nature of the landscape can be observed from this viewpoint, populated by rows of deciduous trees that can be found along field boundaries and around nearby dwellings (typically defined as visually sensitive receptors). Road users are given as receptors of 'low' in Table 34: Criteria for Assessing Visual Sensitivity. The view is of little interest in itself. It is not, for example, a magnificent hilltop panorama, but instead has a more familiar and simple rural agrarian appeal. **The sensitivity of this viewpoint is considered to be:** High/Medium
Assessment of magnitude: The following phrase from the 'Medium' category set out in Table 35: Criteria for Assessing Magnitude of Visual Effects below, appears apt, "the composition of the view has been added to but is generally intact". In addition, the following phrase from the 'Low' category set out in Table 35 below, also appears relevant, "the composition of the view is subtly amended". **Magnitude of change to the existing view is considered to be:** Medium/Low
Significance of effect: Medium/Low

Table 15: Visual Assessment, A933/A934 Junction

Photomontage Figure Number: B4 **Distance to Bolshan Farm Turbine:** 1526m
Reason for Selection: This viewpoint is useful for understanding the view as can be expected from the junction connecting the main roads A934 and A933 and the area around the residential properties located beside this junction.
Assessment of sensitivity: This junction is a busy one and therefore the view as indicated by Figure B4 will be experienced by a significant number of road users. Tall structures such as pylons and trees can be observed in the foreground emphasising the general busy and developed nature of the viewpoint. The hills and slopes of the landscape can also be observed in the background of the image. In this case the main receptors of the view would be the three residential properties in the foreground and road users. **The sensitivity of this viewpoint is considered to be:** High/Medium
Assessment of magnitude: The residential property located towards the north side of the image has partial screening from vegetation, whereas the more southern dwelling and the eastern property located closer to the turbine have clearer views. Given the proximity to the main roads and the sloping terrain on which the turbine is located, the turbine development will not dominate or control the view. **Magnitude of change to the existing view is considered to be:** Medium/Low
Significance of effect: Medium

Table 16: Visual Assessment, Wuddy Law Trig Point

Photomontage Figure Number: B5 **Distance to Bolshan Farm Turbine:** 1537m
Reason for Selection: This is an **e**levated viewpoint presenting panoramic view of the landscape surrounding the development site.
Assessment of sensitivity: The viewpoint is within an agricultural field. There is a track to this point but it is not an obvious route for recreational walking. Uplands can be observed in the far distance of the image adding to the attractiveness of the view. Visual receptors within this context are occasional recreational users. **The sensitivity of this viewpoint is considered to be:** Medium
Assessment of magnitude: The hub and blades of the Bolshan Farm turbine can be seen but a significant proportion of the turbine is largely obscured by the terrain. From certain points on this hill the turbine will be further obscured by Bolshan Hill Wood. There is a noticeable change to the view as observed from this point however the turbine occupies a small area of the landscape in view and an expansive panoramic view is still clearly visible, around and beyond the turbine. **Magnitude of change to the existing view is considered to be:** Low
Significance of effect: Low

Table 17: Visual Assessment, Kinnell Church

Photomontage Figure Number: B6 **Distance to Bolshan Farm Turbine:** 2449m
Reason for Selection: Church located in one of the closest settlements.
Assessment of sensitivity: The church itself is in a state of disrepair as can be seen in Figure 12 and is no-longer in use for services. This view is representative of the general setting of the village. **The sensitivity of this viewpoint is considered to be:** Medium
Assessment of magnitude: The proposed turbine is not visible and there is no effect on the view. **Magnitude of change to the existing view is considered to be:** None
Significance of effect: None

Figure 12 - Image of Kinnell Church

Table 18: Visual Assessment, Edge of Farnell

Photomontage Figure Number: B7 **Distance to Bolshan Farm Turbine:** 2873m
Reason for Selection: Nearby settlement from which there may be some views of the turbine.
Assessment of sensitivity: The view itself is not exceptional or of particular value. The viewpoint is located just off the main road entering the settlement providing a view which would commonly be seen by road users. **The sensitivity of this viewpoint is considered to be:** Medium/Low
Assessment of magnitude: The turbine is a less prominent feature in the view than the electricity pylons in the foreground, and appears to be of a similar scale to the trees on the right of the image. ZTV Figure B7 indicates that the hub and blades of the Bolshan Farm turbine would be visible from the edge of the settlement. "The composition of the view is altered but at an almost imperceptible level", as mentioned in the 'negligible' section of Table 35: Criteria for Assessing Magnitude of Visual Effects. Due to the distance between viewpoint and turbine location, and the natural cover the terrain provides, the development not a prominent or distinctive feature within the landscape. **Magnitude of change to the existing view is considered to be:** Negligible
Significance of effect: Negligible

Table 19: Visual Assessment, Edge of Friockheim

Photomontage Figure Number: B8 **Distance to Bolshan Farm Turbine:** 3314m
Reason for Selection: To show a view from one of the closest towns.
Assessment of sensitivity: The viewpoint is located on the main road leading into the town and is also approximately 150m east of the local school. Please note that the majority of the settlement does not have such open views toward the turbine and the school is behind a row of trees to the left of the image. The landscape as observed from this direction is generally flat with little screening from natural contours. Some of the lower hills can be seen in the background behind the turbine. **The sensitivity of this viewpoint is considered to be:** Medium/High
Assessment of magnitude: Figure B8 indicates that the majority of the turbine will be visible from this location. Although the majority of the turbine will likely be visible from this viewpoint it is located over 3km away from the settlement. As such the development itself occupies a very small area in the viewer's perspective and does not encroach upon the general composition of the landscape. **Magnitude of change to the existing view is considered to be:** Low/negligible
Significance of effect: Low

Table 20: Visual Assessment, A933 / B961 Legaston Junction

Photomontage Figure Number: B9 **Distance to Bolshan Farm Turbine:** 4961m
Reason for Selection: View from a main transport providing an indicative view of the turbine as can be expected approximately 4.5 – 5km from the site.
Assessment of sensitivity: This section of A933 is very busy and views from this location would be observable by a large number of road users. However, many drivers will not be looking in the direction shown on this viewpoint. Speeds are high on this stretch of the road so passengers will only see this view for a short period. The landscape in the foreground appears flat and continuous with views of mountainous region in the far distance and smaller hills to the right of the image. This viewpoint provides an indication of the view as can be expected from the dwellings located behind the camera outwith the field of view. **The sensitivity of this viewpoint is considered to be:** Medium/High
Assessment of magnitude: The tower, hub and blades of the turbine are in view however at this distance it has little effect on the composition or enjoyment of the view. **Magnitude of change to the existing view is considered to be:** Negligible.
Significance of effect: Low/Negligible.

Table 21: Visual Assessment, A933 near Colliston Mill Cottage

Photomontage Figure Number: B10 **Distance to Bolshan Farm Turbine:** 6932m
Reason for Selection: This viewpoint is helpful for understanding how the turbine will be viewed from locations expected to have a view of the Bolshan Farm turbine at a distance of 6.5 – 7km.
Assessment of sensitivity: Further along the busy A933, reasonably extensive views can be obtained from this location. The dwelling Colliston Mill Cottage is located to the left of the image outwith field of view, this viewpoint therefore provides an indicative perspective for nearby properties. **The sensitivity of this viewpoint is considered to be:** Medium/High
Assessment of magnitude: The turbine is visible, but at such distances it has little effect on the composition or enjoyment of the view. It is not highly discernible in the landscape. **Magnitude of change to the existing view is considered to be:** Negligible
Significance of effect: Low/Negligible

Table 22: Visual Assessment, Layby on A935

Photomontage Figure Number: B11 **Distance to Bolshan Farm Turbine:** 8332m
Reason for Selection: This viewpoint is helpful for providing an indicative view of the turbine from over 8km.
Assessment of sensitivity: The area surrounding the viewpoint itself is not an important one in terms of visual receptors, nor is the view particularly valued. A number of road users can expect to experience this view as the layby is located on a main road. **The sensitivity of this viewpoint is considered to be:** Low/Negligible
Assessment of magnitude: The turbine is unlikely to be distinguishable unless weather conditions are particularly clear, the observer is stationary and is specifically searching for the turbine. **Magnitude of change to the existing view is considered to be:** Negligible
Significance of effect: Negligible

Photomontage Assessment Summary

The following table presents a summary of the more detailed visual assessment tables above.

Table 23: Viewpoints for Visual Assessment

Figure number	***Viewpoint***	***Distance from Turbine (m)***	***Significance of Effect***
B2	Junction on A934	977	High/Medium
B3	Pitmikie Crossroads	1,292	Medium/Low
B4	A933/A934 Junction	1,526	Medium
B5	Wuddy Law Trig Point	1,537	Low
B6	Kinnell Church	2,449	None
B7	Edge of Farnell	2,873	Negligible
B8	Edge of Friockheim	3,314	Low
B9	A933/B961 Legaston Junction	4,961	Low/Negligible
B10	A933 near Colliston Mill Cottage	6,932	Low/Negligible
B11	Layby on A935	8,332	Negligible

Nearest Dwellings

Full photomontage assessment from each dwelling would be needed for accurate conclusions to be drawn on the issue of visual impact. This would require access in and around each dwelling in question. However, the following observations can be made regarding the effect on neighbouring dwellings.

There is no right to a view in planning law, but the question of 'residential amenity' is nonetheless a relevant one. The matter of residential amenity is also raised in the Angus Council 'Implementation Guide for Renewable Energy Proposals' (2012).

Of the eight dwellings within a kilometre of the proposed turbine location, only Bolshan Farm has financial involvement. The separation distances are set out clearly within the table below. A map of these dwellings is provided within the Environmental Health chapter of this Environmental Report.

Table 24: Nearest Dwellings

Dwelling	***Distance to Bolshan Farm Turbine from Dwelling (m)***	***Financial Involvement?***
Bolshan Cottage	623	No
Ardmhor Cottage	659	No
Doonbye	722	No
Ashview	722	No
Bolshan Farm	733	Yes
Viewbank	820	No
Teuchat Hillock	936	No
Burnside	979	No

The nearest non-financially-involved property, Bolshan Cottage, is over half a kilometre from the proposed turbine. The dwelling is situated on a rising slope with the façade and principle windows facing west, the change in turbine position now means that site is no longer in direct line of sight from Bolshan Cottage. The garden is on the east side of the dwelling and therefore does not have direct line of site to the development. ZTV Figure A3 suggests that this dwelling will have a clear view of the turbine however trees located between the turbine site and the property may provide partial screening (See Figure 13).

Figure 13: Googlemap© view towards proposed turbine site from
Bolshan Cottage. The turbine would sit behind the trees in the mid-ground and may be partially visible.

Reduction in Perceived Height of Turbine from Nearest Dwelling

The proposed turbine site is situated 422m north/north-east of the turbine position previously submitted (13/00887/FULL) and some of the benefits of this site include a less dominating view of the turbine from nearby properties. Table 25 summarises the height and elevation changes (AOD) between the previous application, a proposal discussed in summer 2014 with the planning authority (see discussion in chapter 3 above), and the turbine now proposed.

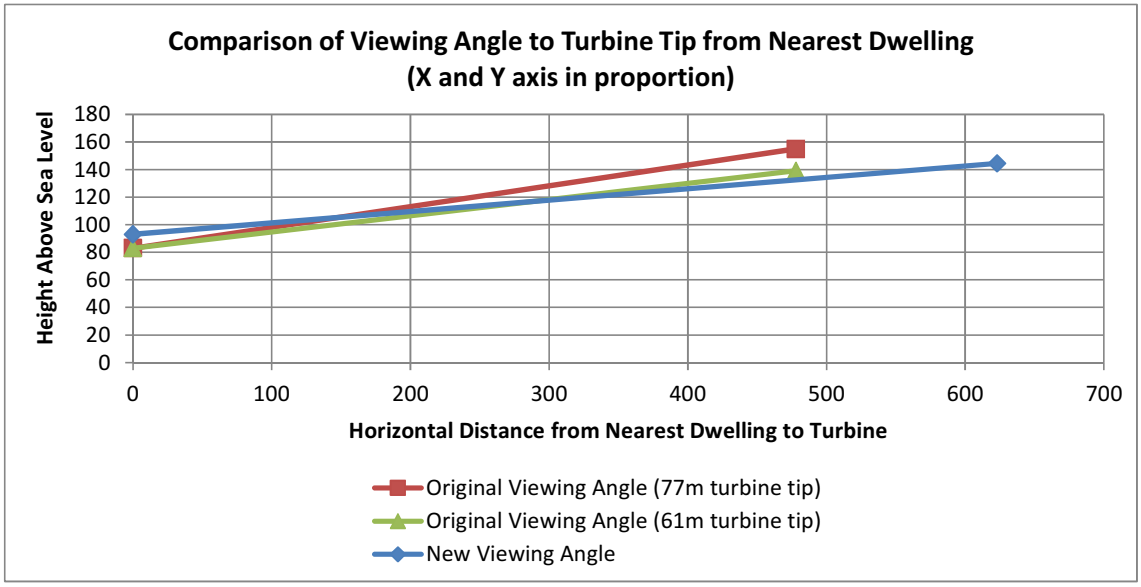
Table 25: Summary of changes in turbine size and elevations

Turbine Application	Proposed Turbine Grid Reference	Tip Height (m)	Turbine Base Elevation AOD (m)[102]	Turbine Tip Elevation AOD (m)	Approximate distance to 'nearest dwelling'	Nearest Dwelling Elevation (AOD)[103]	Viewing Gradient to Turbine Tip from Nearest Property
13/00887/FULL	361394, 752245	77	78	155	478 (Doonbye)	83	1 in 6.6
Turbine discussed with planning authority summer 2014.	361394, 752245	61	78	139	478 (Doonbye)	83	1 in 8.5
The Greenspan Agency Project now proposed	361507, 752652	79.6	65	144	621 (Bolshan Cottage)	93	1 in 12.1

The distance between the turbine and the nearest dwelling has now increased, and the elevation of the turbine base has decreased. Taking this information into account, the gradient of the viewing angle to the tip of the turbine from the nearest dwelling can be calculated. This provides an indication of how overbearing (or not) the turbine will appear from the nearest property. This data is displayed in Figure 14.

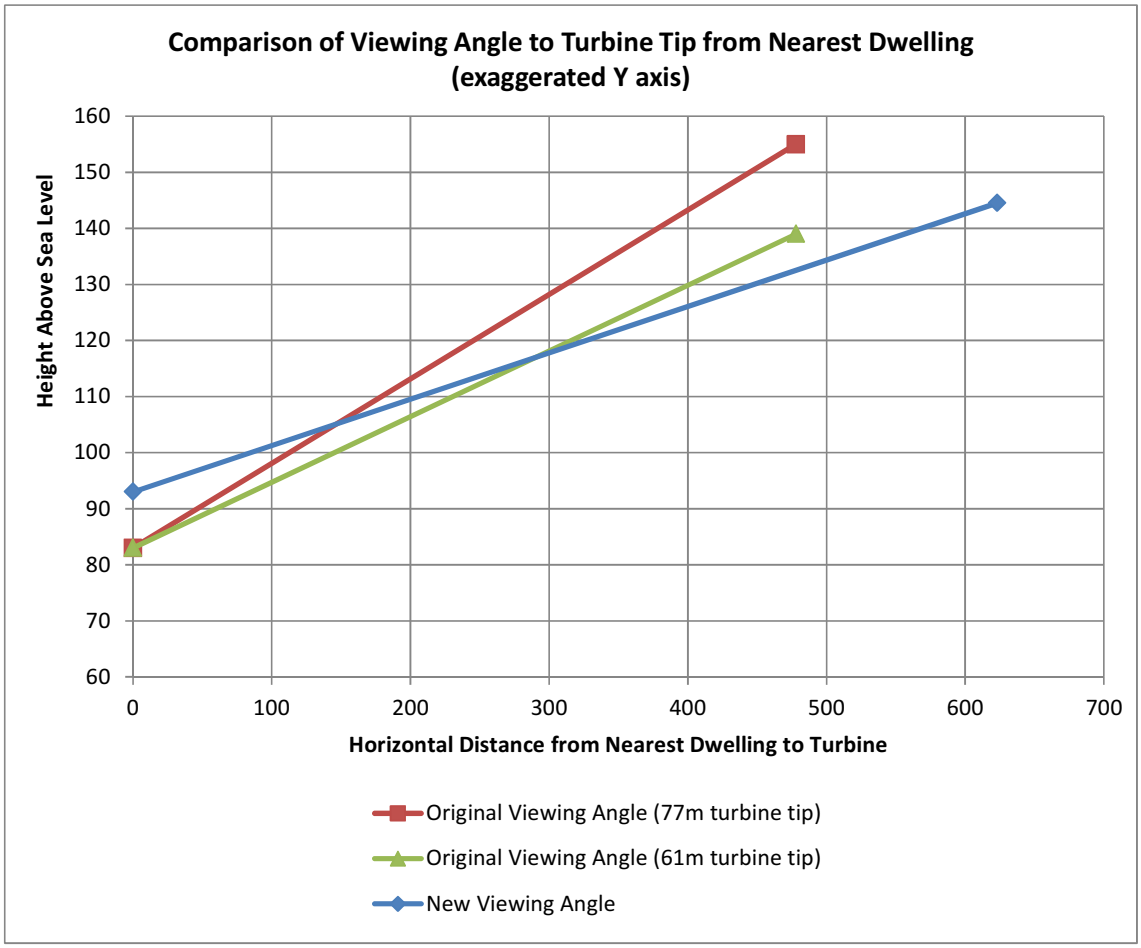
[102] Elevations taken from Ordnance Survey digital terrain data.
[103] Elevations taken from Ordnance Survey digital terrain data.

Figure 14: Comparison of Viewing Angle to Turbine Tip from Nearest Dwelling



The graph below (Figure 15) shows the same data as the graph above, but on an exaggerated Y-axis to better display the significant reduction in viewing angle provided by the turbine position now proposed even though the turbine height has increased slightly. This is likely to have the effect of reducing the perceived height of the turbine as the gradient of the viewing angle falls to 1 in 12.1 (see table above for details). The site chosen for this proposal is well suited to maximise electricity generation whilst protecting the visual amenity of local dwellings.

Figure 15: Comparison of Viewing Angle to Turbine Tip from Nearest Dwelling (exaggerated Y axis)



To summarise the above analysis, the change in turbine position allows the perceived scale of the turbine from the nearest dwelling to be diminished by a significant reduction in the gradient of the viewing angle to the turbine tip.

Although views from within or around several properties will be affected to some extent, the planning process must control the use of land to serve the public interest and a case can be made that the benefit of providing clean electricity equivalent to the needs of several hundred houses far outweighs the change to the view caused by a wind turbine around a half a kilometre away from only a few houses.

Transport Routes

Roads typically experience 'sequential' views where changing impressions of the turbine are seen from one viewpoint after another[104].

6 of the 10 viewpoints assessed using photomontages were taken from transport routes. This gives a clear impression of the turbine's appearance from the local road network.

The nearest road is the unclassified one to the east of the turbine position and passes around 475m from the turbine at its closest point. The A934 comes to within 1km. Both routes will afford road-users views of the turbine but neither comes close enough for the turbine to appear overbearing.

The visual assessment has discussed the relationship between the surrounding road network, particularly along the A934 and A933 roads. Photomontage Figure B2 in particular shows the view with greatest magnitude of effect on the A934. The overall significance of the effect on this viewpoint was rated as 'high/medium' in the assessment above within this LVIA.

Sections of the A932 and A935 have been highlighted in ZTV Figure A2 so views of the turbine can be expected at certain points along these routes. At the closest point to the project the A932 is approximately 4.1km away and the A935 approximately 6.5km away. Views along these routes will be infrequent and owing to these distances and road speeds, the turbine will not be a discernible feature within the landscape. Photomontage Figures B2 and B4 & B11 reveal that the effect of this turbine on these trunk routes will be negligible.

Given what has been learned from the photomontages and the ZTV diagrams it can be concluded that although the turbine will be visible from the local road network, trunk roads will not be greatly affected, and the closest roads are a suitable distance from it.

Visual Assessment Conclusions

Photomontages have been presented for 10 viewpoints. The methodology applied to derive assessments of the 'significance' of the turbine's effect upon these viewpoints is clearly detailed in the Appendix to this chapter. All of these viewpoints are within 10km of the proposed turbine, the inner half of the 20km study area. Despite this, 7 of the viewpoints were assessed as experiencing effects below 'low' significance.

As is usual for an assessment of this kind, viewpoints closer to the turbine were found to experience a greater level of effect. This does not point to an unacceptable level of change in the visual environment but is instead inevitable when LVIA methodology is fairly and consistently applied and does not suggest that the proposal is unacceptable overall.

It can be concluded that the photomontage assessment reveals a visual environment that is suited to the introduction of the proposed turbine.

The nearest dwellings have been considered and separation distances were found to be sufficient to avoid visual intrusion. The topography and surrounding landscape of the site will assist in reducing the effect on the nearest property not owned by the applicant.

[104] Page 10 'Cumulative Effect of Wind Farms, Version 2, Scottish Natural Heritage (2005)

Views from the local road network have been clearly illustrated in the photomontage assessment. Although some roads will offer clear view of the turbine, generally the visual experience from local roads will not be greatly affected.

Importantly, the change in turbine position allows the perceived scale of the turbine from the nearest dwelling to be diminished by a significant reduction in the gradient of the viewing angle to the turbine tip.

The findings of the visual assessment indicate that the proposal is well designed, in a suitable location, and of an appropriate scale.

8.12 Cumulative Assessment

This section of the LVIA provides information on other wind energy developments within the region and considers whether the environmental impact of the Bolshan Farm wind turbine would be acceptable in landscape and visual terms given these cumulative effects.

As with the assessment of the single wind turbine above, the cumulative assessment is divided into two parts which chiefly rely on different diagrammatical tools:

> **Cumulative Landscape Assessment:** considers landscape effects by using Zone of Theoretical Visibility (ZTV) diagrams which show the relationship between Bolshan Farm and other wind energy developments.
>
> **Cumulative Visual Assessment:** uses cumulative photomontages and wireframes that give an impression of how a viewpoint would change if consented and proposed turbines were erected.

Operational, Consented and Valid Planning Applications

What to Include

The level of cumulative impact clearly varies depending on the number of projects in planning and the number of consented projects that are actually built. In accordance with relevant planning policy, guidance (particularly SNH's 'Assessing The Cumulative Impact Of Onshore Wind Energy Developments' March 2012), and The Greenspan Agency's experience of preparing such assessments, the scope for assessing cumulative impacts considers operational turbines, consented turbines, and turbines in planning.[105]

How this Affects the Assessment

There are many possible eventualities, and at the time of an application's submission there is much uncertainty as to what the development pattern will be by the time the application is determined. **For completeness and simplicity the assessments presented here assume that all consented developments are built, and that all planned turbines are also eventually consented and built.** However, it is likely that some planned schemes eventually do not obtain planning permission, or their planning permission lapses without the development being implemented. Where these developments are relevant to the cumulative assessment, the changed circumstances should be taken into account at the time of the application's determination.

Study Focus

SNH's guidance *'Assessing the Cumulative Impact of Onshore Wind Energy Developments',* March 2012, states:

> *"The focus should be on the key cumulative effects which are likely to influence decision making, rather than an assessment of every potential cumulative effect."*[106]

[105] Page15 'Assessing The Cumulative Impact Of Onshore Wind Energy Developments'. Scottish Natural Heritage, March 2012
[106] *Ibid*.

Cumulative Studies, Difficulties and Limitations

When assessing cumulative impact it should be borne in mind that such an assessment can be difficult to carry out. It is difficult to judge when a ceiling for the amount of wind energy generation in a region has been reached, and thresholds are not quantified. The Angus Council 'Implementation Guide for Renewable Energy Proposals' acknowledges this and notes that "there is not a direct correlation between the number of wind energy proposals and the degree of impact".[107] The difficulties found in landscape and visual impact assessment in general are reflected in cumulative assessments, although the effects are more complex.

A cumulative study will usually have to consider a diverse landscape with several wind energy projects, and it can be challenging to decide which figures to produce and to base the assessment upon. Each figure can also be produced in many different ways.

Interpretation and Understanding of Cumulative Effects

Following on from the discussion above titled 'Aesthetic Judgements and Public Opinion' it is worth discussing the values, ideas and thoughts behind our understanding and interpretation of cumulative effects. Those who support the introduction of turbines into the landscape are likely to understand the following points:

1. The emergence of several wind energy developments Angus and throughout the north-east of Scotland will be seen by some as a sign that society is taking a positive (and ultimately inevitable) step forward towards a more sustainable future.

2. The existing agricultural character of much of the landscape can be reinforced by the presence of locally owned wind turbines which benefit traditional local agribusiness enormously. These turbines have a very obvious connection to the region's agricultural heritage and can be seen as emblematic of a new way of exploiting the region's natural resources for the sustainable economic benefit of local communities. In the case of the Bolshan Farm turbine, an additional revenue stream will be provided to an existing farm, helping to diversify the rural economy.

Such an interpretation of wind turbine developments will not be shared by all, and those who do not understand the benefits are more likely to consider the turbines unacceptable in aesthetic terms. Setting aside these issues, this section of the environmental report can attempt to provide information on the number and location of wind energy developments, an assessment of the sensitivity of the landscape, the magnitude of change in that landscape and the overall significance of cumulative effects.

[107] Page 7 'Implementation Guide for Renewable Energy Proposals' Angus Local Plan Review, 2009

Figure C1: Cumulative Turbines Map, 10 km Radius

Figure C1: Cumulative Turbines Map, 10 km Radius shows all wind turbines within a 5km radius and all turbines with a tip height over 30m between the 5km and 10km radii. The table below shows all the developments shown on figure C1.

The landscape assessment above for the Bolshan Farm turbine in isolation concluded that landscape effects of a magnitude greater than 'low' would be limited to an area within 1.5km of the proposed turbine. Given this, the radii applied for the preparation of figure C1 were considered sufficient to identify all relevant cumulative landscape effects. An area of 314km^2 is covered by the 10km radius on figure C1.

Table 26 - Turbines shown on figure C1 within 10km of Bolshan Farm

Site Name	*Number of Turbines*	*Turbine Height to Tip (m)*	*Status*	*Distance from turbine (km)*	*Total Installed Capacity (MW)*
Heughhead Farm	1	21	Consented	2.9	0.015
Waulkmill Quarry	1	46	Consented	3.1	0.25
Land West of Rossie School	2	51	Planning	4.1	0.8
Dubton Farm	1	77	Planning	4.6	0.5
Pickerton	1	77	Operational	5.0	0.5
East Drums	1	67	Consented	5.3	0.5
Newton Of Boysack	1	49	Planning	6.0	0.1
Janeston Farm	1	47.5	Planning	6.0	0.05
Old Montrose Farm, Montrose	1	39	Operational	6.7	0.08
East Mains Of Colliston Farm	1	49	Planning	6.9	0.1
North Mains of Cononsyth	1	66.7	Operational	7.4	0.33
Parkconnon Farm	1	41.5	Consented	7.6	0.225
Arrat Farm	2	46.5	Operational	7.7	0.5
Newton of Idvies Farm	1	47	Operational	8.7	0.1
East Pitforthie Farm	1	47	Operational	8.9	0.1
Ethie Barns Farm	1	45	Planning	9.1	0.225
Crofts Farm	2	79.6	Planning	9.2	1.5
Whitefield of Dun Farm	1	67	Consented	9.8	0.5

Cumulative Landscape Assessment

Study Radius

In deciding the radius for detailed cumulative landscape impact assessment the following two points were noted:

1. The landscape assessment above for the Bolshan Farm turbine in isolation concluded that landscape effects of a magnitude greater than 'low' would be limited to an area within 1.5km of the proposed turbine. This suggested that areas more than a few kilometres from the turbine were unlikely to experience cumulative landscape effects in which the Bolshan Farm turbine played a substantial role.
2. The visual assessment had shown that the significance of visual impact would not exceed 'low' other than at the closest three viewpoints, the furthest of which was 1.5km away. Again, this suggests that the principle role of the Bolshan Farm turbine in cumulative impacts would be limited to an area within a few kilometres.

Given the above, the cumulative landscape assessment will focus on the three landscape character areas closest to the proposal, and those parts of these landscape character areas within 5km of the Bolshan Farm turbine. It will consider the effect on these areas caused by those wind energy developments within this 5km radius.

ZTV Preparation

Specifying a 5km radius for the cumulative landscape assessment allows more meaningful and informative cumulative zone of theoretical visibility figures to be produced.

The Greenspan Agency have studied many other applications submitted around Scotland and have found that in their opinion the cumulative ZTVs tend to be difficult to present coherently, and their usefulness is sometimes limited. The approach taken here seeks to present the most relevant information in a way that can assist with the determination of the planning application, but is only one of many possible approaches.
Further cumulative ZTVs (or any other landscape and visual information) can be provided to the Council upon request.

Figure numbers C2 to C4, indicate areas within the landscape which would theoretically experience cumulative views of the Bolshan Farm proposal together with the other renewable energy developments being considered. The colour of the highlighted areas show where the turbine hub, or more, of the Bolshan Farm turbine, and at least one other turbine hub from the featured developments are theoretically visible from the same location.

Turbine hub was used to ensure that very partial views of the wind turbines were not included since these would have limited relevance to cumulative effects. Note once again however, this is one of many ways of approaching such an assessment and every aim has been made to provide the most relevant information for the planning authority and consultees.

Cumulative Landscape Assessment Tables

The following tables include an assessment of the cumulative ZTVs (Figures C2 to C4).

The following table in the methodology Appendix attached to this landscape and visual impact assessment give criteria for assessing the magnitude of landscape effects and can be applied to this cumulative assessment:

- Table 33: Criteria for Assessing Magnitude of Landscape Effects

This forms the basis of judgements as to the magnitude of an effect given in the tables below.

As discussed in the landscape assessment above, the ZTV diagrams are a useful tool but tend to over-state the landscape significance of the turbines being assessed. The presence of other landscape features is played down and the level of screening from trees and buildings etc. is not fully represented.

Table 27: Cumulative Landscape Assessment, ZTV Figure C2

Developments on this figure:

Name	***Spec'***	***Status***	***Distance to Bolshan Farm Turbine (km)***
Land West of Rossie School	2 x 51m, 1.6MW	Planning	4.1
Dubton Farm	1 x 77m, 0.5MW	Planning	4.6

Sensitivity

As explained above, this cumulative assessment focuses on the 3 landscape character types closest to the proposed turbine. These were assessed in Table 8 and Table 9 as having the following sensitivities to wind energy development.
Dipslope Farmland, Medium/Low sensitivity.
Lowland Basins, Medium/Low, sensitivity[108].
Low Moorland Hills, Medium/Low sensitivity.

Assessment of Magnitude

- Dubton Farm is within the Low Moorland Hills Landscape Character Type, the Land West of Rossie School development is within the Dipslope Landscape Character Type.
- The Bolshan Farm and Dubton Farm turbines are of similar sizes whereas the two turbines at Land West of Rossie School are approximately 20m lower.
- The similar heights of the turbines at Bolshan Farm and Dubton Farm result in the cumulative intervisibility of these two projects being the greatest but less than 20% of the ZTV study area is highlighted.
- The greatest cumulative impact occurs within the Dipslope Farmland character type which is of medium/low sensitivity and as noted previously, a character type suited to turbines of the proposed size.
- The cumulative intervisibility of Bolshan Farm and Land West of Rossie School is does not have a high percentage of cover on the ZTV, less than 10%. Most areas of which occur in the Lowland Basins and Low Moorland Hills which range from High to Low sensitivity.
- Cumulative intervisibility of all three projects is limited to areas of higher terrain and as such, views are less likely to be experienced often.

Significance of cumulative landscape effects, Fig.C2

Given the space between projects, areas where the magnitude of effect from these developments is greater than 'low' are unlikely to overlap and the projects do not combine to create cumulative effects. Because of this, the cumulative effects are little different from the non-cumulative effects.

[108] Note that the 'Lowland Basins' was found to have a higher sensitivity nearer the Montrose basin but this is beyond the radius of this ZTV.

Table 28: Cumulative Landscape Assessment, ZTV Figure C3

Developments on this figure:

Name	*Spec'*	*Status*	*Distance to Bolshan Farm Proposal from closest turbine (km)*
Heughhead Farm	1 x 21m, 0.015MW	Consented	2.9km
Waulkmill Quarry	1 x 46m, 0.25MW	Consented	3.1km

Sensitivity

As explained above, this cumulative assessment focuses on the 3 landscape character types closest to the proposed turbine. These were assessed in Table 8 and Table 9 as having the following sensitivities to wind energy development.

Dipslope Farmland, Medium/Low sensitivity.

Lowland Basins, Medium/Low, sensitivity[109].

Low Moorland Hills, Medium/Low sensitivity.

Assessment of Magnitude

- Both the Heughhead Farm and Waulkmill Quarry developments are within the same Landscape Character Type, Dipslope Farmland.
- These developments are on a smaller scale than what is proposed at Bolshan Farm. The magnitude of the landscape effects caused by cumulative intervisibility of the three developments are therefore lessened.
- The greatest area of cumulative intervisibility of the three developments occurs within the Dipslope Farmland character type which, as stated previously, has capacity for wind energy development.
- Areas experiencing views of the Bolshan Farm turbine and only the Heughhead Farm or Waulkmill Quarry developments cover less than 10% of the map combined.
- It is estimated that highlighted areas of intervisibility affect less than half of area within 5km of the Bolshan Farm turbine.

Significance of cumulative landscape effects, Fig.C3

In common with the findings in the table above.

Given the space between projects, areas where the magnitude of effect from these dwellings is greater than 'low' are unlikely to overlap and the projects do not combine to create notable cumulative effects. Because of this, the cumulative effects are little different from the non-cumulative effects.

Table 29: Cumulative Landscape Assessment, ZTV Figure C4

Developments on this figure:

Name	*Spec'*	*Status*	*Distance to Bolshan Farm proposal from closest turbine (km)*
Pickerton	1 x 77m tip, 0.5MW	Operational	5km

Sensitivity

As explained above, this cumulative assessment focuses on the 3 landscape character types closest to the proposed turbine. These were assessed in Table 8 and Table 9 as having the following sensitivities to wind energy development.

Dipslope Farmland, Medium/Low sensitivity.

Lowland Basins, Medium/Low, sensitivity[110].

Low Moorland Hills, Medium/Low sensitivity.

Assessment of Magnitude

- The Pickerton turbine operates within the Low Moorland Hills landscape character type and is of a comparable size to the proposed Bolshan Farm turbine.
- Less than 35% of the ZTV highlights areas of possible intervisibility of both turbines.
- The majority of cumulative impact occurs within the Dipslope Farmland landscape character type which as stated in the Tayside

[109] Note that the 'Lowland Basins' was found to have a higher sensitivity nearer the Montrose basin but this is beyond the radius of this ZTV.

[110] Note that the 'Lowland Basins' was found to have a higher sensitivity nearer the Montrose basin but this is beyond the radius of this ZTV.

Landscape Character Assessment (1999), has capacity for turbines of the height proposed at Bolshan Farm.
Significance of cumulative landscape effects, Fig.C4 The Bolshan Farm turbine would not have landscape effects that would notably interact with this development, which is 5km away from Bolshan Farm.

Total Combined Cumulative Effects

The above tables consider just one or two developments, together with the Bolshan Farm turbine at any one time. It is unlikely that all planned developments will be consented and built along-side the Bolshan Farm turbine but if this were to happen the total combined cumulative landscape effects would be greater than the effects noted in the tables above.

18 developments are operational, consented or proposed within a 10km radius of the Bolshan Farm Turbine. However, only 5 of these occur within a 5km radius of the Bolshan Farm Turbine. This is an area of 78.5km^2, accounting for Bolshan Farm these developments can be distributed throughout the area giving just over 13km^2 of land space for each turbine. This suggests that while wind turbines could become an increasingly frequent sight within the landscape there would be a very significant amount of space, protecting the underlying character of the landscape.

Conclusions, Cumulative Landscape Assessment

The relevance of the Bolshan Farm turbine to overall cumulative impacts would be limited due to the size of the turbine and the fact that only one turbine is proposed. Beginning with a survey out to 10km, an area of 5km radius has been focused on in the cumulative ZTV figures.

The cumulative ZTV figures have revealed a complex pattern of cumulative effects on the landscape. The Dipslope Farmland, Lowland Basins and Low Moorland Hills were the focus of this cumulative assessment because it was in these areas that the landscape effect of the Bolshan Farm turbine was found to be relevant in the preceding single turbine landscape assessment.

The above tables concentrate on one or two developments at a time and their relationship with the Bolshan Farm turbine. This makes for more coherent ZTV figures but of course does not show all turbines together at the same time. If all planned and consented turbines were eventually built the presence of wind energy developments in the landscape would be more noticeable.

If all planned projects were built the total combined cumulative effects would mean that wind turbines would become an increasingly frequent sight within the landscape, but these turbines would be set in a substantial amount of space, allowing the underlying character of the landscape to dominate.

With reference to criterion (f) within local development plan policy ER35 it has been demonstrated in the above cumulative landscape assessment that this criterion has been met.

Cumulative Visual Assessment

This cumulative visual assessment presents and assesses two cumulative photomontages which show how selected views would be altered if all proposed and consented turbines were built and added to the view alongside existing turbines and the Bolshan Farm turbine.

Selection of Viewpoints

Two viewpoints were chosen to give an understanding of how the Bolshan Farm turbine would sit alongside other developments, one from the north/north-east of the site facing south and another from the south/south-west of the site facing north/north-east.

These cumulative viewpoints address views 'in combination' as mentioned on page 44 of the Angus Council 'Implementation Guide for Renewable Energy Proposals', "where two or more features are seen together at the same time from the same place, in the same (arc of) view where their visual effects are combined".

Note that the same direction of view and field of view has been used as in the visual assessment. This ensures that the LVIA photomontages are consistent throughout, making the process of assessing them simpler for the reader. However, turbines that are just to one side of the field of view may not be included. Again it is important to acknowledge that with so many variables and options, there is no one correct approach to cumulative assessment, but the photomontages presented here certainly provide information of use for decision makers.

Preparation of Cumulative Photomontages

The same attention to detail applied to photomontage Figures B2 to B11 was applied to the cumulative figures. Care was taken to use the correct turbine geometry and coordinates for each development so that accurate photomontages and wireframes could be produced.

The criteria for assessing the magnitude of visual effects was again based on the scale of high, medium, low, negligible, very negligible or no effect. The criteria for each level of magnitude is set out in the methodology appendix to this LVIA.

If turbine developments appeared on 'Figure C1: Cumulative Turbines Map, 10km Radius' then these have been included within the cumulative photomontages. Figure C1 included all wind turbines within a 5km radius and all turbines with a tip height over 30m between the 5km and 10km radii. Those consented developments superseded by a more recent design on the same site were not included.

Table 30: Cumulative Visual Assessment, Junction on A934

Figure Number: C5 **Distance to Proposed Bolshan Farm Turbine:** 977m
The sensitivity of this viewpoint is considered to be: Medium (as assessed in Table 13: Visual Assessment, Junction on A934)
Reasoned assessment of magnitude: The effect of the Bolshan Farm turbine in isolation was assessed as having a 'high/medium' magnitude effect in Table 13: Visual Assessment, Junction on A934. As all other turbines can be reasonably said to have an effect of negligible magnitude as the majority are hidden by terrain. The following statement from the 'medium' category in Table 35: Criteria for Assessing Magnitude of Visual Effects can be said to describe the magnitude of the effects shown in the photomontage: 'The turbine is noticeable and distinct, but is perceived as one of several features in the view rather than dominating it'. Given this the cumulative change to the view can be said to be of medium magnitude. **The magnitude of cumulative effect, taking into account the role of the Bolshan Farm turbine in the view, and all planned, consented, and operating turbines, is considered to be:** Low
Significance of cumulative effect: Low

Table 31: Cumulative Visual Assessment, Edge of Friockheim

Figure Number: C6 **Distance to Proposed Bolshan Farm Turbine:** 3314m
The sensitivity of this viewpoint is considered to be: Medium/High (as assessed in Table 17: Visual Assessment, Table 19).
Reasoned assessment of magnitude: The topographic model used to create the photomontage reveals that half of the developments would be hidden by the landform. Others are hidden behind vegetation. The Bolshan Farm Turbine is the only one which can be seen, the singular effects of which are low magnitude. **The magnitude of cumulative effect, taking into account the role of the Bolshan Farm turbine in the view, and all planned, consented, and operating turbines, is considered to be:** Low/Negligible.
Significance of cumulative effect: Low

Cumulative Visual Assessment Summary and Conclusions

Two cumulative photomontages and wireframes have been prepared and assessed, showing views in different directions.

Of all the other developments considered, none appear to have a particular cumulative visual relationship with the Bolshan Farm turbine. With the additional of the Bolshan Farm Turbine, both viewpoints selected for cumulative assessment appear relatively unaltered when taking into account projects which are operational, consented and in planning. The natural topography of the surrounding landscape and the distances which separate the developments results in a very low cumulative impact overall.

Although just two cumulative photomontages have been presented, tentative findings for wider cumulative visual effects from other viewpoints can be made. Cumulative visual effects are likely to alter the visual environment in this area with turbines becoming an identifiable feature of some views. However many of these views are expected to contain enough space and other visual features for their composition and quality to be maintained.

8.13 Conclusions, Landscape and Visual Impact Assessment

Conclusions have been given at the end of each section above, a more concise overview is presented here.

Aims and Methodology

- The methodology which has been applied is set out clearly in the LVIA Appendix. The reasoning behind each step of the assessment has been explained. The conclusions stated here follow from the evidence presented.

Design

- Turbine design and site layout have been carefully considered to minimise landscape and visual impacts while delivering clean energy.

Landscape Assessment

- The site is not within a designated landscape.
- The scale of the agricultural land-use pattern and the abundance of space, provide an immediate landscape setting that is able to accommodate the proposed turbine.
- The turbine would sit in an area of landscape which has been identified in the Angus Council as suitable for wind energy developments "circa 80m in height"[111]. Also, the landscape character sub-area in which the turbine will be located has been identified by consultants working on behalf of Angus Council as having capacity for turbines of the height proposed[112]. There is a consensus that this is one of the best parts of Angus for this scale of wind turbine development.

Visual Assessment

- It can be concluded that the photomontage assessment reveals a visual environment that is suited to the introduction of the proposed turbine.
- The findings of the visual assessment indicate that the proposal is well designed, in a suitable location, and of an appropriate scale.
- The gradient of the view to the top of the turbine from the nearest dwellings will be much shallower than for the turbine position proposed in application 13/00887/FULL. The new design will have a greatly reduced visual effect on nearby dwellings and improved separation distances.

Cumulative Assessment

- If all planned and consented projects were built the total combined cumulative effects would mean that wind turbines would become an increasingly frequent sight within the landscape. But these turbines would be set in a substantial amount of space (an average of 13km^2 for each turbine within 5km of the Bolshan turbine). This abundance of space would preserve the underlying character of the landscape.
- Cumulative visual effects will have a very limited impact on the views assessed in the cumulative photomontages and the views contain enough space and other visual features for their composition and quality to be maintained.

Relevant Planning Policy

- The conclusions of this LVIA have shown that the proposal would accord with landscape and visual requirements set out in policies ER34 and ER35 of the adopted Angus Local Plan Review.

[111] Page 48, *'Implementation Guide for Renewable Energy Proposals'*, Angus Council (approved June 2012)
[112] Page 67 '*Strategic Landscape Capacity Assessment for Wind Energy in Angus*.' Prepared for SNH by Ironside Farrar, March 2014.

LVIA Appendix 1: Landscape and Visual Impact Assessment Methodology

This appendix sets out the methodology applied in the above landscape and visual impact assessment.

Sources

The methodology used has been adapted from the 'Guidelines for Landscape and Visual Impact Assessment', published by the Institute of Environmental Management and Assessment (IEMA) and the Landscape Institute (LI) (3rd edition, 2013) (henceforth 'the GLVIA').

Angus Council do not prescribe a LVIA methodology which defines specific levels of 'sensitivity' 'magnitude' and a matrix for deriving significance. Therefore, this LVIA is also informed by specific methodologies prescribed by other Councils, by the Greenspan Agency's experience of preparing many such assessments, and by an awareness of the methodology used by other consultancies in LVIAs that accompany planning applications for wind energy developments. The documents listed in the 'Policy and Regulatory Context' section (above) have also been taken into account.

The GLVIA considers LVIA for all kinds of development, not only wind energy proposals. The emphasis throughout the GLVIA is on non-prescriptive and non-specific guidance and the need for authors of LVIAs to set out their methods clearly.

> *"The guidance concentrates on principles while also seeking to steer specific approaches where there is a general consensus on methods and techniques. It is not intended to be prescriptive... It is always the primary responsibility of any landscape professional carrying out an assessment to ensure that the approach and methodology adopted are appropriate to the particular circumstances."* (paragraph 1.20)

Certain fundamentals of LVIA which are discussed in the GLVIA are consistently found within LVIAs for wind energy developments; this LVIA incorporates these fundamental elements and is compatible with the GLVIA.

The GLVIA makes reference to the terms 'sensitivity' and 'magnitude' as 'nature of receptor' and 'nature of effect' respectively[113] however these terms are still noted within the flowchart found on page 39 (Figure 16) describing the methodology for assessing the significance of effects. The terms 'sensitivity' and 'magnitude' are consistently found in LVIAs for wind energy developments and various council's supplementary guidance. For clarity and compatibility, this LVIA uses the terms 'sensitivity' and 'magnitude'.

[113] Page 37, '*Guidelines for Landscape and Visual Impact Assessment*', published by the Institute of Environmental Management and Assessment (IEMA) and the Landscape Institute (LI) (3rd edition, 2013)

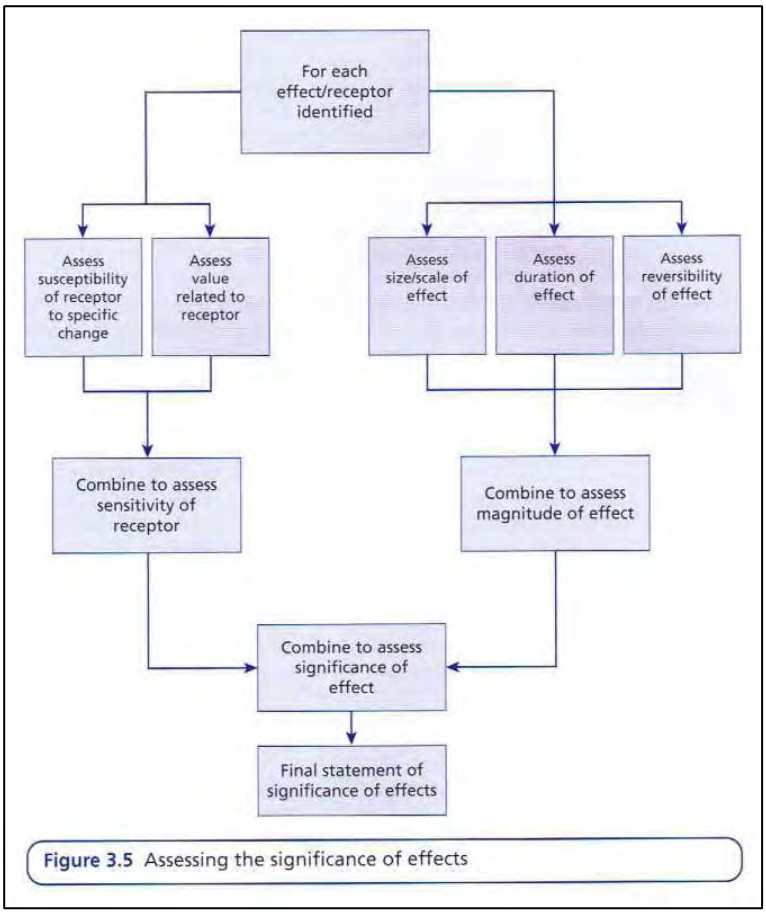


Figure 16: Flowchart figure of 'assessing the significance of effects' as found on Page 39 of the GLVIA

Landscape Assessment Methodology

To assess the effect of the proposal on the landscape the following methodology was applied.

Landscape Sensitivity

Pages 70 to 73 of the GLVIA focus more specifically on the landscape baseline assessment but the understanding of this assessment will feed into judgements about sensitivity.

It is important to consider the following in determining landscape sensitivity:

1. Landscape character
2. Landscape scale
3. Landscape condition
4. Landscape coherence and quality
5. Existing prevalence of discordant or intrusive features
6. Importance of landscape at local, national or international level

Table 32 has been adapted from the GLVIA which does not prescribe levels of sensitivity but discusses several examples. The thresholds set out here have also been chosen to be comparable with standards set in other LVIAs for wind energy projects. The table reiterates the same themes within each row to aid comparison between rows and clarity of assessment.

Table 32: Criteria for Assessing Landscape Sensitivity to Change

Sensitivity	***Criteria*** *(not all of which must be satisfied)*
High	• Landscape of very high quality (e.g. largely intact, coherent and balanced). • A highly valued landscape considered to be of substantial scenic value. • Small-scale landscapes with fine detail. • The introduction of discordant elements or new types of development would have notable effects on character, value and quality. • Distinctive or scarce landscape features. • Designated Landscapes of National Significance.
Medium	• Landscape of reasonable quality and has a reasonably coherent structure. • Locally valued and of some scenic value. • Medium scale landscapes. • The introduction of some discordant elements or new types of development could be accepted without notable change to character, value or quality. • Some distinctive landscape features and also many familiar features. • Designated landscapes of local significance.
Low	• Landscape of poor or degraded quality, incoherent and confused land use. • Not locally valued and of little scenic value. • Large expansive landscapes. • New features or types of development are unlikely to change the character of the area (other than for the better). • Very few distinctive or valued features. • No designated landscapes.

Magnitude of Landscape Effects

In discussing the assessment of the magnitude of landscape effects, the GLVIA states:

> *"Each effect on landscape receptors needs to be assessed in terms of its size or scale, the geographical extent od the area influenced, and its duration and reversibility."* (paragraph 5.48)

As with sensitivity of landscape and visual effects, discussed above, there is no prescribed methodology in the GLVIA, or list of thresholds for categorising magnitude, and certainly none specific to wind energy development. However, LVIA practice for wind energy development is now a well-developed discipline and certain matters are generally considered in determining the magnitude of landscape impacts. These are listed below:

1. To what extent is the proposal visible from the landscape character area?
2. What is the distance from the landscape character area to the proposal and how does this affect the scale of the turbine in views from the landscape area?
3. The permanence of the change to the landscape and the possibility of its reversal.
4. The frequency of sequential views of the turbine for members of the public moving through the area.

In particular, the above list borrows from the following sources:

a) Appendix 6 and Paragraphs 7.18 to 7.23 of 'Guidelines for Landscape and Visual Impact Assessment' published by the Institute of Environmental Management and Assessment and the Landscape Institute (2nd edition, 2002).
b) Relevant 'Summary advice on good practice' as can be found in 'Guidelines for Landscape and Visual Impact Assessment' published by the Institute of Environmental Management and Assessment and the Landscape Institute (3rd edition, 2013).

c) Best practice for LVIAs carried out for other wind energy developments

Table 33, defines the categories of magnitude of landscape impact used in this LVIA and takes into consideration points 1-4 above, and references a - c. There is no duplication of the topics considered in the criteria used for sensitivity in Table 32. Again similar themes are developed in each row of the table.

Table 33: Criteria for Assessing Magnitude of Landscape Effects

Magnitude	***Criteria*** *(not all of which must be satisfied)*
High	• A Large proportion of the landscape will have views of the proposal, causing widespread indirect change to the landscape setting • The character of the landscape will be substantially altered. • Large areas will be physically altered by the development, causing direct change to the landscape. • The turbines are within or directly adjacent to the landscape area. • The change will be permanent. • Key routes through the area will experience sequential views at many points.
Medium	• A notable proportion of the landscape will have views of the proposal, causing indirect change to the landscape setting. • The character of the landscape will be partly effected. • A small area may be physically altered by the development, causing a minor direct change to the landscape. • The turbines are not within the landscape area. • Most changes will be reversible. • Key routes through the area will experience sequential views at several points.
Low	• Some points in the landscape will theoretically have views of the proposal, but the development will have a muted effect. • The character of the landscape will be slightly amended. • None of the area will be physically altered by the development, and there will be no direct change to the landscape. • The turbines are not within the landscape area. (as above) • Most changes will be reversible (as above) • Key routes through the area will experience sequential views at a few points but the proposal will be a subtle addition to these views.
Negligible	• A minimal number of points within the landscape will theoretically have views of the proposal but this will usually be confined to a small number of high points. • The character of the landscape will remain almost entirely un-altered. • None of the area will be physically altered by the development, and there will be no direct change to the landscape (as above) • The turbines are not within the landscape area and are such a distance from it that they are usually difficult to see. • All changes will be indirect and reversible. • Key routes are very unlikely to experience views of the proposal.
None	• The proposal cannot be seen from the landscape area.

Visual Assessment Methodology

Assessing Visual Sensitivity

As with determining landscape sensitivity, visual sensitivity thresholds are not prescribed in the GLVIA. However, paragraphs 3.22 and 6.13 – 6.15 of the GLVIA discuss the matters to consider. Table 34 makes clear the criteria applied in this LVIA. Again this is based on the GLVIA but must be interpreted from it rather than copied directly. And again, similar themes are developed in each row of the table.

Table 34: Criteria for Assessing Visual Sensitivity

Sensitivity	***Criteria*** *(not all of which must be satisfied)*
High	• The view is of good quality, scenic value, or is well valued by the public. • The view is a viewpoint that invites attention. • The view is distinctive • The view is valued regionally or nationally. • There are few intrusive features and the composition of the view is coherent and feels 'composed'. • The view is visible by sensitive visual receptors
Medium	• The view is of reasonable quality, scenic value or is appreciated by some members of the public. • The view is not identifiable as a viewpoint but can be appreciated as such. • The view contains some local character but is not particularly distinctive. • The view is valued locally. • The view is relatively coherent but contains discordant elements and does not appear 'composed'. • The view is visible by less sensitive visual receptors such as the passing public and those engaged in active or other recreation which is not focused on the landscape or view.
Low	• The view is unattractive, of little or no scenic value, and is either not appreciated or is disliked by members of the public. • The view is not identifiable as a viewpoint or appreciated as such. • The view is not distinctive in a positive way. • The view is not valued locally. • The view contains a number of discordant or intrusive elements. • The view is visible by visual receptors considered to be of low sensitivity (e.g. occasional passing members of the public, road users, or those at work)

Magnitude of Visual Impacts

Once the sensitivity of a view has been assessed it is necessary to assess the magnitude of the effect upon that view. The assessment of magnitude is carried out with careful consideration of the photomontages for each view and reference to the criteria in Table 35 below.

Once again the GLVIA is not prescriptive, but thresholds of magnitude must be defined for the clarity of the assessment presented in this LVIA.

The following references are of particular relevance.

- Paragraph 6.27 of *'Guidelines for Landscape and Visual Impact Assessment'* published by the Institute of Environmental Management and Assessment and the Landscape Institute (3rd edition, 2013).
- Paragraph 7.36 (quoted below) and Appendix 6 of *'Guidelines for Landscape and Visual Impact Assessment'* published by the Institute of Environmental Management and Assessment and the Landscape Institute (2nd edition, 2002).
- Paragraphs 7.6 and 7.7, and Table 18 of *'Visual Assessment of Windfarms Best Practice'*, University of Newcastle (2002), Scottish Natural Heritage Commissioned Report.

Paragraph 7.36 of the GLVIA states the following:

"In the evaluation of the effects on views and the visual amenity of the identified receptors, the magnitude or scale of the visual change is described by reference to:

- *The scale of change in the view with respect to the loss or addition of features in the view and changes in its composition including the proportion of the view occupied by the proposed development;*
- *The degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements and characteristics in terms of form, scale and mass, line, height, colour and texture;*
- *The duration and nature of the effect, whether temporary or permanent, intermittent or continuous, etc.;*
- *The angle of view in relation to the main activity of the receptor* [for instance are the turbines directly in line with key views available to the receptor, or are seen obliquely to the key view];
- *The distance of the viewpoint from the proposed development;*
- *The extent of the area over which the changes would be visible."*

The list above is not aimed exclusively at wind turbine development but can be adapted to create the following scale in Table 35.

Table 35: Criteria for Assessing Magnitude of Visual Effects

Magnitude	**Criteria** (not all of which must be satisfied)
High	• The turbine(s) dominates the view. • The composition of the view is fundamentally altered. • The viewpoint is in very close proximity to the turbine(s).
Medium	• The turbine(s) is noticeable and distinct, but is perceived as one of several features in the view rather than dominating it. • The composition of the view has been added to but is generally intact. • The turbine(s) is in the medium distance.
Low	• The turbine does not attract attention but can be seen, it is a minor element in the view. • The composition of the view is subtly amended. • The turbine(s) is a considerable distance away.
Negligible	• The turbine(s) can be seen, but may be difficult to identify unless the viewer knows where it is. • The composition of the view is altered but at an almost imperceptible level • The turbine(s) is very distant
None	• The turbine(s) is not visible

Matrix for Deriving 'Significance' of Effects

Once the above criteria have been used to determine 'sensitivity' and 'magnitude' these must be combined to arrive at a judgement of the 'significance' of the landscape or visual effect. Table 36, below provides a matrix for this which gives transparency to the process.

Table 36: Matrix for combining 'magnitude' of effect and 'sensitivity' used to derive overall 'significance' of effect.

		Sensitivity		
		High	**Medium**	**Low**
Magnitude	**High**	High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Negligible
	Negligible	Low	Negligible	Negligible
	None	No Effect	No Effect	No Effect

In addition to the table above, the criteria used to determine magnitude when a single wind energy development is considered have been taken into account, as have the approaches to assessment mentioned in the Scottish Natural Heritage document '*Assessing the Cumulative Impact of Onshore Wind Energy Developments',* (March 2012).

Combining Values between Categories

Applying the above table can be more complex when magnitude or sensitivity is assessed as between two values, for example as 'medium/low'. This can be done by applying the matrix twice, once for each term used. For example. Combining medium / low sensitivity with medium / high magnitude would give 4 results which can then be 'averaged':

Medium sensitivity combined with medium magnitude = medium
Medium sensitivity combined with magnitude high = high
Low sensitivity combined with magnitude medium = low
Low sensitivity combined with magnitude high = medium
This would give an overall significance of 'medium', with the 'high' and 'low' results cancelling each other out.

Cumulative Assessment Methodology

When considering cumulative effects the sensitivity and magnitude criteria as applied to determine the sensitivity of landscapes and viewpoints for single developments continues to be applied. These criteria have been specified in the tables above.

9. Historic Environment

9.1 Introduction

This chapter focuses on the effect the Bolshan Renewables Project could have on the historic environment. It catalogues the nearby architectural and archaeological heritage and assesses the likely impact of the proposal on the following:

- Listed Buildings
- Scheduled Ancient Monuments
- Sites listed in the National Monuments Record of Scotland
- Sites listed in the Local Sites and Monuments Record
- Gardens and Designed Landscapes
- Conservation Areas

This assessment considers one 79.6m Enercon E48 wind turbine located at grid reference 361507, 752652.

The following documents, among others, have been used to inform the assessment carried out in this chapter:

- *'Scottish Historic Environment Policy'* (SHEP), Historic Scotland (2011).
- *'Managing Change in the Historic Environment – Setting',* Historic Scotland, October 2010.
- Angus Council's Planning Guidance, *'Implementation Guide for Renewable Energy Proposals'* (June 2012).
- *'Planning Advice Note 2/2011: Planning and Archaeology',* Scottish Government, July 2011.
- *'Seeing the History in the View',* English Heritage, May 2011

The following policies in the adopted 2009 Angus Local Plan Review are particularly relevant to the historic environment:

- Policy ER12 : Development Affecting Conservation Areas
- Policy ER16 : Development Affecting the Setting of a Listed Building
- Policy ER18 : Archaeological Sites of National Importance
- Policy ER19 : Archaeological Sites of Local Importance
- Policy ER20 : Historic Gardens and Designed Landscapes
- Policy ER34 : Renewable Energy Developments

In addition, Policy 3 – Managing TAYplan's Assets in the adopted TAYplan Strategic Development Plan (June 2012) is particularly relevant to the historic environment.

The process of compiling this chapter has shown that the proposed wind turbine will be in accordance with the above local plan policies, and will not have an adverse effect on the historic environment.

9.2 Climate Change and the Historic Environment

It is worth noting that climate change is a threat to the historic environment and that the proposed development would help address this threat. Historic Scotland understands the importance of tackling climate change. Their website contains the following statements:

> *"Climate change is one of the most serious and defining issues of our time"*
>
> *"Historic Scotland aims to be recognised nationally and internationally as a world-class innovative institution at the forefront of making the historic built environment a key element in achieving emissions reduction targets, creating sustainable economic, social and environmental opportunities, and playing its part in the transfer to a low carbon economy."*

> *"We are already seeing the negative impacts on the global economy, environments, and social structures. However, studies show it's not too late to make a difference by making more sustainable choices we can keep Climate Change at bay and help reduce and even prevent terrible consequences…"*[114]

Any small effect this proposal may have on the historic environment should be measured against the need to protect the historic environment by addressing climate change.

9.3 Designations and Legislation

Statutory Designations

Historic Scotland's policy document, SHEP, explains the classification of architectural and archaeological heritage sites. Scheduled Ancient Monuments (SAMs) are scheduled under the Ancient Monuments and Archaeological Areas Act 1979 and are of national importance. Listed buildings are listed under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997, and are described in the act as being those buildings considered to be of 'special architectural or historic interest'. There are 3 categories of listed building; A, B, and C(s).

Conservation areas are also designated under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 and are described in section 61 of the act as "areas of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance".

All provisions and regulations attached to the Historic Environment (Amendment) (Scotland) Act 2011 came into force on the 1st of December, 2011. This Bill was brought in to improve the management and protection of Scotland's Historic Environment by addressing weaknesses identified in the aforementioned Ancient Monuments and Archaeological Areas Act 1979 and the Planning (Listed Buildings and Conversation Areas) (Scotland) Act 1997.

Gardens and Designed Landscapes (GDLs) are designated on behalf of the Scottish Ministers by Historic Scotland. The Historic Environment (Amendment) (Scotland) Act 2011 (henceforth 'The 2011 Act') placed GDLs on a statutory footing. The relevant section of the act came into force on 30th June 2011. Designated Gardens and Designed Landscapes are selected for their national importance. Section 11 of the 2011 Act explains that a GDL is defined as "a grounds which have been laid out for artistic effect".

The Historic Environment Scotland Act 2014 (The Bill received royal assent on 9th December 2014) establishes Historic Environment Scotland (HES) as a new Non Departmental Public Body (NDPB) which will take over the functions of Historic Scotland and Royal Commission on Ancient and Historical Monuments in Scotland (RCAHMS). It is proposed the regulations will come into force on 1st October 2015.

Non-Statutory Designations

Archaeological and historic sites of lesser importance are recorded on Angus Council's Sites and Monuments Record and the National Monuments Record of Scotland.

[114] *http://www.historic-scotland.gov.uk/index/heritage/climatechange/climatechangeourrole.htm*

9.4 Desk-based Study

The initial stage in carrying out this assessment was a desk-based survey of historic sites in the area. The sites were identified through the online Pastmap system and cross-checked with data from Angus Sites and Monuments Records (SMR), The Royal Commission on the Ancient and Historical Monuments of Scotland, and Historic Scotland.

The results of this research are presented in the 'Gazetteer of Historic Sites' at the end of this chapter. The distances to each historic site, taken approximately from the base of the proposed turbine are calculated. Some notable findings of the desk based research were as follows:

Overall Pattern of Historic Sites

Historic sites are scattered across the surrounding countryside. Within 5 km of the proposed turbine location, sites of varying significance were identified, from nationally significant Scheduled Ancient Monuments to records of small archaeological finds.

Development Site

The current land use of the site is arable farming. No direct impacts on historic artefacts, sites, or buildings, are anticipated, and no known historic sites are expected to be physically disturbed by the construction of the wind turbine or any related civil works. Impacts on the historic environment caused by this development are therefore reduced to potential indirect impacts on setting.

Setting and Temporary Planning Permissions

Because there are no direct impacts on historic assets within the site boundary, the remainder of this assessment is concerned with effects on the 'setting' of historic assets. It is therefore worth considering what the term 'setting' means in this context. Historic Scotland provide the following definition in '*Managing Change in the Historic Environment – Setting*' (October 2010):

> *"Setting should be thought of as the way in which the surroundings of a historic asset or place contribute to how it is experienced, understood and appreciated."*

Planning permission for a wind turbine at Bolshan is sought for a period of 25 years, after which the turbine will be decommissioned. Any further turbine development would need planning approval. Impacts on setting are reversible and 25 years is a short period in the lifetime of the historic assets considered here.

Scheduled Ancient Monuments

There are 16 scheduled ancient monuments (SAMs) within 5 km of Bolshan. Of the 16 SAMs, all except Kinnells Mill cairn, Cairn Knap, Braikie Castle and Kinnaird Castle are represented by crop marks. Crop marks appear when plant growth is affected by sub-surface archaeological features, and are often only visible from a higher vantage point. The importance of these sites lies below ground, where important archaeological features can be uncovered and studied. All of the sites are located in agricultural land and their setting will have been affected by both modern and traditional farming practises. The indirect visual effect caused by a single turbine at Bolshan would not confuse the setting of these SAMs. Therefore, the impact on SAMs represent by crop marks is deemed to be slight and has not been assessed any further.

Kinnells Mill cairn and Cairn Knap are both represented by a turf covered stony mound. Kinnells Mill cairn is situated in the corner of a private garden, while Cairn Knap is in a field surrounded by a modern wall. Online satellite imagery, source using Google Maps ™ shows that the view of the turbine from two sites, Kinnells Mill cairn and Cairn Knap, will be screened by intervening tree cover and buildings too localised to be included in the exclusion zones specified in the ZTV run-data. Kinnaird Castle is out of the ZTV, so the setting is not considered to be negatively affected by the proposed turbine. ZTV diagrams are included within the volume of Landscape and Visual Impact Assessment Figures provided with this Environmental Report. These figures help to understand how visible the turbine is expected to be from various locations within the landscape surrounding the Bolshan turbine. The ZTV diagrams are a useful tool but not completely accurate down the smallest detail, as they do not take into account screening from buildings, single trees, or small groups of trees. This means the ZTV figures usually over-estimate how visible the turbine will be. As such, visibility at these SAMs is highly likely to be less than the ZTV suggests and these sites have not been assessed any further.

The following notable SAM was identified 2.2 km from the turbine: **Braikie Castle (Index number: 166)** The Historic Scotland record online describes the site as follows: *The monument is the remains of Braikie Castle, a late 16th-century*

tower house. The tower is L-shaped in plan with four storeys and a garret. It survives to wall-head height and fragments of the roof timbers and slate tiles survive on the N and NW side"

The effect of the Bolshan turbine on Braikie Castle has been further assessed later in this chapter due to its significance and the wide views it enjoys toward the surrounding countryside. It is interesting to note that during the consultation for application 12/00732 which was for a proposed turbine of similar height, and in principle view 1.2 km south west from the Castle, Historic Scotland had no objections as the impact of the development on the setting of the castle was not of a magnitude as to raise issues of national significance.

The previous planning application for a wind turbine at Bolshan (Ref 13/00887/FULL) was closer to the Castle. Previously the turbine was proposed 1960m from the Castle, but the new turbine position has extended this distance to 2210m and taken the turbine lower behind intervening topography. This is one of several benefits of the new turbine position.

Listed Buildings

There are a large number of listed buildings surrounding Bolshan. Within 3 km there are 15 listed buildings all of which are within the ZTV of the turbine. The closest of these is located about 1.1 km from the turbine: C listed Muirside of Kinnell, Old Schoolhouse. This building is south facing, and has no windows facing the turbine direction. Trees and a hedgerow in the field between the building and the turbine will provide screening. 1.2 km from the turbine is the B listed building Willanyards (HB Number 12326, Grid Ref 362521 753334), located within the ZTV of the turbine. This building is screened by vegetation to the south west of the building so the impact is considered to be negligible. Little Fithie farmhouse is situated 2.2 km to the North West from the turbine. It is screened by vegetation, and the impacts will be further mitigated by distance from the turbine location. Former Kinnell Parish Church (HB Number 51307, Grid Ref 360880, 750277) a C listed building is located 2.5 km from the turbine. This building will be screened by other buildings and vegetation so the impact is also considered to be negligible. There is a group of 5 B listed buildings at Kinnell within the ZTV. These range from 2.5 to 2.7 km from the turbine site. These buildings are mostly incorporated into a working farm environment, so it is considered they would not be negatively impacted by the turbine. These buildings have not been assessed any further. There is a group of 4 B listed buildings at Farnell, and the Farnell Castle (A Listed) which are 2.9 – 3 km from the proposed turbine site. These are all screened by vegetation, so will not be directly impacted.

The nearest A listed building is Braikie Castle which is also a scheduled ancient monument, and has been further assessed later in this chapter.

Non-Statutory Sites

Seven non-statutory recorded sites were identified within a 1 km radius of the site (refer to appendix 1 for details). None of these sites are recorded as being of 'regional significance' on Angus SMR.

The non-statutory site, Kinnell Airfield (NO65SW0049), consists of the remains of a World War II airfield and three associated camps. The proposed turbine is located about 900 m from the airfield. The site condition is described as 'incomplete'. All that remains of the three accommodation camps is a combined three hut structure and a detached hut. The previous planning application for a wind turbine at Bolshan (Ref 13/00887/FULL), which was designed by another consultant, was within the area of these accommodation camps. Removal of some of the historic buildings would have been likely if it were to be built. The new turbine position, 422m to the north-east of the previous position, has no such conflict with the historic environment. This is one of several benefits of the new turbine position.

Three other non–statutory sites are located where the current Bolshan farm buildings are situated. The two Willanyards records, are locations where axe heads were discovered. Teuchat Hillock is a small farmstead situated about 900 m from the proposed turbine site.

No further assessment of impacts on the settings of these minor non- statutory sites was deemed necessary.

Conservation Areas

There are two conservation areas within 10 km of the proposed turbine. Brechin Town Centre, and Brechin St Ninian's Square are both 7.7 km to the north of the site. The ZTV shows that the turbine is not visible from any of these areas. It is unlikely therefore that there will be any effect on the setting of these Conservation Areas by the Bolshan Renewables Project and no further assessment was deemed necessary.

Gardens and Designed Landscapes

There are seven garden and designed landscapes (GDLs) within 10 km of the Bolshan Renewables Project. The closest of these, Kinnaird Castle is located 4.8 km to the north east of the turbine. The ZTV indicates the hub of the turbine may be seen from Kinnaird Castle gardens. The impact of the turbine on the setting of the castle gardens will be mitigated by the fact that the castle lies within 1300 acres of walled parkland. House of Pitmuies, is located 5.6 km south west of the site, while Guthrie Castle is 5.7 km to the south west of the site. Both of these gardens are expected to be well screened from the turbine by walls surrounding the gardens and tall vegetation. Brechin Castle is 7.1 km to the North West, and Dunninald and Craig House are 8.9 km, and 9.4 km north east from the turbine respectively. They all lie out with the ZTV. House of Dun is 9.0 km in the north east direction is partially in the ZTV. The overall effect of the turbine on the setting of any of these sites will be further mitigated by distance. As such, it is expected to be extremely negligible and no further assessment of GDLs was deemed necessary.

9.5 Viewpoint Assessment

Given the results of the desk based survey and detailed ZTV analysis, it was considered useful to carry out further analysis of the effect the turbine would have on the A listed building and SAM; Braikie Castle.

At an earlier iteration of the project (planning application 13/00887/FULL) Historic Scotland were consulted regarding the possible impact of the proposed turbine on the surrounding area. At that time the turbine was located 1984m from centre of the castle tower and was about 422m south-west of the current proposed turbine location (Grid reference 361394, 752245) which is 2210m from the castle tower. Historic Scotland responded by saying that they have no objection in principle to a wind turbine development in this location but would wish to see a photomontage showing views to and from Braikie Castle.

When the current planning application was prepared a site visit was carried out with the intention of taking photos for the photomontage assessment. However the landowner where Braikie Castle is located objected to photographs being taken from his property. A wireframe assessment will be presented instead. As is shown below, the findings are such that a photomontage was not entirely necessary.

Wireframe Assessment

A 'wireframe' image combines ordnance survey terrain data with the turbine coordinates and dimensions to accurately show a 'bare land' view of the turbine. Wireframes do not have the colour and detail of photomontages, but wireframes are the basic starting point for full photomontages and are a useful tool.

The details of the Historic Site - Braikie Castle, the subject of the Wireframe Assessment are shown in Table 37.

Table 37: Site to be Assessed Using Wireframes

Historic Site	*Classification*	*Grid Ref*	*Distance From Turbine (km)*	*Reason for Selection*
Braikie Castle	'A' listed building Scheduled ancient monument Gardens and Designed Landscapes	362846, 750893	2.2 km	Significant site within ZTV

Methodology for Viewpoint Assessment

As in the landscape and visual impact assessment section of this Environmental Report, indirect visual impacts have been assessed by choosing a receptor (in this case the architectural or archaeological heritage site) and then arriving at a judgement of the **'significance'** of the effect on this receptor by combining assessments of its **'sensitivity'** and of the **'magnitude'** of the effects it is subjected to.

It is important that the methodology used is transparent. Full details of the criteria for 'sensitivity' and 'magnitude' are given in Appendix 2 of this chapter.

The following matrix has been applied in order to derive the 'significance' of impacts by combining sensitivity and magnitude ratings.

Table 38: Matrix for combining 'magnitude' of effect and 'sensitivity' used to derive overall 'significance' of effect.

		Sensitivity		
		High	Medium	Low
Magnitude	High	High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Negligible or Positive
	Negligible	Low	Negligible or Positive	Negligible or Positive

The following page shows two wireframe images, one of which shows how only the turbine tip is expected to be visible from Braickie Castle, with the viewing position being an eye-level 2m from the ground adjacent to the tower.

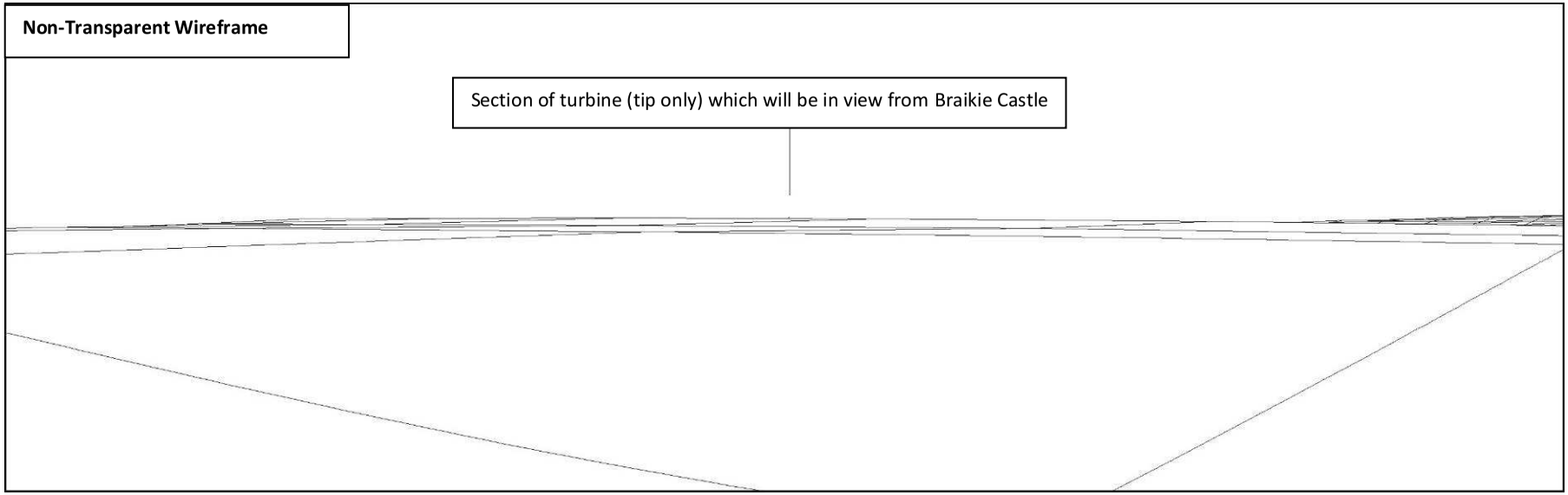


Figure 17: Wireframe from Braikie Castle (GR NO 62853, 50894), 68deg field of view.

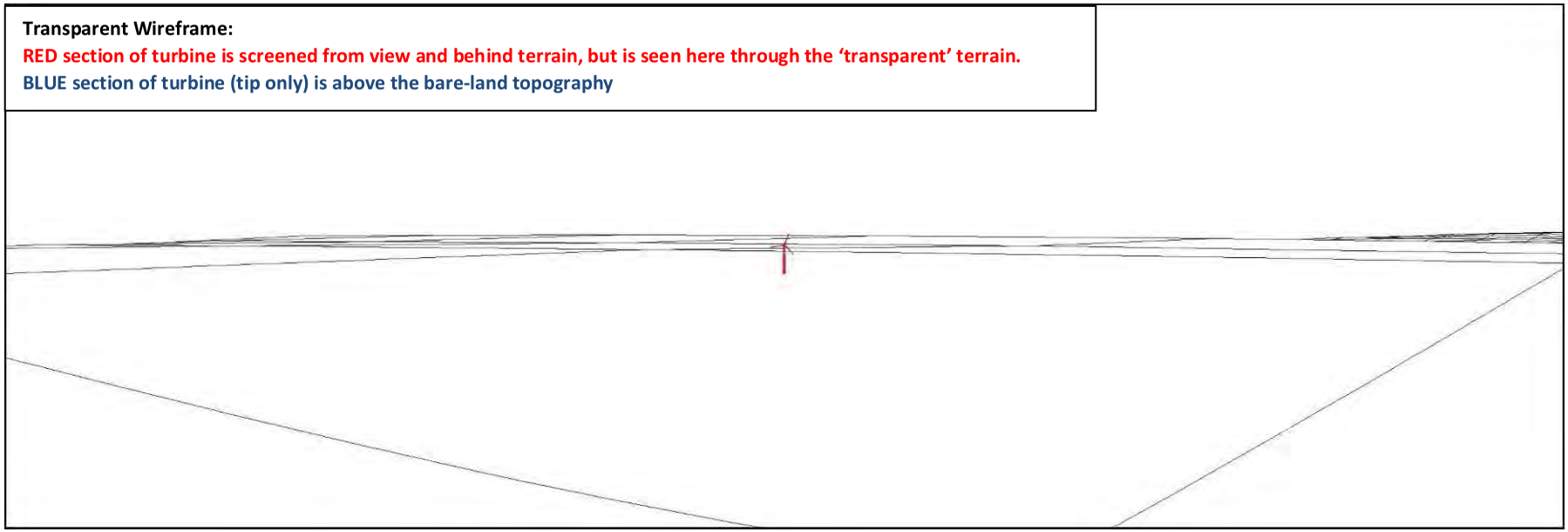
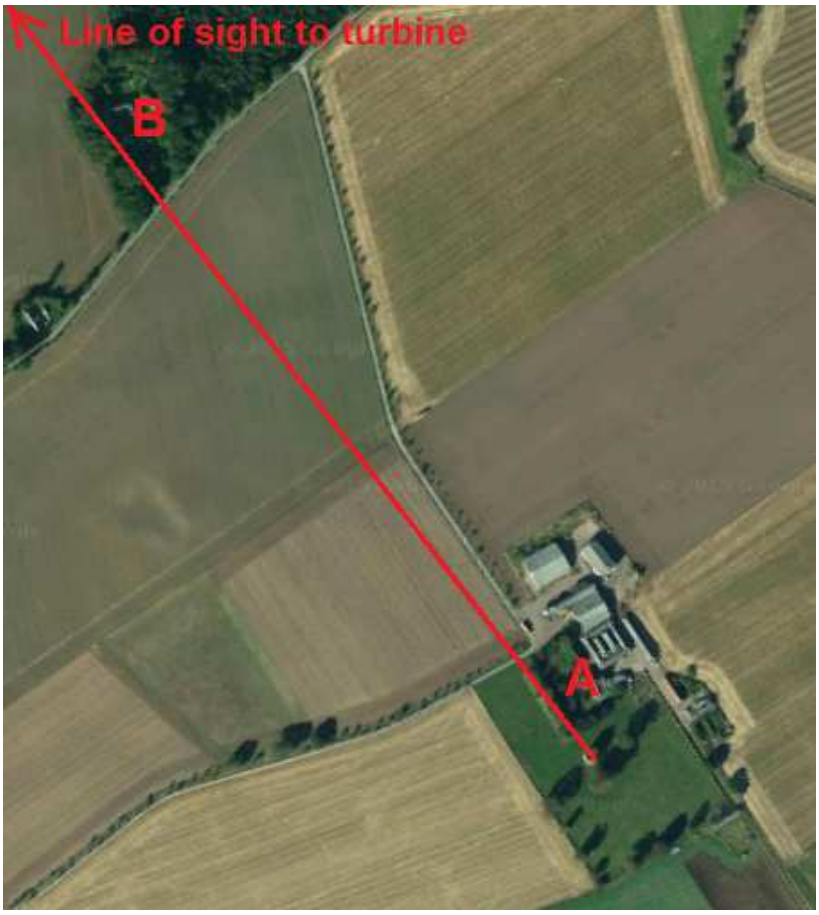


Figure 18: Transparent Wireframe from Braikie Castle (GR NO 62853, 50894), 68deg field of view.

In addition to the wireframes the following aerial photo below helps develop an understanding of the visual impact on the setting of the Castle and the extensive screening from topography and trees. The line-of-sight from the castle tower to the turbine has been added to the aerial photo using a red line. It is thought that the very small part of the turbine that may be visible above the bare-ground horizon, as shown in the wireframes, would be obscured by the trees at points 'A' and 'B'.



Assessment Table

The table below contains an assessment of the effect of the turbine on the setting of Braikie Castle.

Table 39: Wireframe Assessment, Braikie Castle

Site Type: Scheduled Ancient Monument, A Listed Building, Garden and Designed Landscape Figure 17 & Figure 18 **Distance to turbine from viewpoint:** 2.2 km **Grid reference for viewpoint:** 362853, 750894 **Notes on Viewpoint Position:** The viewing position is an eye-level 2m above the ground adjacent to the tower.
Assessment of Sensitivity: With reference to Table 46 Category A and B listed buildings are categorised as being of 'high' sensitivity. **Sensitivity:** High
Assessment of Magnitude: The methodology for assessing magnitude (see Table 47) refers to direct and indirect impacts together with noise impacts and the impact of ancillary development. There will be no direct impacts on Braikie Castle, the turbine will not be at all audible from this distance, and no ancillary development (such as access tracks or electrical equipment) will be visible from this distance. These factors significantly reduce the magnitude of the impact. The wireframe shows that the turbine would be screened behind the hill with only the tip of the turbine theoretically visible from Braikie Castle, however in reality this would be concealed by vegetation. Beyond Braikie Castle, the setting is already altered by a more modern rural landscape, with large farm buildings and a farm yards in the close vicinity. While the turbine may be a slightly visible addition to the landscape, it is a modern diversification of a local farming business. Historic Scotland's document; 'Managing Change in the Historic Environment – Setting' (October 2010) describes and examines setting. When defining setting, Historic Scotland state that it comprises of a combination of "modern changes", as well as surviving "original setting (and) subsequent development". Some very negligible effects on the setting of the castle cannot be ruled out. These negligible effects may be possible when views from elsewhere which contain both the castle and the turbine are considered, or when views from within the immediate setting of the turbine are considered, particularly in the western part of the grassed field in which the turbine sits. These views are not represented by the wireframe image or the line of sight indicated above and so are not the focus of the assessment set out in this table, but they have been noted below. The setting of the site is already altered by the modern landscape, and the site is located next to a public road. With reference to the definition of 'negligible' given in Table 47, the turbine would be "an introduction of elements that could be visible but not intrusive in views". Therefore, the magnitude of change to the view is deemed to be negligible. **The magnitude of effect on setting is considered to be:** • **None** (from the wireframe viewpoint position) • **Negligible** (possible from some other locations)
Significance of Effect: With reference to the matrix presented in Table 38, the significance of the effect on Braikie Castle would be**.** • **None** (no effect from the viewpoint assessed in the wireframe) • **Low** (possible from some other locations)

9.6 Cumulative Assessment

The assessment for the Bolshan turbine has considered the proposed turbine in isolation and excluded the effect of all other wind energy developments in the area. Figures C1 to C6 within the volume of LVIA figures show other permitted, and proposed wind energy developments in the area surrounding Bolshan.

It is possible that some other turbine developments in the local area may have a significant impact on the historic environment, but a complete assessment of these developments cannot be provided here. It would be inaccurate to somehow attribute the effects of another wind energy development to the Bolshan Renewables Project.

The assessment for the proposed turbine has found that it is expected to have only a very negligible impact on the historic environment. Therefore, it can be concluded that any cumulative impacts on the historic environment within the local area could only be attributed to the Bolshan Renewables Project to a very negligible degree. This development represents a good opportunity for generating renewable energy in the area whilst avoiding an adverse cumulative impact on the historic environment.

9.7 Conclusions, Historic Environment

Historic sites have been thoroughly identified and catalogued through a desk based study. The assessment has been carried out with reference to the relevant guidance and through the application of a transparent methodology.

The planning consent sought would last 25 years, this is a short period in the history of this area and the granting of planning permission will not result in a permanent effect on the settings of historic sites.

The nearest scheduled ancient monument is over 2 km away and the nearest listed building is over 1 km away. Within 10 km there are seven garden and designed landscape and three conservation areas. None of these sites are expected to have any more than a partial view of the turbine from parts of the site. Any effects on the settings of the historic assets will be notably mitigated by distance, and in most cases, intervening tree cover and other obstructions.

The wireframe assessment found that no views of the turbine are expected to be possible from the immediate surroundings of Braikie Castle, but it could be possible that some effects of 'low' significance could be experienced from views which include both the castle and the turbine, and from the western most extent of the field in which the castle is set.

Generally, no adverse impacts on the historic environment were identified through the desk based study and wireframe analysis. This suggests that in terms of mitigating effects on the historic environment the proposed site is a suitable site for wind energy development and the design of the development is appropriate.

It is concluded that the historic environment will not be adversely affected by the proposed turbine, and that the development is therefore considered to be in accordance with the Angus Local Plan Review policies which safeguard the historic environment.

Historic Environment Appendix 1: Gazetteer of Historic Sites

All distances are measured from the proposed turbine position (361507, 752652). Each table has been organised in order of distance to the turbine.

Table 40: Scheduled Ancient Monuments within 5 km

Scheduled Ancient Monument	*Index Number*	*Easting*	*Northing*	*Distance to turbine (km)*
Braikie Castle	166	362851	750893	2.2
Hatton Mill, enclosure 300 m WNW of	6317	361076	750217	2.5
Kinnells Mill, cairn	6312	360485	750190	2.7
Invergighty Cottage, barrow cemetery N of Boysack	5985	362080	749583	3.1
Balneaves Cottage, cursus and settlement 200 m SE of	6041	360647	749565	3.2
Boysack, barrow cemetery 500 m NW of	5984	361798	749400	3.3
Douglasmuir, ring ditch, enclosure and pits 500 m NW of	5983	360837	749274	3.4
Milton of Guthrie, cursus NE of	6282	359052	750017	3.6
Boysack, enclosures, ring ditches and souterrains	5986	361954	748910	3.8
Pitmuies Mill Farm, ring ditch 250 m NW of	6091	358564	749941	4.0
Cairn Knap, cairn	6093	359318	749013	4.2
Chapelton, settlement 750 m NW of	5987	362134	748437	4.5
Friock Mains, pit alignment 270 m WNW of	6092	358520	749336	4.0
Damside Cottages, settlement 400 m E of	6090	358089	749588	4.6
Damside Cottages, souterrain 250 m E of	6089	357916	749622	4.7
Kinnaird Castle, enclosure 300 m WNW of	6398	357765	749412	4.9

Table 41: Listed Buildings within 3 km.

Listed Building	*HB Number*	*Category*	*Easting*	*Northing*	*Distance to turbine (km)*
Muirside Of Kinnell, Old Schoolhouse	12324	C	360536	752191	1.1
Willanyards	12326	B	362521	753334	1.2
Braikie Castle	12325	A	362846	750893	2.2
Little Fithie, Farmhouse	11504	C	362342	754738	2.2
Former Kinnell Parish Church Graveyard Including Gatepiers, Gates And Enclosure Walls	51307	C	360880	750277	2.5
Kinnell Mill & Granary, Gatepiers	12322	B	360668	750181	2.6
Kinnells Mill Cottages	12323	B	360650	750184	2.6
Kinnells Mill And Granary	12323	B	360563	750197	2.6
Kinnells Farmhouse	12321	B	360513	750173	2.7
Kinnell Bridge	13815	B	360605	750098	2.7
Farnell Castle, Dovecot	11502	B	362524	755387	2.9
Farnell Castle	11501	A	362429	755488	3.0
Farnell, Glebe House, Sundial	11499	B	362690	755390	3.0
Farnell, Glebe House	11498	B	362685	755401	3.0
Farnell, Glebe House, Gatepiers	11500	B	362663	755415	3.0

Table 42: Non Statutory Sites within 1 km

Site Name	*Angus SMR Reference*	*Significance*	*Easting*	*Northing*	*Distance to turbine (m)*
Bolshan (site of a castle)	NO65SW0006	Standard	361704	752107	580
Willanyards	NO65SW0039	Standard	361995	753005	602
Bolshan Windmill	NO65SW0036	Standard	361942	752070	727
Kinnell Airfield	NO65SW0049	Standard	360955	751439	802
Bolshan (site of a chapel)	NO65SW0009	Standard	362001	751999	819
Teuchat Hillock	NO65SW0068	Standard	360549	752749	963
Willanyards 2	NO65SW0066	Standard	362304	753197	966

Table 43: Conservation Areas within 10 km

Conservation Area	***Distance to turbine from nearest edge (km)***
Brechin Town Centre	7.7
Brechin St Ninian's Square	7.7

Table 44: Gardens and Designated Landscapes within 10 km

Garden and Designed Landscape	***Easting***	***Northing***	***Distance to turbine (km)***
Kinnaird Castle	362757	757291	4.8
House Of Pitmuies	356628	749826	5.6
Guthrie Castle	356239	750485	5.7
Brechin Castle	359250	759345	7.1
Dunninald	370216	754237	8.9
House Of Dun	366907	759873	9.0
Craig House	370230	756197	9.4

Historic Environment Appendix 2: Assessment Methodology

Initially a desk-based study was completed using Historic Scotland's available GIS databases. All A and B Listed Buildings and Scheduled Monuments within a 5 km radius were identified (see Table 40 and Table 41). In addition, a search of C Listed Buildings within 3 km of the proposed turbine location was undertaken.

The assessment[115] focuses mainly on the visual impact on these sites; the matrix used to assess the overall impact is detailed in Table 45 below.

Table 45: Overall impact assessment matrix

		Sensitivity		
		High	Medium	Low
Magnitude	High	High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Negligible or Positive
	Negligible	Low	Negligible or Positive	Negligible or Positive

The guidelines in Table 46 and Table 46 below are used to determine the sensitivity and magnitude of the potential impact on the cultural heritage receptors.

Table 46: Summary of the criteria used in this study to assess the relative sensitivity of an historic receptor

Sensitivity	***Definition***
High	Category A and B listed building
	Scheduled Ancient Monument
	Non-statutory List of sites likely to be of national importance
	Designed Gardens and Landscapes
Medium	Category C(S) listed building
	Archaeological sites on the Sites and Monuments record (of regional and local importance)
	Conservation Areas
Low	Archaeological sites of lesser importance
	Non-Inventory Gardens and Designed Landscapes

Table 47: Criteria for assessing magnitude of impact upon historic receptors.

Magnitude	*Definition*
High	Any number of wind turbines and/or ancillary development that would result in: • the removal or partial removal of key features, areas or evidence important to the historic character and integrity of the site, which could result in the substantial loss of physical integrity; and/or • a substantial obstruction of existing view by the addition of uncharacteristic elements dominating the view, significantly altering the quality of the setting or the visual amenity of the site both to and from. Where the mechanical or aerodynamic noise from any number of wind turbines (or from other neighbouring wind energy developments) that are likely to detract from site amenity of a popular built or cultural heritage site managed as a visitor attraction adjacent to a wind energy development.
Medium	Any number of wind turbines and/or ancillary development that would result in: • the removal of one or more key features, parts of the designated site, or evidence at the secondary or peripheral level, but are not features fundamental to its historic character and integrity; and/or • a partial obstruction of existing view by the addition of uncharacteristic elements which, although not affecting the key visual and physical relationships, could be an important feature in the views, and significantly alter the quality of the setting or visual amenity of the site both to and from. Where the noise intrusion (mechanical or aerodynamic) from any number of wind turbines (or from other

[115] Based on the following report: University of Newcastle (2002) Visual Assessment of Windfarms Best Practice. Scottish Natural Heritage Commissioned Report F01AA303A.

	neighbouring wind energy developments) may detract from the amenity of a built or cultural heritage site adjacent to a wind energy development.
Low	Any number of wind turbines or ancillary developments that may result in: • a partial removal/minor loss, and/or alteration to one or more peripheral and/or secondary elements/features, but not significantly affecting the historic integrity of the site or affect the key features of the site; and/or • an introduction of elements that could be intrusive in views, and could alter to a small degree the quality of the setting or visual amenity of the site both to and from. Where the noise intrusion (mechanical or aerodynamic) from any number of wind turbines (or from other neighbouring wind energy developments) is unlikely to detract from the amenity of a built or cultural heritage site adjacent to a wind energy development.
Negligible	Any number of wind turbines or ancillary developments that may result in: • a relatively small removal, and/or alteration to small, peripheral and/or unimportant elements/features, but not affect the historic integrity of the site or the quality of the surviving evidence; and/or • an introduction of elements that could be visible but not intrusive in views, and the overall quality of the setting or visual amenity of the site would not be affected both to and from. Where the noise intrusion (mechanical or aerodynamic) from any number of wind turbines (or from other neighbouring wind energy developments) would not have any noticeable effect on the amenity of a built or cultural heritage site adjacent to a wind energy development.

10. Hydrology

10.1 Introduction

This chapter presents an assessment of the likely impacts on surface and groundwater hydrology of the development. It includes a characterisation of the existing water environment, against which any effects are evaluated. It also outlines mitigation measures that are likely to be required during the construction and operation of the Bolshan Renewables Project. It is taken that the life-span of the development is 25 years.

Understanding surface and groundwater environments is critically important to designing a successful project. Surface water includes watercourses, water bodies and runoff. Groundwater includes all water stored in permeable underground strata (or aquifers). In any construction project it is important to understand both where and how they relate to each other so that the project can be designed to minimise the risk of pollution or any other impact. Surface water provides important water resources for potable and other supply, amenity, aesthetic value, conservation and ecological environments and importantly, recharge to groundwater systems.

Key pollution concerns for surface water from the proposed project are:

- Sediment erosion and contaminated silty runoff during construction.
- Chemical spill from activities such as refuelling of construction vehicles;
- Contaminated ground water from any dewatering activities; and
- Modification or destruction of habitats.

Groundwater provides essential base flow to rivers and wetland areas, often supporting important ecological systems. Key pollution concerns for groundwater are:

- Chemical spill from activities such as refuelling of construction vehicles; and
- Creation of new pollution pathways through, for example, excavation or piling.

The methodology of this assessment is based on the collection of data and information from published material as well as consultations with statutory bodies, principally SEPA, Angus Council, as well as the land owner's own knowledge of the site. Although hydrological issues are likely to be relatively minor at this site, the risk of pollution of watercourses, groundwater bodies and, most importantly, private water sources within or near the site needs to be assessed and appropriately mitigated where necessary.

10.2 Legislation, Policy and Guidance

The assessment has been undertaken primarily using a qualitative assessment based on professional judgement, statutory, general, national and local guidance. This chapter represents the majority of the national guidance that has been used for this assessment.

The statutory development plan for the proposed development is the Angus Local Plan Review (LPR) 2009. The LPR contains the following policies which make provisions for wind turbine developments, water management and the prevention of flooding:

- Policy ER34: Renewable Energy Developments
- Policy ER35: Wind Energy Development
- Policy ER24: Surface Water Disposal
- Policy ER25: Water Resource Protection
- Policy ER27: Flood Risk - Consultation
- Policy ER28: Flood Risk Assessment

In addition to the LPR guidance described above, there is a range of environmental legislation relevant to the life-cycle of this development, including:

- The Water Environment (Controlled Activities) (Scotland) Regulations 2011
- PAN 61 Planning and Sustainable Urban Drainage Systems
- PAN 79 Water and Drainage

The remainder of the chapter discusses the likely impacts of the wind turbine development on surface and groundwater hydrology.

10.3 Sources of Information

This assessment has been undertaken primarily using a qualitative assessment based on general, national and local guidance as follows:

Table 48: Sources of information for hydrology assessment

Topic	Source of Information
Climate	
Rainfall	Met Office - http://www.metoffice.gov.uk/public/weather/climate
Runoff	UK Hydrometric Register (NERC) 2008
Surface waters	SEPA - http://map.sepa.org.uk/floodmap/map.htm
Water Quality	SEPA
River flows	SEPA UK Hydrometric Register (NERC) 2008
Groundwater	
Aquifer Productivity	BGS – UK Hydrogeology Viewer http://mapapps.bgs.ac.uk/hydrogeologymap/hydromap.html
Bedrock Aquifer Productivity	BSG – Bedrock Aquifer Productivity Map for Scotland http://nora.nerc.ac.uk/504764/1/CR-04-047N_SEPA%20Aq%20productivity.pdf
Groundwater vulnerability	BGS – Groundwater Vulnerability (Scotland) GIS dataset http://nora.nerc.ac.uk/17084/1/OR11064.pdf
Geology	BGS – Onshore Geoindex http://mapapps2.bgs.ac.uk/geoindex/home.html
Solid and Drift Geology	BGS – Geology of Britain (Web based GIS) http://mapapps.bgs.ac.uk/geologyofbritain/home.html
Water Resource Use	
Groundwater and Surface Water Abstractions	Angus Council and SEPA
Pollution of groundwater	
Pollution prevention	SEPA Policy No.19: Groundwater Protection Policy for Scotland. SEPA Pollution Prevention Guidance Notes (PPG): o PPG 1: General guide to the prevention of water pollution; o PPG 2: Above Ground Oil Storage Tanks; o PPG 5: Works in, near of liable to affect watercourses; o PPG 6: Working at construction and demolition sites; o PPG 21: Pollution incident response planning.

10.4 Hydrogeology

Bedrock Geology

In assessing wind energy developments, the underlying geology is an important factor. The BGS Geology of Britain (Web based GIS, 1:50 000 scale geology) indicates that the geology at the site is Dundee Flagstone Formation, which comprises of medium- to coarse-grained, cross-bedded sandstones and substantial, distinctive, flaggy sandstones interbedded with minor siltstones and mudstones, interdigitated with the Ochil Volcanic Formation. The surrounding area consists of the Montrose Volcanic formation which contains a mixture of Andesite, basaltic andesite, other andesitic rocks, volcaniclastic conglomerate and sandstone.

Superficial deposits

The BGS Geology of Britain (Web based GIS, 1:50 000 scale geology) indicates that the superficial deposits within the immediate area and within 1 km radius for the immediate area consists of Till, Devensian found to be consistent with Diamicton sediment. There are no important geological resources that may potentially be impacted by the proposal.

Hydrology

The closest Climate Station to the proposed turbine site is Forfar No3 Climate Station (NO 43307 54968), situated 18.3 km to the North West. Table 49 shows the Annual Average Monthly rainfall for the period 1981 – 2010 at this site[116].

Table 49: Annual Average Monthly rainfall (1981 -2010) - Forfar No3 Climate Station

Month	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Rainfall (mm)	80.2	49.3	63.7	48.7	51.5	62.1	57.5	67.4	66.6	97.2	78.1	68.6	791.0

The closest flow gauging station to the site is maintained on Lunan Water (NO 65466 49433), ~ 5 km south east of the site. The UK Hydrometric Register (2008) records the following station statistics:

Table 50: Kirkton Mill (Lunan Water) Flow Gauging Records

Station Number	13005
Catchment Area	124 km^2
Period of Record	1981-2013
Mean Flow	1.706 $m^3 s^{-1}$
Q95	0.195 $m^3 s^{-1}$
Q10	3.805 $m^3 s^{-1}$
Baseflow Index	0.52

The mean flow is the average flow, weighted to account for the different number of days per month of the daily mean monthly flows for the period of the monitoring record. The 10 percentile and 95 percentile flows are river flows that were equalled or exceeded for 10 and 95 per cent of the monitoring record. They provide measures of a catchment response to rainfall (flashiness) and dry weather flow characteristics respectively.

The base flow index was developed by the Institute of Hydrology (now CEH Wallingford) during the Low Flow Study project to help assess low flow characteristics of rivers in the UK. The index is considered to provide a measure of the proportion of river runoff that derives from stored sources – the more permeable the rock, drift and soil material of a catchment the higher the baseflow and the more sustained the river flow during periods of little rainfall. Typically rivers draining impervious catchments have baseflow indices of 0.15 – 0.35. A highly permeable catchment may have index score of more than 0.9 and reflects a high component of groundwater flow to the river discharge.

[116] http://www.metoffice.gov.uk/public/weather/climate/gfjfmqukv

Ground Water Conditions/Geology

The Water Framework Directive (WFD) has a wide range of objectives, one of them being to measure the effect of human activity on Scotland's groundwater. Scotland's groundwater is a valuable resource providing a source for thousands of properties, farms, and other buildings, plus the provision of the general public water supply. Throughout the year groundwater springs feed many terrestrial ecosystems. In the summer months, groundwater helps to maintain river flows via baseflow discharge. Natural deterioration of groundwater quality rarely occurs and deterioration is often associated with human activity.

Groundwater Vulnerability

In its simplest form groundwater vulnerability can be defined as: "The tendency and likelihood for general contaminants to reach the water-table after introduction at the ground surface"[117]

Interpretation of the aquifer and vulnerability maps

The movement and concentrations of contaminants in the subsurface is an important element in the source-pathway-receptor risk assessment process and has been defined on a national-scale through aerial reconnaissance and the development of Aquifer and Vulnerability Maps. Vulnerability maps provide a regional screening tool that enables areas of comparatively higher risk to be identified and to help scope the amount of detailed site investigation required at a particular site. The maps represent simplifications of the complex processes involved in subsurface contaminant transport. Their features are described in detail in the aquifer and vulnerability subsections below. SEPA has simplified the features into horizontal and vertical pathways as follows:

Horizontal Pathway (represented by the Aquifer Map), and Vertical Pathway (represented by the Vulnerability Map).

Horizontal Pathway (Aquifer Maps)

Aquifers in Scotland have been classified according to their productivity and groundwater flow mechanisms, the key features of which are described in the table below. The table is sourced from 'GIS of aquifer productivity in Scotland: Explanatory notes" (2004).

[117] O Dochartaigh, B.E.; Ball, D.F.; MacDonald, A.M.; Lilly, A.; Fitzsimons, V.; del Rio, M.; Auton, C.A.. 2005 Mapping groundwater vulnerability in Scotland: a new approach for the Water Framework Directive. Scottish Journal of Geology, 41 (1). 21-30. 10.1144/sjg41010021

Table 51: Aquifer Productivity

	Aquifer productivity				
Flow mechanism	**Very High (VH)**	**High (H)**	**Moderate (M)**	**Low (L)**	**Very Low (VL)**
Intergranular (I)	**IVH** Attenuation of certain contaminants can occur within the aquifer itself. Additional protection is provided by strata overlying the aquifer.	**IH** Attenuation of certain contaminants can occur within the aquifer itself. Additional protection is provided by strata overlying the aquifer.	**IM** Attenuation of certain contaminants can occur within the aquifer itself. Additional protection is provided by strata overlying the aquifer.	**IL** Attenuation of certain contaminants can occur within the aquifer itself. Additional protection is provided by strata overlying the aquifer.	**IVL**
Dominantly Intergranular (DI)	**DIVH** Attenuation of certain contaminants can occur within the aquifer itself. Additional protection is provided by strata overlying the aquifer.	**DIH** Attenuation of certain contaminants can occur within the aquifer itself. Additional protection is provided by strata overlying the aquifer.	**DIM** Classification not applicable in Scotland.	**DIL** Classification not applicable in Scotland.	**DIVL** Classification not applicable in Scotland.
Intergranular and Fracture Flow (the latter is dominant) **(IF)**	**IFVH** Dilution within the aquifer itself can reduce contaminant concentrations in certain situations. Most protection is provided by strata overlying the aquifer.	**IFH** Dilution within the aquifer itself can reduce contaminant concentrations in certain situations. Most protection is provided by strata overlying the aquifer.	**IFM** Dilution within the aquifer itself can reduce contaminant concentrations in certain situations. Most protection is provided by strata overlying the aquifer.	**IFL** Protection will generally only be provided by strata overlying the aquifer.	**IFVL** Classification not applicable in Scotland.
Fracture Flow (F)	**FVH** Classification not applicable in Scotland.	**FH** Classification not applicable in Scotland.	**FM** Dilution within the aquifer itself can reduce contaminant concentrations in certain situations. Most protection is provided by strata overlying the aquifer.	**FL** Protection will generally only be provided by strata overlying the aquifer.	**FVL** Protection will generally only be provided by strata overlying the aquifer.

As well as assessing aquifer productivity, the maps can be used to assess contaminant activity in the subsurface. The 'type' of aquifer will often determine the rate of flow (and therefore the rate of contaminant movement) and the capacity for attenuation. Aquifers with fracture/intergranular flow tend to provide a relatively higher level of attenuation. The rate of flow tends to be slower relative to flow in highly fractured aquifers.

The SEPA map of superficial aquifers indicates a classification for the area surrounding the site as an aquifer of moderate productivity with small amounts of groundwater in near surface weathered zone and secondary fractures. Preliminary assessment of the SEPA map of bedrock aquifers indicates the Bolshan Renewables Project is located upon the Arbuthnott-Garvock Group and has an IFM classification (intergranular/fractured flow mechanism with moderate aquifer productivity).

Vertical Pathway (Vulnerability Map)

Table 52 below presents vulnerability definitions for potentially polluting surface activities (taken from the WFD28 project). Whilst Aquifer Maps represent how groundwater (and hence contaminants are dissolved in groundwater) moves in the aquifer itself, the Vulnerability Map represents the strata overlying a given aquifer. This vulnerability map will be influenced by three key factors:

1. The thickness and permeability of the overlying strata influences the movement of contaminants from surface sources of contamination to the underlying aquifer;

2. Thick, low permeability strata (e.g. thick clays) tend to provide more attenuation capacity than thin, highly permeable deposits (e.g. thin, sandy strata);

3. For intergranular aquifers, the depth to the water table is also important, with deeper unsaturated zones allowing more contaminant attenuation.

The Vulnerability Map is divided into 5 main vulnerability classes:

Table 52: Vertical Pathway Vulnerability Classes

Vulnerability category	Description	Frequency of activity	Travel time
5	Vulnerable to most water pollutants with rapid impact in many scenarios.	Vulnerable to individual events	Rapid
4	Vulnerable to those pollutants not readily adsorbed or transformed.		
3	Vulnerable to some pollutants with many significantly attenuated.		
2	Vulnerable to some pollutants, but only when continuously discharged/leached.		
1	Only vulnerable to conservative pollutants in the long-term when continuously and widely discarded and leached.	Vulnerable only to persistent activity	Very slow

Class 4 is further subdivided in a scale from 4a to 4d, where 4a is classified at a higher vulnerability than 4d.

Aquifer and Vulnerability Maps should be used in combination when undertaking a risk assessment of groundwater in Scotland, since contaminant migration is influenced by both vertical (Vulnerability Map) and horizontal (Aquifer Map) pathways.

The Bolshan Project site itself and the majority of the land within a 250 m radius of the site can be classified as Vulnerability Class 2.

Water Quality

SEPA Water Bodies Data Sheet[118] states that the nearest sampled water body, the Pow Burn, is located on Lunan/Pow bedrock. SEPA has classified this water body as having an overall status of bad with medium confidence in 2008. The quality of the groundwater has been classified as poor with high confidence and the quantity of groundwater has been classified as poor with medium confidence in 2008.

Abstractions

SEPA have published *'Land Use Planning System SEPA Guidance Note 4, Planning Advice on Windfarm Developments'* (05 May 2014). Page 14 of this document refers to a buffer distance of 250 m between private water supplies (PWS) and turbine foundations. Information from Angus Council concerning private water supplies (PWS) shows there are no PWS abstraction points within the immediate 250 m buffer from the proposed turbine position. There was one PWS identified at Willanyards about 1.5 km north east from the proposed turbine.

Potential Impacts

The potential impact on water quantity from the development is minimal, so the mitigation measures focus on preventing water pollution. The major potential risk to the water environment is from erosion of exposed ground and consequent suspended solid pollution during construction. There is also a smaller risk from chemical pollution from, for example, oil, or

[118] SEPA (n.d.) *RBMP Water body information sheet for water body 5802 in North East Scotland* [Online] Available: http://www.sepa.org.uk/water/river_basin_planning/waterbody_data_sheets.aspx

[i118] British Geological Survey *A GIS of aquifer productivity in Scotland: Explanatory Notes* (2004) [Online]. Groundwater Systems and Water Quality Programme Commissioned Report. Available: http://nora.nerc.ac.uk

fuel spills and concrete. The criteria used in the assessment is a qualitative risk assessment methodology, in which the probability of an impact occurring and the magnitude of the impact, if it were to occur, are considered. This approach allows effort to be focused on reducing risk where the greatest benefit may result.

A summary of the potential impacts and effects that the main features of the development could have on the hydrological environment are presented in the table below.

Table 53: Unmitigated Potential Impacts

Stage of Development	Activity	Potential Impacts	Potential Effects (Direct and Indirect)
Construction	• soil stripping • accidental spillages of fuel etc • maintenance and operation of vehicles • use of non-sewage mains connected facilities • construction of and upgrading of roads • discharge of water	• soil erosion/sediment loading • change to the runoff regime • deterioration in surface and groundwater quality • impede groundwater flow • alteration of watercourses	• detrimental effects/ significant changes to habitats and designated sites • detrimental effects on aquatic flora and fauna and modification of substrates • detrimental effects on private water supplies • detrimental effects on groundwater abstractions • detrimental effects on ecological interests • increased flood risk
Operation	• use of roads • increased areas of hardstanding • Operation of heavy plant	• change in runoff regime as a result of increased impermeable surface area • contamination hazard • deterioration in surface and groundwater quality • alteration of watercourses • soil erosion/sediment loading	• detrimental effects/ significant changes to habitats and designated sites • detrimental effects on private water supplies • detrimental effects on groundwater abstractions • detrimental effects on ecological interests • increased flood risk
Reinstatement	• removal of structures • re-vegetation	• change to the runoff regime • alteration of saturation levels • deterioration in surface and groundwater quality	• detrimental effects on private water supplies • detrimental effects on groundwater abstractions • detrimental effects on ecological interests

10.5 Mitigation

Special Area of Conservation

The River South Esk and some of the surrounding tributaries have been designated as a Special Area of Conservation (SAC). A SAC is an area that has been adopted by the European Commission and formally designated by the government of each member country within whose territory the site lies. The SAC site boundary encompasses Pow Burn, a tributary of the South Esk, which runs to the north east of the site. The shortest distance between the SAC boundary and the development site boundary is 2 km. Careful consideration must be given to pollution prevention. The following section outlines the relevant measures required to protect this SAC and the site's hydrology generally.

General Pollution Prevention Measures

There are a number of general pollution prevention measures that would be employed to ensure that both ground and surface waters are not contaminated at any stage of the development. The development will be designed, constructed, operated and decommissioned in line with relevant Pollution Prevention Guidelines (PPG) and other codes of best practice. These will be detailed in the Construction Environmental Management Document (CEMD) and issued to all operatives that enter the site.

Construction Phase

These potential impacts require mitigation and as such will be set out within a CEMD. This will be provided post-consent and will set out how the development will be constructed, and the additional mitigation commitments. These additional commitments would include both specific mitigation measures as well as proposals for monitoring and emergency procedures. Such emergency procedures would include a site-specific Pollution Incident Response Plan in order to prevent and mitigate damage to the environment caused by accidents such as spillages and fires.

All of the specified environmental mitigation measures that would be required for the development would be clearly stated at the tendering stage of the construction process and all appointed sub-contractors working on the site would be made aware of the site specific concerns and the environmental mitigation measures that would be required.

The following measures will be stated within the CEMD in order to mitigate the impact on hydrology from work on the access road, hard standing and construction of the foundation:

- During construction of the track, drainage will be controlled by placing excavated soils on the uphill slopes with lateral drainage ditches on the downhill slopes where necessary to avoid silt washing into controlled waters.
- Access road will be constructed using "free draining" granular material and would be suitably profiled to reduce surface water flows.
- Should surface water treatment be required during construction, it will be carried out in accordance with CIRIA guidance for site works. Any temporary SUDS will be kept separate from the existing field drain network to avoid any potentially contaminated runoff from the new infrastructures to be discharged into the local water courses. If this is not practical then drains will be installed along the length of the tracks which will then feed in to a soak away via a silt trap.
- On-site activities during construction of the development will require the use of some heavy machinery. During these activities there will be a need to bring small quantities of oil and greases and other materials on to the site. The CEMD will take into account all pollution prevention guidance documents. Operational best practice procedures will continue to be adopted and this will mitigate the potential pollution risks during the construction of the development.

Essential mitigation measures relevant to controlling erosion and runoff from the access road construction are described in SEPA's pollution prevention guidance and include the following:

- Scheduling construction activities to minimise the area and period of time that soil will be exposed, particularly during winter periods.
- Installation of cut-off drains around the working areas to intercept uncontaminated surface runoff and divert it around the works.
- Minimise the stockpiling of materials and locating essential stockpiles as far away as possible from watercourses.
- Reinstatement of excavated material and the re-vegetation of the site as soon as possible following completion.

The mitigation measures noted above will be built into the tendering process so that all contractors are obliged to follow the agreed methods of pollution control. Appropriate clauses will be incorporated within contractual documents to ensure that appropriate measures are taken. The site induction for contractors will include a specific section on environmental risks, including water pollution from construction activity. Where oils and diesel are stored on site for refuelling or maintenance, these operations will be carried out in designated areas of hard standing located at least 20 m from the nearest watercourse or drain. Standard methods will be adopted within these designated areas that minimise the risk of spillage. Contingency plans will also be in place for dealing with any spillage that may occur. A groundwater management scheme will be required to be undertaken by the contractor to monitor groundwater conditions during construction.

Given the short duration of construction, the potential impact from the proposed development is considered minimal.

Operational Phase

The ongoing risk of pollution on the site after construction is considered to be very low. The proposed mitigation for the construction of the access roads will continue to function through the life of the project. Only routine maintenance is envisaged to be required for the roads and all such maintenance will generally be carried out in summer months when the tracks are dry. There will be a few on-site activities during operation of the wind turbine relating to regular maintenance or repair of the turbine. During these activities there will be a need to bring small quantities of oil and greases and other materials on to the site. Operational best practice procedures will continue to be adopted.

Decommissioning Phase

The activities during decommissioning are broadly similar to those during construction, however, the level of activity will be less as some of the roads and sub-surface elements will be left in place. It is envisaged that detailed method statements, in compliance with relevant current legislation, will be drawn up prior to decommissioning. However, similar mitigation methods to those employed during construction are likely to be appropriate.

In addition, the various elements of the proposed development, such as the site tracks and turbine foundations, have been designed so as to mitigate all of the potential impacts. Such mitigation designs have been based upon, or developed from, best practice guidance as well as other sources.

10.6 Conclusions, Hydrology

This impact assessment has taken account of geological, surface water and groundwater features and conditions at and near to the proposed turbine. It has highlighted a number of potential impacts on site hydrology and hydrogeology; primarily during construction, but potentially also during the operation of the turbine. These impacts are associated with a range of activities, including soil removal and construction of the foundations, access tracks and hardstandings. The most serious potential impacts are associated with sediment-laden runoff from exposed ground entering watercourses and spillage of chemicals infiltrating to controlled waters.

Surface water and groundwater will most likely flow westwards towards Pow Burn. The road and hardstanding will be constructed using free draining materials ensuring and surface water will continue to run in its natural flow direction.

It has been shown that deployment of mitigation measures in accordance with best practice guidance reduces the identified potential hazards to acceptable levels. This report demonstrates that the proposed development complies with the requirements of relevant policies and guidance.

11. Flood Risk

11.1 Introduction

It is recognised that one of the implications of climate change is an increased flood risk in some parts of the country[119]. The Scottish Government have stated that "planning can play an important part in reducing the vulnerability of existing and future development to flooding"[120]. As a result the Scottish Planning Policy now promotes:

- A precautionary approach to flood risk;
- Flood avoidance;
- Flood reduction; and
- Avoidance of increased surface water flooding through SUDs.

In line with this, developers are advised to "take into account flood risk and the ability of future occupiers to insure development before committing themselves to a site or project, as applicants and occupiers have ultimate responsibility for safeguarding their property"[121]. This chapter therefore considers the implications of the Bolshan Renewables Project on flood risk.

This assessment has been carried out in accordance with the following policies and guidance:

Scottish Government (2014) Scottish Planning Policy
Scottish Environment Protection Agency (2012) Land Use Planning System SEPA Guidance Note 4
Scottish Environment Protection Agency (2012) Land Use Vulnerability Guidance

The Scottish Environment Protection Agency (SEPA) have a duty under the Environment Act 1995 "to provide, on request by an authority, flood risk advice based on the information" they hold. SEPA are therefore a key agency to the planning process with regard to assessing the implications of flood risk of a proposed development. It is noted by SEPA that wind turbines, "due to their small footprint….. do not usually create or increase flooding to nearby receptors in their local vicinity"[122] although it is recognised that these issues do "occasionally arise in relation to wind-farms in relation to the location of infrastructure such as substations or access tracks"[123].

This assessment contains written information on the flood potential of the site and measures to mitigate its effects.

11.2 Scottish Planning Policy: Managing Flood Risk and Drainage (June 2014)

Outcome 3 of the Scottish Planning Policy includes policy on Managing Flood Risk and Drainage. This policy states that "the planning system should prevent development which would have a significant probability of being affected by flooding or would increase the probability of flooding elsewhere"[124]. To deliver this it is expected that planning authorities "have regard to the probability of flooding from all sources and take flood risk into account when preparing development plans and determining planning applications"[125].

Accordingly, a flood risk framework has been developed as a basis for planning decision making in relation to flood risk. This appeared within Scottish Planning Policy 7: Planning and Flooding, the first consolidated Scottish Planning Policy and has recently been revised within the new Scottish Planning Policy.

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[119] Page 57, Scottish Government (2014) Scottish Planning Policy [Online] Available: http://www.scotland.gov.uk/Resource/0045/00453827.pdf
[120] ibid
[121] Page 58, ibid.
[122] Page 13, Scottish Environment Protection Agency (2012) Land Use Planning System SEP Guidance Note 8, SEPA: Stirling.
[123] Page 7, ibid.
[124] Page 57, Scottish Government (2014) *Scottish Planning Policy* [Online] Available: http://www.scotland.gov.uk/Resource/0045/00453827.pdf
[125] Page 58, ibid

This flood risk framework has been replicated in Table 54 below. This framework has been used to appraise and categorise flood risk at the Bolshan Renewables Project site. It is noted that wind turbines are described by the Scottish Planning Policy and SEPA's Land Use Vulnerability Guidance as essential infrastructure. Additionally, the SPP notes that in applying the flood risk framework the following should also be taken into account:

- The characteristics of the site;
- The design and use of the proposed development;
- The size of the area likely to flood;
- Depth of flood water, likely flow rate and path, and rate of rise and duration;
- The vulnerability and risk of wave action for coastal sites;
- Committed and existing flood protection methods: extent, standard and maintenance regime;
- The effects of climate change, including an allowance for freeboard;
- Surface water run-off from adjoining land;
- Culverted watercourses, drains and field drainage;
- Cumulative effects, especially the loss of storage capacity;
- Cross-boundary effects and the need for consultation with adjacent authorities;
- Effects of flood on access including by emergency services; and
- Effects of flood on proposed open spaces including gardens

Table 54: Flooding Risk Framework (Taken from the Scottish Planning Policy June 2014)

RISK FRAMEWORK

Little or No Risk – annual probability of coastal or watercourse flooding is less than 0.1% (1:1000 years)

- No constraints due to coastal or watercourse flooding.

Low to Medium Risk – annual probability of coastal or watercourse flooding is between 0.1% and 0.5% (1:1000 to 1:200 years)

- Suitable for most development. A flood risk assessment may be required at the upper end of the probability range (i.e. close to 0.5%), and for essential infrastructure and the most vulnerable uses. Water resistant materials and construction may be required.
- Generally not suitable for civil infrastructure. Where civil infrastructure must be located in these areas or is being substantially extended, it should be designed to be capable of remaining operational and accessible during extreme flood events.

Medium to High Risk – annual probability of coastal or watercourse flooding is greater than 0.5% (1:200 years)

- May be suitable for:
    - residential, institutional, commercial and industrial development within built-up areas provided flood protection measures to the appropriate standard already exist and are maintained, are under construction, or are a planned measure in a current flood risk management plan;
    - essential infrastructure within built-up areas, designed and constructed to remain operational during floods and not impede water flow;
    - some recreational, sport, amenity and nature conservation uses, provided appropriate evacuation procedures are in place; and
    - job-related accommodation, e.g. for caretakers or operational staff.
- Generally not suitable for:
    - civil infrastructure and the most vulnerable uses;
    - additional development in undeveloped and sparsely developed areas, unless a location is essential for operational reasons, e.g. for navigation and water-based recreation, agriculture, transport or utilities infrastructure (which should be designed and constructed to be operational during floods and not impede water flow), and an alternative, lower risk location is not available; and
    - new caravan and camping sites.
- Where built development is permitted, measures to protect against or manage flood risk will be required and any loss of flood storage capacity mitigated to achieve a neutral or better outcome.
- Water-resistant materials and construction should be used where appropriate. Elevated buildings on structures such as stilts are unlikely to be acceptable.

11.3 Site Description

The proposed development is on the land at Bolshan Farm, Arbroath DD11 4UH. The site is ~3.0 km north east of Friockheim and at an elevation of ~60 m AOD. The National Grid Reference is NO 61507 52652. See the Location Plan provided with this planning application for a clear indication of the Bolshan Renewables Project site location.

11.4 Source of Flooding

A useful high level tool to appraise the likelihood of flooding for a particular area in Scotland is SEPA's Flood Risk Management Map[126]. This online tool illustrates areas of land with a high likelihood (1:10 or 0.1% chance of happening in any one year) medium likelihood (1:200 or a 0.5% chance of happening in one year) and low likelihood (1:1000 or 0.1% chance of happening in one year) of pluvial, fluvial and coastal flooding. Although developed from various sources of data this is an indicative tool helpful in screening the necessity for further flood risk appraisals; it does not for example account for any flood protection measures which may have been installed to help reduce likelihood of flooding.

Analysis of the SEPA flood risk map (Figure 19) indicates that the area surrounding the site is not at risk of fluvial, pluvial or coastal flooding. For example, the nearest area that is susceptible to river flooding is adjacent to the Guthrie Burn ~870 m west of the development. The Guthrie Burn is a tributary of the Lilylorn and Pow Burns which flow north east ~7.7 km to the River South Esk. The risk of surface water flooding in the surrounding area is negligible. There are no recorded surface water build ups identified on the turbine site due to the slope of the land, however surface run off may require mitigation.

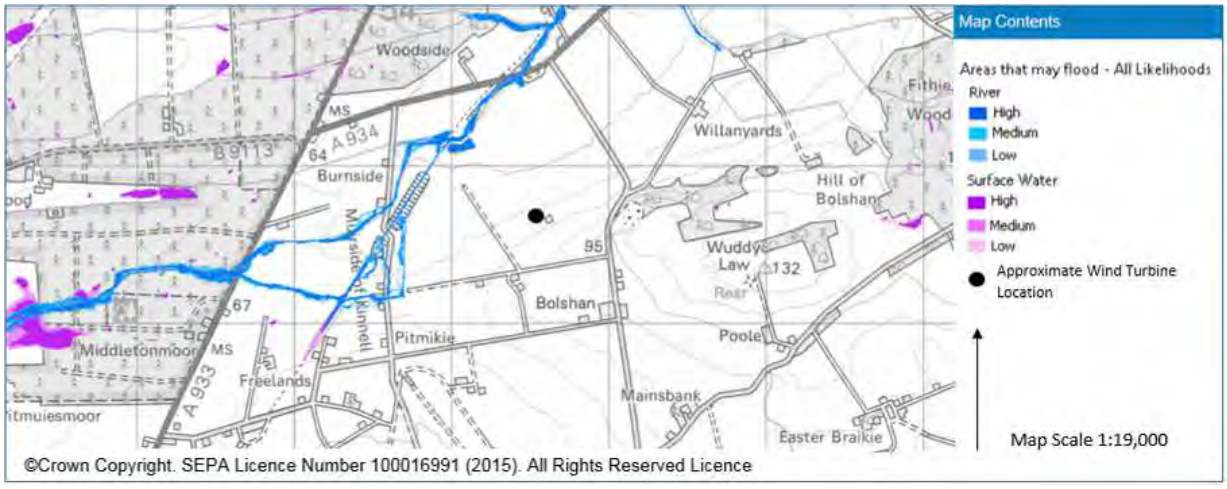

Figure 19: SEPA Flood Risk Map

11.5 Increased impermeable surfaces

There will be a requirement to construct 1,853 m^2 of new access road and hardstanding using free draining granular material. There are no requirements to construct any of the roads and hardstandings with impermeable materials.

As the new roads and hardstandings are constructed using free draining granular material and the ground is relatively flat with no cross-slope, it is proposed to construct the site roads and hardstandings with no artificial drainage. Surface water will simply filter through the roads and hardstandings into the underlying soils.

The concrete foundation of the turbine will be approximately 201 m^2 and be buried approximately 1 m below existing ground level. Rainfall will seep through the free draining granular hardstanding into the ground below. The foundation has a sloped surface to allow any rain water which falls onto it, to flow to the outer edges of the foundation and dissipate into the surrounding soils.

[126] SEPA (n.d.) *Flood Risk Management Map* [Online] Available: http://map.sepa.org.uk/floodmap/map.htm

11.6 Culverts and Bridges

The end of a minor artificial field drain will need to be culverted in order to access the turbine location. No Controlled Activities Regulations (CAR) license is expected to be required from SEPA for this work because it involves an engineering activity on a 'land drainage works that do not affect a natural watercourse'[127] and the watercourse is a minor one, since it does not appear on a 1:50,000 scale ordnance survey map[128].

11.7 Impact of flooding on the proposed development

The flood map (Figure 19) shows that the turbine, road and hardstanding are out with the areas indicated by SEPA at low, medium or high likelihood of fluvial, pluvial or coast flooding.

The proposed development is located on sloping land at an elevation of ~60 m AOD (considerably higher than the estimated flood level). It is highly unlikely flood waters would ever reach the site.

11.8 Conclusions, Flood Risk

The proposed development is shown by SEPA Flood Risk Management Map as being out with areas subject to fluvial, pluvial or coastal flooding; this indicates that the site can therefore be considered at minimal or no risk of flooding. The roads and hardstandings have been positioned and designed to ensure they are not affected by or contribute to the risk of flooding.

The end of a minor artificial field drain will need to be culverted in order to access the turbine location. No CAR licence is thought to be required.

In order to mitigate the potential for surface run off, the road and hardstanding will be constructed using free draining granular material, which will allow any surface water to filter through to the ground below. As such there is no need for attenuation or treatment. The additional impermeable surface from the construction of the foundation is very small and as such the increased surface water run-off is considered to be low.

The proposed development is therefore considered to be at no risk of flooding and will not create a risk of flooding on the surrounding area.

[127] Page 30, A Practical Guide [to] The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended), SEPA, version 7.2, March 2015.

[128] Page 30, A Practical Guide [to] The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended), SEPA, version 7.2, March 2015.

12. Transport and Delivery Assessment

This transport and delivery assessment describes the frequency of deliveries for all aspects of the proposed project. A detailed transport assessment of the abnormal loads will be carried out for the project following a successful application.

12.1 Operational verses Construction Traffic

Wind turbine developments produce very minimal operational transport impacts, particularly when compared with almost any other type of development proposal for which planning application could be sought. This positive aspect of wind turbine development should be acknowledged. A single wind turbine of the type proposed may require a visit every two months for routine maintenance and checks. Because transport impacts are so negligible during the operational phase, this transport assessment focuses on the construction phase.

12.2 Sourcing of Materials

The materials with the greatest volume will come from the delivery of aggregate and concrete. The supplier of these materials will be subject to competitive tender and this will only be confirmed by the successful civil engineering contractor. In practice, however, the nearest quarry to the site is generally the most competitive. In this case, three quarries are within 25km of the site.

Clark William Cotside Quarry, Barry, Carnoustie, DD7 7RR	Denfind Stone Ltd. Denfind Farm House, Monikie, Dundee, DD5 3PZ	Breedon Aggregates, Ethiebeation Quarry, DD5 3RB

Estimates of traffic generations associated with the construction phase of the project have been derived from first-principles, based on assumptions made with regard to the following activities. It is estimated that the construction of the wind turbine will take place over a 4 month period. Construction traffic generation relates to the following construction activities:

- Delivery of road stone for construction of access tracks and crane pads;
- Disposal of excavated material;
- Ready-mix concrete delivered to the site for construction of the turbine bases;
- Formwork and reinforcing steel delivered to the site for construction of the turbine bases; and
- Delivery of the turbine equipment.

12.3 Access Tracks and Crane Pads

The road stone for the construction of the access tracks and hardstandings will be sourced from local quarries. Based on 1,200m^2 of new access track and 652.5m^2 of crane hardstandings, it is estimated that 833m^3 of imported stone will be required (1852.5m^2 x 0.45m). Assuming a density of 2.2t/m^3, this equates to 1,834 tonnes of stone. Given that the load capacity of an HGV is 20 tonnes, **92 loads** of road stone will be required.

12.4 Delivery of concrete

The design of the wind turbine foundation is calculated to require 176m^3 of concrete plus 9m^3 for the blinding, giving a total concrete quantity of 185m^3. Assuming a load capacity of 6m^3 per HGV, **31 loads** would be required. Technical constraints require the concrete for an individual turbine to be delivered and poured in one day to prevent cold joints in

the mass structure. This creates a short but disproportionate impact and has therefore been considered separately from the impact of the other traffic movements.

12.5 Disposal of Excavated Material

The main access road will be constructed along an existing field access and pastoral agricultural land so there will be a requirement for excavations for this section. The crane hardstanding will also be newly constructed on the land adjacent to the upgraded access track with the formation level being the underside of the topsoil. The quantity of excavated material to be disposed of off site is the displaced quantity of earth from the foundation. This quantity is therefore calculated to be 185m^3. Assuming a density of 1.8t/m^3, this equates to 333 tonnes of surplus material. Given that the load capacity of an HGV is 20 tonnes, **17 loads** will be required to be removed from site.

12.6 Formwork and Reinforcing Steel

Formwork and reinforcing steel is required for the concrete bases. The turbine will require two deliveries of steel and 1 of formwork. Based on this a total of **3 loads** will be required for the formwork and reinforcing steel.

12.7 Turbine Delivery

There will be **7 deliveries** required for the turbine equipment (one for nacelle, one for the blades, two for the tower, one for the blade hub, and two for generator/controller etc.).

12.8 Estimate of Total Deliveries

Table 55 shows the traffic generations estimate for the Bolshan Farm turbine.

Table 55: Traffic Generations

Activity	Total Loads
Delivery of Road Stone (inc craneage areas)	92
Delivery of Cabling	1
Delivery of Concrete	31
Disposal of Excavated Material	17
Delivery of Formwork and Reinforcing Steel	3
Delivery of Turbine	7
Total (excluding concrete)	120
Total (including concrete)	151

It is predicted that the construction period of the proposed development will be approximately 4 months. Table 56 shows the total trips distributed according to that work programme.

Table 56: Trips Per Month

Activity	Month				
	1	2	3	4	Total
Road Stone	60	32			**92**
Delivery of Cable			1		**1**
Delivery of Concrete			31		**31**
Disposal of Material			17		**17**
Reinforcing Steel			3		**3**
Turbine Delivery				7	**7**
Total Trips (excluding concrete for turbines)	60	32	21	7	**120**
Total Trips (including concrete for turbines)	60	32	52	7	**151**

Table 56 shows the total daily trips by month for all construction activities, based on an average of 4½ weeks per month and an average five working days per week (rounded down to an average of 22 working days per month). This table illustrates that the maximum traffic impact associated with the construction of the proposed wind farm (excluding

concrete deliveries) are predicted to occur in the first 2 months of the construction programme. During these months, an average of 2 trips (excluding concrete deliveries) is predicted to be generated on each working day.

After the first 2 months, an average of less than 1 delivery per working day is predicted to be generated (excluding concrete deliveries).

To avoid cold joints in the foundation, concrete deliveries are restricted by the pouring method to one pour per working day. As a result, there will be 31 deliveries of concrete on one day in month 3.

12.9 Conclusions, Transport and Delivery Assessment

A positive aspect of wind turbine development is that transport impacts while the turbine is operational are very negligible. A visit every two months is expected for this turbine.

The source of the aggregate, concrete, sand, reinforcement and cabling is not known at this stage. The majority of the traffic to and from site will be involved with the supply of concrete and aggregate. The most likely places this material is to be sourced from are Cotside Quarry, Denfind Stone Ltd or Ethiebeation Quarry.

The total number of deliveries to the site (excluding concrete) is anticipated to be 120 trips over the 4 month construction period. Based on 22 working days per month, this equates to an average of less than 1 delivery per working day over the 4 month construction period. However, the actual frequency is greater during the first 2 months of construction when 2 deliveries per day occur. This results in a frequency of 1 delivery per working day over the second 2 months of construction (excluding concrete).

To avoid cold joints, the turbine foundation must be completed on the same day it was started. Therefore there will be 1 day in month 3 when a disproportionately high volume of traffic will occur. On this day there will be 31 deliveries of concrete brought to site.

It can be concluded that the vehicle movements associated with the proposed project will have little impact on the surrounding area.

The abnormal loads brought to the site will cause minor disruption on the day of delivery, but will be subject to a traffic management plan, approved by Angus Council Roads & Transportation Department.

13. Construction Method Statement

13.1 Introduction

The following chapter describes the construction process and the mitigation measures incorporated to ensure that all risks are minimised. The construction method statement will form the body of this chapter and it will detail the construction process along with the risk assessments of all activities for personnel on site and the surrounding environment. The site specific details regarding the design and construction of the site will be described and the general construction details will be listed in the method statements. A full list of the method statements and risk assessments will be provided post-consent together with an Environmental Management Plan.

Access to the turbine will be via the upgraded existing access track. A new section of track will be required off this to reach the turbine location and accommodate the delivery vehicles. The total length access track will be 290m, all of which would be upgraded existing track. The hardstanding area used for erecting the turbine will be circa 652m^2, designed and constructed in line with the turbine supplier's specifications. Over one third of the total area used for erecting the turbine will be dressed back and returned to the previous condition of the ground following commissioning.

The chapter describes how the works will be carried out, including any mitigation measures, associated with the following aspects of construction:

1. Access road construction
2. Crane hardstanding
3. Turbine Foundation
4. Drainage installation

Work on the development will initially involve the stripping of the topsoil and construction of the access road. This will be followed by the construction of the hardstanding around 3 - 4 weeks after the site start. As the hardstanding progresses we would expect to commence on the foundation works.

13.2 Access Road Construction

The setting out of the site tracks has been based upon site visits, study of aerial photography and discussions with the land owner. The development will partially utilise an existing track; this minimises the amount of additional track required to facilitate the development of the site. The track will be constructed in close proximity to the field boundaries in order to save space on actively worked agricultural land. Whilst the exact type of road construction method will be dependent on the outcome of ground investigation works, the overall road design takes into account the following features and constraints:

- Tracks are routed to avoid sensitive ecological, archaeological and hydrological features, and avoiding the crossing of any drainage channels where possible. The track length is kept to a minimum to reduce environmental impact, construction time and material quantities;
- The topography of the area means that the site is gently sloping. There are no excessive gradients which could affect delivery vehicles and as such construction plant is able to move safely round the site;
- A minimum width of 4m has been specified.
- The principles of the track drainage system have been designed to comply with Sustainable Drainage System (SUDS) requirements in order to minimise any potential impacts to on-site and offsite hydrology.

The road will be constructed in accordance with the designs drawn by experienced design consultants using the specifications supplied by the turbine supplier.

The road will have a running width of 4000mm but the depth and level of stone required will only be determined after a site investigation has been undertaken. Any stripped superficial deposits will be removed and stored in a designated area on site to be used to redress the sides of the road after construction.

13.3 Crane Hardstanding

The wind turbine requires an area of hardstanding to be built adjacent to the turbine foundation. This provides a stable base on which to lay down turbine components ready for assembly and erection, and to site the two cranes necessary to lift the three tower sections, nacelle and rotor into place. The crane hardstanding will be left in place following construction in order to allow for the use of similar plant should major components need replacing during the operation of the wind turbine. These could also be utilised during decommissioning at the end of the wind turbines life. The total area of hardstanding at the turbine location, including the turbine foundations and the crane pad will be approximately 826.5m^2. Approximately one third of this area will be dressed back with topsoil and landscaped into the surrounding area upon completion of turbine erection.

It is anticipated that one team will carry out turbine erection, using two road-going cranes (one of approximately 100 tonne capacity and one of 500 tonne capacity). The erection contractor would determine the actual cranes used, together with the exact programme and number of teams on site.

The lay down areas will accommodate all components ready for assembly and erection and provide a firm base for cranes used to erect the turbine.

The turbine erection platform will initially be formed to allow construction plant access and storage close to the turbine base. All efforts will be made to minimise the ground disturbance and footprint of the excavation. Excavations will be left open for as short a duration as possible. Vegetation will be stripped and a proportion carefully stored locally for re-use in surface restoration around the platform margin and along the access road verges.

Ground conditions for the hardstanding will be similar to those for the access road and the design of the hardstanding will be similar to that of the access road.

13.4 Turbine Foundations

The turbine will be installed on a circular foundation, comprising both stone and reinforced concrete. These typically measure ø 16.0m in plan with concrete depth of approximately 1.5m, and a stone overlay of circa 1m. The volume of concrete will be approximately 176.35m^3 and will incorporate around 26 tonnes of steel reinforcement. The final choice of foundation design will be based on the most efficient use of materials, water table and local ground conditions.

Three foundation scenarios may be considered, depending on the results of detailed ground investigation work that would take place should the site be granted planning permission.

Type 1: Where rock-head or suitable bearing is relatively shallow (<2m), the wind turbine foundations will bear directly onto rock.
Type 2: Where rock-head or suitable bearing is between 2-5m depth, the existing overburden will be excavated and replaced with suitable load-bearing material imported from local quarries
Type 3: Where rock-head or suitable bearing is greater than 5m depth, a piled solution will be considered.

The setting of the foundation base has been based upon site visits, the study of aerial photography and discussions with the land owners. The foundation design will depend on the results from detailed ground investigation. Based on the information gathered to date it is expected that the depth to bedrock will be shallow and the construction will be of Type 1 or 2. It is proposed to agree the methodologies for this with the determining authority prior to construction.

The designed foundations will be built into the ground in line with turbine supplier's specifications.

Prior to excavation of the turbine foundation the drainage will be assessed with a view to installing mitigation measures for the duration of the works in this location. As with the description of the hardstanding above, all efforts will be made to minimise the ground disturbance and footprint of the excavation and excavations will be left open for as short duration as possible.

Any overburden that is removed during the excavation will be stored separately to be used in the restoration of the site once the foundation is in place and set. All surplus materials will then be removed from site.

The correct construction method for the turbine foundation is set out in the relevant 'method statement' to be produced during the construction phase.

13.5 Drainage Installation

The sections of the access track where drainage will be most important are the steep sections. This is because water can quickly accumulate during a heavy rainfall and begin running down the track and as a result of this there may be some water accumulation at the site entrance. This water can, for example, pick up particulate matter from the recently constructed track and potentially transport sediment laden water into local watercourses.

To mitigate the risks of run-off water containing excess sediment entering local watercourses, the access road and hardstanding will be constructed using "free draining" granular material and would be suitably profiled to reduce surface water flows. If drainage is required during the construction phase temporary cut-off trenches will be formed along the sides of the access road to catch any sediment laden run-off. This will then be allowed to filter naturally back into the ground through the grass and soil. Any temporary drainage will be backfilled when the access road has been completed.

The final section of the works where settlement run-off will need to be considered is from the works associated with the turbine foundation and the crane hard standing pad. To prevent sediment laden water running straight into the field and watercourses, a drainage ditch will be installed along the edge of the hard standing, which will filter the water and let it naturally drain back into the ground.

All sediment traps will require maintenance and emptying at regular intervals.

14. Electromagnetic Interference

Due to its size and behaviour, there is a possibility that a wind turbine could have an adverse effect on electromagnetic signals within the immediate area. The previous application (13-00887-FULL) was for a turbine approximately 422m away from the proposed position. It received several consultation responses and contained a detailed radar assessment with the aim of identifying specific airwave links or radar that may be negatively affected by the introduction of the proposed turbine. Although not in the identical location given the typical scope of assessments, it is assumed conclusions relating to radar/microwave links for the previous turbine position will be indicative of those for the new position.

Notwithstanding, all statutory consultees will be contacted in relation to the proposed turbine to ensure there have been no changes and it does not pose an issue to safeguarding.

An aviation proforma has been completed and is included with this planning application. The proforma may be distributed by the Planning Service to aviation consultees.

14.1 Aviation and Radar

In certain circumstances, wind turbines have been known to cause interference to aviation radar, in a way that can affect the ability of the radar to track aircraft as they pass behind or in front of the turbine location. The previous application received a response from NERL which indicated they would have no objection to the proposal.

A radar risk assessment was also submitted for the previous planning application, and was carried out by Pager Power. This consulted a database of UK civil and military radar, licensed/unlicensed aerodromes and radio navigation aids.

It identified Leuchars PSR, Leuchars PAR (both 34.4km) and Perwinnes Radar (68.6km) as being potential aviation issues. Further line of sight analysis was used to ensure the proposed turbine would not be in line of site of any radar. Taking into account the differences in tip height and height above sea level between the previous and proposed turbines, the radar line of site would pass approximately 62m, 70m and 551m respectively above the turbine now proposed.

This gives a good indication that the proposed turbine will not cause interference to aviation radar in the area.

14.2 Microwave and UHF link Interference

Microwave data links are used by many organisations to support infrastructure and transmit critical information along paths which have unimpeded line of sight between two transmitting/receiving stations. Wind turbines with blades that would pass through the link centreline or the interference zone known as the 2nd Fresnel Radius may cause unacceptable interference to the link.

13-00887-FULL received no objection from Ofcom, JRC or Atkins. The Ofcom response indicates a typical search radius of 500m, given that the proposed turbine position will be developed around 422m away, it is anticipated that these parties will continue to have no objection to this new application.

14.3 TV signal

No response had been received from Arqiva, who are responsible for providing the BBC and ITV's transmission network and ensuring the integrity of re-broadcast links with the last application.

No adverse effects are anticipated to be caused by this development however, in order to protect nearby residents a condition can be attached to the decision notice which requires, upon the receipt of a complaint, a TV and radio reception impact survey to be submitted and approved by the planning authority. Suitable mitigation measures can then be implemented at the developer's expense to ensure that the issue is fully rectified.

15. Environmental Health

15.1 Noise

Executive Summary

This application seeks planning consent for the erection of a single turbine of 79.6m to turbine tip on land north west of Bolshan Farm.

The aim of this chapter is to assess whether the proposed wind turbine would meet the prescribed noise levels detailed within ETSU-R-97[129] which is the assessment method adopted by Angus Council for the assessment and rating of wind turbine noise. This involves demonstrating compliance with noise limits based on a fixed limit or a margin over background noise whilst taking into account cumulative noise from neighbouring wind energy developments.

It was found that, at wind speeds up to 10m/s (at 10m height), the predicted wind turbine noise level was inside the noise limits as prescribed within ETSU-R-97 at all times. The proposed turbine would not therefore expose properties to excessive noise or a risk of loss of amenity. This planning application is in accordance with relevant planning policies which aim to control wind turbine noise.

Should planning permission ultimately be granted for this application, a condition can be attached to the planning consent which refers to either a single fixed limit or a table of fixed limits defining noise levels based on predicted levels which cannot be exceeded at specific properties and wind speeds. Reference can also be made to those properties with a financial interest in the project, with differing limits applying to those with a financial involvement and those without.

[129] '*The Assessment and Rating of Noise from Wind Farms*', ETSU-R-97 for DTI, 1996 (henceforth referred to as 'ETSU-R-97').

Introduction

This report accompanies an application which seeks planning consent for the erection of a single wind turbine of 79.6m tip height on land west of Bolshan Farm, Bolshan, Arbroath; the preferred turbine model is an Enercon E48 which will be operating in '500kW' mode.

This report presents an assessment of the potential operational noise impact of the Bolshan Farm turbine on the nearest noise sensitive dwellings.

Development Summary

Turbine Model:	Enercon E48
Hub Height:	55.6m
Tip Height:	79.6m
Capacity:	500kW
Location (NGR):	361507, 752652
Altitude:	65m AOD

Site Description

The area in general consists primarily of farmland with scattered dwellings and agricultural buildings. The general noise environment in the surrounding area could be characterised as having 'natural' or 'rural' sources; such as vegetation and bird call. Other noise sources in the area include intermittent local road vehicles and agricultural noise.

Relevant Guidance and Policy

This assessment takes into account the following guidance and policy documents:

***'The Assessment and Rating of Noise from Wind Farms'*, ETSU for DTI, 1996 (henceforth referred to as 'ETSU-R-97').** This document sets appropriate standards for noise emissions from wind turbine developments. The document is now relatively out-dated but is supported as the basis for wind turbine noise control through the planning system by The Scottish Government and the Department for Energy and Climate Change.

Angus Council 'Implementation Guide for Renewable Energy Proposals' June 2012. This document provides guidance relating to the submission of wind turbine noise assessments in Angus. It covers topics such as the assessment criteria to be used, information on background noise measurements and also prediction of wind turbine noise levels.

Institute of Acoustics '*A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise*' May 2013. This guide presents current good practice in the application of the ETSU-R-97 assessment methodology, reflecting the original principles within, as well as the results of research carried out and experience gained since ETSU-R-97 was published. It aims to build a common framework for turbine noise assessment for acoustic consultants, local planning authorities, developers and the general public.

Noise limits

This assessment compares the proposed development against the following noise limits:

35dB $L_{A90,10\ min}$ $L_{A90,10\ min}$ at all times for wind speeds up to and including 10 m/s.

If the occupiers of the affected dwelling have a financial involvement in the wind turbine project, the limit is increased to:

40dB $L_{A90,10\ min}$ at all times for wind speeds up to and including 10 m/s.

Noise Sensitive Receptors

There are several neighbouring properties located in the surrounding area. A total of thirteen properties have been included in this assessment. These properties are in closest proximity to the turbine and are seen as being most susceptible to noise. All properties considered in the assessment are shown in Table 57 below.

Table 57: Dwellings Included in Noise Assessment

Dwelling	Easting	Northing	Elevation (m)	Distance from Source to Receiver (m)	Financial Involvement
Bolshan Cottage	362013	752287	93	623	No
Ardmhor Cottage	362020	752238	93	659	No
Doonbye	361807	751995	83	722	No
Ashview	361830	752006	84	722	No
Bolshan Farm	361928	752051	88	733	Yes
Viewbank	362046	752033	89	820	No
Teuchat Hillock	360576	752751	56	936	No
Burnside	360587	752987	54	979	No
Smithy Cottage	360551	752225	62	1047	No
Smithyfield House	360545	752190	62	1067	No
Muirside Cottage	360552	752156	63	1076	No

Cumulative Wind Turbine Developments

Neighbouring proposed and consented wind turbine developments surrounding the Bolshan turbine have been established. It was found that the nearest development at Waulkmill Quarry (13/00722/FULL) for a single 45.9m turbine is approximately 3km away and as a result its cumulative noise impact would be insignificant at those noise sensitive receptors surrounding the Bolshan Farm turbine.

Noise Predictions

Turbine Source Noise Data

Noise data for the Enercon E48 was obtained from the manufacturers warranted data sheet containing the sound power level of the turbine in 500kW mode[130]. This specifies a peak sound power level of 100.0 dB(A) for the turbine at 10m/s standardised to 10m height. To obtain the warranted levels, an additional +1dB uncertainty has been applied to achieve a maximum level of 101.0 dB(A) as stated in Enercon's sound power level warranty document[131].

Table 58: Enercon E48 500kW Sound Power Levels standardised to 10m Height Wind Speeds (55m Hub height)

Wind Speed (m/s) at 10m reference height	4	5	6	7	8	9	10
Specification Sound Power Level, dB(A) L_W	89.2	93.6	97.8	99.4	100.0	100.0	100.0
Additional Uncertainty, Uc	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Warranted Sound Power Level, dB(A) L_W	90.2	94.6	98.8	100.4	101.0	101.0	101.0

Octave banded data was obtained from an extract of a test report for Enercon carried out by DAR for the Enercon E48 in accordance with IEC 61400-11[132]. A summary of the data used at 10m/s is shown in Table 59 below. This is then scaled to match the warranted sound power level stated by Enercon in accordance with IOA Supplementary Guidance Note 3, paragraph 4.1.3. All data sheets referenced to the Enercon E48 are included in Appendix 3 of this report.

Table 59: Summary of Enercon E48 Octave Banded Sound Power Levels (10m/s)

Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Sound Power Level, L_{WA}	78.6	84.4	93.3	96.8	97.9	92.7	87.6	84.6

Noise Propagation Model

Wind turbine noise was modelled at nearby receptors in accordance with ISO 9613-2 *'Acoustics – Attenuation of Sound during Propagation Outdoors'*, the modelling tool used was ReSoft WindFarm. This model accounts for the attenuation due to geometric spreading, atmospheric attenuation, barrier attenuation, and ground effects.

The results obtained from such a model are highly reliant upon the inputs, as a result the Institute of Acoustics published a document in May 2013 entitled *'A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise'* (henceforth IOA GPG) which aimed to help develop a consensus and common method when applying the parameters used in such models. The following model parameters were chosen in accordance with the IOA GPG:

[130] Enercon, *'Sound Power Level of the Enercon E-48 Operational Mode 500kW (SIAS-04-SPL E48 OM 500kW Rev1_1-eng-eng)'*. March 2012.
[131] Enercon, *'Sound Power Level Warranty for Enercon Wind Energy Converters (Sound Power Level Warranty_Rev006.1_eng.eng)'*, October 2014.
[132] DAR, *'Exctract of test report WICO 439SEC04/07 regarding noise emission of wind turbine (WT) type Enercon E-48 (Mode I), hub height 56m'* January 2006.

Table 60: ISO 9613 Propagation Input Parameters

Parameter	Input							
Spreading Model	Octave							
Attenuation Model	ISO 9613							
Ground Attenuation Porosity Factor	Source			Middle			Receiver	
	0.5			0.5			0.5	
Receiver Height	4m							
Temperature	10°c							
Humidity	70%							
Attenuation Coefficients (db/m)	63	125	250	500	1k	2k	4k	8k
	0.0001	0.0004	0.001	0.00193	0.00366	0.0097	0.0328	0.117
Reference Height	10m							

It should be noted that all predictions based on this model are assumed to be under downwind conditions (from source to receiver). This is seen as representing the 'worst case' noise conditions as in reality the receptors would not generally be downwind of the turbine at all times. Noise emissions under upwind conditions have been found in practice to be up to 10-15dB(A) lower than those predicted.

The topography in the area surrounding the turbine was also examined to ascertain whether additional factors to account for reflections due to valley effects would be necessary. It was found that the source to receiver paths exhibited primarily flat or gradually sloping ground and would not meet the criteria in the IOA GPG to trigger an additional +3dB increase to predicted levels.

Results – Simple Limit

Table 61 shows the predicted cumulative noise levels at each of the selected assessment locations, the levels shown are the peak levels predicted at 10m/s standardised to 10m height wind speed which relate to the maximum sound power level of the Enercon E48. Also shown is the margin which indicates the difference between the predicted value and the noise limit, positive values indicate that the predicted noise level is below the limit.

The number of receptor locations chosen is deemed to be represented of those most likely to be affected by noise from the proposed development. All predictions are based on warranted turbine sound power levels and are inclusive of a 2dB(A) subtraction to convert from L_{eq} to L_{90} noise levels in accordance with ETSU-R-97 and the IOA Good Practice Guide. All noise levels are predicted at a distance of 15m from the dwellings façade in the direction of the proposed turbine, this assumes an amenity area around the property where the occupant can enjoy use of their garden whilst being protected against disturbance.

For non-financially involved properties, the noise limit has been set at 35dB(A) which is the lowest fixed daytime limit that can be applied under ETSU-R-97 and is relevant at wind speeds up to and including 10m/s standardised to 10m height. Financially involved properties have had their limit set at 40dB(A) which is applicable where there is a valid financial interest in the project.

Table 61: Predicted Wind Turbine Noise Levels (dB, L_{A90}) at Nearest Noise Sensitive Receptors

Dwelling	Easting	Northing	Distance from Source to Receiver (m)	Noise Limit (dB, L_{A90})	Predicted Noise Level (dB, L_{A90})	Margin (dB, L_{A90})
Bolshan Cottage	362013	752287	623	35	31.4	3.6
Ardmhor Cottage	362020	752238	659	35	30.8	4.2
Doonbye	361807	751995	722	35	29.9	5.1
Ashview	361830	752006	722	35	29.9	5.1
Bolshan Farm	361928	752051	733	40	29.7	10.3
Viewbank	362046	752033	820	35	28.5	6.5
Teuchat Hillock	360576	752751	936	35	27.0	8.0
Burnside	360587	752987	979	35	26.5	8.5
Smithy Cottage	360551	752225	1047	35	25.8	9.2
Smithyfield House	360545	752190	1067	35	25.6	9.4
Muirside Cottage	360552	752156	1076	35	25.5	9.5

The assessment shows that the predicted noise levels from the proposed turbine are below the simplified ETSU-R-97 noise limits at all of the noise assessment locations listed in Table 61.

Conclusions, Noise

The Greenspan Agency has undertaken an assessment of the likely noise impact of the operation of a single Enercon E48 turbine located on land north west of Bolshan Farm. The assessment has been undertaken using a combination of fixed limits based on ETSU-R-97 and acoustic modelling of the noise emissions from the proposed turbine to predict operational noise levels at the closest noise sensitive receptors. It has been demonstrated that noise levels from the proposed turbine will not exceed the relevant noise limits at nearby properties at any time.

15.2 Shadow Flicker Assessment

Introduction

The objective of this chapter is to identify, and where possible quantify, the likely effects of shadow flicker arising from the proposed Bolshan Farm turbine. It quantifies the geographical area over which shadow flicker could occur, sets out the timing and duration of these impacts and identifies potential mitigation measures.

> "*Under certain combinations of geographical position, time of day and time of year, the sun may pass behind the rotor and cast a shadow over neighbouring properties. When the blades rotate, the shadow flicks on and off; the effect is known as "shadow flicker". It occurs only within buildings where the flicker appears through a narrow window opening. The seasonal duration of this effect can be calculated from the geometry of the machine and the latitude of the potential site.*"[133]

The frequency of flicker is relevant in determining whether or not shadow flicker can cause health effects in human beings. The 2007 report 'Onshore Wind Energy Planning Conditions'[134] sets out guidance on the potential health effects from shadow flicker. Within the report, the National Society for Epilepsy advises that only 3.5% of the 1 in 200 people in the UK who have epilepsy suffer from photosensitive epilepsy, which is generally triggered by frequencies between 2.5 and 30Hz.

The turbine considered for this application, an Enercon E48 which has a maximum rotating speed of 32rpm, would result in a flicker frequency of 1.6Hz; well below levels which may cause adverse health effects for sufferers of photosensitive epilepsy.

The 2014 Onshore Wind Turbines Online Planning Advice[135] states that significant shadow flicker may only occur within distances of up to ten rotor diameters of the proposed turbine. With increasing distance between a wind turbine and any potential shadow flicker receptor, the intensity of the shadows cast by the blades, and therefore the intensity of the flickering is diminished. Shadows cast close to the turbine will be focused and distinct, gradually decreasing towards the edge of the shadow flicker zone.

Further guidance can be found in Companion Guide to PPS22 (2004)[136]. This recommends that it is only necessary to assess properties for shadow flicker within 130 degrees either side of north, relative to the turbine. Latitudes in the UK mean that turbines cannot cast long shadows on their southern side.

The nature and likelihood of shadow flicker can vary depending on the following factors;

- Direction of the receptor relative to the turbine,
- Distance from the turbine,
- Turbine hub-height and rotor diameter,
- Time of day/year,
- Cloud cover,
- Prevailing wind direction.

Methodology

As mentioned above, a general rule is that shadow flicker is likely to cause significant effects only within 10 times the rotor diameter from the nearest turbine. Any properties located out with this distance should not experience significant impacts.

---

[133] "*Planning Advice Note on Onshore Wind Turbines", last updated May 2014. http://www.gov.scot/Resource/0045/00451413.pdf .*

[134] *"Onshore Wind Energy Planning Conditions Guidance Note",* Department for Business, Enterprise and Regulatory Reform. October 2007.

[135] "*Planning Advice Note on Onshore Wind Turbines", last updated May 2014. http://www.gov.scot/Resource/0045/00451413.pdf .*

[136] *"Planning for Renewable Energy: A Companion Guide to PPS22".* Published16 December 2004 for the Office of the Deputy Prime Minister.

The Bolshan Farm turbine will have a rotor diameter of 48m, as a result, any properties located more than 480m from the turbine will not be assessed.

The shadow flicker package within Resoft WindFarm was used to calculate the amount of shadow flicker that properties in the locality may experience. The software models the path of the sun throughout an entire year to identify when and where shadows from the moving blades will be cast. This can give specific dates, times and the duration of any shadow flicker effects at nearby residential properties.

This form of computer based modelling makes a number of assumptions that mean the assessment can be considered a worst case scenario in regards to shadow flicker, these assumptions are detailed below:

- There are no trees or landscape features between the turbine and any affected properties,
- There is no cloud cover;
- The turbine is always orientated towards each property providing the maximum opportunity for shadow flicker to occur,
- There is always sufficient wind to cause the turbine blades to rotate,
- Someone is assumed to be in all properties at all times in order to experience the full duration of any shadow flicker effects.

The shadow flicker map on the following page (Figure 20) shows the maximum hours of shadow flicker that were calculated for the area around the Bolshan Farm turbine.

Conclusions, Shadow Flicker

Shadow flicker has been examined for the turbine proposed at Bolshan Farm. As there are no properties located within the 480m potential shadow flicker zone, no impact or effect on amenity is predicted during the operational phase of the project. The nearest property of Bolshan Cottage (623m) is located well outside the shadow flicker zone giving a comfortable buffer zone and further reducing any likelihood of impact or annoyance.

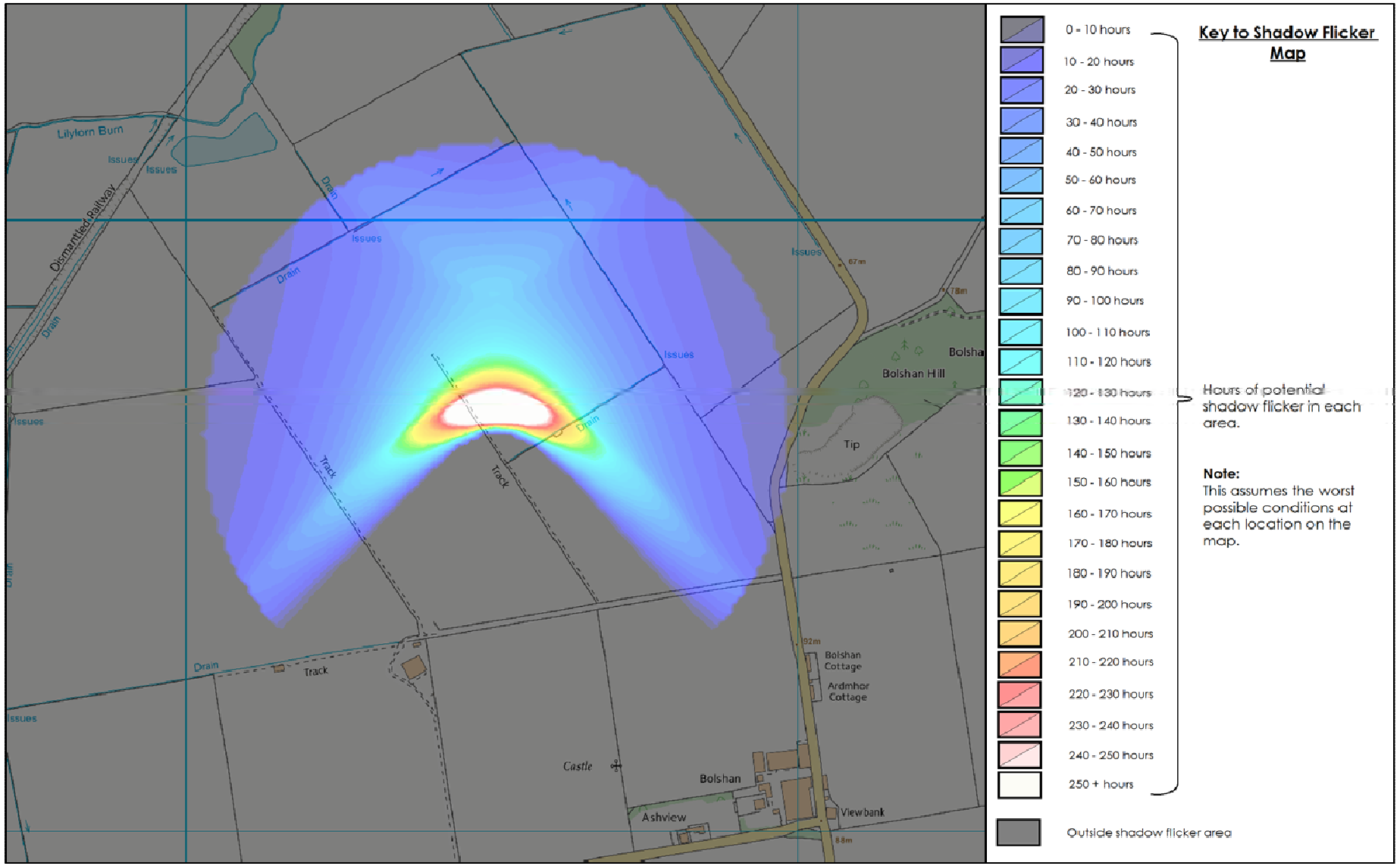

Figure 20: Bolshan Farm Shadow Flicker Map

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15.3 Vibration

In 2005, researchers from Keele University investigated the effects of vibration resulting from wind farms on the operation of a seismic array installed at Eskdalemuir in Scotland, one of the most sensitive ground-borne vibration detection stations in the world. The results from this study are often misinterpreted in that if infrasonic vibrations from wind farms can be measured, then they must consequently have some potential effect on humans. The authors have subsequently explained that[137]:

> *"The levels of vibration from wind turbines are so small that only the most sophisticated instrumentation and data processing can reveal their presence, and they are almost impossible to detect".*

They then go on to add context to the measured results:

> *"Vibrations at this level and in this frequency range will be available from all kinds of sources such as traffic and background noise – they are not confined to wind turbines. To put the level of vibration into context, they are ground vibrations with amplitudes of about one millionth of a millimetre. There is no possibility of humans sensing the vibration and absolutely no risk to human health".*

It may therefore be concluded that vibration associated with modern wind turbines is not a source which will result in levels that may be detrimental to the health of a wind farm neighbour.

15.4 Ice Throw

As with any structure, wind turbines can accumulate ice under certain conditions, such as ambient temperatures near freezing combined with high relative humidity, freezing rain, or sleet. Normal operation of the turbine can then cause ice to be shed, resulting in safety concerns that must be considered during project development and operation.

The accumulation of ice is highly dependent on local weather conditions and the turbine's operational state. Any ice accumulated may be shed from the turbine due to both gravity and the mechanical forces of the rotating blades. An increase in ambient temperature, wind, or solar radiation may cause sheets or fragments of ice to loosen and fall, making the area directly under the rotor subject to the greatest risk[138].

The Enercon E48 is fitted with sensors that detect loading imbalances on the rotor blades that are associated with icing. Appropriate signage will also be introduced in the vicinity of the development for the protection of site personnel and the public.

Additionally, there are several scenarios which would result in turbine deactivation in the event of icing:

- Detection of ice by nacelle-mounted ice sensor.
- Detection of rotor imbalance caused by blade ice formation by a shaft vibration sensor.
- Anemometer icing that leads to a measured wind speed below cut-in.

In conclusion, it is considered any safety concerns due to ice throw have been sufficiently mitigated and any risk to the public is negligible.

[137] 'Wind farm noise', P. Styles, letter by Prof P Styles and S Toon printed in The Scotsman, August 2005.
[138] *'Wind Turbine Icing and Public Safety – a Quantifiable Risk?'*,Colin Morgan and Ervin Bossanyi of Garrad Hassan, 1996.

15.5 Blade Loss

Another potential public safety concern is the possibility of a rotor blade detaching and being thrown from the nacelle. These are extremely rare occurrences but have usually been the result of design defects during manufacturing, poor maintenance, wind gusts that exceed the maximum design load of the engineered turbine structure, or lightning strikes. Technological improvements and safety standards during turbine design, manufacture and installation as well as more frequent maintenance have made these occurrences all the less likely.

Modern turbines are certified according to international engineering standards[139]. Testing facilities in the US and Europe employ these standards to test blade integrity and their ability to withstand different levels of hurricane strength wind and fatigue, among other criteria. Braking systems, pitch controls, sensors and speed regulators on wind turbines have greatly reduced the risk of blade throw.

The Enercon E48 turbine proposed for this project automatically shuts down at wind speeds of between 28-34 m/s (62-76 mph). They also cease operation if significant vibrations or rotor blade stress is detected by the turbine blade monitoring system. As a result the risk of blade failure is minimal. The nearest property is deemed to be of sufficient distance (623m) from the turbine that in the unlikely event of blade loss or fragment, it will not pose any risk to public safety.

Environmental Health, Appendix 1 – Map of Nearest Dwellings

(Next page) Location plan of Bolshan Farm wind turbine and nearest dwellings.

Environmental Health, Appendix 2 – Wind Turbine Manufacturer Data Sheets

(Following pages) Manufacturer data sheets confirming the warranted turbine sound power level for a 500kW mode E48 and octave banded test datasheets.

[139] *'IEC 61400 - Wind Turbines'*. International Electrotechnical Commission. 2005.


Key:
Wind turbine
Dwelling
Dwelling names used in the report are as stated on the OS map
Based on Ordnance Survey 1:25,000 map data. Not reproduced at that scale
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N
W
E
S
Woodside
Myretell House
Sheepfauld
Willanyards
Towerton Cottage
A934
A933
Burnside
Teuchat Hillock
Bolshan Hill
Bolshan Hill Wood
Wuddy Law
Bolshan
Doonbye
Poole
Pitmikie
Muirside of Kinnell
Muirside-of-Kinnell
Viewmont
Mainsbank
53
52
61
58
94
78
56
32
76
84

Sound Power Level

of the

ENERCON E-48

Operational Mode 500 kW

(Data Sheet)

Imprint

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Glossary

WEC	means an ENERCON wind energy converter.
WECs	means more than one ENERCON wind energy converter.

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ENERCON ENERGY FOR THE WORLD	Sound Power Level E-48	Page 2 of 3

Sound Power Level of the E-48 with 500 kW reduced power

hub height / V_s in 10 m height	50 m	55 m	60 m	65 m	76 m
4 m/s	89.0 dB(A)	89.2 dB(A)	89.4 dB(A)	89.5 dB(A)	89.9 dB(A)
5 m/s	93.3 dB(A)	93.6 dB(A)	93.9 dB(A)	94.2 dB(A)	94.7 dB(A)
6 m/s	97.5 dB(A)	97.8 dB(A)	98.1 dB(A)	98.3 dB(A)	98.8 dB(A)
7 m/s	99.2 dB(A)	99.4 dB(A)	99.5 dB(A)	99.7 dB(A)	100.0 dB(A)
8 m/s	100.0 dB(A)	100.0 dB(A)	100.0 dB(A)	100.0 dB(A)	100.0 dB(A)
9 m/s	100.0 dB(A)	100.0 dB(A)	100.0 dB(A)	100.0 dB(A)	100.0 dB(A)
10 m/s	100.0 dB(A)	100.0 dB(A)	100.0 dB(A)	100.0 dB(A)	100.0 dB(A)
95% reduced power					

Measured value at 500 kW reduced Power					***99,4 dB(A)*** *MBBM M69130/1*

in relation to wind speed at hub height									
wind speed at hub height [m/s]	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
Sound Power Level [dB(A)]	95.1	97.9	99.5	99.8	100.0	100.0	100.0	100.0	100.0

1. The relation between the sound power level and the standardized wind speed v_S in 10 m height as shown above is valid on the premise of a logarithmic wind profile with a roughness length of 0.05 m. The relation between the sound power level and the wind speed at hub height applies for all hub heights. During the sound measurements the wind speeds are derived from the power output and the power curve of the WEC.
2. A tonal audibility of $\Delta L_{a,k}$ < 2 dB can be expected over the whole operational range (valid in the near vicinity of the turbine according to IEC 61 400 -11 ed. 2).
3. The sound power level values given in the table are valid for the **Operational Mode 500 kW** (defined via the rotational speed range of 16 – 28 rpm). The respective power curve is the calculated power curve E-48 dated November 2009 (Rev. 2.x).

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Translator /date:		Revisor	Sro / 02.2012

4. The values displayed in the tables above are based on official and internal measurements of the sound power level. If available the official measured values are given in this document as a reference (in italic print). The extracts of the official measurements can be made available upon request. The values given in the measurement extracts do not replace the values given in this document. All measurements have been carried out according to the recommended German and international standards and guidelines as defined in the measurement reports, respectively.
5. Due to the typical measurement uncertainties, if the sound power level is measured according to one of the accepted methods the measured values can differ from the values shown in this document in the range of +/- 1 dB.

   Accepted measurement methods are:

   a) IEC 61400-11 ed. 2 („Wind turbine generator systems – Part 11: Acoustic noise measurement techniques; Second edition"), and

   b) the FGW-Guidelines („Technische Richtlinie für Windenergieanlagen – Teil 1: Bestimmung der Schallemissionswerte", published by the association "Fördergesellschaft für Windenergie e.V.", 18th revision).

   If the difference between total noise and background noise during a measurement is less than 6 dB a higher uncertainty must be considered.
6. For noise-sensitive sites it is possible to operate the E-48 with reduced rotational speed and reduced rated power during night time. The sound power levels resulting from such operational mode can be provided in a separate document upon request.
7. The sound power level of a wind turbine depends on several factors such as but not limited to regular maintenance and day-to-day operation in compliance with the manufacturer's operating instructions. Therefore, this data sheet can not, and is not intended to, constitute an express or implied warranty towards the customer that the E-48 WEC will meet the exact sound power level values as shown in this document at any project specific site.

Document information:			
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Approved / date:	RWo / 03.2012	Revision / date:	1.1 / 02.2012
Translator /date:		Revisor	Sro / 02.2012

Extract III of test report

Master Information „Noise", according to "Wind turbine generator systems - Part 11: Acoustic noise measurement techniques."

IEC 61400-11 ED. 2 from 2002 (published by: Central Office of the IEC, Geneva, Switzerland)

Extract of test report WICO 439SEC04/07 regarding noise emission of wind turbine (WT) type ENERCON E-48 (Mode I), hub height 56 m

General			Technical specifications (manufacturer)	
Manufacturer:	ENERCON GmbH		Rated power (generator):	800 kW
	Dreekamp 5		Rotor diameter:	48,0 m
	D-26605 AURICH		Hub height above ground:	56 m
Serial number:	48087		Kon. Stahlrohr	Tubular steel tower
WT-location:	WP Holtriem	RW 25.95.228	Pitch	pitch/stall/active-stall
		HW 59.42.988		
Complementations of rotor (manufacturer)			**Complementations of gear and generator (manufacturer)**	
Manufacturer of rotor blades	ENERCON GmbH		Manufacturer of gear:	No
Type of blades:	E48/1		Type of gear:	No
Pitch angle:	variabel		Manufacturer of generator:	ENERCON GmbH
Number of blades	3		Type of generator:	E-48
Rated speed(s)/speed range:	16 – 29,5 rpm (Mode I)		Rated speed(s):	16 – 29,5 rpm (Mode I)

Report power curve: calculated power curve, date: 31.08.2004

	Reference		Noise emission parameter	Remarks
	Standardized wind speed at 10 m above ground	Electric power		
Sound power level L_{WA}	*5 ms^{-1}*	*162 kW*	*93.1* dB(A)*	*(1)*
	6 ms^{-1}	276 kW	96.9 dB(A)	
	7 ms^{-1}	441 kW	99.8 dB(A)	
	8 ms^{-1}	619 kW	101.2 dB(A)	
	9 ms^{-1}	740 kW	101.8 dB(A)	
	9.3 ms^{-1}	*760 kW*	*101,8 dB(A)*	*(2)*
	10 ms^{-1}	794 kW	102.1 dB(A)	(3), (4)
Tonal components ΔL_a (near proximity)	*5 ms^{-1}*	*162 kW*	No tone	*(1)*
	6 ms^{-1}	276 kW	No tone	
	7 ms^{-1}	441 kW	No tone	
	8 ms^{-1}	619 kW	No tone	
	9 ms^{-1}	740 kW	No tone	
	9.3 ms^{-1}	*760 kW*	*No tone*	*(2)*
	10 ms^{-1}	794 kW	No tone	(3), (4)

One third octave sound power level at reference point v_{10} = 5 m/s [dB(A)]

Frequency	50	63	80	100	125	160	200	250	315	400	500	630
L_{WA}	66.7	70.3	72.0	73.6	77.1	76.1	78.4	83.3	84.7	83.7	83.3	83.5
L_{WA}	74.9			80.6			87.6			88.3		
Frequency	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000
L_{WA}	81.7	81.1	80.5	78.3	77.6	75.7	74.3	73.9	72.2	71.5	70.0	66.5
L_{WA}	85.9			82.1			78.3			74.6		

One third octave sound power level at reference point v_{10} = 6 m/s [dB(A)]

Frequency	50	63	80	100	125	160	200	250	315	400	500	630
L_{WA}	70.8	73.3	76.0	76.7	77.9	78.8	79.7	85.2	86.9	86.5	86.5	88.1
L_{WA}	78.6			82.7			89.6			91.9		
Frequency	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000
L_{WA}	87.4	87.2	86.0	83.1	81.5	80.0	78.5	78.1	77.2	76.4	74.0	72.0
L_{WA}	91.7			86.5			82.7			79.3		

Deutscher Akkreditierungs Rat

DAP-PL-2756.00

According to DIN EN ISO 17025 by the DAP German Accreditation System for Testing Ltd. accredited testing laboratory. The accreditation is valid for test methods listed in the document.

One third octave sound power level at reference point v_{10} = 7 m/s [dB(A)]												
Frequency	50	63	80	100	125	160	200	250	315	400	500	630
L_{WA}	72.2	75.6	78.8	80.0	80.4	82.4	83.8	88.7	90.7	90.2	90.0	91.0
L_{WA}		81.1			85.8			93.3			95.2	
Frequency	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000
L_{WA}	89.7	89.2	87.4	85.0	83.6	82.1	81.2	81.1	80.2	79.7	78.7	75.8
L_{WA}		93.6			88.5			85.6			83.1	

One third octave sound power level at reference point v_{10} = 8 m/s [dB(A)]												
Frequency	50	63	80	100	125	160	200	250	315	400	500	630
L_{WA}	69.9	74.1	77.1	78.8	81.5	82.1	84.2	90.3	92.5	91.8	91.7	92.7
L_{WA}		79.4			85.8			94.9			96.9	
Frequency	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000
L_{WA}	91.5	90.7	88.9	85.8	83.7	81.9	80.7	81.4	80.4	79.5	79.0	77.1
L_{WA}		95.3			88.9			85.6			83.4	

One third octave sound power level at reference point v_{10} = 9 m/s [dB(A)]												
Frequency	50	63	80	100	125	160	200	250	315	400	500	630
L_{WA}	71.6	74.3	76.9	79.2	82.4	84.0	86.4	91.3	93.3	92.4	92.1	92.9
L_{WA}		79.6			87.1			95.9			97.3	
Frequency	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000
L_{WA}	91.2	90.3	88.5	86.0	84.8	84.1	83.7	84.2	83.7	83.5	82.3	79.9
L_{WA}		94.9			89.8			88.6			86.9	

One third octave sound power level at reference point v_{10} = 10 m/s [dB(A)]												
Frequency	50	63	80	100	125	160	200	250	315	400	500	630
L_{WA}	69.9	73.9	75.9	77.4	80.2	80.7	83.4	88.3	91.0	90.8	91.5	93.4
L_{WA}		78.6			84.4			93.3			96.8	
Frequency	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000
L_{WA}	93.2	93.6	92.6	89.9	87.4	85.0	83.2	83.3	82.0	81.1	79.9	77.8
L_{WA}		97.9			92.7			87.6			84.6	

(1) Because of the signal to noise ratio laying in between 3 dB to 6 dB the sound pressure level was corrected with 1,3 dB.
(2) Sound power level at 95% of the rated power.
(3) Wind speed at the maximum sound pressure level minute measured at the hub height of 75.6 m was 9.6 ms^{-1}.
(4) One value was measured in the wind bin of 10 ms^{-1}.

This extract of test report is valid only in connection with the enclosed „Manufacturer's certificate" from 2004-08-31.

This declaration does not replace above-mentioned report.

measured by: WIND-consult GmbH
Reuterstraße 9
D-18211 Bargeshagen

- pdf - document was signed electronically -

date: 2006-01-24

Dipl.-Ing. A. Petersen Dipl.-Ing. W. Wilke

Deutscher Akkreditierungs Rat
DAP-PL-2756.00
According to DIN EN ISO 17025 by the DAP German Accreditation System for Testing Ltd. accredited testing laboratory.
The accreditation is valid for test methods listed in the document.

The Greenspan Agency

Bolshan Renewables Project

Environmental Report Volume II

Landscape and Visual Impact Assessment (LVIA) Figures

Compiled by Jack Cook, MRTPI, Victoria Scruton MA (*Hons*), MSc and Sarah Hunt BEM, MApplSc

April 2015

Document number: GBF/14-015/R002

The Greenspan Agency

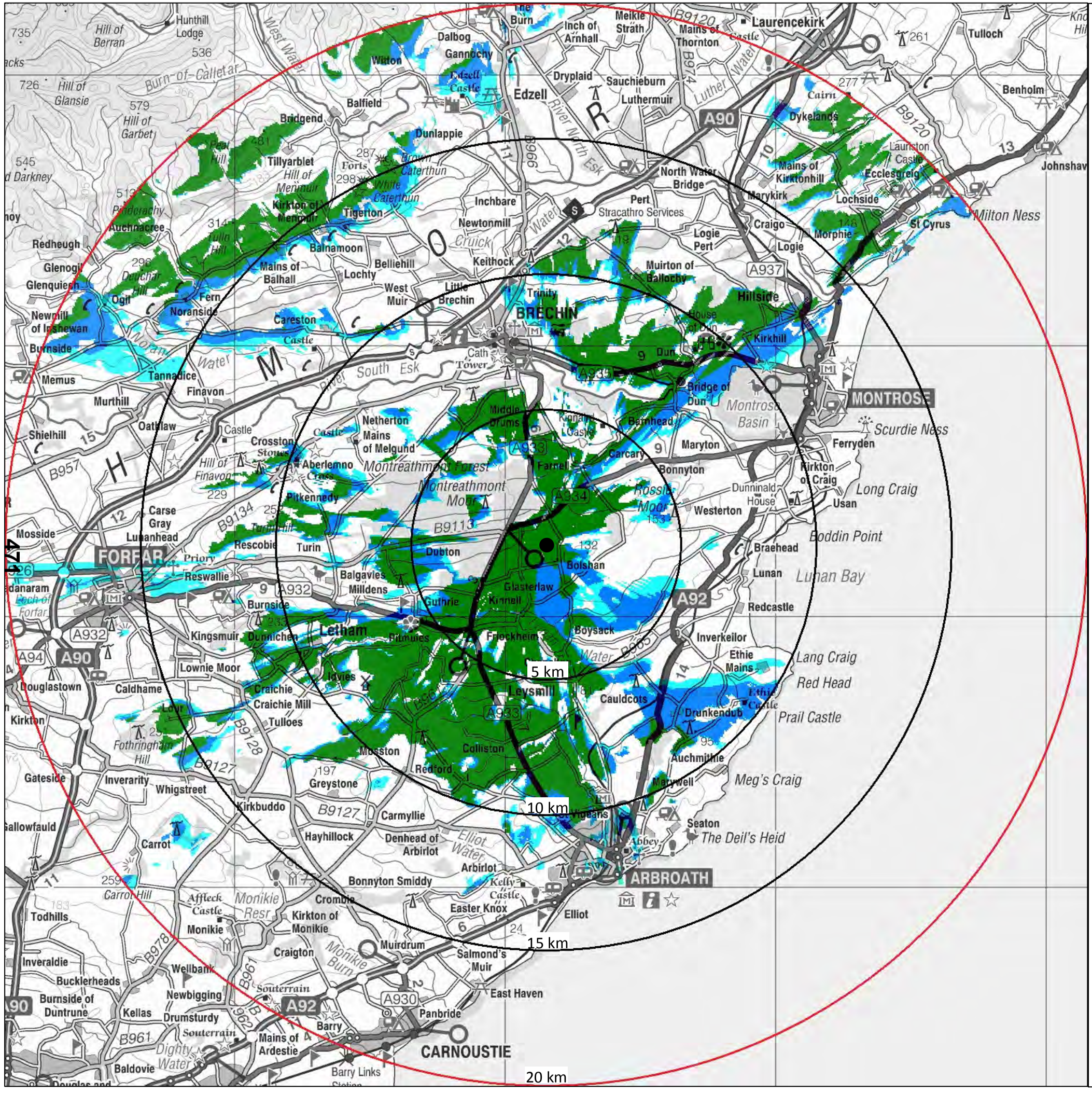
Produced by The Greenspan Agency Ltd

The Greenspan Agency

Bolshan Renewables Project, LVIA Figures

April 2015

Table of Contents



Project Name:

Bolshan Renewables Project

Document Title:

Zone of Theoretical Visibility, 20km Radius

Scale:

1: 181,094 @ A3

Key:

- **Bolshan Farm Turbine Position**
- **79.6m Turbine Tip Visible (but not hub)**
- **55.6m Turbine Hub Visible (but not tower mid-point)**
- **27.8m Tower Mid-Point Visible (at least)**
- **20km Radius**

Turbine grid reference: 361507, 752652

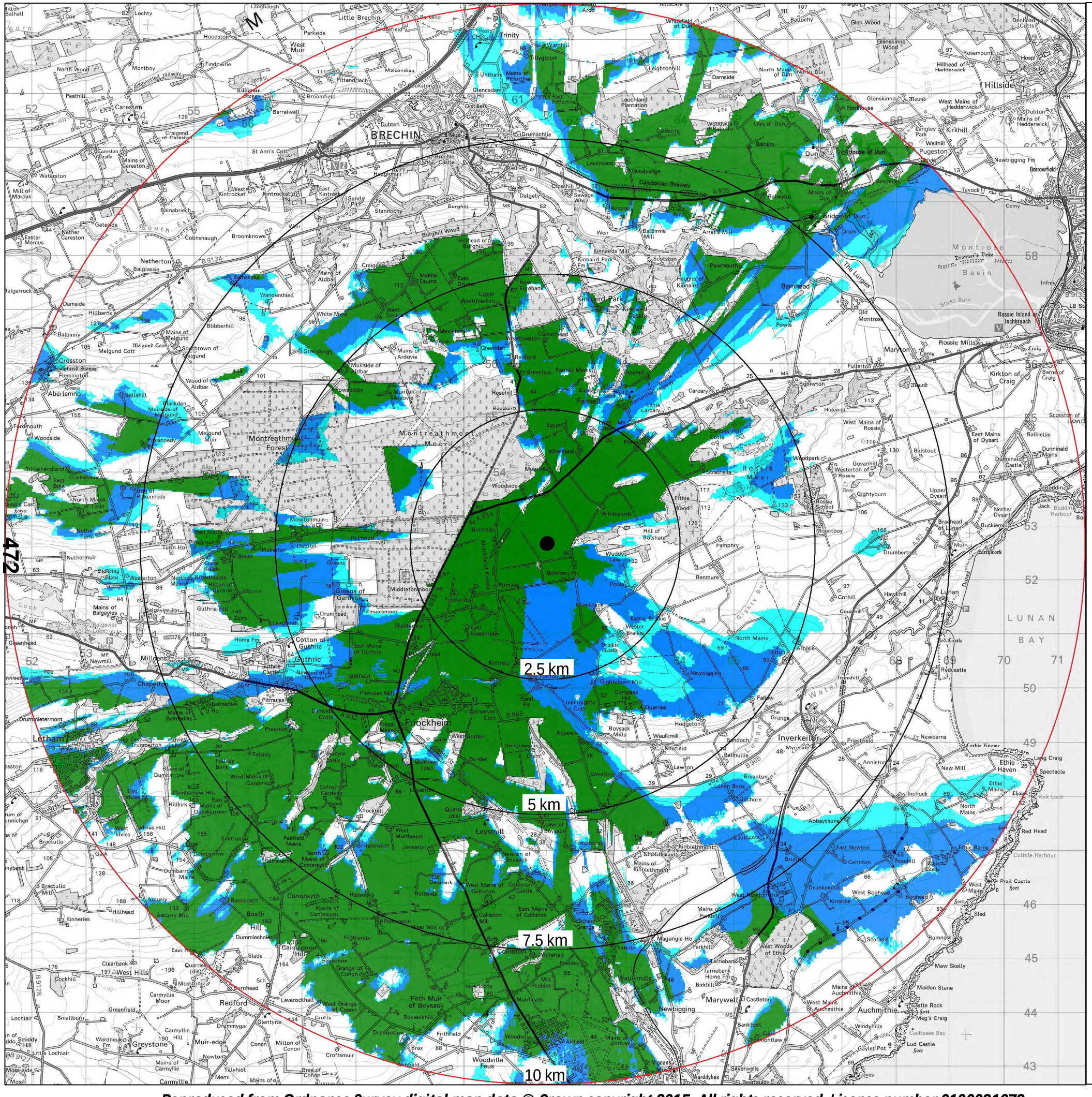
Client:

Bolshan Renewables Limited

Drawing By:

The Greenspan Agency

Figure No.:	**GBF/14-015/Fig.A1**
Version No.:	**1.1**
Produced by:	**VS**
Checked By:	**MB**
Date Last Amended:	**29.04.2015**



Project Name:

Bolshan Renewables Project

Document Title:

Zone of Theoretical Visibility, 10km Radius

Scale:

1: 72,438 @ A3

Key:

- **Bolshan Farm Turbine Position**
- **79.6m Turbine Tip Visible (but not hub)**
- **55.6m Turbine Hub Visible (but not tower mid-point)**
- **27.8m Tower Mid-Point Visible (at least)**
- **10km Radius**

Turbine grid reference: 361507, 752652

N W E S

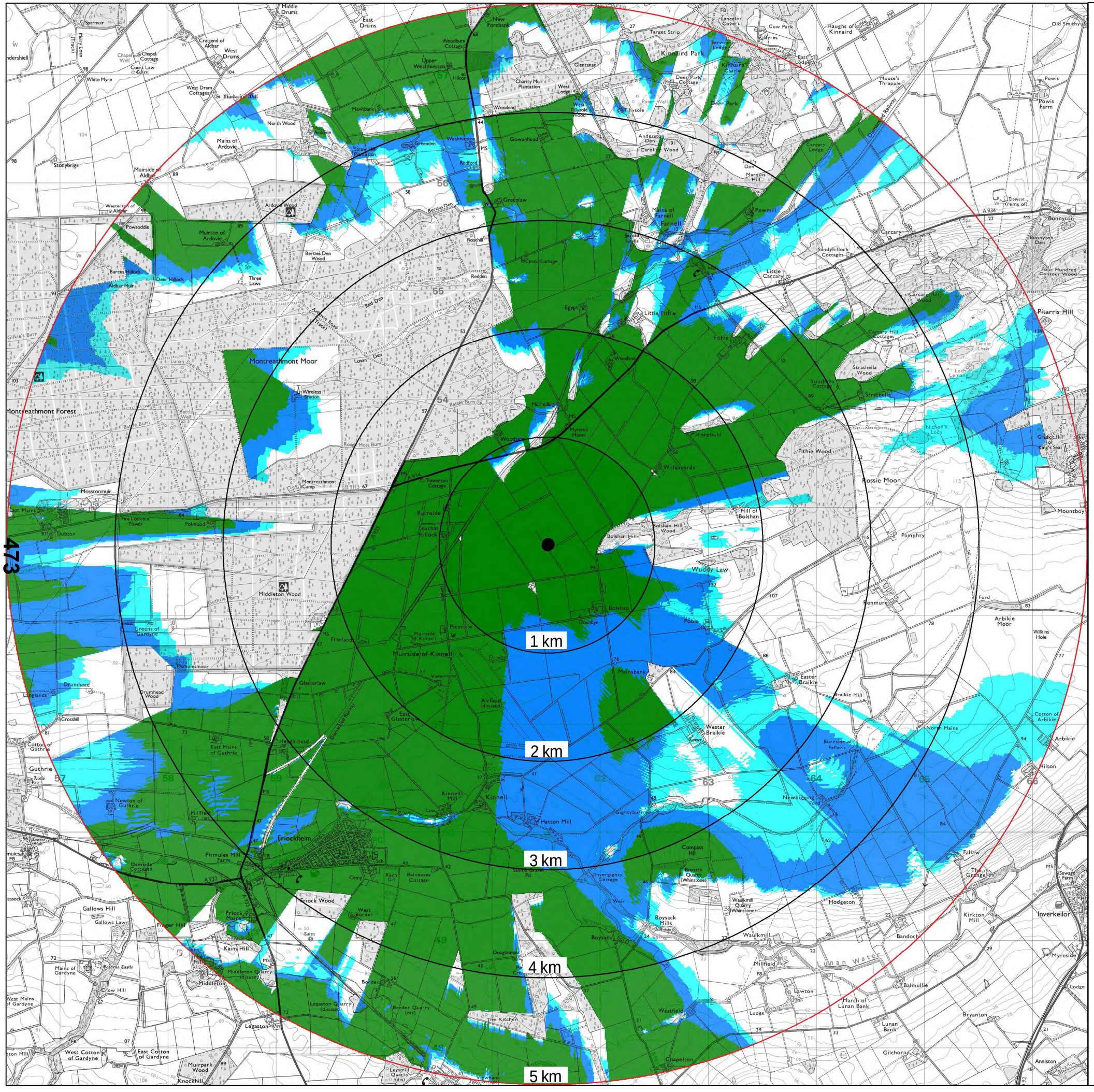
Client:

Bolshan Renewables Limited

Drawing By:

The Greenspan Agency

Figure No.:	**GBF/14-015/Fig.A2**
Version No.:	**1.0**
Produced by:	**VS**
Checked By:	**MB**
Date Last Amended:	**29.04.2015**



Project Name:

Bolshan Renewables Project

Document Title:

Zone of Theoretical Visibility, 5km Radius

Scale:

1: 36,232 @ A3

Key:

- **Bolshan Farm Turbine Position**
- **79.6m Turbine Tip Visible (but not hub)**
- **55.6m Turbine Hub Visible (but not tower mid-point)**
- **27.8m Tower Mid-Point Visible (at least)**
- **5km Radius**

Turbine grid reference: 361507, 752652

N
W E
S

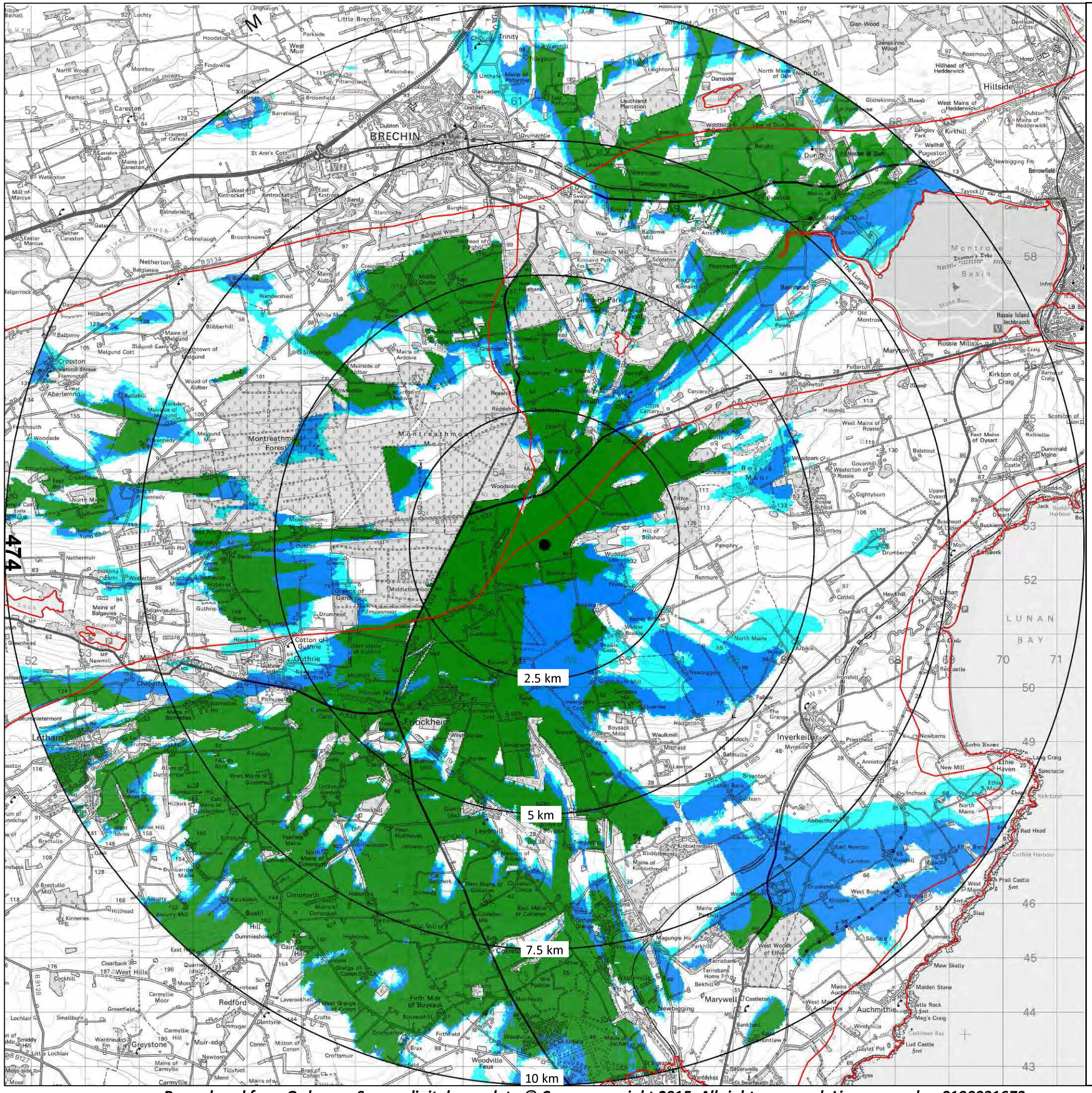
Client:

Bolshan Renewables Limited

Drawing By:

The Greenspan Agency

Figure No.:	**GBF/14-015/Fig.A3**
Version No.:	**1.0**
Produced by:	**VS**
Checked By:	**JC**
Date Last Amended:	**29.04.2015**



Project Name:

Bolshan Renewables Project

Title:

Scottish Natural Heritage Landscape Character Types

Zone of Theoretical Visibility, 10km Radius

Scale:

1: 72,202 @ A3

Key:

- **Bolshan Farm Turbine Position**
- **79.6m Turbine Tip Visible (but not hub)**
- **55.6m Turbine Hub Visible (but not tower mid-point)**
- **27.8m Tower Mid-Point Visible (at least)**
- **10 km Radius**
- **SNH Landscape Character Type Boundaries**

Turbine grid reference: 361507 752652

N
W E
S

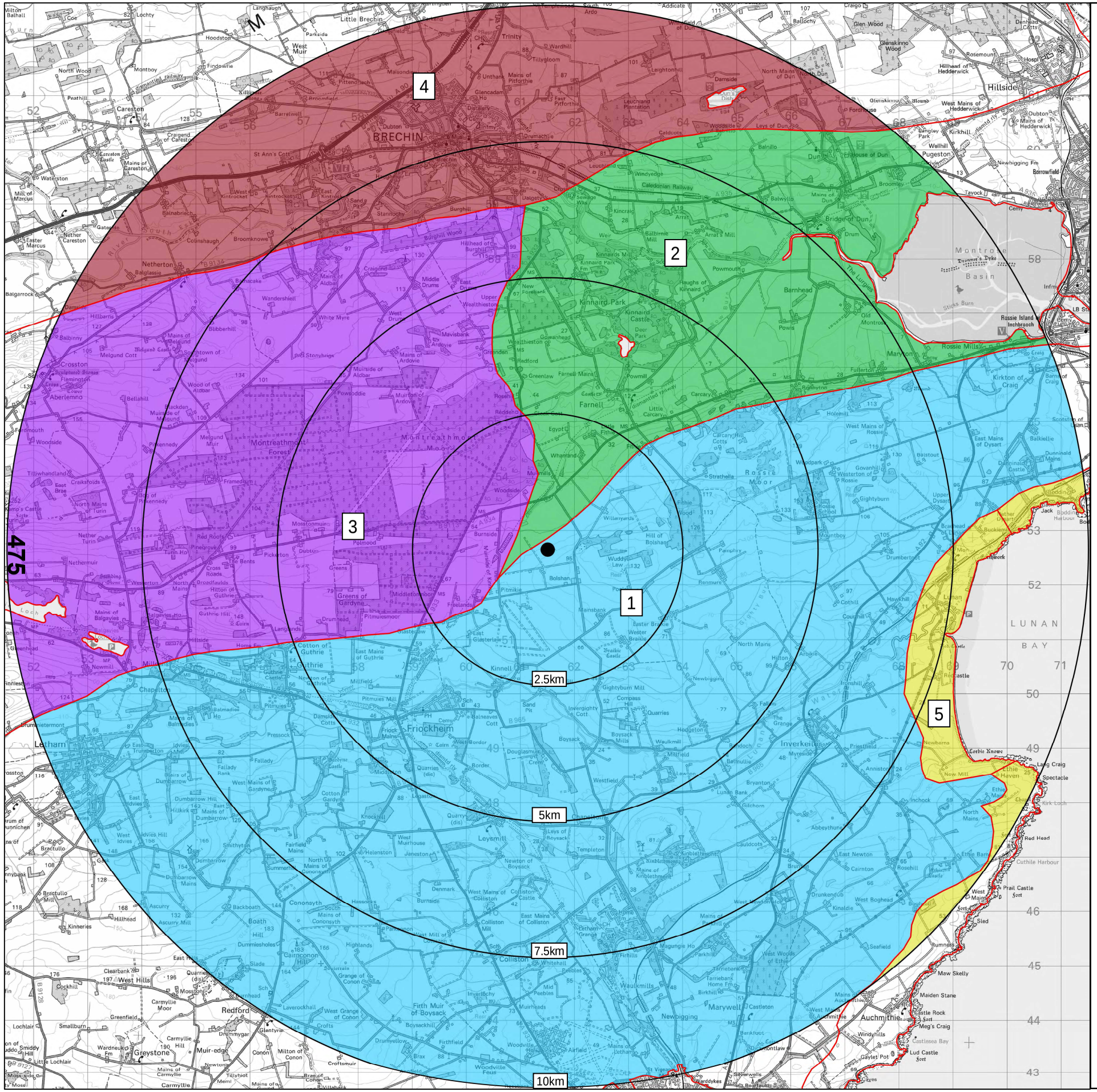
Client:

Bolshan Renewables Limited

Drawing By:

The Greenspan Agency

Figure No.:	**GBF/14-015/Fig.A4**
Version No.:	**1.0**
Produced by:	**VS**
Checked By:	**MB**
Date Last Amended:	**29.04.2015**



Key:

- Bolshan Farm Turbine
- 10km Radius
- SNH Landscape Character Type Boundary

Landscape Character Types as defined in the 'Tayside Landscape Character Assessment', prepared by Land Use Consultants for SNH (1999). (Numbered in order of distance from Bolshan Farm Turbine position.)

1. Dipslope Farmland
2. Lowland Basins
3. Low Moorland Hills
4. Broad Valley Lowland
5. Coast with Sand

Project Name:
Bolshan Renewables Project

Title:
Index Map, Scottish Natural Heritage Landscape Character Types

Specification:
Scottish Natural Heritage Landscape Character Types within 10km radius.

Scale:
1: 79,555 @ A3

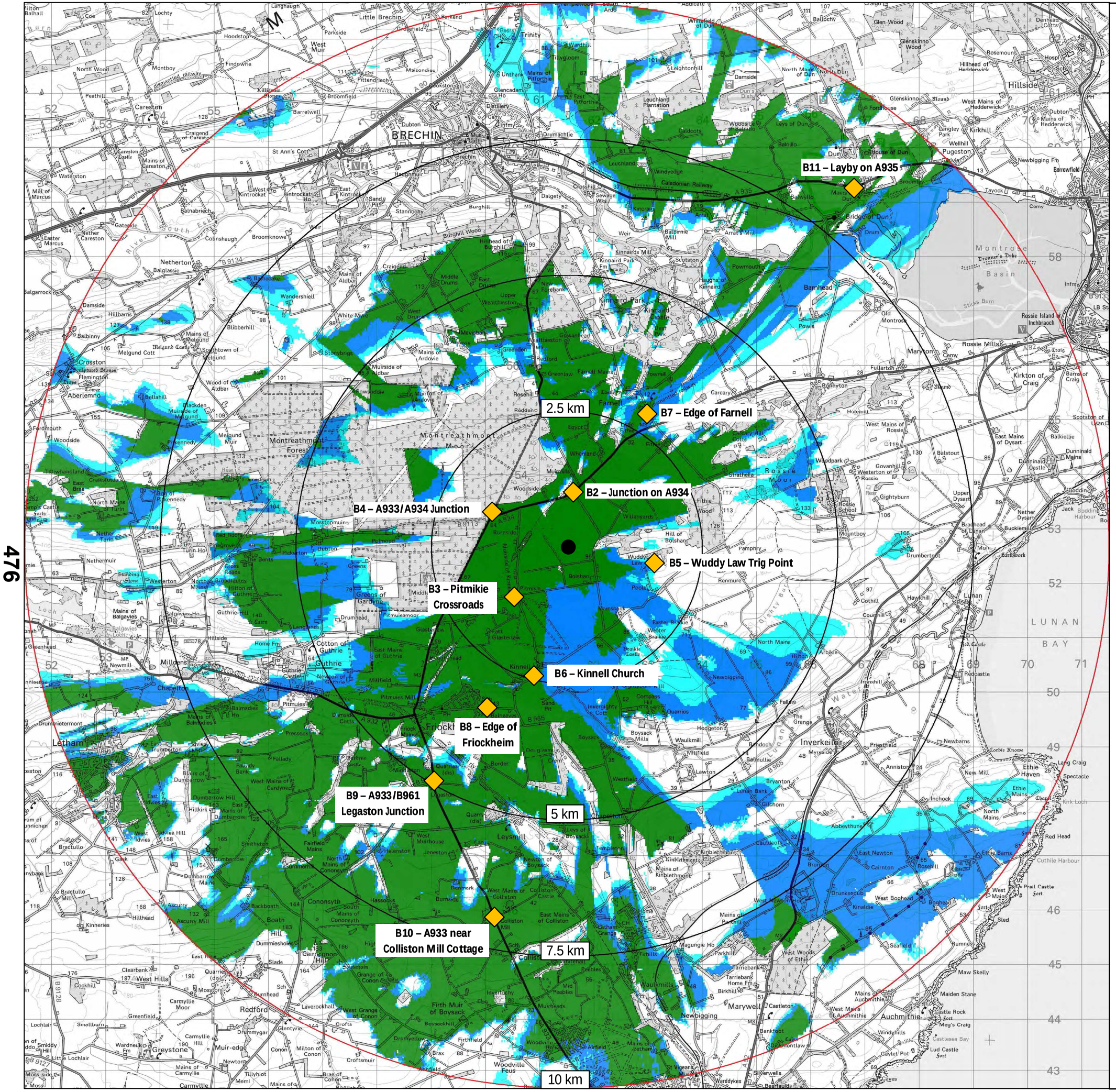
Turbine grid reference: 361507 752652

N W E S

Client:
Bolshan Renewables Limited

Drawing By:
The Greenspan Agency

Figure No.:	**GBF/14-015/Fig.A5**
Version No.:	**1.0**
Produced by:	**VS**
Checked By:	**MB**
Date:	**29.04.2015**



476

Project Name:

Bolshan Renewables Project

Document Title:

Map of Viewpoints: Shown on 10km ZTV diagram

Scale:

1:73,019 @ A3

Key:

- **Bolshan Farm Proposed Turbine Position**
- **79.6m Turbine Tip Visible (but not hub)**
- **55.6m Turbine Hub Visible (but not tower mid-point)**
- **27.8m Tower Mid-Point Visible (at least)**
- **Radius Markers**
- **10km Radius**
- **Viewpoint Locations with Photomontage Figure Names and Numbers.**

Turbine grid reference: 361507, 752652

N W E S

Client:

Bolshan Renewables Limited

Drawing By:

The Greenspan Agency

Figure No.:	**GBF/14-015/Fig.B1**
Version No.:	**1.1**
Produced by:	**VS**
Checked By:	**MB**
Date Last Amended:	**29.04.2015**

Viewpoint Grid Reference: 361605 753625
Distance to proposed turbine: 977m
Viewing direction: S 195°
Viewpoint elevation: 41m
Field of View: 68°
Camera Model: Nikon D700
Focal Length: 50mm
Camera Height: 1.5m
Date and time of photo: 24.02.2015 13:51

Junction on A934
Photomontage and Wireframe

Bolshan Renewables Project

The Greenspan Agency

This is a composite image made up of at least 3 No. 50mm photographs joined together horizontally to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image must be viewed at an exact distance of 340mm with **one eye**, whilst curving the image in an **exact arc** of 68 degrees. This image should only be assessed within the landscape from the same viewpoint.

Figure No.:	**GBF/14-015/Fig.B2**
Version No.:	**1.0**
Produced by:	**VS**
Approved By:	**MB**
Date:	**20.04.2015**

478

Bolshan Farm
Turbine Position

Turbine model	Enercon E48
Turbine height (to tip)	79.6m
Turbine rotor diameter	48m

Viewpoint Grid Reference: 360590 751741
Distance to proposed turbine: 1292m
Viewing direction: NE 44.2°
Viewpoint elevation: 56m
Field of View: 68°
Camera Model: Nikon D700
Focal Length: 50mm
Camera Height: 1.5m
Date and time of photo: 24.02.2015 14:14

Pitmikie Crossroads
Photomontage and Wireframe

Bolshan Renewables Project

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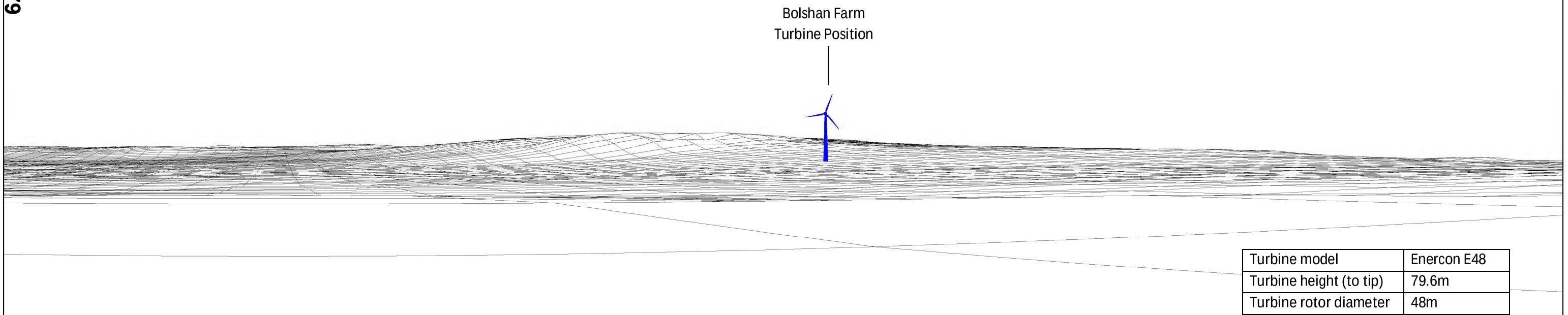
Figure No.:	**GBF/14-015/Fig.B3**
Version No.:	**1.0**
Produced by:	**VS**
Approved By:	**JC**
Date:	**20.04.2015**



Turbine model	Enercon E48
Turbine height (to tip)	79.6m
Turbine rotor diameter	48m

Viewpoint Grid Reference: 360111 753269
Distance to proposed turbine: 1526m
Viewing direction: E SE 112°
Viewpoint elevation: 61m
Field of View: 68°
Camera Model: Nikon D700
Focal Length: 50mm
Camera Height: 1.5m
Date and time of photo: 19.03.2015 16:38

A933/A934 Junction
Photomontage and Wireframe

Bolshan Renewables Project

The Greenspan Agency

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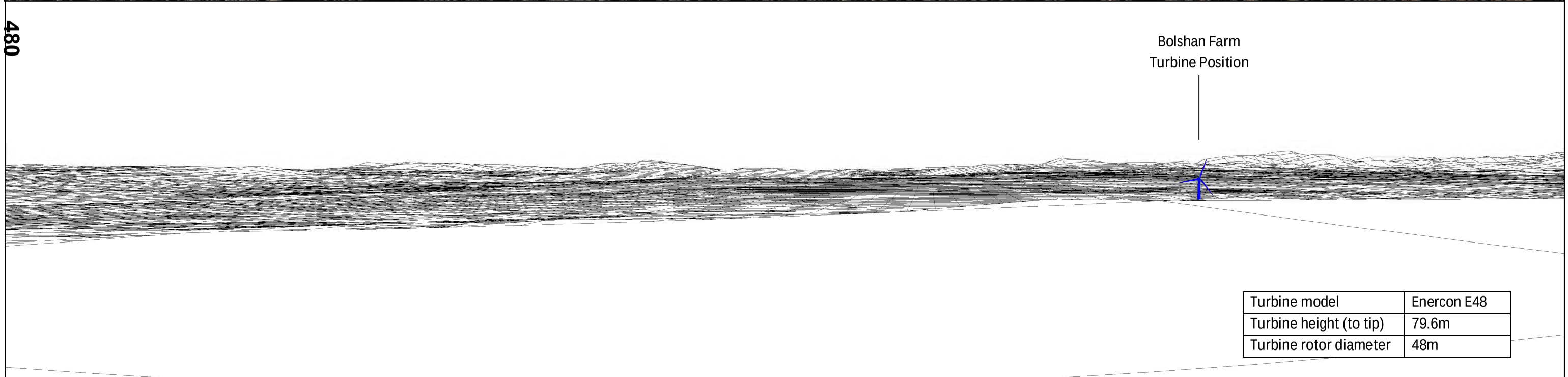
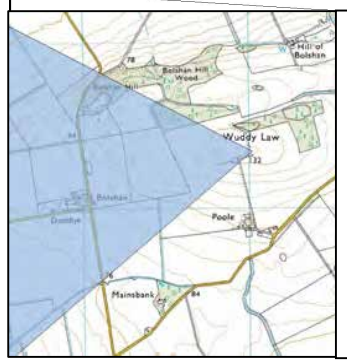
Figure No.:	**GBF/14-015/Fig.B4**
Version No.:	**1.0**
Produced by:	**VS**
Approved By:	**MB**
Date:	**20.04.2015**

480



Turbine model	Enercon E48
Turbine height (to tip)	79.6m
Turbine rotor diameter	48m



Viewpoint Grid Reference: 363012 752339
Distance to proposed turbine: 1537m
Viewing direction: W 263.7°
Viewpoint elevation: 130m
Field of View: 68°
Camera Model: Nikon D700
Focal Length: 50mm
Camera Height: 1.5m
Date and time of photo: 24.02.2015 13.10

Wuddy Law Trig Point
Photomontage and Wireframe

Bolshan Renewables Project

The Greenspan Agency

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Figure No.:	**GBF/14-015/Fig.B5**
Version No.:	**1.0**
Produced by:	**VS**
Approved By:	**MB**
Date:	**20.04.2015**

Turbine model	Enercon E48
Turbine height (to tip)	79.6m
Turbine rotor diameter	48m

Viewpoint Grid Reference: 360864 750288
Distance to proposed turbine: 2449m
Viewing direction: N 13°
Viewpoint elevation: 35m
Field of View: 68°
Camera Model: Nikon D700
Focal Length: 50mm
Camera Height: 1.5m
Date and time of photo: 24.02.2015 15:19

Kinnell Church
Photomontage and Wireframe

Bolshan Renewables Project

The Greenspan Agency

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Figure No.:	**GBF/14-015/Fig.B6**
Version No.:	**1.0**
Produced by:	**VS**
Approved By:	**MB**
Date:	**20.04.2015**

Turbine model	Enercon E48
Turbine height (to tip)	79.6m
Turbine rotor diameter	48m

Viewpoint Grid Reference: 362976 755122
Distance to proposed turbine: 2873m
Viewing direction: S SW 206.6°
Viewpoint elevation: 20m
Field of View: 68°
Camera Model: Nikon D700
Focal Length: 50mm
Camera Height: 1.5m
Date and time of photo: 24.02.2015 17:41

Edge of Farnell
Photomontage and Wireframe

Bolshan Renewables Project

The Greenspan Agency

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Figure No.:	**GBF/14-015/Fig.B7**
Version No.:	**1.1**
Produced by:	**VS**
Approved By:	**MB**
Date:	**29.04.2015**

Turbine model	Enercon E48
Turbine height (to tip)	79.6m
Turbine rotor diameter	48m

Viewpoint Grid Reference: 360024 749688
Distance to proposed turbine: 3314m
Viewing direction: N NE 24.7°
Viewpoint elevation: 44m
Field of View: 68°
Camera Model: Nikon D700
Focal Length: 50mm
Camera Height: 1.5m
Date and time of photo: 19.03.2015 15:51

Edge of Friockheim
Photomontage and Wireframe

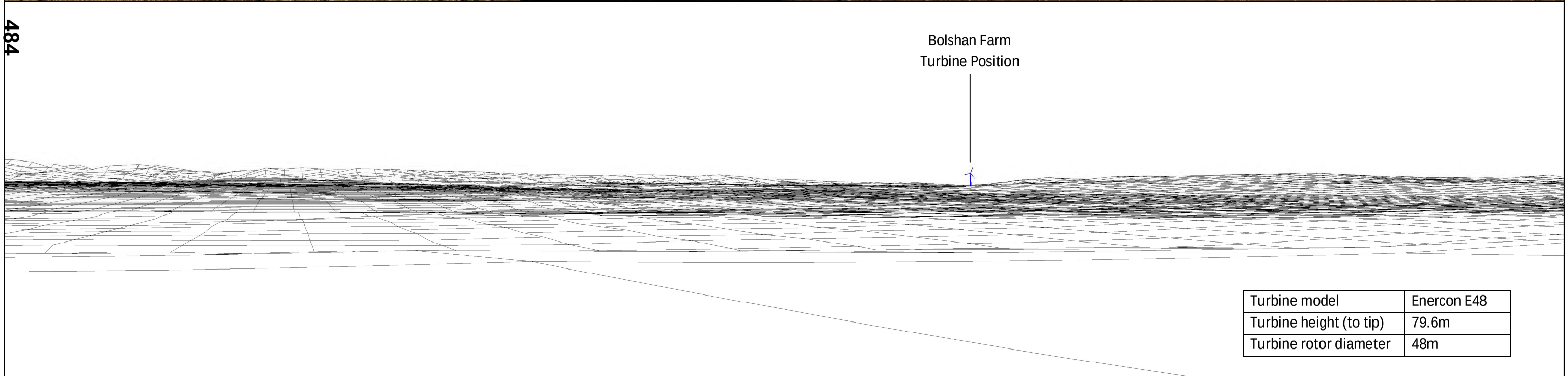
Bolshan Renewables Project

The Greenspan Agency

This is a composite image made up of at least 3 No. 50mm photographs joined together horizontally to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image must be viewed at an exact distance of 340mm with **one eye**, whilst curving the image in an **exact arc** of 68 degrees. This image should only be assessed within the landscape from the same viewpoint.

Figure No.:	**GBF/14-015/Fig.B8**
Version No.:	**1.0**
Produced by:	**VS**
Approved By:	**MB**
Date:	**17.04.2015**

484



Turbine model	Enercon E48
Turbine height (to tip)	79.6m
Turbine rotor diameter	48m

Viewpoint Grid Reference: 359040 748347
Distance to proposed turbine: 4961m
Viewing direction: N NE 21.7°
Viewpoint elevation: 71m
Field of View: 68°
Camera Model: Nikon D700
Focal Length: 50mm
Camera Height: 1.5m
Date and time of photo: 24.02.2015 16:16

A933 / B961 Legaston Junction
Photomontage and Wireframe

Bolshan Renewables Project

The Greenspan Agency

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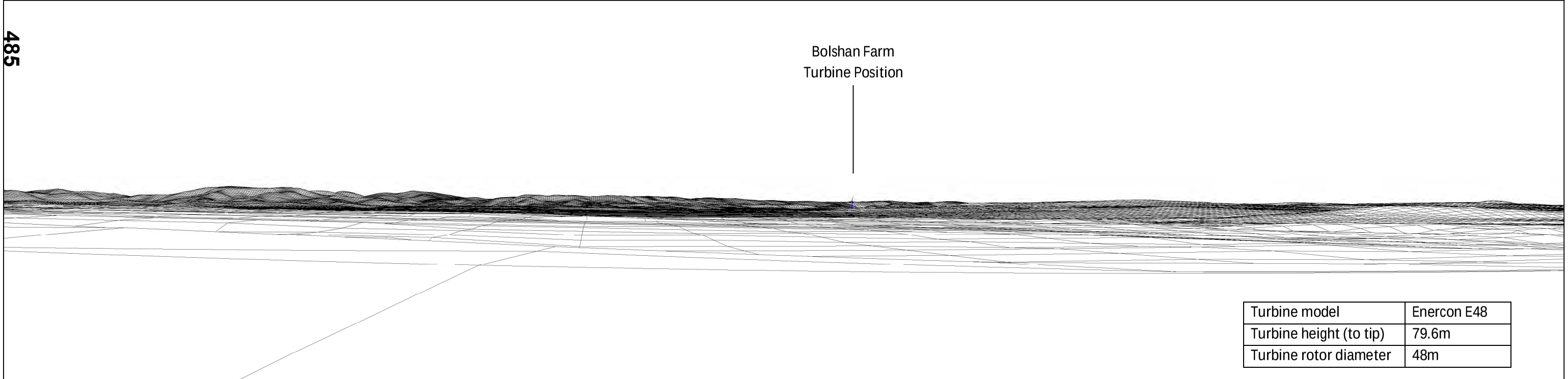
Figure No.:	**GBF/14-015/Fig.B9**
Version No.:	**1.0**
Produced by:	**VS**
Approved By:	**MB**
Date:	**20.04.2015**

485



Turbine model	Enercon E48
Turbine height (to tip)	79.6m
Turbine rotor diameter	48m

Viewpoint Grid Reference: 360154 745853
Distance to proposed turbine: 6932m
Viewing direction: N NE 8.3°
Viewpoint elevation: 60m
Field of View: 68°
Camera Model: Nikon D700
Focal Length: 50mm
Camera Height: 1.5m
Date and time of photo: 24.02.2015 16:53

A933 near Colliston Mill Cottage
Photomontage and Wireframe

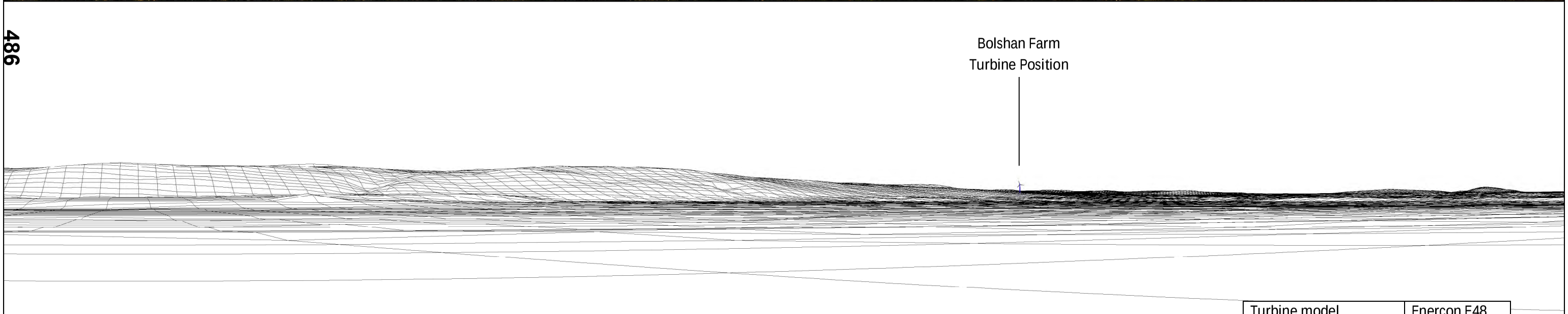
Bolshan Renewables Project

The Greenspan Agency

This is a composite image made up of at least 3 No. 50mm photographs joined together horizontally to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image must be viewed at an exact distance of 340mm with **one eye**, whilst curving the image in an **exact arc** of 68 degrees. This image should only be assessed within the landscape from the same viewpoint.

Figure No.:	**GBF/14-015/Fig.B10**
Version No.:	**1.0**
Produced by:	**VS**
Approved By:	**MB**
Date:	**20.04.2015**

486



Turbine model	Enercon E48
Turbine height (to tip)	79.6m
Turbine rotor diameter	48m

Viewpoint Grid Reference: 366724 759149
Distance to proposed turbine: 8332m
Viewing direction: S SW 208.5°
Viewpoint elevation: 60m
Field of View: 68°
Camera Model: Nikon D700
Focal Length: 50mm
Camera Height: 1.5m
Date and time of photo: 24.02.2015 18:03

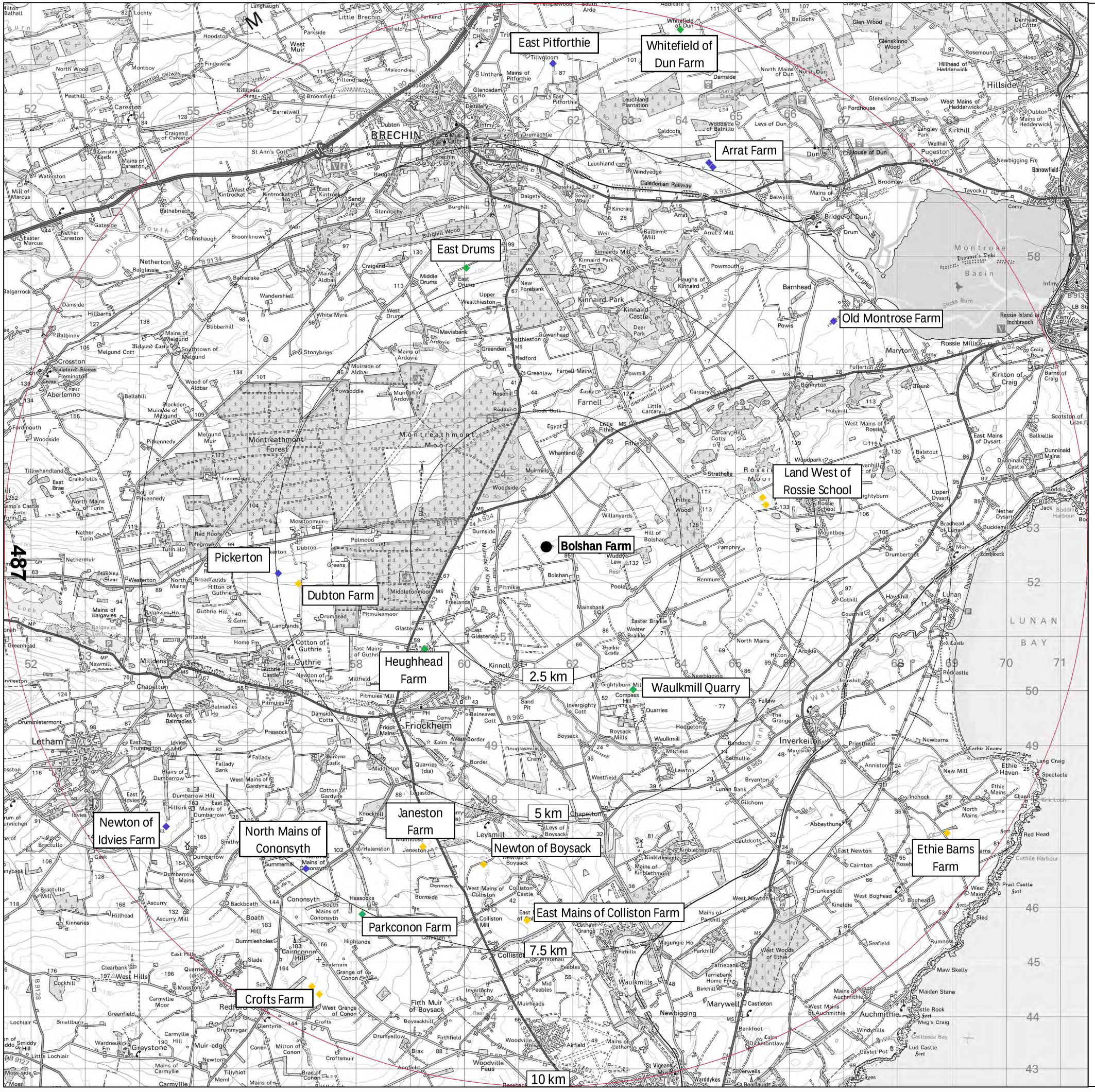
Layby on A935
Photomontage and Wireframe

Bolshan Renewables Project

The Greenspan Agency

This is a composite image made up of at least 3 No. 50mm photographs joined together horizontally to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image must be viewed at an exact distance of 340mm with **one eye**, whilst curving the image in an **exact arc** of 68 degrees. This image should only be assessed within the landscape from the same viewpoint.

Figure No.:	**GBF/14-015/Fig.B11**
Version No.:	**1.0**
Produced by:	**VS**
Approved By:	**MB**
Date:	**20.04.2015**



Project Name:

Bolshan Renewables Project

Title:

Cumulative Turbines Map, 10 km Radius

Scale:

1: 71,891 @ A3

Key:

- **Proposed Bolshan Farm Turbine Position**
- **10km Radius**
- **Operational Turbines**
- **Consented Turbine Applications**
- **Planning Applications (Validated)**

Turbine grid reference: 361507 752652

0 – 5km turbines of all heights shown
5 – 10km turbines of greater than 30m tip height shown

Client:
Bolshan Renewables Limited

Drawing By:
The Greenspan Agency

Figure No.:	**GBF/14-015/Fig.C1**
Version No.:	**1.1**
Produced by:	**VS**
Checked By:	**MB**
Date Last Amended:	**29.04.2015**

Land West of Rossie School

Dubton Farm

1 km

2 km

3 km

4 km

5 km

Project Name:
Bolshan Renewables Project

Document Title:
Cumulative ZTV, Bolshan Farm, Land West of Rossie School and Dubton Farm.

Specification:

- 1:25 000 map used
- The ZTV has been calculated out 5km to demonstrate the relevant effects of the Bolshan Farm project together with the projects in planning at Rossie School and Dubton Farm.
- Green areas show locations from which the turbines at Bolshan Farm and Dubton Farm (14/00606/FULL) are theoretically visible at hub height.
- Pink areas show locations from which the turbines at Bolshan Farm and Land West of Rossie School (15/00013/FULL) are theoretically visible at hub height.
- Purple areas show locations from which at least one turbine from all three developments is theoretically visible at hub height.
- Exclusion zones have been applied for substantial areas of tree cover. Screening from smaller features such as single trees, hedgerows, or buildings is not taken into account.

Scale:
1: 35,549 @ A3

Key:

- **Bolshan Farm Turbine Position (Grid reference: 361507, 752652)**
- Theoretical cumulative intervisibility of both the Bolshan Farm turbine and the Dubton Farm turbine at hub height.
- Theoretical cumulative intervisibility (at hub height) of the Bolshan Farm turbine and at least one turbine at Land West of Rossie School.
- Theoretical cumulative intervisibility (at hub height) of at least one turbine from all three developments at Bolshan Farm, Dubton Farm and Land West of Rossie School.
- 5km Radius

Client:
Bolshan Renewables Limited

Drawing By:
The Greenspan Agency

Figure No.:	**GBF/14-015/Fig.C2**
Version No.:	**1.1**
Produced by:	**VS**
Checked By:	**JC**
Date:	**29.04.2015**

Project Name:
Bolshan Renewables Project

Document Title:
Cumulative ZTV, Bolshan Farm, Heughhead Farm and Waulkmill Quarry.

Specification:

- 1:25 000 map used
- The ZTV has been calculated out 5km to demonstrate the relevant effects of the Bolshan Farm project together with the consented projects at Waulkmill Quarry and Heughhead Farm.
- Green areas show locations from which the turbines at Bolshan Farm and Waulkmill Quarry (13/00722/FULL) are theoretically visible at hub height.
- Pink areas show locations from which the turbines at Bolshan Farm and Heughhead Farm (11/00143/FULL) are theoretically visible at hub height.
- Purple areas show locations from which the turbine hub of all three developments is theoretically visible at hub height.
- Exclusion zones have been applied for substantial areas of tree cover. Screening from smaller features such as single trees, hedgerows, or buildings is not taken into account.

Scale:
1: 35,562 @ A3

Key:

- **Bolshan Farm Turbine Position (Grid reference: 361507, 752652)**
- Theoretical cumulative intervisibility of both the Bolshan Farm turbine and the Waulkmill Quarry turbine at hub height.
- Theoretical cumulative intervisibility of the Bolshan Farm turbine and the Heughhead Farm turbine at hub height.
- Theoretical cumulative intervisibility (at hub height) of all three developments at Bolshan Farm, Heughead Farm and Waulkmill Quarry.
- 5km Radius

Client:
Bolshan Renewables Limited

Drawing By:
The Greenspan Agency

Figure No.:	**GBF/14-015/Fig.C3**
Version No.:	**1.1**
Produced by:	**VS**
Checked By:	**JC**
Date:	**29.04.2015**

Project Name:
Bolshan Farm Renewables Project

Document Title:
Cumulative ZTV, Bolshan Farm & Pickerton.

Specification:

- 1:25 000 map used
- The ZTV has been calculated out to 5km to demonstrate the relevant effects of the Bolshan Farm project together with the operational turbine at Pickerton (12/00365/FULL).
- Purple areas show locations from which the turbine hubs of both developments are theoretically visible.
- Exclusion zones have been applied for substantial areas of tree cover. Screening from smaller features such as single trees, hedgerows, or buildings is not taken into account.

Scale:
1: 35,549 @ A3

Key:

- **Bolshan Farm Turbine Position (Grid reference: 361507, 752652)**
- Theoretical cumulative intervisibility of the turbines at Bolshan Farm and Pickerton at hub height.
- 5km Radius

Client:
Bolshan Renewables Limited

Drawing By:
The Greenspan Agency

Figure No.:	**GBF/14-015/Fig.C4**
Version No.:	**1.0**
Produced by:	**VS**
Checked By:	**JC**
Date:	**29.04.2015**

Viewpoint Grid Reference: 361605 753625
Distance to proposed turbine: 977m
Viewing direction: S 195°
Viewpoint elevation: 41m
Field of View: 68°
Camera Model: Nikon D700
Focal Length: 50mm
Camera Height: 1.5m
Date and time of photo: 24.02.2015 13:51

Junction on A934
Cumulative Photomontage and Wireframe

Bolshan Renewables Project

The Greenspan Agency

This is a composite image made up of at least 3 No. 50mm photographs joined together horizontally to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image must be viewed at an exact distance of 340mm with **one eye**, whilst curving the image in an **exact arc** of 68 degrees. This image should only be assessed within the landscape from the same viewpoint.

Figure No.:	**GBF/14-015/Fig.C5**
Version No.:	**1.1**
Produced by:	**VS**
Approved By:	**JC**
Date:	**30.04.2015**

Viewpoint Grid Reference: 360024 749688
Distance to proposed turbine: 3314m
Viewing direction: N NE 24.7°
Viewpoint elevation: 44m
Field of View: 68°
Camera Model: Nikon D700
Focal Length: 50mm
Camera Height: 1.5m
Date and time of photo: 19.03.2015 15:51

Edge of Friockheim
Cumulative Photomontage and Wireframe

Bolshan Renewables Project

The Greenspan Agency

This is a composite image made up of at least 3 No. 50mm photographs joined together horizontally to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image must be viewed at an exact distance of 340mm with **one eye**, whilst curving the image in an **exact arc** of 68 degrees. This image should only be assessed within the landscape from the same viewpoint.

Figure No.:	**GBF/14-015/Fig.C6**
Version No.:	**1.1**
Produced by:	**VS**
Approved By:	**JC**
Date:	**29.04.2015**

County Buildings Market Street Forfar DD8 3LG

Tel: 01307 461460

Fax: 01307 461 895

Email: plnprocessing@angus.gov.uk

Applications cannot be validated until all necessary documentation has been submitted and the required fee has been paid.

Thank you for completing this application form:

ONLINE REFERENCE 000118806-001

The online ref number is the unique reference for your online form only. The Planning Authority will allocate an Application Number when your form is validated. Please quote this reference if you need to contact the Planning Authority about this application.

Type of Application

What is this application for? Please select one of the following: *

We strongly recommend that you refer to the help text before you complete this section.

- [x] Application for Planning Permission (including changes of use and surface mineral working)
- [ ] Application for Planning Permission in Principle
- [ ] Further Application, (including renewal of planning permission, modification, variation or removal of a planning condition etc)
- [ ] Application for Approval of Matters specified in conditions

Description of Proposal

Please describe the proposal including any change of use: * (Max 500 characters)

Erection of wind turbine, including associated access track, foundation, hardstanding, and substation etc.

Is this a temporary permission? * ☐ Yes ☑ No

If a change of use is to be included in the proposal has it already taken place? (Answer 'No' if there is no change of use.) * ☐ Yes ☑ No

Have the works already been started or completed? *

☑ No ☐ Yes - Started ☐ Yes - Completed

Applicant or Agent Details

Are you an applicant, or an agent? * (An agent is an architect, consultant or someone else acting on behalf of the applicant in connection with this application) ☐ Applicant ☑ Agent

Agent Details

Please enter Agent details

Company/Organisation:	The Greenspan Agency
Ref. Number:	
First Name: *	Jack
Last Name: *	Cook
Telephone Number: *	0131 290 2262
Extension Number:	
Mobile Number:	
Fax Number:	
Email Address: *	jack@greenspanenergy.com

You must enter a Building Name or Number, or both:*

Building Name:	
Building Number:	6
Address 1 (Street): *	Castle Street
Address 2:	
Town/City: *	Edinburgh
Country: *	UK
Postcode: *	EH2 3AT

Is the applicant an individual or an organisation/corporate entity? *

☐ Individual ☑ Organisation/Corporate entity

Applicant Details

Please enter Applicant details

Title:	
Other Title:	
First Name:	
Last Name:	
Company/Organisation: *	Bolshan Renewables Limited
Telephone Number:	
Extension Number:	
Mobile Number:	
Fax Number:	
Email Address:	

You must enter a Building Name or Number, or both:*

Building Name:	
Building Number:	6
Address 1 (Street): *	Castle Street
Address 2:	
Town/City: *	Edinburgh
Country: *	UK
Postcode: *	EH2 3AT

Site Address Details

Planning Authority: Angus Council

Full postal address of the site (including postcode where available):

Address 1:		Address 5:	
Address 2:		Town/City/Settlement:	
Address 3:		Post Code:	
Address 4:			

Please identify/describe the location of the site or sites.

Land at Bolshan Farm, Arbroath, Angus, DD11 4UH

Northing	752652	Easting	361507

Pre-Application Discussion

Have you discussed your proposal with the planning authority? * ☐ Yes ☑ No

Site Area

Please state the site area: 4447.00

Please state the measurement type used: ☐ Hectares (ha) ☑ Square Metres (sq.m)

Existing Use

Please describe the current or most recent use: (Max 500 characters)

Agricultural farm track and field.

Access and Parking

Are you proposing a new or altered vehicle access to or from a public road? * ☐ Yes ☑ No

If Yes please describe and show on your drawings the position of any existing, altered or new access points, highlighting the changes you propose to make. You should also show existing footpaths and note if there will be any impact on these.

Are you proposing any changes to public paths, public rights of way or affecting any public rights of access? * ☐ Yes ☑ No

If Yes please show on your drawings the position of any affected areas highlighting the changes you propose to make, including arrangements for continuing or alternative public access.

How many vehicle parking spaces (garaging and open parking) currently exist on the application site? * 0

How many vehicle parking spaces (garaging and open parking) do you propose on the site (i.e. the total of existing and any new spaces or a reduced number of spaces)? * 0

Please show on your drawings the position of existing and proposed parking spaces and identify if these are for the use of particular types of vehicles (e.g. parking for disabled people, coaches, HGV vehicles, cycle spaces).

Water Supply and Drainage Arrangements

Will your proposal require new or altered water supply or drainage arrangements? *

☐ Yes ☑ No

Do your proposals make provision for sustainable drainage of surface water? (e.g. SUDS arrangements) *

☑ Yes ☐ No

Note: -

Please include details of SUDS arrangements on your plans

Selecting 'No' to the above question means that you could be in breach of Environmental legislation.

Are you proposing to connect to the public water supply network? *

☐ Yes

☐ No, using a private water supply

☑ No connection required

If No, using a private water supply, please show on plans the supply and all works needed to provide it (on or off site).

Assessment of Flood Risk

Is the site within an area of known risk of flooding? *

☐ Yes ☑ No ☐ Don't Know

If the site is within an area of known risk of flooding you may need to submit a Flood Risk Assessment before your application can be determined. You may wish to contact your Planning Authority or SEPA for advice on what information may be required.

Do you think your proposal may increase the flood risk elsewhere? *

☐ Yes ☑ No ☐ Don't Know

Trees

Are there any trees on or adjacent to the application site? *

☑ Yes ☐ No

If Yes, please mark on your drawings any trees, known protected trees and their canopy spread close to the proposal site and indicate if any are to be cut back or felled.

Waste Storage and Collection

Do the plans incorporate areas to store and aid the collection of waste (including recycling)? *

☐ Yes ☑ No

If Yes or No, please provide further details:(Max 500 characters)

This development will not create waste.

Residential Units Including Conversion

Does your proposal include new or additional houses and/or flats? *

☐ Yes ☑ No

All Types of Non Housing Development - Proposed New Floorspace

Does your proposal alter or create non-residential floorspace? *

☐ Yes ☑ No

Schedule 3 Development

Does the proposal involve a form of development listed in Schedule 3 of the Town and Country Planning (Development Management Procedure (Scotland) Regulations 2013 * ☑ Yes ☐ No ☐ Don't Know

If yes, your proposal will additionally have to be advertised in a newspaper circulating in the area of the development. Your planning authority will do this on your behalf but will charge you a fee. Please check the planning authority's website for advice on the additional fee and add this to your planning fee.

If you are unsure whether your proposal involves a form of development listed in Schedule 3, please check the Help Text and Guidance notes before contacting your planning authority.

Planning Service Employee/Elected Member Interest

Is the applicant, or the applicant's spouse/partner, either a member of staff within the planning service or an elected member of the planning authority? * ☐ Yes ☑ No

Certificates and Notices

CERTIFICATE AND NOTICE UNDER REGULATION 15 – TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE) (SCOTLAND) REGULATIONS 2013

One Certificate must be completed and submitted along with this application form. This is most usually Certificate A, Form 1, Certificate B, Certificate C or Certificate E.

Are you/the applicant the sole owner of ALL the land ? * ☐ Yes ☑ No

Is any of the land part of an agricultural holding? * ☐ Yes ☑ No

Are you able to identify and give appropriate notice to ALL the other owners? * ☑ Yes ☐ No

Certificate Required

The following Land Ownership Certificate is required to complete this section of the proposal:

Certificate B

Certificates

The certificate you have selected requires you to distribute copies of the Notice 1 document below to all of the Owners/Agricultural tenants that you have provided, before you can complete your certificate.

Notice 1 is Required

☑ I understand my obligations to provide the above notice(s) before I can complete the certificates. *

Land Ownership Certificate

Certificate and Notice under Regulation 15 of the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013

I hereby certify that -

(1) - No person other than myself/the applicant was an owner [Note 4] of any part of the land to which the application relates at the beginning of the period of 21 days ending with the date of the accompanying application;
or –
(1) - I have/The Applicant has served notice on every person other than myself/the applicant who, at the beginning of the period of 21 days ending with the date of the accompanying application was owner [Note 4] of any part of the land to which the application relates.

Name: . . Messrs G & W Smith

Address: Bolshan Farm, Bolshan, Arbroath, Angus, DD11 4UH

Date of Service of Notice: * 30/04/15

(2) - None of the land to which the application relates constitutes or forms part of an agricultural holding;

or –

(2) - The land or part of the land to which the application relates constitutes or forms part of an agricultural holding and I have/the applicant has served notice on every person other than myself/himself who, at the beginning of the period of 21 days ending with the date of the accompanying application was an agricultural tenant. These persons are:

Name:

Address:

Date of Service of Notice: *

Signed: Jack Cook

On behalf of: Bolshan Renewables Limited

Date: 30/04/2015

Checklist - Application for Planning Permission

Town and County Planning (Scotland) Act 1997

The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013

Please take a few moments to complete the following checklist in order to ensure that you have provided all the necessary information in support of your application. Failure to submit sufficient information with your application may result in your application being deemed invalid. The planning authority will not start processing your application until it is valid.

a) If this is a further application where there is a variation of conditions attached to a previous consent, have you provided a statement to that effect? *

☐ Yes ☐ No ☑ Not applicable to this application

b) If this is an application for planning permission or planning permission in principal where there is a crown interest in the land, have you provided a statement to that effect? *

☐ Yes ☐ No ☑ Not applicable to this application

c) If this is an application for planning permission, planning permission in principle or a further application and the application is for development belonging to the categories of national or major developments (other than one under Section 42 of the planning Act), have you provided a Pre-Application Consultation Report? *

☐ Yes ☐ No ☑ Not applicable to this application

Town and County Planning (Scotland) Act 1997

The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013

d) If this is an application for planning permission and the application relates to development belonging to the categories of national or major developments and you do not benefit from exemption under Regulation 13 of The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013, have you provided a Design and Access Statement? *

☐ Yes ☐ No ☑ Not applicable to this application

e) If this is an application for planning permission and relates to development belonging to the category of local developments (subject to regulation 13. (2) and (3) of the Development Management Procedure (Scotland) Regulations 2013) have you provided a Design Statement? *

☐ Yes ☐ No ☑ Not applicable to this application

f) If your application relates to installation of an antenna to be employed in an electronic communication network, have you provided an ICNIRP Declaration? *

☐ Yes ☐ No ☑ Not applicable to this application

g) If this is an application for planning permission, planning permission in principle, an application for approval of matters specified in conditions or an application for mineral development, have you provided any other plans or drawings as necessary:

- ☐ Site Layout Plan or Block plan.
- ☐ Elevations.
- ☐ Floor plans.
- ☐ Cross sections.
- ☐ Roof plan.
- ☐ Master Plan/Framework Plan.
- ☐ Landscape plan.
- ☐ Photographs and/or photomontages.
- ☐ Other.

Provide copies of the following documents if applicable:

A copy of an Environmental Statement. *	☐ Yes	☑ N/A
A Design Statement or Design and Access Statement. *	☐ Yes	☑ N/A
A Flood Risk Assessment. *	☑ Yes	☐ N/A
A Drainage Impact Assessment (including proposals for Sustainable Drainage Systems). *	☑ Yes	☐ N/A
Drainage/SUDS layout. *	☑ Yes	☐ N/A
A Transport Assessment or Travel Plan. *	☑ Yes	☐ N/A
Contaminated Land Assessment. *	☐ Yes	☑ N/A
Habitat Survey. *	☑ Yes	☐ N/A
A Processing Agreement *	☐ Yes	☑ N/A

Other Statements (please specify). (Max 500 characters)

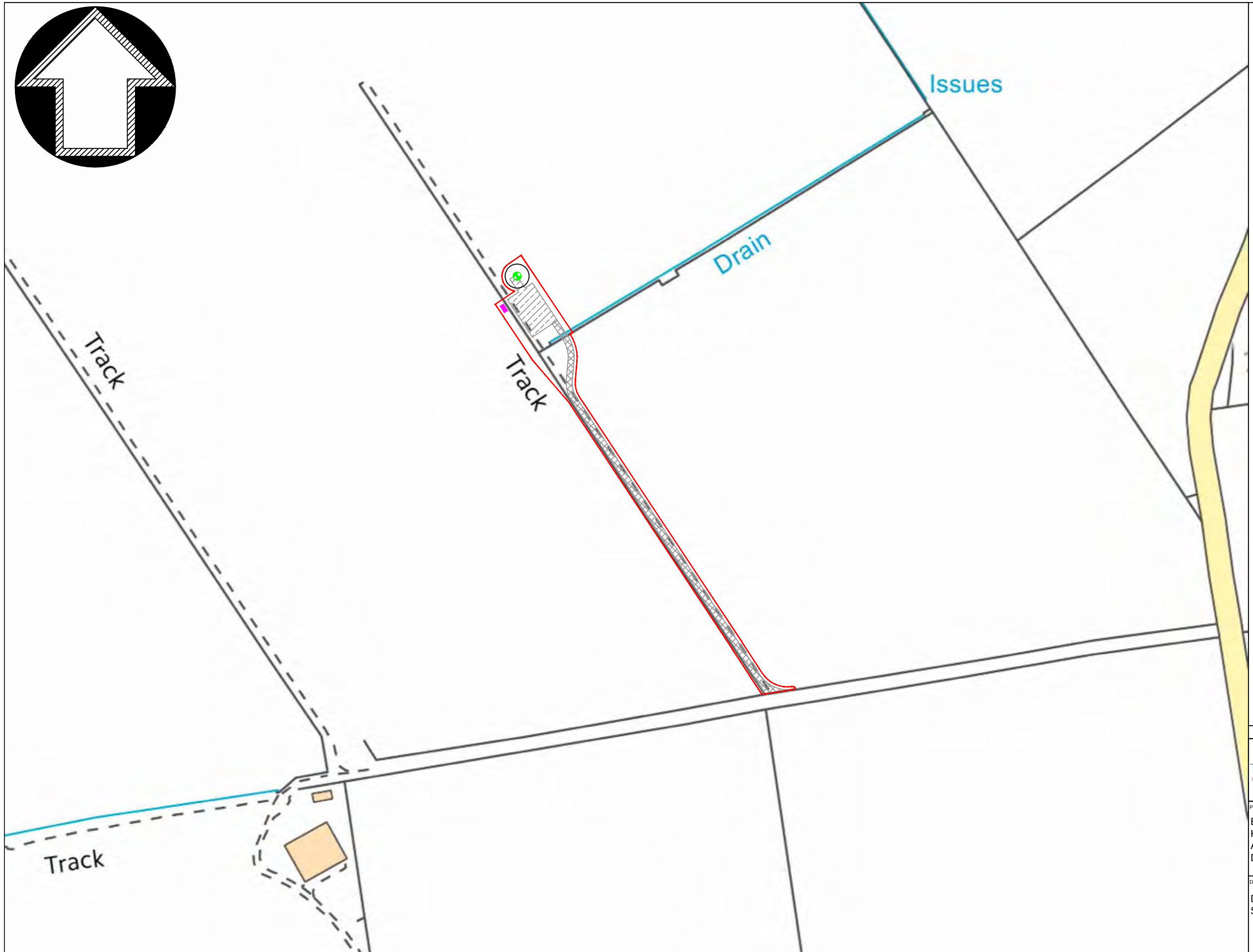
Please refer to supporting documents provided. flood risk and drainage info is in main Environmental Report.

Declare - For Application to Planning Authority

I, the applicant/agent certify that this is an application to the planning authority as described in this form. The accompanying plans/drawings and additional information are provided as a part of this application .

Declaration Name: Jack Cook

Declaration Date:



500

LEGEND:

- TURBINE POSITION
- DEVELOPMENT BOUNDARY
- HARD STANDING
- ACCESS ROADS
- 5mx3m TRANSFORMER HOUSING LOCATION

NOTES:
TURBINE GRID REFERENCE:
NO 61507 52652
AREA WITHIN DEVELOPMENT BOUNDARY = 4,447m²

AMENDMENTS

Rev.	Date	Detail

The Greenspan Agency
Proposing and Delivering Sustainable Solutions

Project
Bolshan Renewables Project
Kinnell
Angus
DD11 4

Drawing
Development Plans
Site Layout

0m 25m 50m 75m 150m

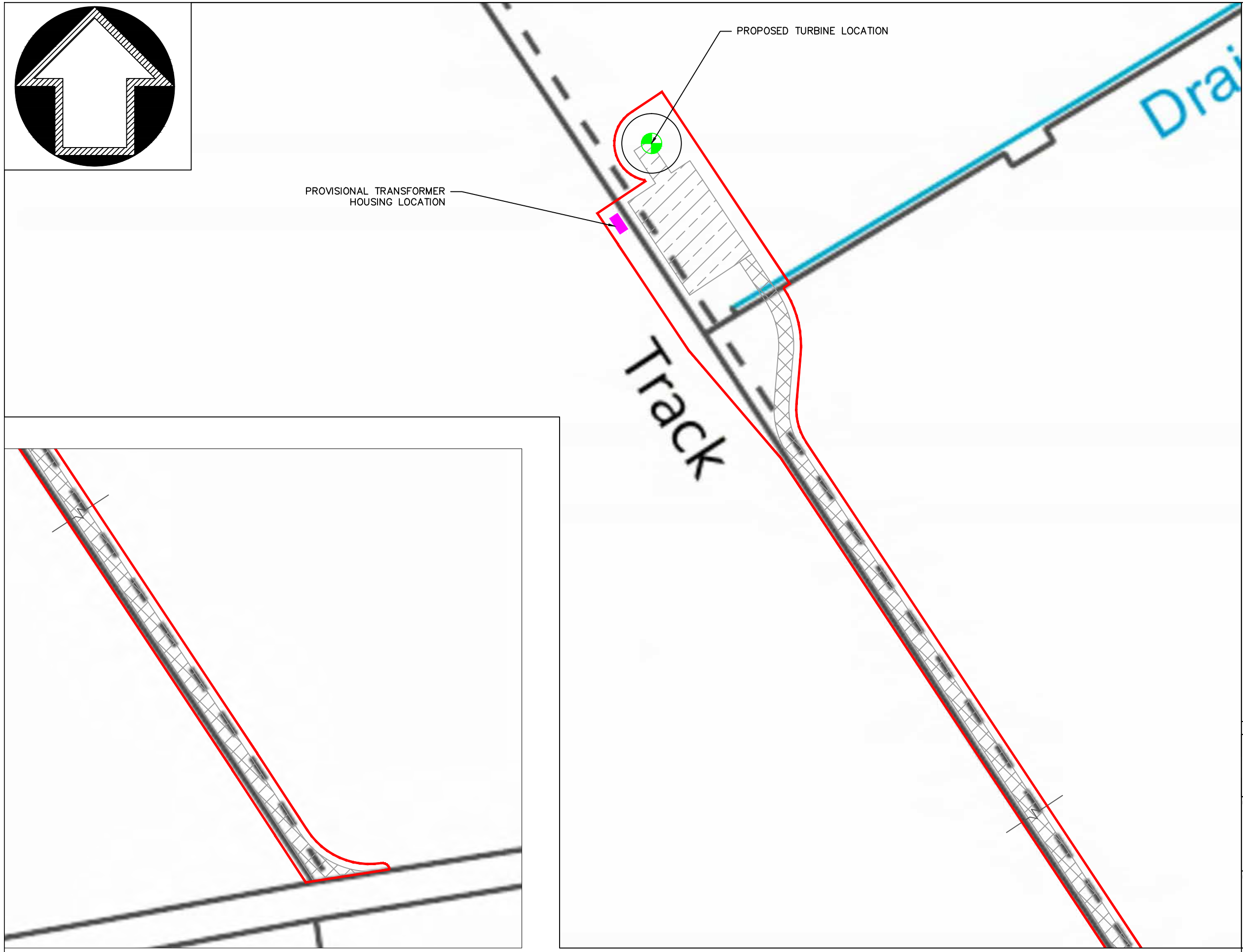
SCALE: 1=2,500

DEVELOPMENT PLANS
PLANNING LAYOUT
SCALE 1:2500

Scale	Drawn By	Checked
1:2500@A3	ID	JC

Date	Drawing No
08.04.15	14-015_P_02

501



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SCALE: 1=1000

DEVELOPMENT PLANS
SITE LAYOUT
SCALE 1:1000

LEGEND:

- TURBINE POSITION
- DEVELOPMENT BOUNDARY
- HARD STANDING
- ACCESS ROADS
- 6mx3m TRANSFORMER HOUSING LOCATION

NOTES:
TURBINE GRID REFERENCE:
NO 61507 52652
AREA WITHIN DEVELOPMENT BOUNDARY = 4,447m²

AMENDMENTS

Rev.	Date	Detail

The Greenspan Agency
Proposing and Delivering Sustainable Solutions

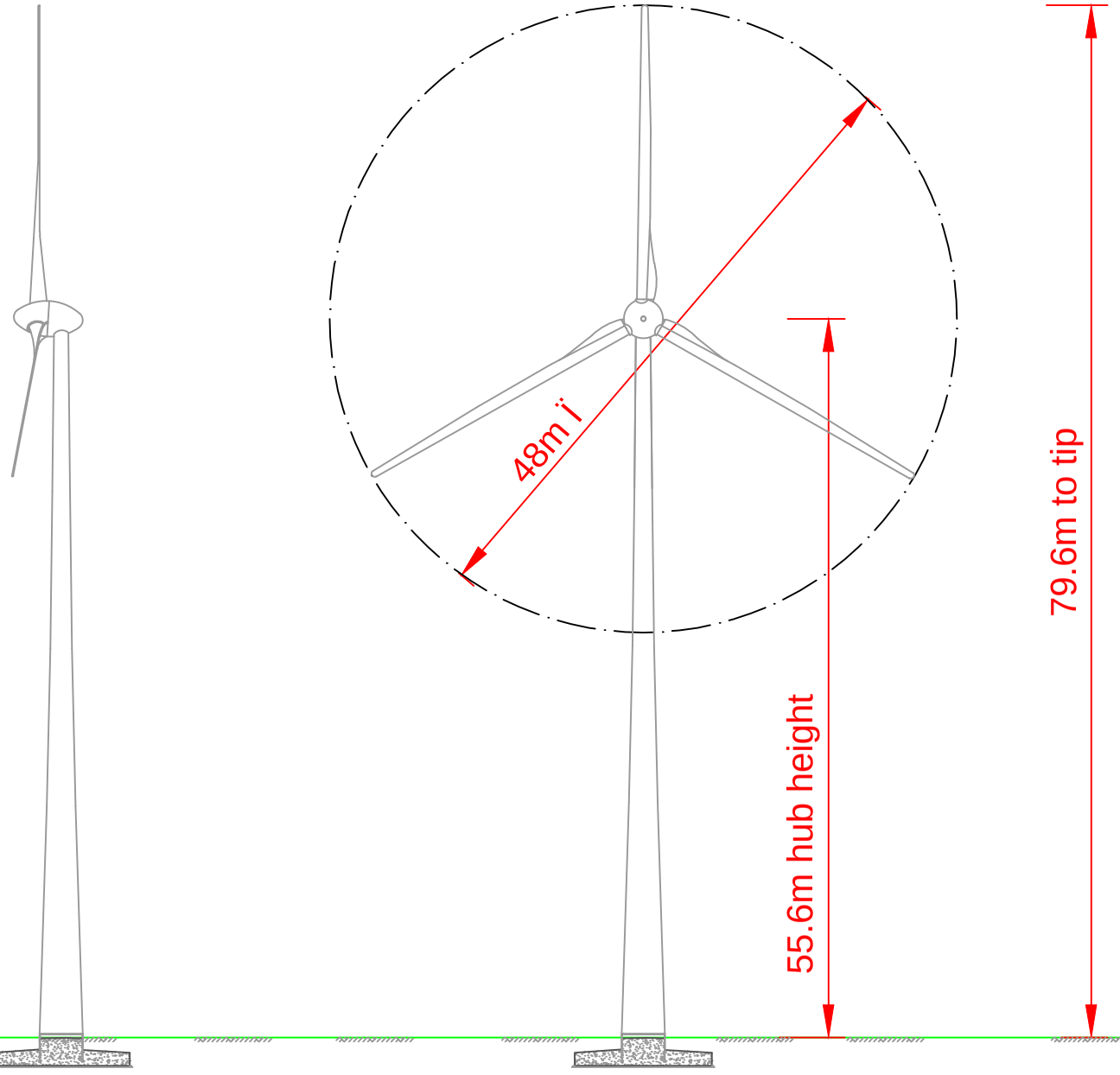
Project
Bolshan Renewables Project
Kinnell
Angus
DD11 4

Drawing
Development Plans
Site Layout

Scale	Drawn By	Checked
1:1000@A3	ID	JC

Date	Drawing No	
08.04.15	14-015_P_03	0

502



0m 10m 20m 30m

SCALE: 1=500

DEVELOPMENT PLANS
ENERCON E48 WEC
SCALE 1:500

AMENDMENTS

Rev.	Date	Detail

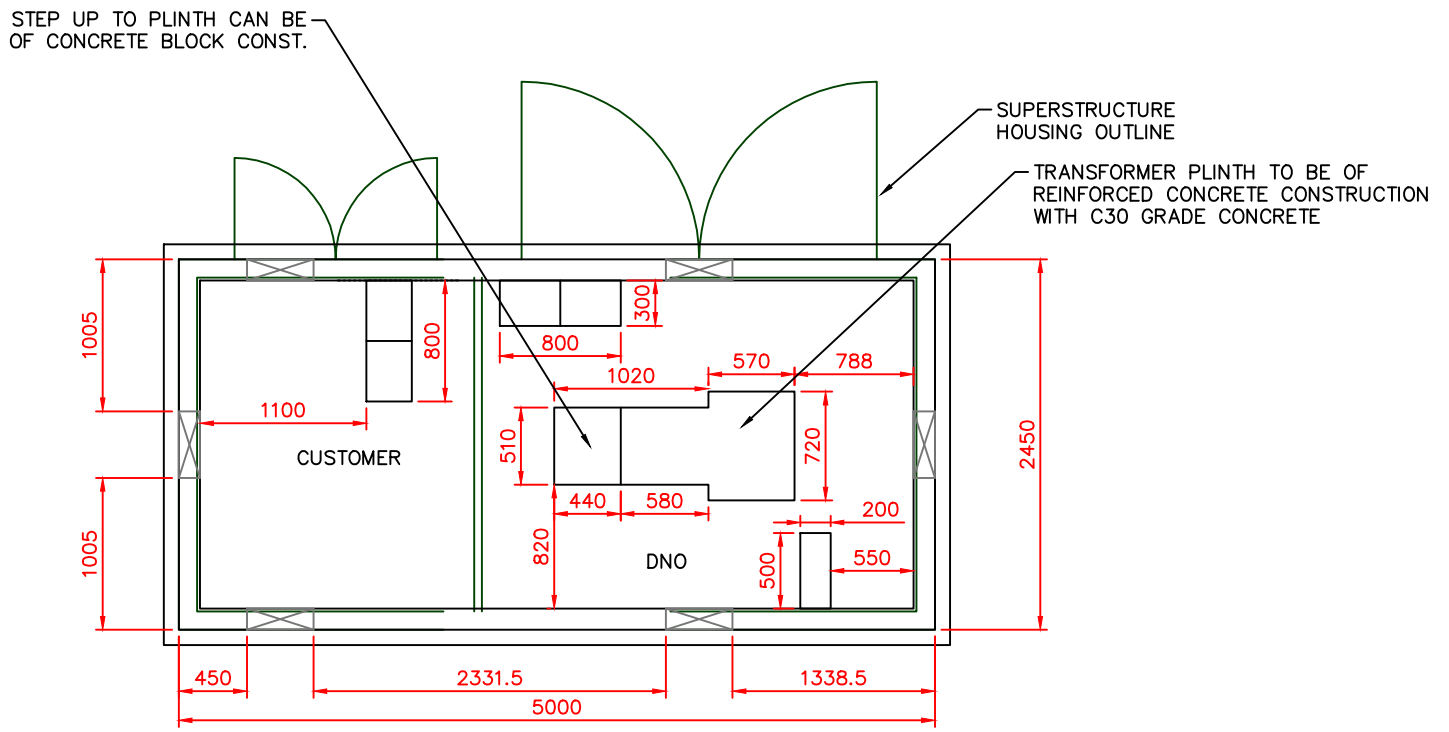
The Greenspan Agency
Proposing and Delivering Sustainable Solutions

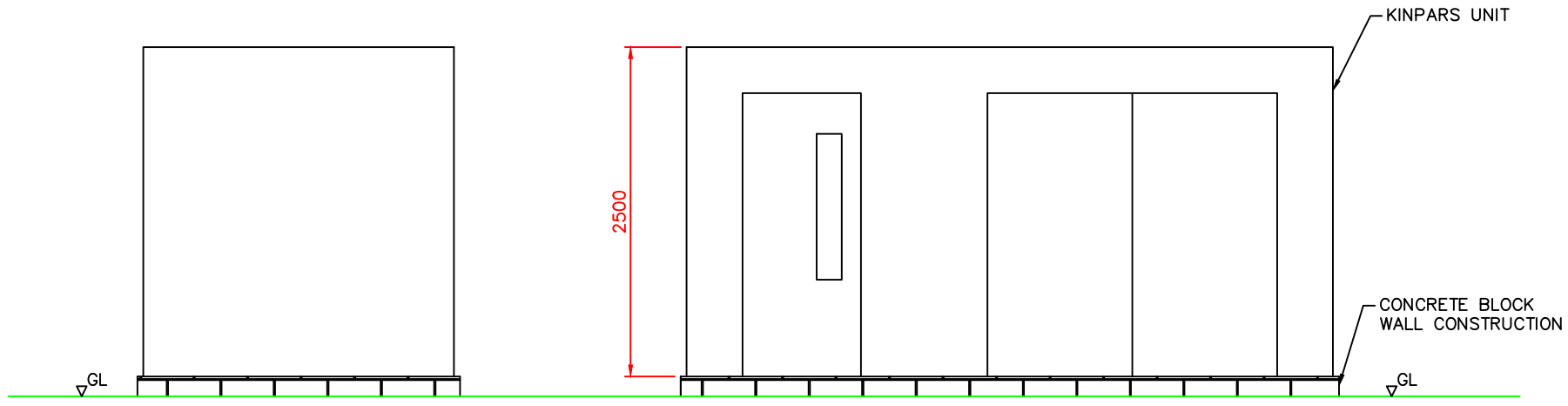
Project
Bolshan Renewables Project
Kinnell
Angus
DD11 4

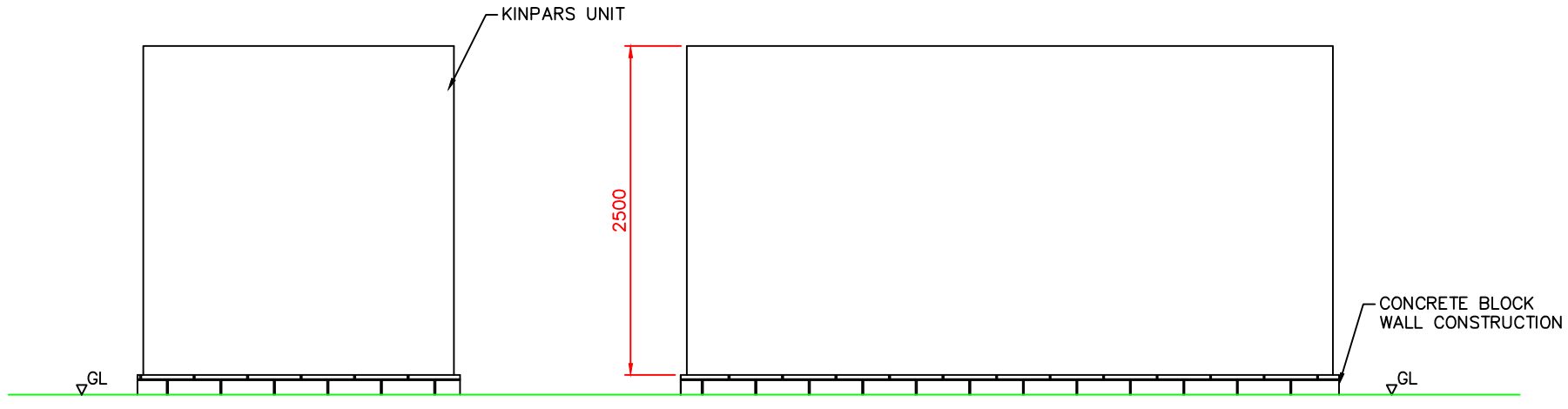
Drawing
Development Plans
Enercon E48 Turbine Elevation

Scale	Drawn By	Checked
1:500@A3	ID	JC

Date	Drawing No	
07.04.15	14-015_P_05	0







DEVELOPMENT PLANS
TYPICAL TRANSFORMER SUBSTATION
SCALE 1:50

503

AMENDMENTS

Rev.	Date	Detail

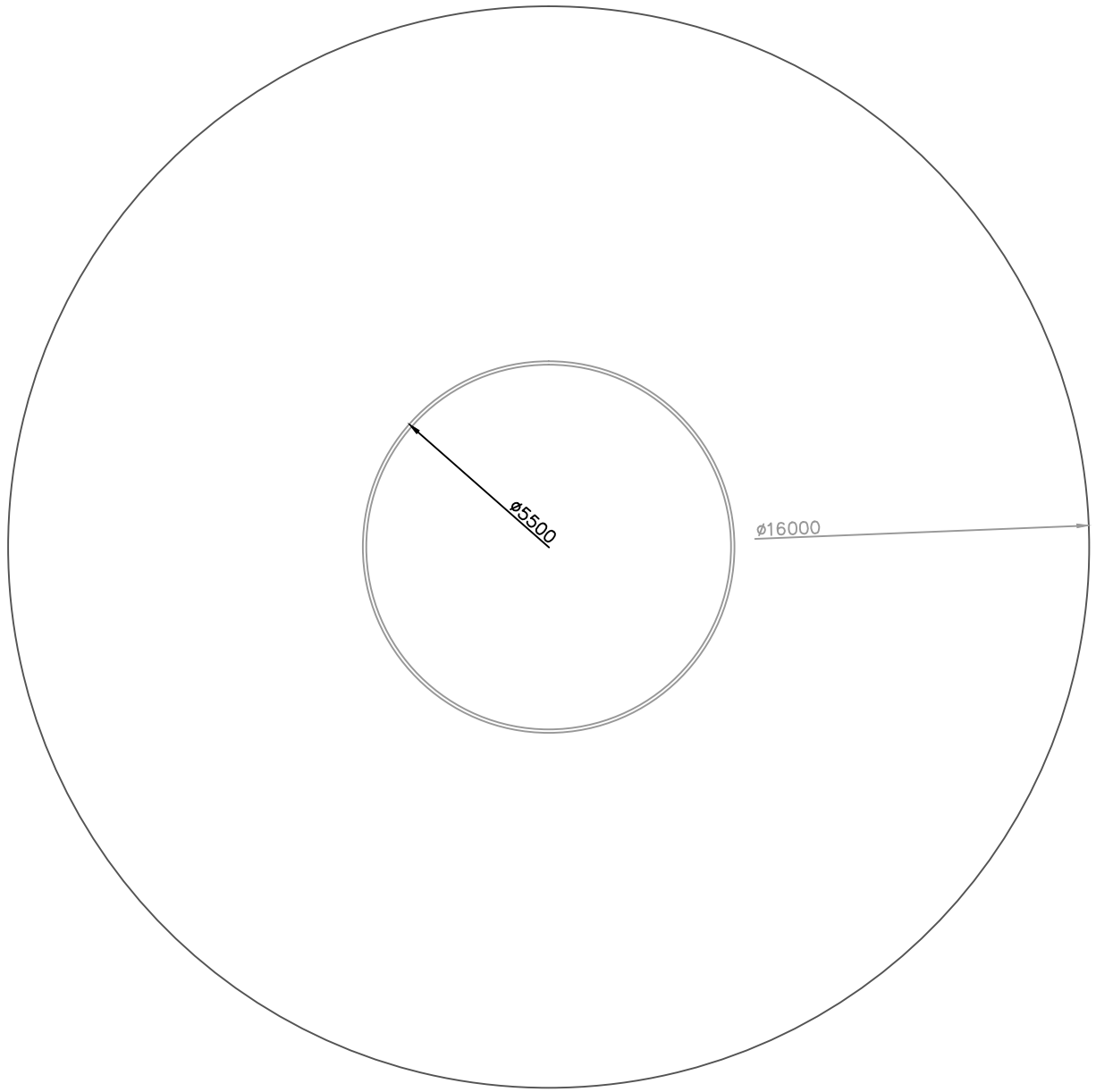
The Greenspan Agency
Proposing and Delivering Sustainable Solutions

Project
Bolshan Renewables Project
Kinnell
Angus
DD11 4

Drawing
Development Plans
Typical Transformer Substation

Scale	Drawn By	Checked
1:50@A3	ID	JC

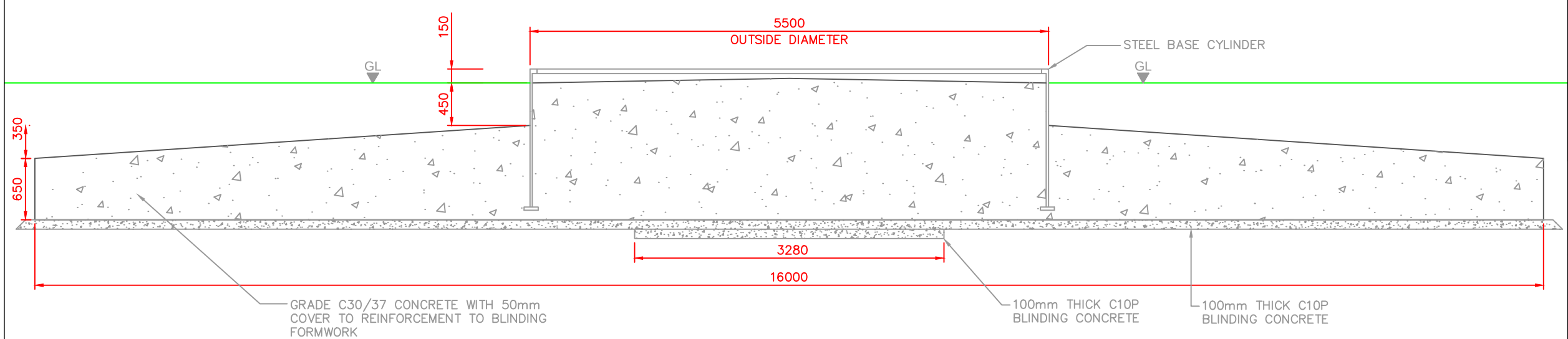
Date	Drawing No	
08.04.15	14-015_P_06	0



0m 3m 5m

SCALE = 1:100

DEVELOPMENT PLANS
TYPICAL WEC FOUNDATION PLAN
SCALE 1:100



0m 1m 3m 5m

SCALE = 1:50

DEVELOPMENT PLANS
TYPICAL WEC FOUNDATION ELEVATION
SCALE 1:50

CONCRETE NOTES:

DUE CONSIDERATION SHALL BE GIVEN TO DURABILITY AND PROPER WORKMANSHIP IN PLANNING OF THE CONCRETE WORKS. BEFORE WORKS COMMENCE THE CONTRACTOR SHALL DELIVER FOR APPROVAL A PLANNING PROGRAMME FOR CONCRETE PRODUCTION INCLUDING STOCKS OF AGGREGATES AND REINFORCEMENT, EQUIPMENT FOR MIXING AND PLACING, VEHICLES FOR TRANSPORT OF CONCRETE, MANPOWER, E.T.C.

THE CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH THE FOLLOWING:-

CODE OF PRACTICE:- BS 8110
ENVIRONMENT:- MODERATE
CONCRETE STRENGTH:- C30/37
AGGREGATE:- dmax=20mm
COVER:- 50mm TO FORMWORK AND SUB-BASE CONCRETE
100mm TO SOIL

CONCRETE JOINT NOTE:

IF ANY CONCRETE JOINTS ARE REQUIRED THE FOLLOWING SHALL BE PROVIDED:-

CLEANING THE SURFACE UNTIL IT IS DUSTFREE, SOAK WITH WATER AND APPLY AN ADHESIVE CONCRETE SIKA-TOP121 OR SIKA MONO TOP 610. THE ADHESIVE CONCRETE SHALL BE THOROUGHLY WORKED IN AND HAVE 1-2mm DEPTH. THE CONCRETE SHALL BE PLACED BETWEEN 15 AND 45 MINUTES AFTER ADHESIVE CONCRETE IS APPLIED.

AFTER STRIKING OF FORMWORK THE JOINT SHALL BE PROTECTED WITH A CONCRETE COATING SUCH AS VANDEX.

GENERAL NOTE:

ALL DIMENSIONS IN mm.

MINIMUM COVER TO REINFORCEMENT = 50mm

CONCRETE TO BE GRADE C30/37 TO BS 8500-1.

ALL WORKS CARRIED OUT IN STRICT ACCORDANCE WITH TURBINE MANUFACTURERS REQUIREMENTS AND SPECIFICATIONS.

MINIMUM DEPTH OF SOIL COVER MATERIAL OVER FOUNDATION TO BE AS SHOWN. WELL COMPACTED GRANULAR MATERIAL FROM EXCAVATION TO BE USED AND DRESSED WITH TOPSOIL. MINIMUM AVERAGE DENSITY OF COMPACTED BACKFILL TO BE 18.8 kN/m¡.

ALL CONCRETE SHALL BE WELL CONSOLIDATED BY USE OF IMMERSION VIBRATORS.

ALL CONCRETE SURFACES SHALL BE MAINTAINED IN A MOIST CONDITION AND BE PROTECTED AGAINST THE RAIN AND RAPID TEMPERATURE CHANGES AS SOON AS POSSIBLE AND FOR AT LEAST 8 DAYS.

GROUND SURFACE AT TURBINE LOCATION ASSUMED TO BE FLAT - TOPOGRAPHICAL SURVEY TO BE CARRIED OUT PRIOR TO FINALISATION OF FOUNDATION DESIGNS.

ALL PROVISION FOR DUCTING, CABLING, E.T.C. BY OTHERS.

CONTRACTOR TO ALLOW FOR CHAIRS AT 1 No. PER m2.

AMENDMENTS

Rev.	Date	Detail

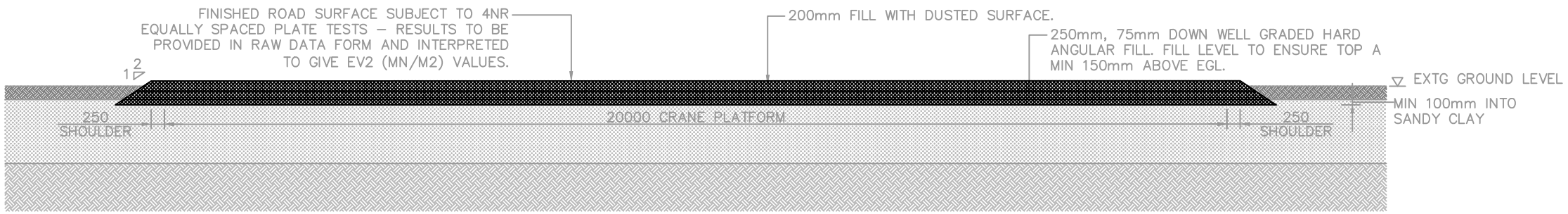
The Greenspan Agency
Proposing and Delivering Sustainable Solutions

Project
Bolshan Renewables Project
Kinnell
Angus
DD11 4

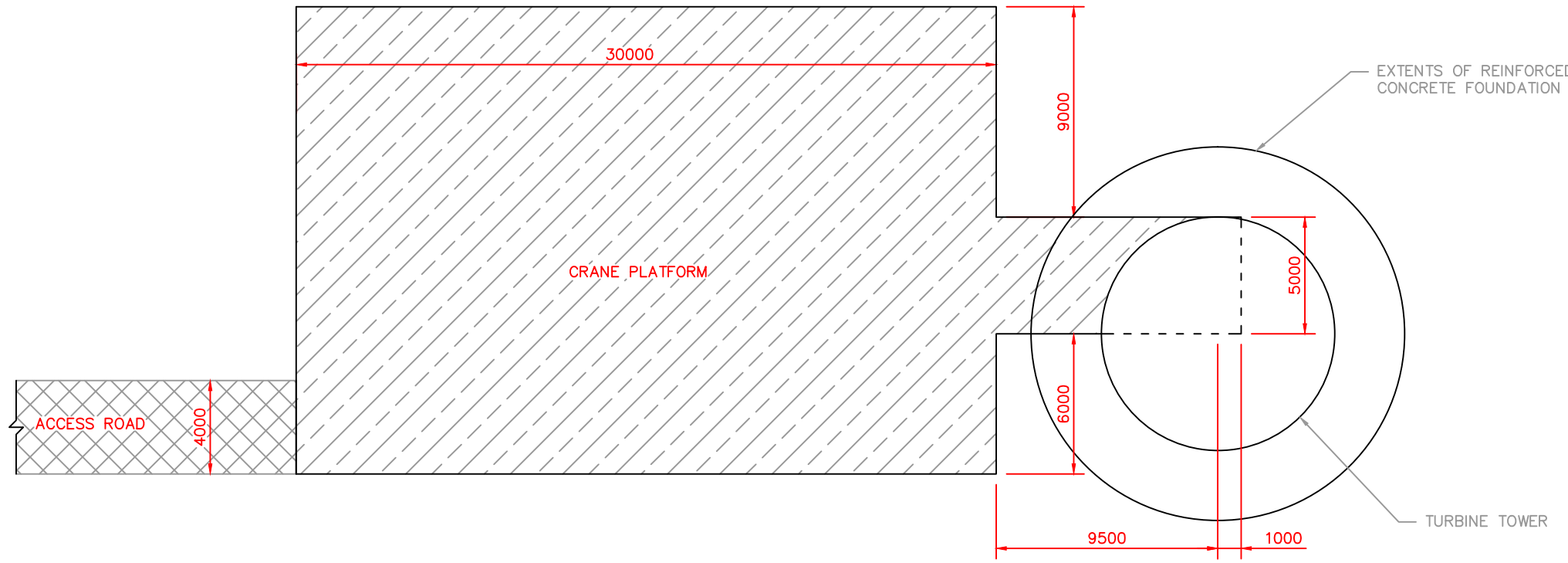
Drawing
Development Plans
Typical WEC Foundation
Plan & Elevation

Scale	Drawn By	Checked
As Shown	ID	JC

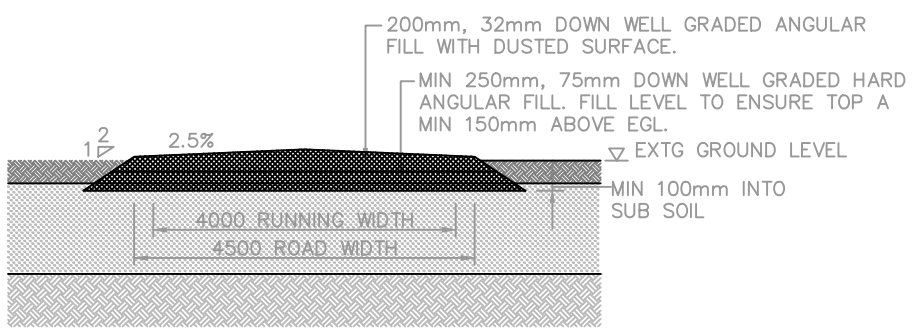
Date	Drawing No	
08.04.15	14-015_P_07	0



DEVELOPMENT PLANS
TYPICAL HARDSTANDING ELEVATION
SCALE 1:100



DEVELOPMENT PLANS
TYPICAL HARDSTANDING PLAN
SCALE 1:250



DEVELOPMENT PLANS
TYPICAL ACCESS ROAD DETAIL
SCALE 1:100

AMENDMENTS

Rev.	Date	Detail

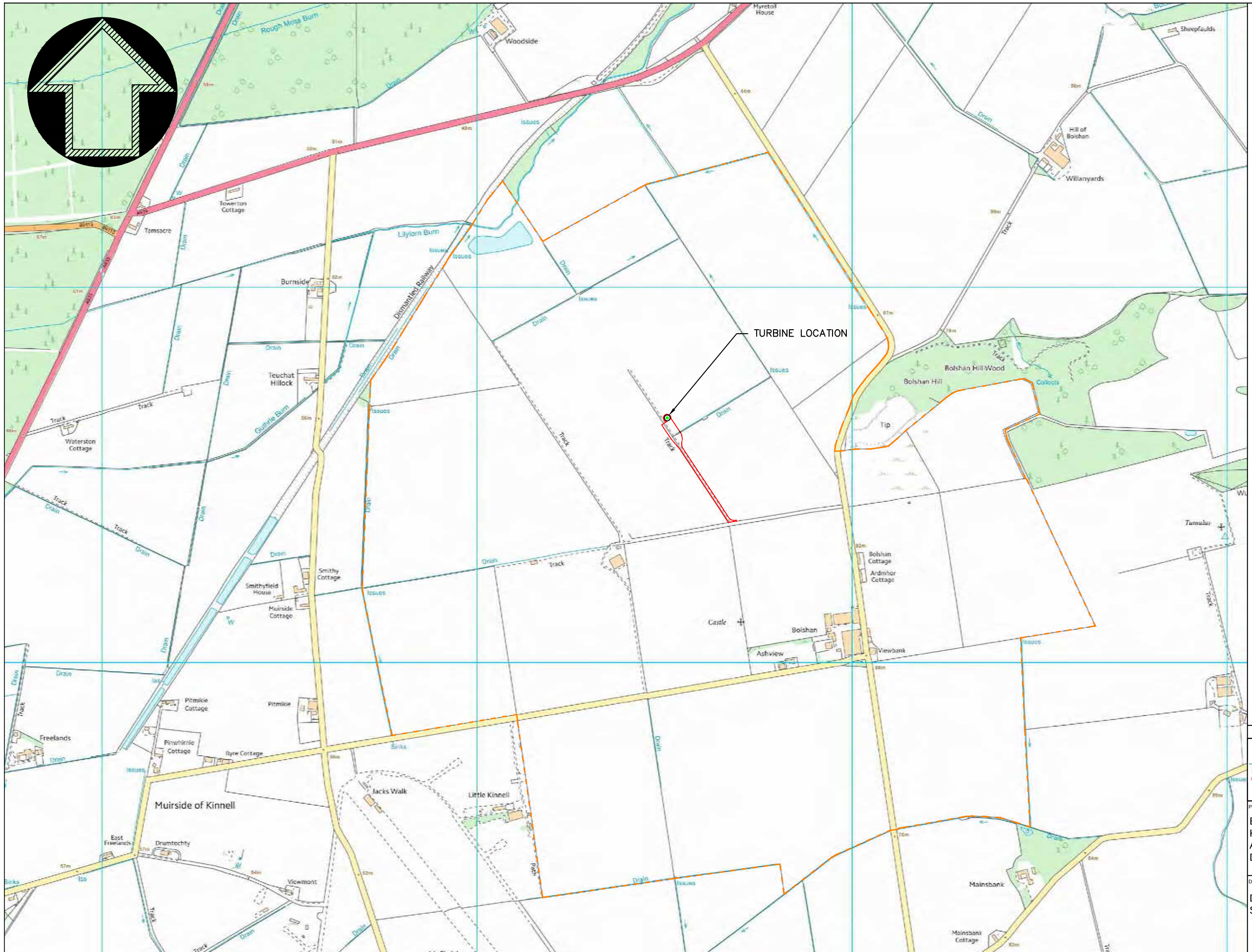
The Greenspan Agency
Proposing and Delivering Sustainable Solutions

Project
Bolshan Renewables Project
Kinnell
Angus
DD11 4

Drawing
Development Plans
Typical Access Road & Hardstanding Details

Scale	Drawn By	Checked
As Shown	ID	JC

Date	Drawing No	
08.04.15	14-015_P_08	0



0m 250m 500m 1000m

SCALE: 1=10,000

DEVELOPMENT PLANS
SITE LOCATION
SCALE 1:10,000

LEGEND:

- TURBINE POSITION
- DEVELOPMENT BOUNDARY
- LAND OWNED BY FARMER WITH SHARE HOLDING IN APPLICANT COMPANY

NOTES:
TURBINE GRID REFERENCE:
NO 61507 52652

AMENDMENTS

Rev.	Date	Detail

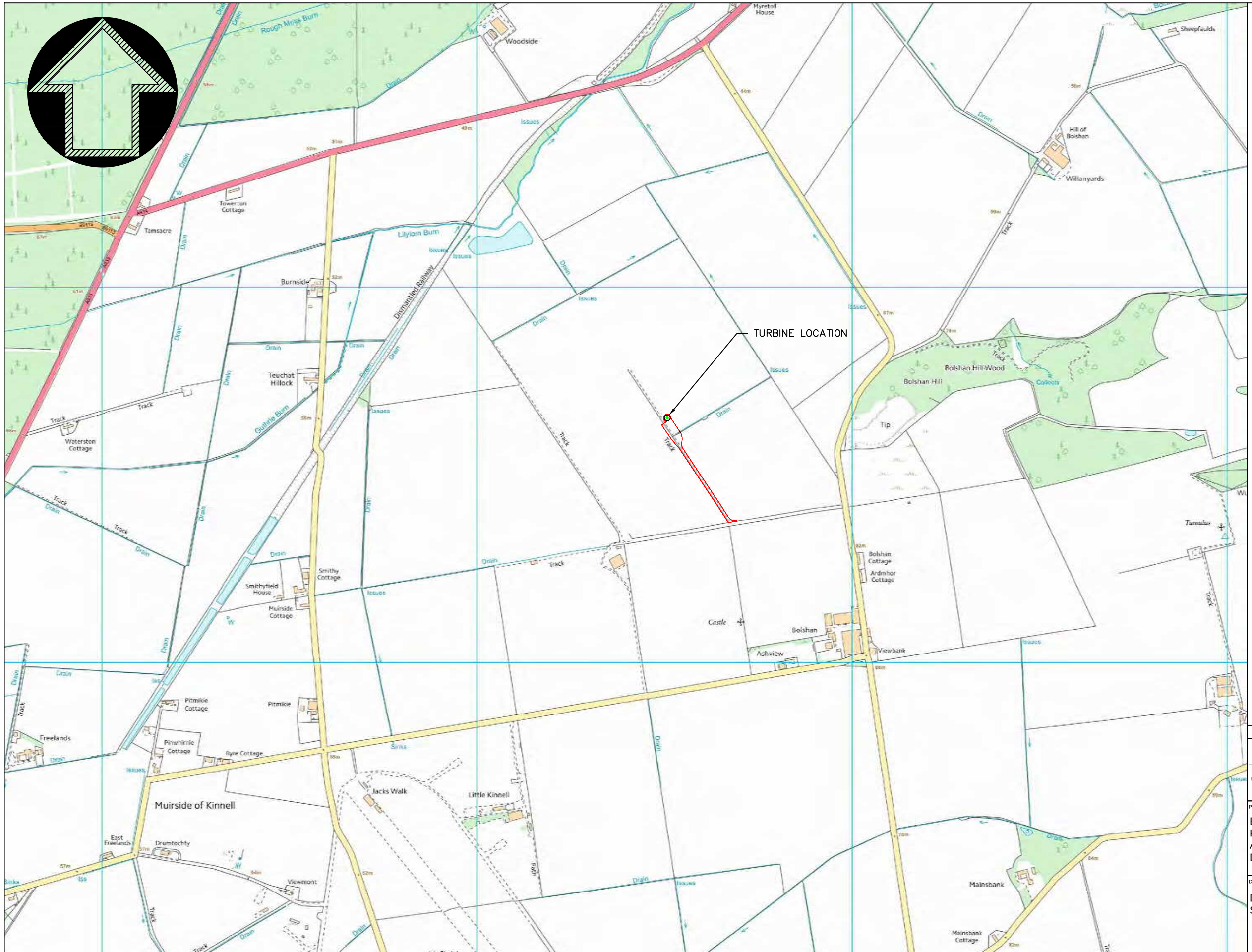
The Greenspan Agency
Proposing and Delivering Sustainable Solutions

Project
Bolshan Renewables Project
Kinnell
Angus
DD11 4

Drawing
Development Plans
Site Location

Scale	Drawn By	Checked
1:10,000@A3	ID	JC

Date	Drawing No
08.04.15	14-015_P_09



0m 250m 500m 1000m

SCALE: 1=10,000

DEVELOPMENT PLANS
SITE LOCATION
SCALE 1:10,000

LEGEND:

TURBINE POSITION

DEVELOPMENT BOUNDARY

NOTES:
TURBINE GRID REFERENCE:
NO 61507 52652

AMENDMENTS

Rev.	Date	Detail

The Greenspan Agency
Proposing and Delivering Sustainable Solutions

Project
Bolshan Renewables Project
Kinnell
Angus
DD11 4

Drawing
Development Plans
Site Location

Scale	Drawn By	Checked
1:10,000@A3	ID	JC

Date	Drawing No
08.04.15	14-015_P_10

Civil Aviation & Ministry of Defence Safeguarding

NOTICE TO WIND FARM DEVELOPERS
Please submit a completed application form for all new or revised onshore and offshore wind farm plans. This form has been compiled in consultation with the British Wind Energy Association. Its purpose is to standardise the information provided and to expedite the assessment of your proposed wind farm development. Assessment is made against air safety and defence interests, through evaluation of the possible effects on air traffic systems, defence systems and low flying needs.

NOTICE TO PLANNING AUTHORITIES
This form has been compiled with the assistance of the Civil Aviation Authority (CAA), the Ministry of Defence (MOD), the National Air Traffic Service (NATS) and the British Wind Energy Association (BWEA), to assist in the processing and assessment of wind farm applications. It is important that copies of this form are forwarded within the planning consultation process. This will help these organisations trace their records of any earlier consultations, as well as provide them with the relevant information for their assessments.

WHAT TO DO WITH THIS FORM
Please provide as much detail as possible by **filling in the shaded areas.** If the specific turbine and/or exact positions have yet to be established then fill in the likely turbine size (hub height, rotor diameter) and boundary points as a minimum. On completion send copies to both the following addresses.

Safeguarding
Defence Estates
Blakemore Drive
Sutton Coldfield
B75 7RL

Directorate of Airspace Policy
K6 Gate 3
CAA House
45-49 Kingsway
London, WC2B 6TE

It is important that a copy of this form is retained for inclusion with subsequent planning applications at the same site. If no application has been made prior to a planning application, please include a completed form in your planning application.

Wind Farm Name:	
Bolshan Renewables Project	
Developers reference	14-015
Application identification No.	TBA
Related/previous applications (at or near this site): Provide reference names or numbers.	Site address: Land at Bolshan Farm, Friockheim, Arbroath, DD11 4UH. Grid reference: NO 61394 52245 Planning Reference: 13-00887-FULL Decision: Withdrawn

Developer Information

Company name:	Bolshan Renewables Ltd
Address:	c/o Agent, The Greenspan Agency Ltd
Contact:	Jack Cook The Greenspan Agency Ltd 6 Castle Street Edinburgh EH2 3AT
Telephone:	0131 290 2262
Facsimile:	n/a
e-mail:	jack@greenspanenergy.com

Relevant Wind Turbine Details

Wind turbine manufacturer:	Enercon		
Wind turbine model:	E48		
Wind farm generation capacity (MW)	0.5	**Number of turbines**	**1**
Blade manufacturer	Enercon		
Number of blades	3		
Rotor diameter	48	Meters	
Rotation speed (or range)	16 - 32	Rpm	
Blade material including lightning conductors	Glass-reinforced epoxy with copper conductor		
Wind turbine hub height	55.6	Metres	
Tower design (* delete as required)	Tubular		
Tower base diameter/dimensions	3.3 approx	Metres	
Tower top diameter/dimensions	1.332 approx	Metres	

Comments

Please refer to “Related/previous applications” statement.

Turbine Locations

Please provide as much information as you can. The position and height above sea level of every machine if available, the site boundary if not. The height above sea level is the above ordinance datum (AOD) used to specify all heights on OS maps

An Ordinance Survey (OS) map, or maritime chart, should be submitted with this pro-forma, showing locations of proposed turbine/turbines or scheme boundaries. Please number the turbines or boundary points on the map, to correlate with the information provided below.

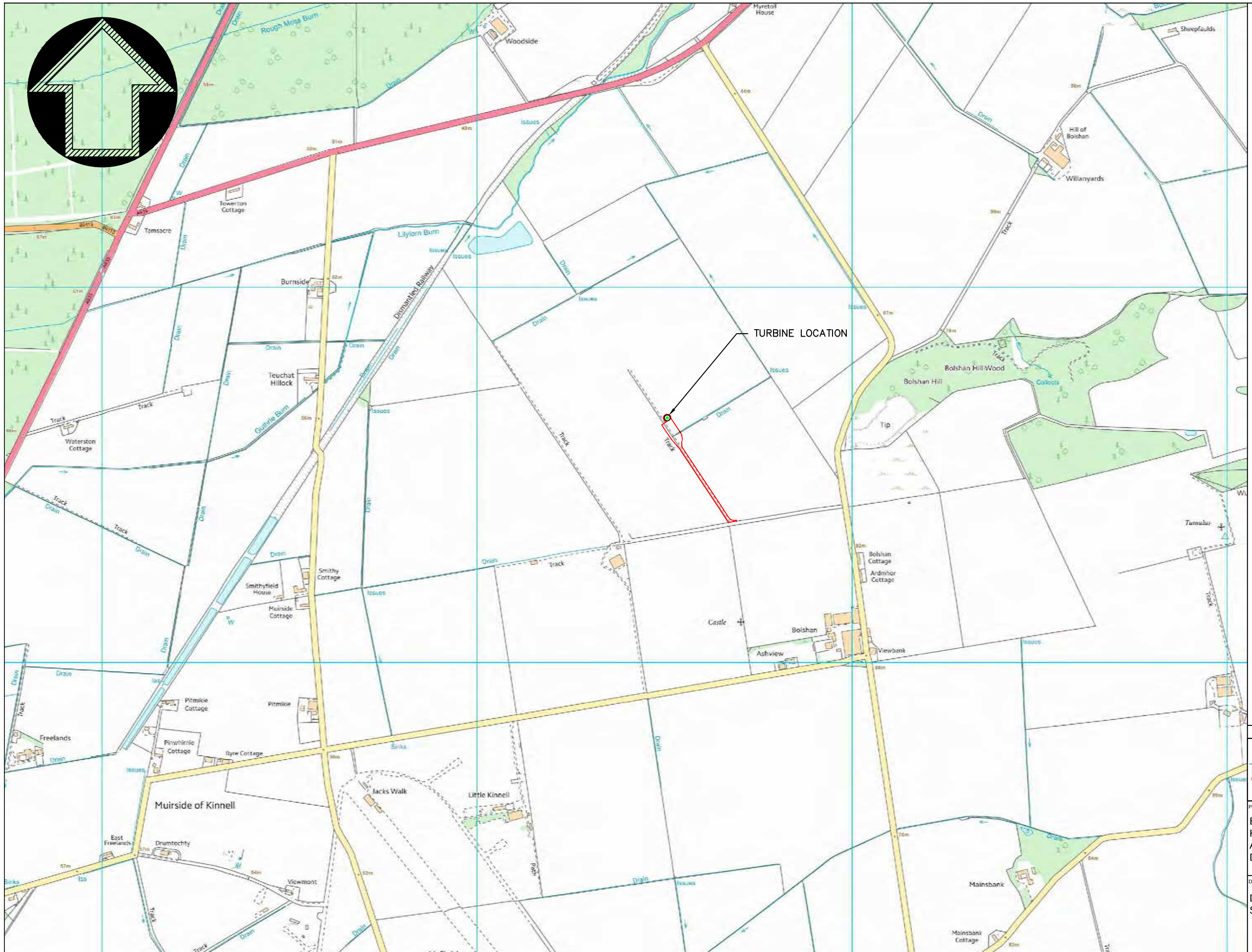
Copy this page as necessary to account for all turbines or boundary points

Wind farm Name & Address:	**Bolshan Farm** **Land at Bolshan Farm, Arbroath, Angus, DD11 4UH**

Turbine Location (see attached map)										
Turbine:	**1**		**Height** AOD (m)			**65m approx**				
Grid Reference					100 km square letter(s) identifier			**NO**		
Easting (10 m)	**6**	**1**	**5**	**0**	Northing (10 m)	**5**	**2**	**6**	**5**	
	Degrees				Minutes			Seconds		
Latitude										
Longitude										

Full 12-fig NGR of wind turbine is NO 61507 52652 (see accompanying plan)

511



0m 250m 500m 1000m

SCALE: 1=10,000

DEVELOPMENT PLANS
SITE LOCATION
SCALE 1:10,000

LEGEND:

TURBINE POSITION

DEVELOPMENT BOUNDARY

NOTES:
TURBINE GRID REFERENCE:
NO 61507 52652

AMENDMENTS

Rev.	Date	Detail

The Greenspan Agency
Proposing and Delivering Sustainable Solutions

Project
Bolshan Renewables Project
Kinnell
Angus
DD11 4

Drawing
Development Plans
Site Location

Scale	Drawn By	Checked
1:10,000@A3	ID	JC

Date	Drawing No
08.04.15	14-015_P_10

To

Name (if Known): . . Messrs G & W Smith

Address: Bolshan Farm, Bolshan, Arbroath, Angus, DD11 4UH

TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE) (SCOTLAND) REGULATIONS 2013

Notice under regulation 15(1) of application for planning permission for service on owners and tenants of agricultural land

Proposed development at [Note 1]

Easting/Northing: 361507 / 752652

TAKE NOTICE
1. that the application is being made to:

[Note 2] Angus Council by

[Note 3] Bolshan Renewables Limited For planning permission to

[Note 4] Erection of wind turbine, including associated access track, foundation, hardstanding, and substation etc.

2. If you wish to obtain further information on the application or to make representations about the application, you should contact the council at

[Note 5] County Buildings Market Street Forfar DD8 3LG

(The grant of planning permission does not affect owner's rights to retain or dispose of their property unless there is some provision to the contrary in an agreement or lease.

The grant of planning permission for non-agricultural development may affect agricultural tenant's security of tenure.)

Signed Jack Cook

On behalf of: * Bolshan Renewables Limited

Date 30/04/15

* delete where inappropriate

[Note 1] Insert address or location of proposed development.
[Note 2] Insert name of Council.
[Note 3] Insert name of applicant.
[Note 4] Insert description of proposed development.
[Note 5] Insert address of Council.

CaneyV

From: Windfarms <windfarms@atkinsglobal.com>
Sent: 15 May 2015 09:14
To: PLNProcessing
Cc: windfarms-radiotelemetry@scottishwater.co.uk
Subject: WF 30254- 15/00415/FULL - 750M North West Of Bolshan Farm Bolshan Arbroath - NO 61586 52521

Dear Sirs,

I am responding to an email of 15-05-2015, regarding the above named proposed development.

The above application has now been examined in relation to UHF Radio Scanning Telemetry communications used by our Client in that region and we are happy to inform you that we have **NO OBJECTION** to your proposal.

Please note that this is not in relation to any Microwave Links operated by Scottish Water

Atkins Limited is responsible for providing Wind Farm/Turbine support services to TAUWI.

Atkins Limited is responsible for providing Wind Farm/Turbine support services to the Telecommunications Association of the UK Water Industry. Web: www.tauwi.co.uk
Windfarm Support
ATKINS
The official engineering design services provider
for the London 2012 Olympic and Paralympic Games
Web: www.atkinsglobal.com/communications

CaneyV

From: Windfarms Team <windfarms.team@jrc.co.uk>
Sent: 15 May 2015 11:40
To: PLNProcessing
Subject: Planning Ref: 15/00415/FULL -- Bolshan Farm, Brechin, Angus -- Proposed Wind Turbine

Dear Sir/Madam,

Planning Ref: 15/00415/FULL

Name/Location: Bolshan Farm

Turbine at NGR/IGR: 361507 752652

Hub Height: 56m Rotor Radius: 24m

(defaults used if not specified on application)

Cleared with respect to radio link infrastructure operated by:-

Local Electricity Utility and Scotia Gas Networks

JRC analyses proposals for wind farms etc. on behalf of the UK Fuel & Power Industry and the Water Industry in north-west England. This is to assess their potential to interfere with radio systems operated by utility companies in support of their regulatory operational requirements.

In the case of this proposed wind energy development, JRC does not foresee any potential problems based on known interference scenarios and the data you have provided. However, if any details of the wind farm change, particularly the disposition or scale of any turbine(s), it will be necessary to re-evaluate the proposal.

In making this judgement, JRC has used its best endeavours with the available data, although we recognise that there may be effects which are as yet unknown or inadequately predicted.JRC cannot therefore be held liable if subsequently problems arise that we have not predicted.

It should be noted that this clearance pertains only to the date of its issue. As the use of the spectrum is dynamic, the use of the band is changing on an ongoing basis and consequently, developers are advised to seek re-coordination prior to considering any design changes.

Regards

Wind Farm Team

The Joint Radio Company Limited
Dean Bradley House,
52 Horseferry Road,
LONDON SW1P 2AF
United Kingdom

TEL: +44 20 7706 5199

<windfarms@jrc.co.uk>

ANGUS COUNCIL

COMMUNITIES
PLANNING

CONSULTATION SHEET

PLANNING APPLICATION NO	**15/00415/FULL**

Tick boxes as appropriate

ROADS	No Objection		
	Interest	√	(Comments to follow within 14 days)
	Date	18 05 15	

PLEASE DO NOT TAKE AWAY THE LAST SET OF PLANS WHERE POSSIBLE COPIES WILL BE PROVIDED ON REQUEST

ELECTRONIC SUBMISSION DRAWINGS TO BE VIEWED VIA IDOX

CaneyV

From: Windfarms <Windfarms.Windfarms@caa.co.uk>
Sent: 20 May 2015 11:38
To: CaneyV
Subject: RE: Consultation for Field 750M North West Of Bolshan Farm Bolshan Arbroath - 15/00415/FULL

Dear Sir/Madam

Request for Comment under the Town and Country Planning Act 1990 and the Town and Country Planning (Scotland) Act 1997

There is currently a high demand for CAA comment on wind turbine applications which can exceed the capacity of the available resource to respond to requests within the timescales required by Local Planning Authorities. The CAA has no responsibilities for safeguarding sites other than its own property, and a consultation by a Council is taken as a request for clarification of procedural matters. Councils are reminded of their obligations to consult in accordance with ODPM/DfT Circular 1/2003 or Scottish Government Circular 2/2003, and in particular to consult with NATS and the Ministry of Defence as well as any aerodromes listed in Annex 3 of the above documents, taking note of appropriate guidance and policy documentation. Should the Council be minded to grant consent to an application despite an objection from one of the bodies listed in the circular, then the requisite notifications should be made.

Whilst the CAA recommends all aerodrome operators/license holders develop associated safeguarding maps and lodge such maps with local planning authorities, the CAA additionally encourages councils/planning authorities to undertake relevant consultation with known local aerodromes regardless of status or the existence of any aerodrome/council safeguarding agreement, including local emergency service Air Support Units (e.g. Police Helicopter or Air Ambulance). Such units may operate in the area of concern and could be affected by the introduction of tall obstacles. For example Police helicopters are permitted to operate down to 75 feet and will routinely follow main roads and motorways during their operations. Both the Police and Air Ambulance may need to land anywhere but will also have specifically designated landing sites.

There is an international civil aviation requirement for all structures of 300 feet (91.4 metres)* or more to be charted on aeronautical charts. However, on behalf of other non-regulatory aviation stakeholders, in the interest of Aviation Safety, the CAA requests that any feature/structure 70 feet in height, or greater, above ground level is notified to the Defence Geographic Centre (mail to dvof@mod.uk), including the location(s), height(s)* and lighting status of the feature/structure, the estimated and actual dates of construction and the maximum height of any construction equipment to be used, at least 6 weeks prior to the start of construction, to allow for the appropriate notification to the relevant aviation communities.

Any structure of 150 metres* or more must be lit in accordance with the Air Navigation Order and should be appropriately marked. Although if an aviation stakeholder (including the MOD) made a request for lighting it is highly likely that the CAA would support such a request, particularly if the request falls under Section 47 of the Aviation Act.

Cumulative effects of turbines may lead to unacceptable impacts in certain geographic areas.

The Ministry of Defence will advise on all matters affecting military aviation.

Should the Council still have a specific query about a particular aspect of this application the CAA will help in the clarification of aviation matters and regulatory requirements. Site operators remain responsible for providing expert testimony as to any impact on their operations and the lack of a statement of objection or support from the CAA should not be taken to mean that there are no aviation issues, or that a comment from an operator lacks weight.

The CAA Policy and Guidance on Wind Turbines is contained in the CAP 764, which can be obtained from the CAA Website at the following address: CAP 764 Version 5. In addition, the CAA, through the Airspace and Safety Initiative Windfarm Working Group, have published the following Guidance for Planning Authorities.

Yours Faithfully

Mark

Mark Deakin
Squadron Leader (RAF)

Surveillance and Spectrum Management
Safety and Airspace Regulation Group
Civil Aviation Authority
45-59 Kingsway London WC2B 6TE
Tel: 020 7453 6534 Fax: 020 7453 6565
mark.deakin@caa.co.uk

*The effective height of a wind turbine is the maximum height to blade tip.

From: CaneyV [mailto:CaneyV@angus.gov.uk]
Sent: 15 May 2015 08:37
To: NATSsafeguarding@nats.co.uk; aphillips@hial.co.uk; TAYSIDE_GRAMPIAN@SNH.GOV.UK; Windfarms; esro@rspb.org.uk; spectrum.LicensingEnquiries@ofcom.org.uk; Windfarms@Atkinsglobal. Com (windfarms@atkinsglobal.com); windfarms@jrc.co.uk; archaeology@aberdeenshire.gov.uk; HS.consultationsangus@scotland.gsi.gov.uk
Subject: Consultation for Field 750M North West Of Bolshan Farm Bolshan Arbroath - 15/00415/FULL

Regards,
Veronica.

Veronica Caney
Clerical Officer (Development Control)
Angus Council
Planning & Place
County Buildings
Market Street
Forfar.
DD8 3LG
Tel : 01307 473242

****

HISTORIC SCOTLAND
ALBA AOSMHOR

Longmore House
Salisbury Place
Edinburgh
EH9 1SH

Direct Line: 0131 668 8688
Switchboard: 0131 668 8600
Hazel.Johnson2@scotland.gsi.gov.uk

Our ref: AMH/6317/10
Our Case ID: 201500903

20 May 2015

Sent by e-mail: PLNProcessing@angus.gov.uk

Planning & Transport Division
Angus Council
County Buildings
Market Street
FORFAR
DD8 3LG

Dear Sirs

Town And Country Planning (Development Management Procedure) (Scotland) Regulations 2013
Field 750M North West Of Bolshan Farm Bolshan Arbroath - Erection of Wind Turbine (55.6m to hub height and 79.6m to blade tip) and Ancillary Development

Thank you for your consultation which we received on 15 May.

You have consulted us because you believe the development may affect:

- **Hatton Mill,enclosure 300m WNW of**

We have considered your consultation, and we consider the proposals do not raise issues of national significance, so we can confirm that we do not object.

Please note though, that our comments relate to the application as currently proposed, an amended scheme may require a fresh consultation with us.

If you require any further information, please contact me.

Yours faithfully

HAZEL JOHNSON
Heritage Management Officer, East

CaneyV

From: GUNN, Nicola <Nicola.GUNN@nats.co.uk> on behalf of NATS Safeguarding <NATSSafeguarding@nats.co.uk>
Sent: 22 May 2015 14:06
To: PLNProcessing
Subject: Your Ref: 15/00415/FULL (Our Ref: SG21270)

The proposed development has been examined from a technical safeguarding aspect and does not conflict with our safeguarding criteria. Accordingly, NATS (En Route) Public Limited Company ("NERL") has no safeguarding objection to the proposal.

However, please be aware that this response applies specifically to the above consultation and only reflects the position of NATS (that is responsible for the management of en route air traffic) based on the information supplied at the time of this application. This letter does not provide any indication of the position of any other party, whether they be an airport, airspace user or otherwise. It remains your responsibility to ensure that all the appropriate consultees are properly consulted.

If any changes are proposed to the information supplied to NATS in regard to this application which become the basis of a revised, amended or further application for approval, then as a statutory consultee NERL requires that it be further consulted on any such changes prior to any planning permission or any consent being granted.

Yours faithfully,

Nicola Gunn
Technical Administrator
On behalf of NERL Safeguarding Office

Memorandum

Communities
(Roads)

TO: HEAD OF PLANNING & PLACE

FROM: HEAD OF TECHNICAL & PROPERTY SERVICES

YOUR REF:

OUR REF: GH/AG/CM TD1.3

DATE: 22 May 2015

SUBJECT: **PLANNING APPLICATION REF. NO. 15/00415/FULL – PROPOSED ERECTION OF WIND TURBINE, INCLUDING ASSOCIATED ACCESS TRACK, FOUNDATION, HARDSTANDING, AND SUBSTATION FOR BOLSHAN RENEWABLES LTD**

I refer to the above planning application.

The site is located on the north side of the U471, Glasterlaw-Bolshan road. Access to the site will be taken from this road.

The National Roads Development Guide, adopted by the Council as its road standards, is relative to the consideration of the application and the following comments take due cognisance of that document.

I have considered the application in terms of the traffic likely to be generated by it, and its impact on the public road network. As a result, I do not object to the application but would recommend that any consent granted shall be subject to the following condition:

1 That, prior to the commencement of development, a Traffic Management Plan shall be submitted for the written approval of the Planning Authority. Thereafter, the development shall be undertaken in accordance with the approved plan. The Traffic Management Plan shall consider arrangements for the following:

(i) agreement with the Roads Authority on the routing for abnormal loads;

(ii) the type and volume of vehicles to be utilised in the delivery to the site of construction materials [and turbine components] associated with the construction [and erection of the wind turbines];

(iii) assessment of the suitability of the proposed routes, including bridge capacities, to accommodate the type and volume of traffic to be generated by the development. The assessment shall include details of swept path analyses and include DVD video route surveys;

(iv) any proposed accommodation works / mitigating measures affecting the public roads in order to allow for delivery loads, including carriageway widening, junction alterations, associated drainage works, protection to public utilities, temporary or permanent traffic management signing, and temporary relocation or removal of other items of street furniture;

(v) the restriction of delivery traffic to agreed routes;

(vi) the timing of construction traffic to minimise impacts on local communities, particularly at school start and finish times, during refuse collection, at weekends and during community events;

(vii) a code of conduct for HGV drivers to allow for queuing traffic to pass;

(viii) liaison with the roads authority regarding winter maintenance;

(ix) contingency procedures, including names and telephone numbers of persons responsible, for dealing with vehicle breakdowns;

(x) a dust and dirt management strategy, including sheeting and wheel cleaning prior to departure from the site;

(xi) the location, design, erection and maintenance of warning/information signs for the duration of the works at site accesses and crossovers on private haul roads or tracks used by construction traffic and pedestrians, cyclists or equestrians;

(xii) contingencies for unobstructed access for emergency services;

(xiii) co-ordination with other major commercial users of the public roads on the agreed routes in the vicinity of the site;

(xiv) traffic management, in the vicinity of temporary construction compounds;

(xv) the provision of data from traffic counters, installed at locations and at intervals to be agreed with the Roads Authority, at the applicant's expense;

(xvi) arrangements for the monitoring, reviewing and reporting on the implementation of the approved plan; and

(xvii) procedures for dealing with non-compliance with the approved plan.

Reason: in the interests of road safety and to ensure the free flow of traffic for the convenience of road users and to ensure that any works required to the local road network to facilitate the development are undertaken in a timely manner.

I trust the above comments are of assistance but should you have any queries, please contact Adrian Gwynne on extension 3393.

p.p.

CaneyV

From: Spectrum Licensing <Spectrum.Licensing@ofcom.org.uk>
Sent: 23 May 2015 04:28
To: CaneyV
Cc: windfarms@atkinsglobal.com; windfarms@jrc.co.uk
Subject: RE: Consultation for Field 750M North West Of Bolshan Farm Bolshan Arbroath - 15/00415/FULL
Attachments: ufm3.rtf

FIXED LINK REPORT FOR WINDFARM CO-ORDINATION AREA:

Dear Sir/Madam

Search Radius 0m at Centre NGR NO6158652521. Search ir

Links	*Company*	*Contact*

NO LINKS FOUND

These details are provided to Ofcom by Fixed Link operators at the time of their licence application and cannot verified by Ofcom for accuracy or currency and Ofcom makes no guarantees for the currency or accuracy of information or that they are error free. As such, Ofcom cannot accept liability for any inaccuracies or omissions in the data provided, or its currency however so arising. The information is provided without any representation or endorsement made and without warranty of any kind, whether express or implied, including but not limited to the implied warranties of satisfactory quality, fitness for a particular purpose, non-infringement, compatibility, security and accuracy.

Our response to your co-ordination request is only in respect of microwave fixed links managed and assigned by Ofcom within the bands and frequency ranges specified in the table below. The analysis identifies all fixed links with either one link leg in the coordination range or those which intercept with the coordination range. The coordination range is a circle centred on your provided national grid reference. We add an additional 500 metres to the coordination range that you request. Therefore if you have specified 500 metres the coordination range will be 1km.

If you should need further information regarding link deployments and their operation then you will need to contact the fixed link operator(s) identified in the table above directly.

Additional coordination is also necessary with the band managers for the water, electricity and utilities industries which operate in the frequency ranges 457-458 MHz paired with 463-464 MHz band. You should contact both the following:

- Atkins Ltd at windfarms@atkinsglobal.com.
- Joint Radio Company (JRC) at windfarms@jrc.co.uk. Additionally, you can call the JRC Wind Farm Team on 020 7706 5197.

For self coordinated links operating in the 64-66GHz, 71-76GHz and 81-86GHz bands a list of current links can be found at: http://www.ofcom.org.uk/radiocomms/ifi/licensing/classes/fixed/

Regarding assessment with respect to TV reception, the BBC has an online tool available on their website: http://www.bbc.co.uk/reception/info/windfarm_tool.shtml . Ofcom do not forward enquiries to the BBC.

Please note other organisations may require coordination with regard to your request. More information regarding windfarm planning is available on the British Wind Energy Association website www.bwea.com .

Table of assessed fixed links bands and frequency ranges

Band (GHz)	Frequency Range (MHz)
1.4/1.5	1350 -1375 1450 -1452 1492 -1530
1.6	1672 – 1690
1.7	1764 – 1900
2	1900 – 2690
4	3600 – 4200
6	5925 – 7110
7.5	7425 – 7900
11	10700 – 11700
13	12750 – 13250
14	14250 – 14620
15	14650 – 15350
18	17300 – 19700
22	22000 – 23600
25	24500 – 26500
28	27500 – 29500
38	37000 – 39500
50	49200 – 50200
55	55780 – 57000

Regards

From: CaneyV [mailto:CaneyV@angus.gov.uk]
Sent: 15 May 2015 08:37
To: NATSsafeguarding@nats.co.uk; aphillips@hial.co.uk; TAYSIDE_GRAMPIAN@SNH.GOV.UK; windfarms@caa.co.uk; esro@rspb.org.uk; Spectrum Licensing; Windfarms@Atkinsglobal. Com (windfarms@atkinsglobal.com); windfarms@jrc.co.uk; archaeology@aberdeenshire.gov.uk; HS.consultationsangus@scotland.gsi.gov.uk
Subject: Consultation for Field 750M North West Of Bolshan Farm Bolshan Arbroath - 15/00415/FULL

Regards,
Veronica.

Veronica Caney
Clerical Officer (Development Control)
Angus Council
Planning & Place
County Buildings
Market Street
Forfar.
DD8 3LG
Tel : 01307 473242

SNH Consultation Response, introductory email explaining why the 2013 consultation response was re-issued

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From: Sue Lawrence [mailto:Sue.Lawrence@snh.gov.uk]
Sent: 05 October 2015 16:41
To: Jack Cook
Cc: Fiona Mutch
Subject: FW: 15/00415/FULL - Erection of single turbine - Bolshan Farm

Dear Jack,

As we discussed on the telephone just now, here is a copy of our email to Angus council which explains why our advice from 2013 reappeared on their website.

Regards,

Sue

Sue Lawrence | Operations Officer - Tayside and Grampian Area | Scottish Natural Heritage | Inverdee House | Baxter Street |Torry |Aberdeen AB11 9QA | Tel: 01224 266500 |Direct Dial: 01224 266517

Please note I work mondays-wednesdays

From: Fiona Mutch
Sent: 22 May 2015 17:11
To: PLNProcessing@angus.gov.uk
Subject: 15/00415/FULL - Erection of single turbine - Bolshan Farm

For the attention of James Wright

Dear James

I understand that the above is a re-submission for a single turbine on this site. Although the location of the turbine has changed slightly our comments on the original application (13/00887/FULL) remain valid and are attached for your information.

Please give me a call if you wish to discuss this response or have any additional queries.

Regards

Fiona

Fiona Mutch
Operations Officer
Tayside & Grampian
Scottish Natural Heritage
Inverdee House
Baxter Street
Torry
Aberdeen
AB11 9QA
Tel: 01224 266500
Direct dial: 01224 266517

Scottish Natural Heritage
Dualchas Nàdair na h-Alba
All of nature for all of Scotland
Nàdar air fad airson Alba air fad

Year of Natural Scotland 2013

James Wright
Communities, Planning & Places
Angus Council
County Buildings
Market Street
FORFAR
DD8 3LG

24 October 2013
Our ref: CNS/REN/WF/ANGUS
Your ref: 13/00887/FULL

Dear Mr Wright

Town and Country Planning (Scotland) Act 1997
Erection of single wind turbine 50m to hub, 77m to blade tip
Land south of agricultural storage shed, Bolshan Farm, Bolshan, Arbroath

Thank you for your email of 7 October 2013 requesting comments from Scottish Natural Heritage (SNH) on the above application.

Our Advice

There are natural heritage interests of international importance at this site, but in our view, these will not be adversely affected by the proposal.

Appraisal
Montrose Basin SPA

Bolshan Farm lies approximately 8km from Montrose Basin Site of Special Scientific Interest (SSSI), Montrose Basin Ramsar Site and Montrose Basin Special Protection Area (SPA). The SPA is notified for its wintering bird population, including greylag and pink-footed geese.

- Please see www.snh.gov.uk/docs/A423286.pdf for a summary of the legislative requirements for European sites.
- Further details for designated sites in proximity to the proposed development, including qualifying / notified features and conservation objectives for this and other designated sites can be found on SiteLink at: http://www.snh.gov.uk/publications-dataand-research/snhi-information-service/sitelink/
- As the proposal is within 20km of the SPA there is potential connectivity. www.snh.gov.uk/docs/A675474.pdf

Wildfowl and Wetlands Trust (WWT) data held by SNH indicate feeding records for geese in the 1km ^{2} surrounding Bolshan Farm as well as squares to the south, east and south east.

There is the potential for geese to collide with the turbine while flying between the roost site and feeding grounds. Geese may also be displaced from foraging in this area.

In our view, this proposal is likely to have a significant effect on the qualifying interests of this site. As a consequence Angus Council is required to carry out an appropriate assessment in view of the site's conservation objectives for its qualifying interests.

To help you do this we would further advise that, in our view, based on the appraisal carried out to date, the proposal will not adversely affect the integrity of the site.

The appraisal we carried out considered the impact of the proposals on the following factors: Collision mortality, displacement and barrier effects. In the absence of site specific goose survey we used generic data, which indicate very low collision mortality. There are alternative foraging opportunities in the surrounding area and a single turbine is unlikely to displace geese from accessing these areas.

You may wish to carry out further appraisal before completing the appropriate assessment.

Any concerns about potential impacts to Montrose Basin SSSI and Ramsar site are fully addressed as part of the consideration of the SPA.

Concluding remarks

In accordance with our Service Level Statement for Planning and Development, we are content that Angus Council identifies any other natural heritage issues and addresses these without further reference to SNH.

To assist with your assessment we refer you to our guidance on small scale wind farms http://www.snh.gov.uk/docs/A669283.pdf

Yours sincerely

Fiona Mutch
Operations Officer
Tayside & Grampian
fiona.mutch@snh.gov.uk

CaneyV

From: Windfarms <windfarms@atkinsglobal.com>
Sent: 25 May 2015 12:59
To: PLNProcessing
Cc: windfarms-radiotelemetry@scottishwater.co.uk
Subject: WF 30254 - 15/00415/FULL - 750M North West Of Bolshan Farm Bolshan Arbroath - NO 61586 52521

Dear Sirs,

I am responding to an email of 23-05-2015, regarding the above named proposed development.

The above application has now been examined in relation to UHF Radio Scanning Telemetry communications used by our Client in that region and we are happy to inform you that we have **NO OBJECTION** to your proposal.

Please note that this is not in relation to any Microwave Links operated by Scottish Water

Atkins Limited is responsible for providing Wind Farm/Turbine support services to TAUWI.

Atkins Limited is responsible for providing Wind Farm/Turbine support services to the Telecommunications Association of the UK Water Industry. Web: www.tauwi.co.uk
Windfarm Support
ATKINS
The official engineering design services provider
for the London 2012 Olympic and Paralympic Games
Web: www.atkinsglobal.com/communications

15/00415/FULL Field 750M North West Of Bolshan Farm Bolshan Arbroath
Erection of Wind Turbine of 55.6 to hub height and 79.6 to blade tip and Ancillary Development
Evaluation and comments on Landscape and Visual Effects - Angus Environment & Development Plan - Planning Advice- Landscape Officer 28 May 2015

1.0 Summary

Issues are highlighted pertaining to landscape character impacts, visual amenity impacts, cumulative in combination and succession impacts and major issue with regard to residential effects.

1.2 Landscape character effects

The application site sits within landscape character area LCT13 Dipslope farmland subtype (vi) Rossie Moor of the SNH regional Tayside Lowland and is close to the confluence of two other LCT15 Inland Loch Basins / Coast and LCT12 Low Moorland Hills subtype (ii) and within 5km of LCT10 Broad Valley Lowland plus the adjacent LCT subtype (iv) Letham, Lunan Water and Arbroath Valleys.

The Rossie Moor subtype of the Dipslope Farmland is more elevated and open than the other subareas and is characterised by gently rolling landform of large fields with minimal boundary features and isolated farms. Its proximity to the coastal geographic area makes it more sensitive than the rest of the Dipslope LCT. The adjacent Lowland Loch Basin is an enclosed tidal low lying farmland with tidal basin enclosed from the north and south interspersed with areas of woodland and hedgerow trees.

Capacity: At publication SLCAWEA indicates in Figure 6.1c that subarea (iv) has a low capacity for wind energy up to 80m size and in Figure 6.1c that the south west of subtype (vi) had a wind energy typology of "*a landscape of no turbines"* and in figure 6.3 it proposed that it had capacity to be a "*landscape with occasional WTs (50-<80m)"* but with separation distance of 5-10km. In figure 6.4 it is indicated part of a swathe of land with "*limited underlying capacity"*. The proposal would be within 4.2km of Rosse School WT, 5km of Pickerton Farm Wt 4.6m from Dubton and 3m of Waulkmill from suggesting it does not fully heed the siting parameters for the LCT subtype. The perceptual sense as one moves through this part of the Dipslope Farmland is that wind turbines are becoming frequent potentially exceeding the target capacity of 'occasional' to form a landscape with wind turbines'.

Aspects of the LCT which contribute to its character and value include various conservation designations which protect various habitats:

SSSI Rossi Moor, Whiting Ness -Ethie Haven, Duns Dish
RAMSAR Montrose Basin also SSSI SPA
SAC South Esk

Effects of proposal: The proposal is for a medium/ large scale turbine. The site is located on the lower northern slope of a small hill, Wuddy Law

which forms the western edge of the Rossie Moor landform, south of the South Esk River valley. The turbine would be located in an exposed location above the River South Esk valley and the Broad valley Lowlands. The surrounding landscape is dominated by areas of plantation woodland to the northwest while to the southwest lies Friockheim. Farms around the site are defined by large sheds lending a utilitarian feel.

The turbine would be in scale with the surrounding landform however it would tower above existing landscape features such as trees and built structures from which it would not be sufficiently distanced. The landscape effects would be similar to those of the existing turbine at Pickerton therefore it would not introduce new landscape effects into the locality. However the turbine would add a second very noticeable vertical feature within the local surroundings and potential increase discordance already between the various types of existing turbines.

1.3 Landscape Designation Effects (scoped out)

The site and its study area are of sufficient distance from national landscape designations for them to be scoped out. Other environmental designations and classifications contribute to the landscape character as outlined above.

1.4 Visual Effects

Review of applicant assessment: The submission does not follow current visualisation guidance. The viewpoints submitted are satisfactory for their distances though there should have been a simpler and obvious numbering. I would have expected viewpoints out to ZTV study area of 20km. The selection should have included for visibility from significant local hills and adopted core routes. Eight out of ten viewpoints were from the road network within 5km; one from a low hill and one from a public off road position.
Sensitivity magnitude of effects and significance were downplayed though it is agreed that overall the significance would likely not be significant.

Description of pattern of visibility: The ZTV gives a good indication of the extent of visibility esp. for mid point for their stated distances indicating potential widespread visibility to 1km and extensive to 2km. The site lies on the lower shallow slopes of Wuddy Law, a squat low hill, NW outlier of Rossie Moor. Views are open and panoramic in all directions and there would be wide range of visibility from the local road network, trails, local hills and core paths. There is only partial visibility to the immediate east due to forestry and the topography of Rossie Moor and to the northwest due to extensive forestry. Extensive uninterrupted views are possible from the southwest to 10km and from northwest to 20km from the Highland foothills LCT5 –Menmuir Hills which define the boundary fault and Pentland Hill (LCT3 highland summits and plateaux).

Description of effects: The turbine would be a prominent feature above the skyline from the local road network, especially the A933 northbound toward Friockheim, parts of A934, unclassified minor road U472 off the A934 and beyond.

Summation:
The proposed scheme increases the presence of WTs in the Dipslope Farmland. While the magnitude would be major for a couple of viewpoints, the overall magnitude would be low to medium.

1.5 Residential Effects

The LVIA lists the 8 properties within 1km of the proposed turbine though the actual analysis was rather slight. There were no detailed descriptions of the likely effect and no actual visualisation or photomontages.

The nearest would be Bolshan Cottage at approx 626m almost 8 times the turbine height. While field boundary trees would partially screen the turbine there would be visibility of the upper portion. The hub and rotor would likely dominate the immediate skyline reducing the sense of remoteness. Ardmhor Cottage @ 652m would have a similar experience while Viewbank, 770m has not visual connection. Trees would likely partially occlude the turbine from Bolshan farm, Ashview and Doonbye. Teuchat Hillock Steading would have partially occluded views. Teuchat Hillock views would be occluded by the adj. Steading. At just over a kilometre, Smithy Cottage, Smithyfield and Muirside Cottage would have filtered views through a more open treeline. Views from Burnside, 969m, 937m just under a kilometre away, would be fairly uninterrupted.

1.6 Cumulative Landscape Character effects

This area of the Rossie Moor is already indicated[1] as under pressure for development and where further wind energy development, may exceed the acceptable cumulative capacity of the landscape.

The proposal will intensify the landscape character effects of this type of development for the area. There are likely to be in combination in succession and sequential effects. However there is limited intervisibility so the cumulative landscape effects would be low when considering the landscape context.

Capacity: This subarea in particular is characterized by rising rolling landform with widespread visibility and the backdrop of the highland hills to the north-west and Rossie Moor to the East. The area has an establishing pattern of medium and small to medium turbines. These may increase discordance.

1.7 Cumulative Visual Effects

There are some instances of cumulative in combination, in succession and sequential visual effects in relation to Pickerton, Dubton and Waulkmill.

The proposal will intensify the in succession and sequential visual effects of this type of development for the area and form a visual link to the

[1] *Strategic Landscape Capacity Assessment for Wind Energy in Angus, SNH & Angus Council, Ironside Farrar, Edinburgh March 2014.*

expanding area indicated in figure 6.4 of SLCAWEA as a 'red hatch zone' – 4 Letham to Firth Muir of Boysack, southwest of Friockheim where 'cumulative impact limits development'. The development will be visible from the south and western side of Rossie Moor, Dunnichen and Dunbarrow .These effects are likely to be low-moderate.

Capacity: The proposal will add to the effects of this type of development in an area already influenced by a mixed of rural industrial farming and infrastructure facilities and give rise to cumulative landscape and visual effect of low significance and which give rise to landscape typology approaching the envisaged wind energy capacity for the receiving landscape, i.e. that of 'a landscape with wind turbines'.

2.0 Conclusion

The overall landscape sensitivity of this area is moderate to high due to the predominantly agricultural nature which accords with the LCT description. The proposal would result in a modest increase in the presence of wind turbines within the landscape type. On its own this would not be an issue however this particular turbine would yield significant impacts for a number of dwellings due to its proximity and size.

The cumulative effect would be low and will not lead to significant adverse impacts. Notwithstanding the effects would give rise to visual relationships with other WE developments where two or more can be seen in combination or in succession this will increase discordance in regard to design and height.

The receiving landscape has capacity to accommodate the proposed type, scale or nature of change. However the remaining issue is the impact on Bolshan Cottage and Burnside.

Defence Infrastructure Organisation

Miss Rachel Evans
Assistant Safeguarding Officer
Ministry of Defence
Safeguarding – Wind Energy
Kingston Road
Sutton Coldfield
West Midlands B75 7RL
United Kingdom

Telephone [MOD]: +44 (0)121 311 2195
Facsimile [MOD]: +44 (0)121 311 2218
E-mail: DIOODC-IPSSG3a@mod.uk

Your Reference: 15/00415/FULL

Our Reference: DIO/SUT/43/10/1/18476

Mr James Wright
Angus Council
County Buildings
Market Street
Forfar
DD8 3LG

1st June 2015

Dear Mr Wright

Please quote in any correspondence: 18476

Site Name: Field 750m North West of Bolshan Farm

Proposal: Erection of 1 Wind Turbine

Planning Application Number: 15/00415/FULL

Site Address: Bolshan, Arbroath

Thank you for consulting the Ministry of Defence (MOD) on the above Planning Application in your communication dated 15th May 2015.

I am writing to tell you that the MOD has no objection to the proposal.

The application is for 1 turbine at 79.6 metres to blade tip. This has been assessed using the grid references below as submitted in the planning application or in the developers' or your pro-forma.

Turbine	100km Square letter	Easting	Northing
1	NO	61507	52652

In the interests of air safety the MOD will request that the development should be fitted with aviation safety lighting. The MOD requests that the turbine is fitted with 25 candela omni-directional red lighting or infrared lighting with an optimised flash pattern of 60 flashes per minute of 200ms to 500ms duration at the highest practicable point.

The principal safeguarding concern of the MOD with respect to the development of wind turbines relates to their potential to create a physical obstruction to air traffic movements and cause interference to Air Traffic Control and Air Defence radar installations.

Defence Infrastructure Organisation Safeguarding wishes to be consulted and notified of the progression of planning applications and submissions relating to this proposal to verify that it will not adversely affect defence interests.

If planning permission is granted we would like to be advised of the following prior to commencement of construction;

- the date construction starts and ends;
- the maximum height of construction equipment;
- the latitude and longitude of every turbine.

This information is vital as it will be plotted on flying charts to make sure that military aircraft avoid this area.

If the application is altered in any way we must be consulted again as even the slightest change could unacceptably affect us.

I hope this adequately explains our position on the matter. If you require further information or would like to discuss this matter further please do not hesitate to contact me.

Further information about the effects of wind turbines on MOD interests can be obtained from the following websites:

***MOD*:** https://www.gov.uk/government/publications/wind-farms-ministry-of-defence-safeguarding

Yours sincerely

Miss Rachel Evans
Assistant Safeguarding Officer – Wind Energy
Defence Infrastructure Organisation

SAFEGUARDING SOLUTIONS TO DEFENCE NEEDS

TaylorE

From: ThomsonSD
Sent: 06 July 2015 14:20
To: TaylorE
Cc: WrightJ
Subject: FW: 15/00415/Full Bolshan WInd Turbine
Attachments: Bolshan Turbine.doc

Follow Up Flag: Follow up
Flag Status: Flagged

From: HendersonA
Sent: 06 July 2015 12:12
To: WrightJ
Cc: ThomsonSD
Subject: 15/00415/Full Bolshan WInd Turbine

James,

With regards to the above application, I would advise that the supporting information has been examined as well as a site visit having been made. Accordingly I would offer that this Department has no objections to the development save for the attached conditions.

Regards
Alex.

Alex. Henderson. Environmental Health Officer (Part Time)
Angus Council, Communities Department, Dewar House, 12 Hill Terrace, Arbroath, DD11 1AH.
Telephone 01241 435600

1. The rating level of noise immissions from the combined effects of the wind turbines (including the application of any tonal penalty) when determined in accordance with the attached Guidance Notes (to this condition), shall not exceed at any property lawfully existing at the date of this planning permission, L_{A90} 35dB (A) 10min level at wind speeds up to 10m/s as 10m height

2. Prior to the commencement of development the make and model of the turbine selected for use in the development shall be submitted for the written approval of the Planning Authority.

3. In the event that any turbine other than the candidate turbine is to be installed, a detailed noise assessment, including where necessary a cumulative assessment taking into account any existing wind turbine developments approved prior to the date of this permission, demonstrating that the noise limits specified by this permission shall not be exceeded shall be submitted for the written approval of the Planning Authority.

4. The wind farm operator shall continuously log power production, wind speed and wind direction, all in accordance with Guidance Note 1(d). This data shall be retained for a period of not less than 24 months. The wind farm operator shall provide this information in the format set out in Guidance Note 1(e) to the Local Planning Authority on its request, within 14 days of receipt in writing of such a request.

5. No electricity shall be exported until the wind farm operator has submitted to the Local Planning Authority for written approval a list of proposed independent consultants who may undertake noise compliance measurements in accordance with this permission. Amendments to the list of approved consultants shall be made only with the prior written approval of the Local Planning Authority.

6. Within 21 days from receipt of a written request from the Local Planning Authority following a complaint to it from an occupant of a dwelling alleging noise disturbance at that dwelling, the wind farm operator shall, at its expense, employ a consultant approved by the Local Planning Authority to assess the level of noise immissions from the wind farm at the complainant's property in accordance with the procedures described in the attached Guidance Notes. The written request from the Local Planning Authority shall set out at least the date, time and location that the complaint relates to and any identified atmospheric conditions, including wind direction, and include a statement as to whether, in the opinion of the Local Planning Authority, the noise giving rise to the complaint contains or is likely to contain a tonal component.

7. The assessment of the rating level of noise immissions shall be undertaken in accordance with an assessment protocol that shall previously have been submitted to and approved in writing by the Local Planning Authority. The protocol shall include the proposed measurement location identified in accordance with the Guidance Notes where measurements for compliance checking purposes shall be undertaken, whether noise giving rise to the complaint contains or is likely to contain a tonal component, and also the range of meteorological and operational conditions (which shall include the range of wind speeds, wind directions, power generation and times of day) to determine the assessment of rating level of noise immissions. The proposed range of conditions shall be those which prevailed during times when the complainant alleges there was disturbance due to noise, having regard to the written request by the Local Planning Authority to investigate a complaint, and such others as the independent consultant considers likely to result in a breach of the noise limits.

8. Where a dwelling to which a complaint is related is not listed in the tables attached to these conditions, the wind farm operator shall submit to the Local Planning Authority for written approval proposed noise limits to be adopted at the complainant's dwelling for compliance checking purposes. The proposed noise limits are to be those limits selected from the Tables specified for a listed location which the independent consultant considers as being likely to experience the most similar background noise environment to that experienced at the complainant's dwelling. The rating level of noise immissions resulting from the combined effects of the wind turbines when determined in accordance with the attached Guidance Notes shall not exceed the noise limits approved in writing by the Local Planning Authority for the complainant's dwelling.

9. The wind farm operator shall provide to the Local Planning Authority the independent consultant's assessment of the rating level of noise immissions undertaken in accordance with the Guidance Notes within 2 months of the date of the written request of the Local Planning Authority for compliance measurements to be undertaken, unless the time limit is extended in writing by the Local Planning Authority. The assessment shall include all data collected for the purposes of undertaking the compliance measurements, such data to be provided in the format set out in Guidance Note 1(e) of the Guidance Notes. The instrumentation used to undertake the measurements shall be calibrated in accordance with Guidance Note 1(a) and certificates of calibration shall be submitted to the Local Planning Authority with the independent consultant's assessment of the rating level of noise immissions.

10. Where a further assessment of the rating level of noise immissions from the wind farm is required pursuant to Guidance Note 4(c), the wind farm operator shall submit a copy of the further assessment within 21 days of submission of the independent consultant's assessment pursuant to condition 8 above unless the time limit has been extended in writing by the Local Planning Authority.

11. In the event that noise emissions from the wind turbine exceed the levels set by this permission, operation of the turbine shall cease until measures to reduce noise levels to comply with this permission are implemented. Should such measures fail to achieve compliance with the noise levels set by this permission the operation of the turbine shall cease until otherwise approved in writing by the planning authority.

12. In the event of a pollution incident or interruption to supply, caused by the wind farm development, affecting or likely to affect any private water supply, the wind farm operator shall provide an immediate temporary supply to those affected until permanent mitigation can be

effected to the satisfaction of the Planning Authority. Any replacement supply shall be of a quality to meet the private water supplies (Scotland) Regulations 1992 or any other appropriate Regulation in force at the time. In any case a permanent replacement supply or mitigation measures shall be provided no later than one month after the supply is first affected.

13. Noise associated with construction operations including the movement of materials, plant and equipment shall not exceed the noise limits shown in table A below for the times shown. At all other times noise associated with construction operations shall be inaudible at any sensitive receptor. For the avoidance of doubt sensitive receptors includes all residential properties, hospitals, schools and office buildings.

Table A: Construction Noise limits

Day	Time	Average Period (t)	Noise limit
Monday-Friday	0700-0800	1 hour	55 dBA Leq
Monday-Friday	0800-1800	10 hour	65 dBA Leq
Monday-Friday	1800-1900	1 hour	55 dBA Leq
Saturday	0700-0800	1 hour	55 dBA Leq
Saturday	0800-1800	10 hour	65 dBA Leq
Saturday	1800-1900	1 hour	55 dBA Leq
Sunday	0800-1800	10 hour	55 dBA Leq

Guidance Notes for Noise Conditions

These notes are to be read with and form part of the noise condition. They further explain the condition and specify the methods to be employed in the assessment of complaints about noise immissions from the wind farm. The rating level at each integer wind speed is the arithmetic sum of the wind farm noise level as determined from the best-fit curve described in Guidance Note 2 of these Guidance Notes and any tonal penalty applied in accordance with Guidance Note 3. Reference to ETSU-R-97 refers to the publication entitled "The Assessment and Rating of Noise from Wind Farms" (1997) published by the Energy Technology Support Unit (ETSU) for the Department of Trade and Industry (DTI).

Guidance Note 1

(a) Values of the LA90,10 minute noise statistic should be measured at the complainant's property, using a sound level meter of EN 60651/BS EN 60804 Type 1, or BS EN 61672 Class 1 quality (or the equivalent UK adopted standard in force at the time of the measurements) set to measure using the fast time weighted response as specified in BS EN 60651/BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements). This should be calibrated in accordance with the procedure specified in BS 4142: 1997 (or the equivalent UK adopted standard in force at the time of the measurements). Measurements shall be undertaken in such a manner to enable a tonal penalty to be applied in accordance with Guidance Note 3.

(b) The microphone should be mounted at 1.2 – 1.5 metres above ground level, fitted with a two-layer windshield or suitable equivalent approved in writing by the Local Planning Authority, and placed outside the complainant's dwelling. Measurements should be made in "free field" conditions. To achieve this, the microphone should be placed at least 3.5 metres away from the building facade or any reflecting surface except the ground at the approved measurement location. In the event that the consent of the complainant for access to his or her property to undertake compliance measurements is withheld, the wind farm operator shall submit for the written approval of the Local Planning Authority details of the proposed

alternative representative measurement location prior to the commencement of measurements and the measurements shall be undertaken at the approved alternative representative measurement location.

(c) The LA90,10 minute measurements should be synchronised with measurements of the 10-minute arithmetic mean wind and operational data logged in accordance with Guidance Note 1(d), including the power generation data from the turbine control systems of the wind farm.

(d) To enable compliance with the conditions to be evaluated, the wind farm operator shall continuously log arithmetic mean wind speed in metres per second and wind direction in degrees from north at hub height for each turbine and arithmetic mean power generated by each turbine, all in successive 10-minute periods. Unless an alternative procedure is previously agreed in writing with the Planning Authority, this hub height wind speed, averaged across all operating wind turbines, shall be used as the basis for the analysis. All 10 minute arithmetic average mean wind speed data measured at hub height shall be 'standardised' to a reference height of 10 metres as described in ETSU-R-97 at page 120 using a reference roughness length of 0.05 metres . It is this standardised 10 metre height wind speed data, which is correlated with the noise measurements determined as valid in accordance with Guidance Note 2, such correlation to be undertaken in the manner described in Guidance Note 2. All 10-minute periods shall commence on the hour and in 10- minute increments thereafter.

(e) Data provided to the Local Planning Authority in accordance with the noise condition shall be provided in comma separated values in electronic format.

(f) A data logging rain gauge shall be installed in the course of the assessment of the levels of noise immissions. The gauge shall record over successive 10-minute periods synchronised with the periods of data recorded in accordance with Note 1(d).

Guidance Note 2

(a) The noise measurements shall be made so as to provide not less than 20 valid data points as defined in Guidance Note 2 (b)

(b) Valid data points are those measured in the conditions specified in the agreed written assessment protocol, but excluding any periods of rainfall measured in the vicinity of the sound level meter. Rainfall shall be assessed by use of a rain gauge that shall log the occurrence of rainfall in each 10 minute period concurrent with the measurement periods set out in Guidance Note 1. In specifying such conditions the Local Planning Authority shall have regard to those conditions which prevailed during times when the complainant alleges there was disturbance due to noise or which are considered likely to result in a breach of the limits.

(c) For those data points considered valid in accordance with Guidance Note 2(b), values of the LA90,10 minute noise measurements and corresponding values of the 10- minute wind speed, as derived from the standardised ten metre height wind speed averaged across all operating wind turbines using the procedure specified in Guidance Note 1(d), shall be plotted on an XY chart with noise level on the Y-axis and the standardised mean wind speed on the X-axis. A least squares, "best fit" curve of an order deemed appropriate by the independent consultant (but which may not be higher than a fourth order) should be fitted to the data points and define the wind farm noise level at each integer speed.

Guidance Note 3

(a) Where, in accordance with the approved assessment protocol, noise immissions at the location or locations where compliance measurements are being undertaken contain or are likely to contain a tonal component, a tonal penalty is to be calculated and applied using the following rating procedure.

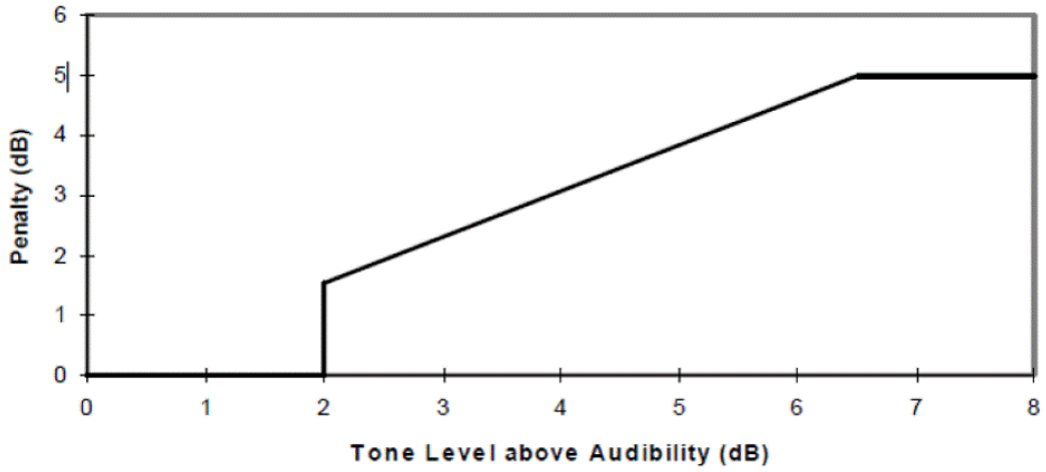
(b) For each 10 minute interval for which LA90,10 minute data have been determined as valid in accordance with Guidance Note 2 a tonal assessment shall be performed on noise immissions during 2 minutes of each 10 minute period. The 2 minute periods should be spaced at 10 minute intervals provided that uninterrupted uncorrupted data are available ("the standard procedure"). Where uncorrupted data are not available, the first available uninterrupted clean 2 minute period out of the affected overall 10 minute period shall be selected. Any such deviations from the standard procedure, as described in Section 2.1 on pages 104-109 of ETSU-R-97, shall be reported.

(c) For each of the 2 minute samples the tone level above or below audibility shall be calculated by comparison with the audibility criterion given in Section 2.1 on pages 104-109 of ETSU-R-97.

(d) The tone level above audibility shall be plotted against wind speed for each of the 2 minute samples. Samples for which the tones were below the audibility criterion or no tone was identified, a value of zero audibility shall be used.

(e) A least squares "best fit" linear regression line shall then be performed to establish the average tone level above audibility for each integer wind speed derived from the value of the "best fit" line at each integer wind speed. If there is no apparent trend with wind speed then a simple arithmetic mean shall be used. This process shall be repeated for each integer wind speed for which there is an assessment of overall levels in Guidance Note 2.

(f) The tonal penalty is derived from the margin above audibility of the tone according to the figure below.



Guidance Note 4

(a) If a tonal penalty is to be applied in accordance with Guidance Note 3 the rating level of the turbine noise at each wind speed is the arithmetic sum of the measured noise level as determined from the best fit curve described in Guidance Note 2 and the penalty for tonal noise as derived in accordance with Guidance Note 3 at each integer wind speed within the range specified by the agreed written assessment protocol.

(b) If no tonal penalty is to be applied then the rating level of the turbine noise at each wind speed is equal to the measured noise level as determined from the best fit curve described in Guidance Note 2.

(c) In the event that the rating level is above the limit(s) set out in the Tables attached to the noise conditions or the noise limits for a complainant's dwelling, the independent consultant shall undertake a further assessment of the rating level to correct for background noise so that the rating level relates to wind turbine noise immission only.

(d) The wind farm operator shall ensure that all the wind turbines in the development are turned off for such period as the independent consultant requires to undertake the further assessment. The further assessment shall be undertaken in accordance with the following steps:

(e). Repeating the steps in Guidance Note 2, with the wind farm switched off, and determining the background noise (L3) at each integer wind speed within the range requested by the Local Planning Authority in its written request and the approved protocol.

(f) The wind farm noise (L1) at this speed shall then be calculated as follows where L2 is the measured level with turbines running but without the addition of any tonal penalty:

$$L_1 = 10 \log\left[10^{L_2/10} - 10^{L_3/10}\right]$$

(g) The rating level shall be re-calculated by adding arithmetically the tonal penalty (if any is applied in accordance with Note 3) to the derived wind farm noise L1 at that integer wind speed.

(h) If the rating level after adjustment for background noise contribution and adjustment for tonal penalty (if required in accordance with note 3 above) at any integer wind speed lies at or below the values set out in the Tables attached to the conditions or at or below the noise limits approved by the Local Planning Authority for a complainant's dwelling then no further action is necessary. If

the rating level at any integer wind speed exceeds the values set out in the Tables attached to the conditions or the noise limits approved by the Local Planning Authority for a complainant's dwelling then the development fails to comply with the conditions.

Comments for Planning Application 15/00415/FULL

Application Summary
Application Number: 15/00415/FULL
Address: Field 750M North West Of Bolshan Farm Bolshan Arbroath
Proposal: Erection of Wind Turbine of 55.6 to hub height and 79.6 to blade tip and Ancillary Development
Case Officer: James Wright

Customer Details
Name: Mr Simon Dessain
Address: Lawton House Arbroath

Comment Details
Commenter Type: Miscellaneous
Stance: Customer objects to the Planning Application
Comment Reasons:
Comment:I am a local resident. This application is not supported locally. it is an inappropriate intrusion into the landscape.

The area is suffering from significant cumulative impact.

As you summit the road from Redford heading towards Friockheim there is an substantial, existing burden of visual intrusion into the landscape looking out over the landscape and this application will add materially to the blight.

The zone of visual impact is highly significant and the area and scenery of the environs are prized by the Council under their plan for their tourism amenity.

I believe that this application should be refused.

Comments for Planning Application 15/00415/FULL

Application Summary

Application Number: 15/00415/FULL
Address: Field 750M North West Of Bolshan Farm Bolshan Arbroath
Proposal: Erection of Wind Turbine of 55.6 to hub height and 79.6 to blade tip and Ancillary Development
Case Officer: James Wright

Customer Details

Name: Miss Constanza Dessain
Address: Lawton House Inverkeilor Angus

Comment Details

Commenter Type: Member of Public
Stance: Customer objects to the Planning Application
Comment Reasons:
Comment:I object strongly

Comments for Planning Application 15/00415/FULL

Application Summary

Application Number: 15/00415/FULL
Address: Field 750M North West Of Bolshan Farm Bolshan Arbroath
Proposal: Erection of Wind Turbine of 55.6 to hub height and 79.6 to blade tip and Ancillary Development
Case Officer: James Wright

Customer Details

Name: Mr James Smith
Address: Smiddy Cottage Easter Braikie Arbroath

Comment Details

Commenter Type: Member of Public
Stance: Customer objects to the Planning Application
Comment Reasons:
Comment:My reason for objecting to this application is in relation to the height of the turbine. 80 metres is very tall structure to be erected in open countryside with no mitigating landscape features. This will dominate the landscape for miles around.
Surely 50 metre to blade tip height is a sufficiently large turbine to provide an income for the land owner. This would reduce the impact on others residing close by.
It seems the focus on wind development is now moving to offshore and we need to be careful we do not ruin the Angus countryside as south Aberdeenshire have done. Smaller reasonably sized individual turbines, grey in colour can be absorbed into the background landscape but structures of this size in my opinion cannot

Comments for Planning Application 15/00415/FULL

Application Summary
Application Number: 15/00415/FULL
Address: Field 750M North West Of Bolshan Farm Bolshan Arbroath
Proposal: Erection of Wind Turbine of 55.6 to hub height and 79.6 to Blade Tip and Ancillary Development
Case Officer: James Wright

Customer Details
Name: Mr Derek Strachan
Address: Doonbye Bolshan Arbroath

Comment Details
Commenter Type: Member of Public
Stance: Customer objects to the Planning Application
Comment Reasons:
Comment:
I strenuously object to this 3rd application for the erection of a proposed wind turbine at this location. As previously stated it would greatly impact on our health and well-being irrespective of moving the proposed site from W to NW of the nearest property. The height of this turbine has been increased from the previous application to 79.6m and the blade size decreased. This will change the noise characteristics which will potentially increase the health implications as the nearest property is still only 650m from the turbine.

I believe the Scottish Planning Framework recommends a separation of 2Km.

The increase in speed of the smaller turbine blades will also increase the risk to the swan and goose population that regularly flies from the fields in the south and settles at the lake 630m NW of the proposed turbine site.

The installation of this extremely large turbine will significantly impact on this landscape, particularly from the south looking towards Bolshan Hill. The intangible benefits of our local amenity will also be seriously compromised.

Artists paint this landscape looking North West from the road at Bolshan Hill to the Angus Glens. This construction would be directly in line with this view and completely ruin a stunning vista for both locals and visitors to enjoy.

It will at best reduce the value of all property surrounding this construction but more likely make property in the near vicinity unsaleable.

A more detailed objection will be added to this following a study of the all the applicants supporting documentation.

Comments for Planning Application 15/00415/FULL

Application Summary
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Proposal: Erection of Wind Turbine of 55.6 to hub height and 79.6 to Blade Tip and Ancillary Development
Case Officer: James Wright

Customer Details
Name: Mr Derrick Robertson
Address: 42 Charleton Place Montrose

Comment Details
Commenter Type: Member of Public
Stance: Customer made comments in support of the Planning Application
Comment Reasons:
Comment:I am writing to express my support for the aforementioned Wind Turbine,my work as an Agronomist covers this area and I strongly believe that this Wind Turbine will not detract from the surroundings and enjoyment of this area,I also observe it will be a suitable distance from residential properties,thus no noise pollution will occur.

Farmers are constantly under scrutiny from out with and should be helped in producing clean renewable energy,which has positive results for everyone,we do live on an island so surely the more we can make of our natural resources the better for generations to come.

Comments for Planning Application 15/00415/FULL

Application Summary
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Address: Field 750M North West Of Bolshan Farm Bolshan Arbroath
Proposal: Erection of Wind Turbine of 55.6 to hub height and 79.6 to Blade Tip and Ancillary Development
Case Officer: James Wright

Customer Details
Name: Mr James Patrick Main
Address: Craigengower Church Road, Luthermuir Laurencekirk

Comment Details
Commenter Type: Member of Public
Stance: Customer made comments in support of the Planning Application
Comment Reasons:
Comment:I advise farmers on various matters all to do with finance (not wind turbines) in the North East of Scotland and see the vast costs of running cooling stores for potatoes and grain driers to provide the public with good food supplies. Surely by making full use of the free wind which there is plenty of on this site, makes it an ideal situation for the production of power for the future, with minimal impact on the local community. I have a wind turbine this size within hundreds of yards of my house and apart from seeing it we are never aware of it at all.

I think the long term benefits from these should be looked at closely as wherelse is the power to come from and at what cost.

I therefore support this application and see no reason why each farming unit that uses heavy amounts of power do not have their own wind turbine.

Comments for Planning Application 15/00415/FULL

Application Summary

Application Number: 15/00415/FULL
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Proposal: Erection of Wind Turbine of 55.6 to hub height and 79.6 to Blade Tip and Ancillary Development
Case Officer: James Wright

Customer Details

Name: Mr Michael Morison
Address: Friock Mains Farm By Arbroath

Comment Details

Commenter Type: Member of Public
Stance: Customer made comments in support of the Planning Application
Comment Reasons:
Comment:I refer to the above mentioned Planning Application and would like to submit my support for this project.
This application has been very well prepared and the site has been carefully selected to have as little adverse affect on the surrounding area and population. The turbine is far enough away from any dwelling so noise will not be an issue and after studying the plans, the visual impact will be minimal.
Wind turbines produce clean, renewable energy which must be supported to meet our green energy requirements. This application will safeguard the future of this local family farm and it is a good example of an ever increasing need to diversify.
I fully support this application and recommend it for approval.

Comments for Planning Application 15/00415/FULL

Application Summary

Application Number: 15/00415/FULL
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Proposal: Erection of Wind Turbine of 55.6 to hub height and 79.6 to Blade Tip and Ancillary Development
Case Officer: James Wright

Customer Details

Name: Mrs Susan Elliott
Address: Heatherbank Union Street Friockheim

Comment Details

Commenter Type: Member of Public
Stance: Customer made comments in support of the Planning Application
Comment Reasons:
Comment:I am writing to express support for the proposed wind turbine at Bolshan Farm. I would like the planning committee to consider the following points when determining this planning application.
The National Planning Policy Framework, published in March 2012, sets out the following opportunity for local planning authorities:
'planning plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development.' (para 93)
I support this application on the basis that it will provide a much needed source of renewable energy and will make a valuable contribution to cutting greenhouse gas emissions, as the national planning policy framework sets out:
'When determining planning application, local planning authorities should: Not require applicants for energy development to demonstrate the overall need for renewable or low carbon energy and also recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions'
This project goes on to deliver diversification in the farming industry in the local Angus area which is a must these days to allow local farms to not only survive but to thrive, which in turn, assists other businesses in the area also. This is extremely important to the local community.
I strongly believe that this turbine will not in any way detract from the surroundings rather it will enhance the area. I am happy with their appearance and am sure that it will not have a significant impact on terms of noise.
I ask that you look favourably at this application.

Comments for Planning Application 15/00415/FULL

Application Summary

Application Number: 15/00415/FULL
Address: Field 750M North West Of Bolshan Farm Bolshan Arbroath
Proposal: Erection of Wind Turbine of 55.6 to hub height and 79.6 to Blade Tip and Ancillary Development
Case Officer: James Wright

Customer Details

Name: Mr Albert Chassar
Address: Crossroads Cottage Kinnell Arbroath

Comment Details

Commenter Type: Member of Public
Stance: Customer made comments in support of the Planning Application
Comment Reasons:
Comment:My wife Margaret and I both strongly support this application which is within the views of our property.
We do not feel the application will have a detrimental effect on the local landscape in any way and would like to point out that the existing turbines in the area have blended in well and indeed provide welcome reference points to many people in the area. We do not think noise will be a problem as the turbine will be situated far enough away from any housing and it is not an area of high population density.
It is important in this day and age that local councils and indeed businesses such as this are at the forefront of allowing and investing in this type of clean renewable energy.
We in our county are fortunate that our landscape is not blighted by coal, gas or nuclear monstrosities with the health issues associated with these types of energy generation, and we should be mindfull that as our dependency on energy increases so does the chances of something like this appearing in our locality.
Farming in this country has come under tremendous financial pressures in recent years and developments like this can only be good for the rural economy as well as helping to reduce the huge carbon footprint of running cold storage for certain crops.
This can only be ultimately good for everyone in the long run.

Comments for Planning Application 15/00415/FULL

Application Summary
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Address: Field 750M North West Of Bolshan Farm Bolshan Arbroath
Proposal: Erection of Wind Turbine of 55.6 to hub height and 79.6 to Blade Tip and Ancillary Development
Case Officer: James Wright

Customer Details
Name: Miss Pauline Robinson
Address: Doonbye Bolshan Arbroath

Comment Details
Commenter Type: Member of Public
Stance: Customer objects to the Planning Application
Comment Reasons:
Comment:I strongly object to the proposed windturbine for the following reasons:
i) SCALE - a turbine of this size would not fit into the landscape, and visual effects would be significant and adverse.

ii) PROXIMITY TO RESIDENCES - I believe there would be significant impact on the residential amenity of adjacent properties. I note that in Environmental Report (Part I) the applicant believes that a noise survey is unnecessary. Surely this is not the case?

iii) IMPACT ON WILDLIFE - the surrounding area is used extensively by geese for grazing, and the turbine would be on the flight path used by thousands of geese to and from the Montrose Basin . Swans are also regular visitors to the area.
The protected mammals survey referred to in the environmental report is that of a previous application and as such is now two years out of date and for a different location.

Surely a much less visually intrusive solution would be the installation of solar panels on the extensive roof areas at the farm and a solar array on some of the available land?

"Clarendon"
Ormsby Rd
Knapperton
Carrickfergus
BT38 8RT

16th June 2015

James Knight,
Planning,
Causeway Coastal,
Country Bridge,
Market Street,
Ballycastle,
BT54 6LY

RECEIVED
10 JUN 2015
14KL

Application Ref (15/00415/FULL)

I write in support for the Boghan wind turbine.

In my mind the development will have little effect on the surrounding landscape as I know the area where the turbine would be situated well which is open farmland. The noise levels if any would be insignificant as the nearest properties are a distance away.

I have read the planning application which addresses all relevant points and time has been spent well on the preparation.

I am in full favour of this application as I believe the rural economy must be allowed to diversify

[redacted]

Comments for Planning Application 15/00415/FULL

Application Summary
Application Number: 15/00415/FULL
Address: Field 750M North West Of Bolshan Farm Bolshan Arbroath
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Case Officer: James Wright

Customer Details
Name: Mrs Caron Smith
Address: Fallaw Cottage Inverkeilor Arbroath

Comment Details
Commenter Type: Member of Public
Stance: Customer made comments in support of the Planning Application
Comment Reasons:
Comment:As a young person living and working in this area, I am in full support of this application. Looking forward to the future it is clear that we need to change the way in which we power this country. Wind energy is clean, renewable and has less impact on the environment and the landscape compared to fossil fuels and nuclear power.

As a country we take farming for granted and do not realise how important farming is to the future of this country. In order for a family run farm to stay afloat in today's financial climate it has to diversify and become more economical viable. By allowing this wind turbine to be erected at Bolshan it will help to ensure the financial future of this farm.

This application has been well thought through with great detail gone into how it will affect the local area and the people who surround it. Having gone and visited a wind farm myself, I don't believe that the noise is an issue with very little noise being produced. Although it would be highly visible, I do not have an objection with it being there.

Comments for Planning Application 15/00415/FULL

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Case Officer: James Wright

Customer Details
Name: Miss Jane Anne Mackie
Address: Ardmhor Cottage Bolshan Friockheim

Comment Details
Commenter Type: Member of Public
Stance: Customer made comments in support of the Planning Application
Comment Reasons:
Comment:As the owner of one of the properties closest to this proposed wind turbine I am writing to express support for the proposed wind turbine at Bolshan. I would like to state that I believe that this wind turbine will in no way detract from their surroundings, rather it will enhance the area. I am happy with their appearance and I am sure that they will have no significant impact in terms of noise.

We also support this application on the basis that it will provide a much needed source of renewable energy which the councils planning policy supports. Now and in the future we need to welcome the efforts made to produce renewal energy.

The planning application has carefully considered and addressed all relevant points and I have no concerns regarding health and well being of surrounding properties and do not believe that it will affect the value or saleability of local properties, including my own.

Comments for Planning Application 15/00415/FULL

Application Summary

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Case Officer: James Wright

Customer Details

Name: Ms Jo Woolley
Address: Mountboy by Montrose

Comment Details

Commenter Type: Member of Public
Stance: Customer objects to the Planning Application
Comment Reasons:
Comment:I object to this application. The proposed turbine is hideously, industrially tall, and with no mitigating cover would have an extremely negative impact upon the landscape - immediate and distant. I believe the application should be turned down.

Comments for Planning Application 15/00415/FULL

Application Summary

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Case Officer: James Wright

Customer Details

Name: Ms Virginia Fraser
Address: The Small House, West Mains Of Rossie, Montrose, Angus DD10 9TP

Comment Details

Commenter Type: Member of Public
Stance: Customer objects to the Planning Application
Comment Reasons:
Comment:Supporters of wind power should be reminded of the serious limitations and dubious economics of wind power. The energy produced is unpredictable, unreliable, and cannot be stored, so conventional generators are required as back-up.
A case may be made for wind turbines in specific locations such as farms or factories where the purpose is to reduce energy costs and unwanted emissions, but the scale of the installation should be matched to need and should not be a source of additional income for landowners and developers, subsidised by consumers and taxpayers, to the detriment of the landscape and the environment.
Because they are moving wind turbines cannot be ignored, they cannot fade into even the most forgiving background; the eye is always drawn to them. In this location the proposed structure would completely dominate the gentle landscape which surrounds it, and it could be a distraction to drivers on the nearby A934 (which I frequently use).
I strongly object to this application and hope that it will be refused.

Comments for Planning Application 15/00415/FULL

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Case Officer: James Wright

Customer Details

Name: Mrs Irene Pagan
Address: Smithyfield House Muirside of Kinnell by Arbroath

Comment Details

Commenter Type: Member of Public
Stance: Customer objects to the Planning Application
Comment Reasons:
Comment:I am strongly objecting to the close proximity to the surrounding properties, my property is only 750 metres away from the proposed turbine and I feel that noise will be an issue.
I don't understand why the farmer can't go for solar energy(no noise or visual impact)

Comments for Planning Application 15/00415/FULL

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Case Officer: James Wright

Customer Details
Name: Mr michael pagan
Address: smithyfield house muirside of kinnell by arbroath

Comment Details
Commenter Type: Member of Public
Stance: Customer objects to the Planning Application
Comment Reasons:
Comment:I strongly object to the proposed wind turbine for the following reasons.

Proximity to Residences for noise, our property is only 750 meters from the proposed turbine, and thought 2km was the recommended distance from property, very worried about the size and the noise

Visual impact

Impact on wild life

Comments for Planning Application 15/00415/FULL

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Case Officer: James Wright

Customer Details
Name: Mr Robert Hill
Address: Strathella Steading Brechin

Comment Details
Commenter Type: Member of Public
Stance: Customer objects to the Planning Application
Comment Reasons:
Comment:Wind turbines are controversial. Allowing repeated applications for the same site firstly castes doubt on the industrial and economic evidence for any turbine in that location but more importantly puts a permanent blight on the surrounding houses in terms of amenity and value. This habit of repeat applications does not appear to be prevalent in other areas of planning so why should it be happening with wind turbines which by their nature attract strong comments for and against.

In this particular application the location is frequently flown over by skeins of geese from Montrose Basin. A wind turbine of the height proposed in the present application could result in numerous deaths and I cannot help wondering if the applicant has included the collection of numerous of very large birds in his application.

Comments for Planning Application 15/00415/FULL

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Case Officer: James Wright

Customer Details

Name: Mr Craig Wilson
Address: Muirside cottage Muirside of Kinnell Arbroath

Comment Details

Commenter Type: Member of Public
Stance: Customer objects to the Planning Application
Comment Reasons:
Comment:I strongly object to the proposed wind turbine. Due to the size, constant noise and visual impact on the countryside.

Comments for Planning Application 15/00415/FULL

Application Summary

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Case Officer: James Wright

Customer Details

Name: Mrs mhairi wilson
Address: muirside cottage muirside of kinnell near froickheim

Comment Details

Commenter Type: Member of Public
Stance: Customer objects to the Planning Application
Comment Reasons:
Comment:I strongly object to the proposed wind turbine as I think the noise would be unbearable , and the visual impact would be significant and adverse.
We cant open our windows on a hot summer night as it is as the farmer has lorry engines pumping water 24/7 at the back of my house, now a massive wind turbine not a stones throw away at the front of my house is just too much , why does the farmer not opt for solar or position the turbine well away from local houses.
What about the impact on wildlife ,geese , bats , swans , and large birds of prey ?

Comments for Planning Application 15/00415/FULL

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Case Officer: James Wright

Customer Details

Name: Mr Gavin Keen
Address: Not Available

Comment Details

Commenter Type: Member of Public
Stance: Customer made comments in support of the Planning Application
Comment Reasons:
Comment:I strongly support this application. I believe that a wind turbine would enhance the local environment. I am a great supporter of renewable energy and believe that we should be investing in wind power as a resource for the future. In my opinion Bolshan is an ideal location for a wind turbine.

Comments for Planning Application 15/00415/FULL

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Case Officer: James Wright

Customer Details
Name: Mrs Diane Smith
Address: Not Available

Comment Details
Commenter Type: Member of Public
Stance: Customer made comments in support of the Planning Application
Comment Reasons:
Comment:As a young person living in a world where issues regarding sustainability are pertinent, I strongly support this application. I have looked at this application in great detail and truly believe that this application for a single wind turbine does in fact meet the principles of sustainable development which is part of Angus Council's vision. This wind turbine will allow a source of renewable energy which does not contribute greenhouse gases such as CO2 and it is, indeed, sustainable for the future. In no way will this turbine compromise the ability of future generations to meet their needs as it is well documented that wind turbines only take up a very small plot of land and therefore crop output and food production from this area will not be reduced. In a study published in the journal 'Energy and Environmental Science' wind power was ranked as the best alternative energy source when considering the impact on land, wildlife, human health, climate change and energy security.
National agendas support the development of sources such as wind power as the UK has both a renewable energy target and laws requiring cuts in carbon emissions which are driving climate change.
I know the area in which this turbine is planned very well and I do not believe that it will detract in any way from the landscape. Many people find the turbines to be majestic man-made wonders, and I am one of those people.
Economically there is much to be gained from this development as wind energy can help to diversify the economies of rural communities and add to the tax base. For consumers it helps to provide price stability and reduces our dependence on foreign fossil fuel imports which will help to control spikes in electricity costs.

Comments for Planning Application 15/00415/FULL

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Case Officer: James Wright

Customer Details
Name: Mr MARK CESSFORD
Address: JACKS WALK LITTLE KINNELL BY ARBROATH

Comment Details
Commenter Type: Member of Public
Stance: Customer made comments in support of the Planning Application
Comment Reasons:
Comment:I would like to comment on this application. My business is heavily dependant on fossil fuel based energy. As a next door neighbour, I am excited to discover that there has been an application for a wind turbine on our doorstep. In my business travels across the U.K., I find the sight of wind turbines "very relaxing" and have never considered that there is any excessive noise coming from wind turbines. Developments like this help the local economy during development, create a sustainable energy supply for businesses who invest in them and ultimately allow for council / government targets on renewable energy to be achieved.

I look forward to hearing how this application progresses, but I certainly believe that I am not alone in looking forward to the day that this turbine might be switched on.

Regards,

Mark J Cessford

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Proposal: Erection of Wind Turbine of 55.6 to hub height and 79.6 to Blade Tip and Ancillary Development
Case Officer: James Wright

Customer Details
Name: Mr Martin Brown
Address: Rossie Young People's Trust Rossie Montrose

Comment Details
Commenter Type: Miscellaneous
Stance: Customer objects to the Planning Application
Comment Reasons:
Comment:On behalf of Rossie Young People's Trust, I am writing to object to this proposal.

Planning precedent for this case can be drawn from the recent nearby application refused by the Council to land adjacent to Rossie Moor (application ref. 15/00013/FULL). The officer's report refusing that application provides more than sufficient reasons to refuse this application, mindful that the sites are in such close proximity to each other.

Note should be made of the refused application for turbines of 34 metres to hub height and 51 metres to blade tip, compared to this application for a turbine with a far greater size of 79 metres just to hub height. Both scale, flicker and noise factors would make this development unacceptable. The proximity to residences is significantly within the recommended Scottish Planning Framework guidelines.

Note should also be made of the SNH Guidelines 'Siting and Design of Wind Farms in the Landscape', referred to in other objections, which concur with the Planning Framework guidelines, but provide clear guidelines for acceptable aspect, siting, and scale, none of which are met within this application.

The Greenspan Agency

Document Ref: 14-015/JC/L007

The Greenspan Agency
6 Castle Street
Edinburgh
EH2 3AT

26 June 2015

James Wright
Planning Officer
Angus Council, Planning & Place
County Buildings, Market Street
Forfar, DD8 3LG

By email

Dear James,

Discussion of Landscape Officer's Response to Application

15/00415/FULL, Wind Turbine, Bolshan Farm.

I write further to receiving the comments made on the above application by Landscape Officer Nola O'Donnell.

The Greenspan Agency notes that Nola's response is not an 'objection' to the application and we are encouraged by this. We are also of the view that there are many positive points in favour of the project raised by Nola's comments. In addition Nola has highlighted her concerns about the landscape and visual impact of the project where she has considered them relevant.
In this letter I would like to comment on a few points raised by Nola with the aim of encouraging a clear understanding of the project ahead of the application's determination. Where The Greenspan Agency has already set out relevant matters in the Environmental Report and accompanying Landscape and Visual Impact Assessment (LVIA) Figures submitted with the planning application, I have referred to those documents to avoid duplication.

I have used the same sub-headings as The Landscape Officer to engage with her points as clearly as possible through reference to the matters she has raised under those headings.

Landscape Character Effects
The Landscape Officer has referred to the turbine position being close to the boundaries of other landscape character types and areas.
The abruptness with which actual landscape character changes across such boundaries will vary. Some such boundaries are marked on the ground by clear changes; such as a lowland plain meeting the highland boundary fault and rising highlands, or a clear boundary marker such as a river. In other cases the boundary marks a more gradual change. In the case of the 2.5km radius around the Bolshan turbine, in which the Dipslope Farmland converges with the neighbouring Lowland Basins and Low Moorland Hills landscape character types, the change is gradual and boundaries are not readily observed on the ground. Many of the characteristics of the Rossie Moor landscape character area are visible within the first 2 km or so of these adjacent landscape types. This points to the suitability of the site for wind turbine development since it is situated in a landscape character area and character

type within which there is a policy consensus[1] that turbines of this scale are suitable, and not close to a significantly different manifestation of landscape character features indicative of other areas.

The Landscape Officer states, *"Its [the 'Rossie Moor Landscape Character Area's] proximity to the coastal geographic area makes it more sensitive than the rest of the Dipslope LCT"*. However, it is not clear to me that this is stated within the SLCAWEA[2], I have not been able to identify this point within the SLCAWEA and indeed the Rossie Moor Landscape Character Area is in many instances considered one of the more suitable areas of the Dipslope farmland for wind turbine development. This is most clearly set out by the blue dots in the tables on pages 64 to 67 of the SLCAWEA.

The landscape officer has listed several wind turbine projects within 5km. Due to changing circumstances some of these projects are now less relevant than before and an update of the cumulative picture is needed. With this letter I have provided an updated cumulative map to replace the information on figure C1 within the 5 km radius, this is numbered 'Figure C7'. I have not included any project for which a planning application may have been submitted after the Bolshan application because it will be incumbent on those projects to demonstrate that their cumulative effects are acceptable given the outcome of the Bolshan turbine application. Table 1 shows the changes between figures C1 and C7:

Table 1: Changes between figure C1 and C7

	Figure C1	***Figure C7***
Heughhead, 11/00143/FULL	Consented	Permission expired, no sign of initiation of development, removed from figure.
Dubton, 14/00606/FULL	Planning Application	Consented
Rossie School, 15/00013/FULL	Planning Application	Refused, no indication of appeal to LRB, removed from figure.

Given these changes it is clear that cumulative effects are less than those perhaps feared by the landscape officer when she listed the projects she has referred to in her response (although I note that she ultimately concludes toward the end of her response that *"The cumulative effect would be low and will not lead to significant adverse impacts"*).

The landscape officer refers to *"potential increase [sic] discordance already between the various types of existing turbines"*. I do not expect such discordance to occur, for the following reasons:

1. The turbine will be sufficiently distant from other turbines to avoid easy size comparisons.
2. The turbine is broadly similar in size to others within 5 km.
3. Almost all landscape features (for example, trees, houses, fields, hills etc.) differ in size from others of their type. Fears that wind turbines will cause discordance if they are not identically sized are therefore often misplaced.

[1] Please refer to page 5 of this letter for justification of the 'policy consensus' point.

[2] In this letter 'SLCAWEA' refers to the 'Strategic Landscape Capacity Assessment for Wind Energy in Angus', produced by Ironside Farrar for Angus Council, March 2014.

Visual Effects

The landscape officer states: "*The submission does not follow current visualisation guidance"*. However, it is not made clear how this conclusion has been arrived at. I disagree with the Landscape Officer's statement on this matter. The photomontages submitted with the application have been prepared with integrity, professionalism, and attention to detail. Page 73 of the 'Environmental Report' submitted with the planning application contains a lengthy discussion of the challenges of preparing wind turbine photomontages and sets out how the relevant SNH guidance was applied.

The landscape officer also states: *"there should have been a simpler and obvious numbering"*. This appears to be a reference to the photomontages, which are numbered in order of distance. The Greenspan Agency have prepared a large number of similar reports and found that ordering photomontage figures by the viewpoint's distance from the turbine position is an approach that lends order to the assessment and has relevance to the magnitude of visual effects, which, all things being equal, will diminish with increasing distance.

The landscape officer discusses the ZTV figures. While ZTV's are a useful tool they do tend to over-emphasise the significance of a proposed development within the landscape. These matters have been discussed further on page 65 of the 'Environmental Report' submitted with this planning application. One example of the limitations of ZTV's can be shown by contrasting the photomontage figure submitted with this letter which shows a view from Bolshan Cottage, which reveals significant tree screening which is not included on ZTV figure A3, submitted with the planning application.

Residential Effects

In this section of her response the Landscape Officer comments on several of the nearest properties. Where her concerns over residential amenity lie is most clearly stated later, in the 'conclusions' section of her response where she states *'the remaining issue is the impact on Bolshan Cottage and Burnside'.* Discussion of each of these properties follows below:

Bolshan Cottage

This letter is accompanied by a new photomontage (figure B12), showing a view from close to the front (western) façade of Bolshan Cottage. This is the closest dwelling to the turbine.

The photomontage confirms the considerable screening from trees, although this would be partially reduced in winter. The view shown is also at such an angle that it is likely to be difficult to view from inside the property. The photomontage also reveals how the height of the turbine is diminished by the falling topography. Further discussion of how the topography, combined with distance, creates a low viewing gradient toward the top of the turbine from Bolshan Cottage is given on pages 82 and 83 of the Environmental Report submitted with the planning application (please note that the key discussion of nearest dwellings is set out across pages 81, 82, 83 and 84).

I also note that a letter of support has been received from the resident of Ardmhor Cottage, which is next-door to Bolshan Cottage and the second-closest property to the proposed turbine.

Burnside

This dwelling is 979m from the turbine position[3]. This distance considerably mitigates the magnitude of visual effects and is 12.3 times the tip-height of the turbine[4]. The viewpoint shown in photomontage figure B2 – Junction

[3] I note that the landscape officer has stated two different distances with reference to this property: *"Views from Burnside, 969m, 937m just under a kilometre away"*, I am unsure what is meant by this. We have checked the 979m distance stated in our report once again and are happy with its accuracy. It is taken from the turbine position to the nearest part of the dwelling façade, measured using GIS on a 1:10,000 scale OS base.

on A934, which was submitted with the planning application, is 977m from the turbine, 2m closer than Burnside. Reference to this photomontage gives a good impression of the scale of the turbine in views from such distances. The separation distance to Burnside is large when compared with distances to dwellings at other wind turbine projects[5].

Principle Views From Bolshan Cottage and Burnside

A figure titled 'Principle Viewing Direction Through Key Windows from Selected Properties' has been provided with this letter. It shows the viewing direction from what appear to be the key windows in the main façade of both Bolshan Cottage and Burnside. This shows that the proposed turbine would be very peripheral to views through these key windows.

The previous planning application for a wind turbine at the farm (13/00887/FULL) proposed a turbine which was directly in-front of Bolshan Cottage. The turbine has now been deliberately moved to avoid this.

It is worth noting that there is no 'right to a view' in planning law or policy. Planning must manage the use of the land in the public interest and the benefit of providing for the electricity needs of 424 dwellings (by coincidence this almost exactly matches the 425 dwellings in Friockheim[6]) and the very real environmental benefits of this wind turbine, could be said to outweigh any adverse visual impacts on nearby residences, particularly given the mitigating factors discussed above.

Cumulative Landscape Character Effects

The landscape officer states: *'This area of the Rossie Moor [Landscape Character Area] is already indicated as under pressure for development and where further wind energy development, may exceed the acceptable cumulative capacity of the landscape'*. The landscape officer references the SLCAWEA but does not give a page reference. I have not been able to find a statement that this landscape character area is indicated as under pressure from wind turbine development or an indication that any further development beyond those consented would exceed landscape capacity. However, I do note that at the time the SLCAWEA was published (March 2014) it stated *'Current consents and applications would not exceed capacity'* (bottom-right of table on page 67).

Further to the update to the cumulative information which I have set out above (see table 1 and Figure C7 in particular) this leaves 3 turbines, in addition to the Bolshan turbine, within the 5km radius. If the Bolshan turbine was consented and built there would be 4 wind turbines within an area of 78.5 km^2. This is a small number and it is my conclusion that this does not suggest adverse cumulative effects.

Cumulative Visual Effects

I note that the landscape officer concludes that the development would <u>not</u> exceed the capacity of the landscape to accommodate wind turbine development, but instead states the proposed Bolshan turbine will, *"give rise to cumulative landscape and visual effect of low significance"*.

Matters Not Covered

Some landscape and visual matters which I consider significant, and which were set out in the Environmental Report, have not been commented upon by the Landscape Officer, and I do think it is useful to quickly recall some of these here. For example, the improvements over the previous application for a wind turbine at Bolshan Farm (13/00887/FULL) are covered in the Environmental Report submitted with the planning application (pages 11, 13,

[4] 979 / 79.6 = 12.298

[5] Page 15 of the Environmental Report submitted with the application contains a table which substantiates this claim.

[6] See page 21 of the Environmental Report submitted with the planning application for further details.

14, 15 in particular). Similarly, no support has been given for the fact that the turbine position allows greater separation distances to the nearest dwellings when compared with several applications in Angus for comparably sized turbines (p15 of the Environmental Report).
I also think that the clear consensus within policy and guidance that the site is within a landscape character area and type which is suited to wind turbines of the size proposed is important but is not commented upon in the Landscape Officer's response. This matter is set out in the bullet points on p11 of the Environmental Report in particular.

Summary
The Greenspan Agency are encouraged by many of the comments made by the Landscape Officer. But I have sought to challenge some of the other points she has made.
The Landscape officer concludes *'the remaining issue is the impact on Bolshan Cottage and Burnside',* the photomontage we have provided from Bolshan Cottage and the figure showing analysis of the key viewing directions from these properties, combined with the 979m (12.3 times turbine tip-height distance) to Burnside surely reveals that these impacts are in fact acceptable and that there is no remaining landscape and visual consideration which should be used to form a reason for refusal.

Thank you for considering this letter. The Greenspan Agency and resident Farmer Ralph Smith hope to move forward to deliver an environmentally and economically sustainable wind turbine at Bolshan Farm.

Kind regards,

Jack Cook, MRTPI

Planner

jack@greenspanenergy.com

0131 290 2262

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Bolshan Farm Turbine Position
(*Partially obscured by terrain and vegetation.*)

Turbine model	Enercon E48
Turbine height (to tip)	79.6m
Turbine rotor diameter	48m

Viewpoint Grid Reference: 362006 752274
Distance to proposed turbine: 626m
Viewing direction: 302.6°
Viewpoint elevation: 93m
Field of View: 68°
Camera Model: Nikon D700
Focal Length: 50mm
Camera Height: 1.5m
Date and time of photo: 24.06.2015 09:55

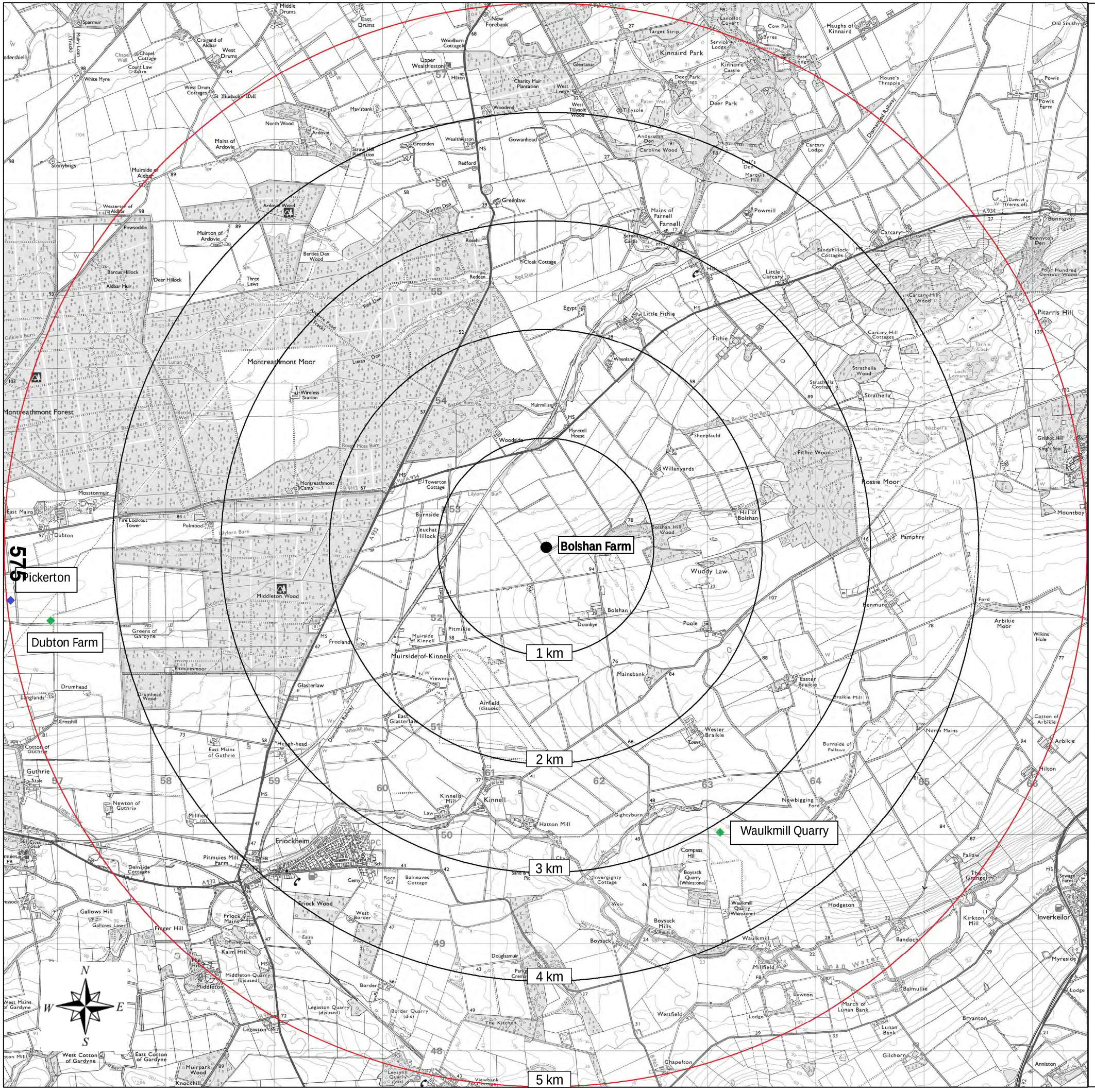
View Adjacent to Bolshan Cottage
Photomontage and Wireframe

Bolshan Renewables Project

The Greenspan Agency

This is a composite image made up of at least 3 No. 50mm photographs joined together horizontally to form an overall field of view which is wider than that seen in detail by the human eye. For correct perspective viewing, this image must be viewed at an exact distance of 340mm with **one eye**, whilst curving the image in an **exact arc** of 68 degrees. This image should only be assessed within the landscape from the same viewpoint.

Figure No.:	**GBF/14-015/Fig.B12**
Version No.:	**1.1**
Produced by:	**VS**
Approved By:	**JC**
Date:	**25.06.2015**



Project Name:

Bolshan Renewables Project

Title:

Cumulative Turbines Map, 5 km Radius

Turbines of All Heights Shown

Note: This figure supersedes the information presented within a 5km radius in Figure C1 submitted under application 15/00415/FULL.

Scale:

1: 35,958 @ A3

Key:

- **Proposed Bolshan Farm Turbine Position**
  Grid reference: 361507, 752652
- **5 km Radius**
- **Operational Turbines**
- **Consented Turbine Applications**

Site Name	Tip Height (m)	Application Reference	Distance from Bolshan Farm Turbine (km)
Waulkmill Quarry	45.9	13/00722/FULL	3.1
Dubton Farm	77	14/00606/FULL	4.6
Pickerton	77	12/00365/FULL	5.0

Client:

Bolshan Renewables Limited

Drawing By:

The Greenspan Agency

Figure No.:	**GBF/14-015/Fig.C7**
Version No.:	**1.1**
Produced by:	**VS**
Checked By:	**JC**
Date Last Amended:	**25.06.2015**

Project Name:

Bolshan Renewables Project

Title:

Principle Viewing Direction Through Key Windows from Selected Properties

Scale:

1: 7,830 @ A4

Key:

- **Proposed Bolshan Farm Turbine Position Grid reference: 361507, 752652**
- **Principal viewing direction from Burnside**
- **Principal viewing direction from Bolshan Cottage**

Client:

Bolshan Renewables Limited

Drawing By:

The Greenspan Agency

Figure No.:	**GBF/14-015/Fig.**
Version No.:	**1.0**
Produced by:	**VS**
Checked By:	**JC**
Date Last Amended:	**25.06.2015**

Jack Cook

From: Jack Cook
Sent: 07 July 2015 14:09
To: WrightJ@angus.gov.uk
Cc: Martyn Bentley
Subject: 15/00415/FULL, Wind Turbine, Bolshan

James,

Thank you for setting out your initial position and I hope you will be able to re-consider as you write up the detail of your report.

Comparison with Hatton Mill - 12/00732/FULL

Nearby Landscape Features

You have expressed concerns regarding the proximity of Wuddy Law Hill, and suggested that this is comparable with the Compass Law hill in the case of the refused Hatton Mill turbine.

I have summarised the relevant heights and distances below, which helps explain that the proposed Bolshan turbine is both further from the neighbouring landscape high-point and overtops it by far less.

	Turbine base elevation above sea level (m)	Nearest Hill	Elevation of highest point of nearby hill named on left (m)	Turbine height, base to tip (m)	Amount by which turbine tip would be higher than nearby hill (m)
Hatton Mill Turbine, 77m to tip, 1.25km to top of compass hill	42	Compass Hill	85	77	34
Bolshan Turbine, 79.6m to tip, 1.52km to top of Wuddy Law	65	Wuddy Law	132	79.6	12.6

In addition, while all landscapes are important at a local level it is not the case that Wuddy Law is an iconic or 'key feature' in the landscape, and nor is it protected in any written planning policy.

Photomontages B3, B4 and B9 submitted with the current Bolshan planning application give a clear indication of the relationship between the turbine and the gently rising shoulder of Wuddy Law. The landscape officer has already stated that "the turbine would be in scale with the surrounding landform", which is positive and concurs with our own study. We question the fairness of making such a direct comparison with the Hatton Mill site, which relates to its receiving landscape in a less sympathetic fashion.

There is also a need for wind turbines to emerge from the landscape to a certain extent in order to make good use of the available wind. Sites with a higher elevation will usually have a better wind resource and renewable energy potential. Nevertheless, we have sought to reduce the elevation of the Bolshan turbine in response to your service's feedback on the previous application, and are disappointed that this has not been acknowledged.

Proximity to Dwellings

As set out on page 15 of the Environmental Report submitted with the Bolshan turbine application, our project is far further from nearby dwellings than the Hatton Mill proposal was. The relevant distances to the nearest properties being: 410m between the Hatton Mill turbine and the nearest dwelling, and 623m from the Bolshan turbine to Bolshan Cottage. In addition the effects on Bolshan Cottage have been discussed at length within our submission of 26 June and we have demonstrated that these effects will be acceptable using new figures which unfortunately were not available to the landscape officer when she authored her response.

Sequential Cumulative Effects

We are surprised that you have referred to sequential cumulative effects as a possible reason for refusal. The likelihood of such effects was not identified during our cumulative research and we have recently updated our cumulative information (on 26 June) to show that the cumulative picture is even sparser than previously thought. The landscape officer has concluded: *"The cumulative effect would be low and will not lead to significant adverse impacts".*

Planning Policy Consensus

The Greenspan Agency eliminate around 3 out of 4 wind turbine sites at the planning feasibility stage, we have proceeded at Bolshan because we think we can help deliver the planning policy vision set out by the Council. I have referred previously to a consensus within policy and guidance that this is an appropriate location for a wind turbine of this scale and listed key references on page 11 of the submitted Environmental Report. I have expanded on these references below:

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- Angus Local Plan Review (2009)
  The turbine is within the 'lowland and hills' geographic area which is preferred for wind turbine development when compared with the 'coast' and 'highland' areas (pages 94-97).

- Angus Council*, 'Implementation Guide for Renewable Energy Proposals'* (June 2012)
  The 'dipslope farmland' landscape character type in which the project is located is 'Considered to have scope for turbines circa 80m in height' (page 48)

- Ironside Farrar for Angus Council*, 'Strategic Landscape Capacity Assessment for Wind Energy in Angus'* (2014)
  The 'Rossie Moor' landscape character area in which the project is located is stated as having 'medium' remaining landscape capacity for medium to large turbines of 50-<80m in height. (page 67)

Given the many other benefits of this project (summarised in particular on pages 11 and 12 of the submitted Environmental Report) the site chosen and the turbine design proposed are as good as possible within the Dipslope farmland. As such the application must surely be received positively.

Public Records

I ask that the landscape officer's response is uploaded onto the public application record together with the information I submitted on the 26th June and this email so that this information is available to the LRB should it be needed.

Thank you for considering this email. I respectfully ask that you re-consider the matters raised in your email below as we contend the project has clearly demonstrated compliance with the requirements of the development plan.

Jack Cook, MRTPI
0131 290 2262
www.greenspanenergy.com
The Greenspan Agency Ltd is incorporated in Scotland under registered number: SC320833

From: WrightJ [mailto:WrightJ@angus.gov.uk]
Sent: 03 July 2015 11:46
To: Jack Cook
Subject: RE: Discussion of Landscape Officer's Response: 15/00415/FULL, Wind Turbine, Bolshan

Mr Cook,

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I refer to the above application and your e-mail below.

I have reviewed your proposals and had some further discussions.

There are a number of concerns regarding your proposals and I have summarised these below.

As indicated in the landscape officers comments, it is acknowledged that there are a number of residential properties which are close to the turbine that would experience adverse visual impacts and there are concerns in this regard. Having had regard to other decisions in the immediate area there are a number of other concerns which had been raised and have now been reviewed.

A previous application at Hatton Mill (12/00732/FULL refers) for a 77 m high turbine was refused and dismissed by the Local Review Board. As well as similar impacts on housing, concern was raised that as the proposed turbine was 77m to blade tip and located at a height of 40m AOD that it would dominate the local landscape in respect of vertical scale and as such not be in accordance with SNH guidance. Particular concern was raised in terms of the impacts on landscape features such as Compas Hill and Wuddy Law.

The current application has similarities with the Hatton Mill refused turbine in a number of ways and it is actually located closer to Wuddy Law and on a contour of what appears to be about 65m AOD (Hatton turbine approximately 40m AOD). On this basis there are similar concerns with the proposed turbine.

In addition to this the proposal is located on the primary route between Forfar and Montrose and the location of other turbines along this route would create a sequential cumulative visual effect on that route and other road networks in the immediate area.

In summary, this Division has concerns regarding the proposed turbine and it is likely that this application will receive a recommendation for refusal on this basis. Should you wish to withdraw the current application I would be grateful if you could indicate this by response to this e-mail.

It may be the case that a turbine of less than 50m in height might significantly reduce some impacts. However the acceptability of any reduction in height would need to be fully considered as part of a further application in any event.

I trust this clarifies our position on this.

Regards
James

From: Jack Cook [mailto:jack@greenspanenergy.com]
Sent: 26 June 2015 15:38
To: WrightJ
Subject: Discussion of Landscape Officer's Response: 15/00415/FULL, Wind Turbine, Bolshan

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Dear James,

Further to the comments provided by your Landscape Officer, I would be grateful if you could consider the attached letter and the figures to which it refers.

You have stated on the phone that you consider residential effects to be a key consideration. These are discussed under the 'Residential Effects' sub-heading on pages 3 and 4 of the attached letter.

Thanks for your time on this matter.

Regards,

Jack Cook, MRTPI
Environmental Planner
0131 290 2262
www.greenspanenergy.com

Angus Local Plan Review

Angus Council

ANGUS LOCAL PLAN REVIEW

Adopted 19 February 2009

Certified a True Copy

Head of Planning & Transport

Angus Council
February 2009

Translation Services

Angus Council aims to provide access to information about services to all our customers. Sections of this document can be translated on request into Chinese, Urdu, Hindi, Punjabi or Gaelic or made available in large print, audio or Braille.

Contact our ACCESS line on 08452 777778

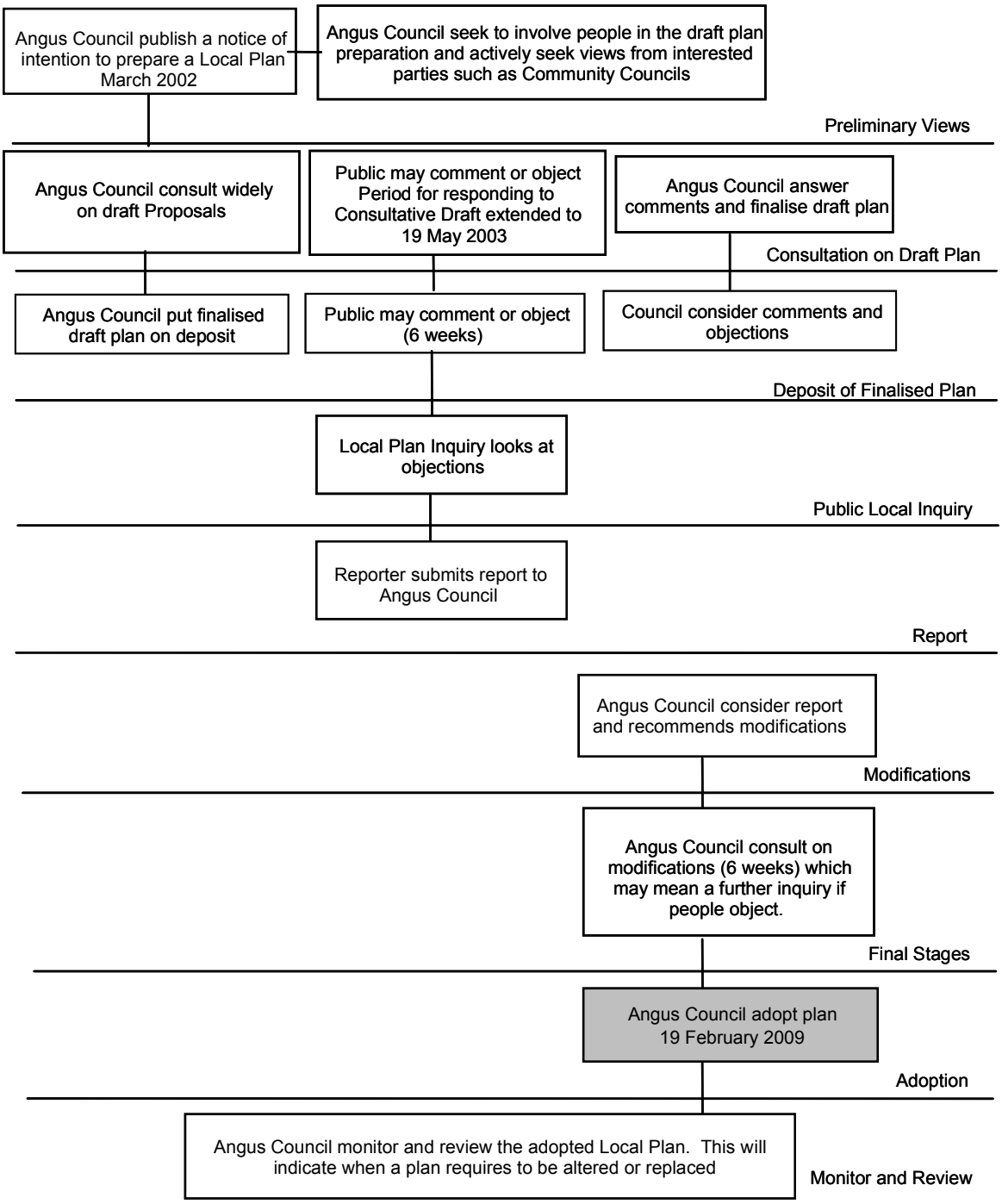
PREFACE

The Angus Local Plan Review was adopted with modifications by Angus Council on 19 February 2009 and sets out the basis for assessing future land use and development proposals in the period to 2011. This consolidated version of the Local Plan includes the adopted modifications resulting from two Public Local Inquiries and other minor technical changes.

Copies of the Adopted Angus Local Plan Review are available for reference at all Public Libraries and ACCESS Offices throughout Angus. In addition the documents are available at Planning and Transport, Forfar and can also be viewed on the Council's web page at www.angus.gov.uk/localplan

For further information or assistance please contact
Ken McGregor
Tel: 01307-473175
Fax: 01307-461895
E-mail: localplan@angus.gov.uk

Diagram 1 : Stages in Producing the Angus Local Plan Review



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PART 1: Introduction and Strategy

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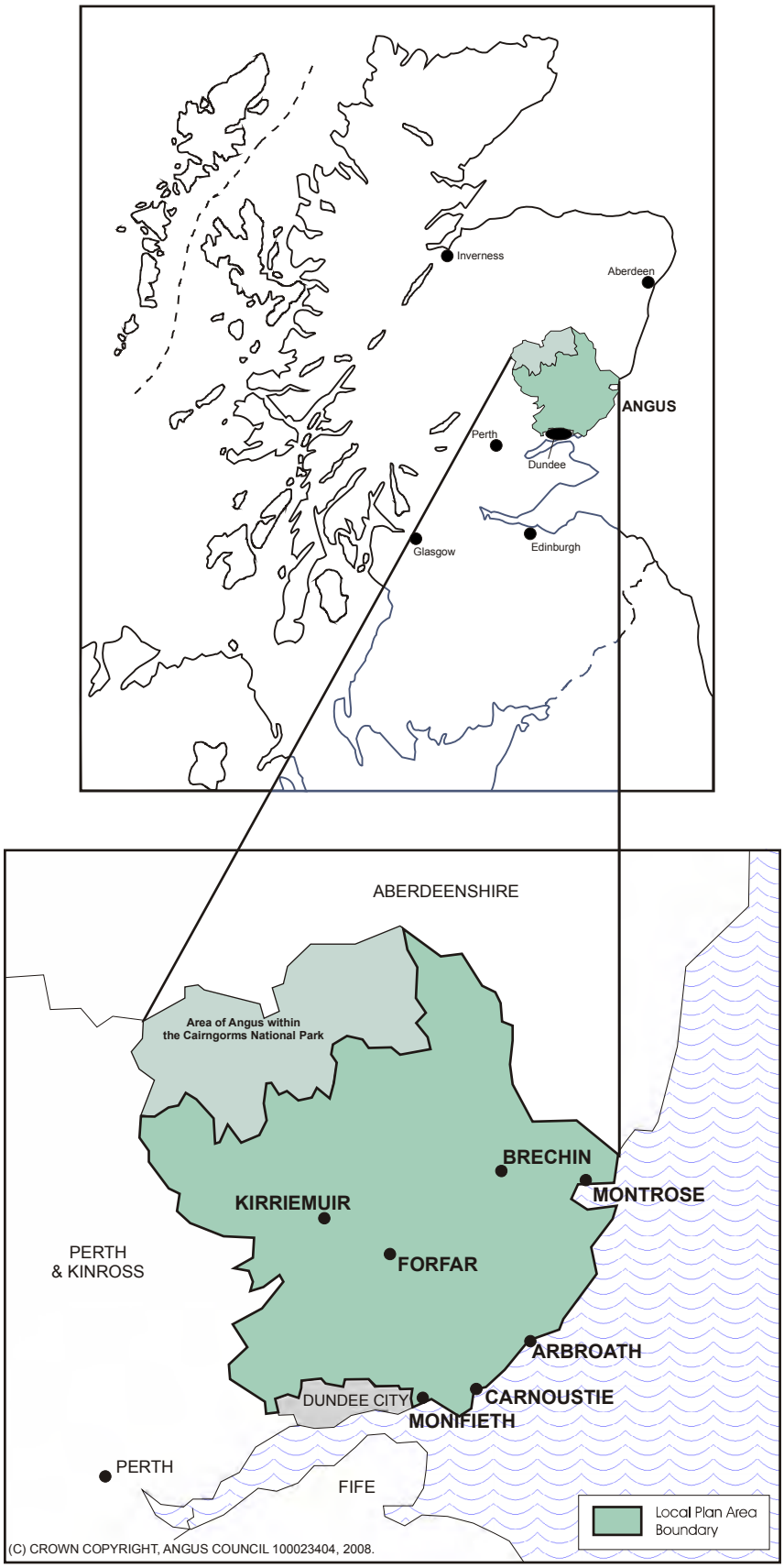
Local Plan Area

The National Context



Note: The Angus Local Plan Review excludes that part of northern Angus which lies within the designated boundary of the Cairngorms National Park. The existing adopted Angus Local Plan (November 2000) will apply in this area until it is superseded by a new Cairngorms National Park Local Plan.

INTRODUCTION

1.1 The first Angus Local Plan, adopted by Angus Council in November 2000, provides guidance for the development requirements of Angus in the period to 2006. Much of the general policy framework remains valid but needs to be rolled forward to provide an up to date and effective policy base.

1.2 The Angus Local Plan Review will provide the detailed policy framework to guide future development, land use and investment in Angus for the period to 2011. The Local Plan has been prepared to meet the requirements of the Town & Country Planning (Scotland) Act 1997, take account of strategic planning guidance published by the Scottish Executive as Scottish Planning Policy, National Planning Policy Guidelines and Planning Advice Notes, and conform to the Dundee and Angus Structure Plan. The Local Plan has also had regard to other statutory and non-statutory policy statements including Angus Community Plan, Local Agenda 21 Strategy for Angus and Angus Local Transport Strategy.

1.3 Together with the Approved Dundee and Angus Structure Plan, this Angus Local Plan Review when adopted will comprise the Development Plan. This provides the framework for the development and use of land, protection of the environment and guidance for making decisions on planning applications.

1.4 In terms of the requirements of the Environmental Assessment of Plans and Programmes (Scotland) Regulations 2004, Angus Council was granted an exemption by Scottish Ministers on 26 March 2006 from the requirement to undertake Strategic Environmental Assessment of the Angus Local Plan Review.

The main functions of the Local Plan are to:-

- ***apply and further detail National Guidance and strategic policies in order to indicate the intended future pattern of land use and development;***
- ***stimulate, encourage and promote development where appropriate;***
- ***indicate land where there are opportunities for change;***
- ***indicate specific proposals for the development or change of use of land;***
- ***provide a sound basis for development control; and***
- ***show how all those with an interest in Angus can contribute towards the preparation and implementation of the Plan.***

PURPOSE OF THE PLAN

1.5 The main purpose of the Angus Local Plan Review is to guide development and changes in land use, in a sustainable manner that can best serve the needs of communities throughout Angus. The Local Plan shows how policies and proposals for changes in land use and activities fit together with existing development as part of a coherent strategy in support of a Vision of Angus.

LOCAL PLAN AREA

1.6 Angus is a diverse, attractive and generally prosperous part of Scotland, characterised by a network of interrelated communities including seven towns, a large number of villages and smaller settlements set in a varied rural landscape. Geographically, the area is made up of the coastal plain, the lowland of Strathmore and the Glens and upland area that form part of the Grampian mountains, each of which make a vital contribution to the overall character and distinctiveness of Angus. Part of upland Angus is now within the Cairngorms National Park boundary, and is excluded from this Angus Local Plan Review. It will be covered by a new Cairngorms National Park Local Plan to be prepared by the National Park Authority. Until that Plan is in place the existing Angus Local Plan (adopted 2000) will continue to provide planning guidance for this part of Angus.

Cairngorms National Park
The Cairngorms National Park officially opened on 1 September 2003. It is the UK's largest national park extending to 3,800 square kilometres (1,400 square miles). It stretches from Granton on Spey to the heads of the Angus Glens, from Ballater to Dalwhinnie and Drumochter.

1.7 Within Angus each town and village has its own identity although there are clear and strong inter-relationships between them and indeed an interdependence. The linkages between the constituent parts of Angus and with other areas, including Aberdeen and Dundee, relate particularly to transport, housing market areas, employment opportunity and economic/commercial links. There are also important shopping and social movements both within Angus and to adjacent areas.

FORMAT OF THE PLAN

1.8 The Local Plan consists of a Written Statement and Proposals Map (including Inset Maps).

1.9 The Written Statement outlines the overall planning strategy together with policies, proposals and recommendations for the development and use of land and buildings.

1.10 The Local Plan Review provides firm guidance for the period to 2011 and also looks towards 2016.

1.11 The Written Statement is presented as follows:

- **Part 1**: Introduction and Strategy sets the general context and background against which the Local Plan Review has been prepared. Contributing to the vision of Angus and the promotion of sustainable development this section also outlines the overall strategy and approach to development, together with general policies.
- **Parts 2 and 3** establish the policy framework that will manage and guide sustainable development in Angus. This is set out under Building Sustainable Communities (Part 2) and Environment and Resources (Part 3).
- **Part 4** outlines detailed policies and proposals for the Angus towns and villages presented in settlement statements comprising both text and Proposals Map. For villages where no specific proposals are being put forward, only a village boundary map is shown. Both towns and villages are set out in alphabetical order and a comprehensive index of settlements is provided at the start of Part 4 (page 109).
- **Part 5** discusses measures necessary to implement the Plan and also how to assess, measure and review the performance of the Plan.

HOW TO USE THE PLAN

1.12 Users of the Local Plan wishing to look at the Council's general strategy should refer to Part 1 of the Plan. Policies and proposals for building sustainable communities and managing the environment and use of resources are set out in Parts 2 and 3. In support of the principles of sustainable development the Plan establishes key linkages between various elements of policy and the user may require to review several parts of the Plan in considering a particular development issue or proposal.

1.13 Users of the Plan requiring information on a specific site, location or area should:

- refer to the Proposals Map and town and village inset maps; and
- take account of general policies in Part 1, specific policies and proposals set out in Parts 2 and 3, and where appropriate the relevant settlement statement set out in Part 4.

VISION & AIMS

1.14 The Angus Community Plan supported by the Local Agenda 21 Strategy for Angus sets out A Vision of Angus. This recognises and embraces the promotion of sustainable development as a means of improving the quality of life in Angus while at the same time making a contribution to tackling global problems and ensuring that the quality of life of future generations is safeguarded.

A VISION of Angus

Angus will be a place where a first class quality of life for all can be enjoyed, in vibrant towns and pleasant villages, set in attractive and productive countryside.

Sustainable Development
"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Brundtland Commission 1987

Community Planning
"Community planning is essentially about providing better links between national, regional, local and neighbourhood priorities, more effective joint working and flexible solutions driven by the needs and priorities of local communities. The planning system is the main means of delivering those aspects of the Community Plan which impact on the development and use of land."

Scottish Planning Policy 1 : The Planning System (2002)

1.15 In support of the Vision, this Local Plan sets out the land use planning response and policy framework which will contribute to ensuring that the physical, social and economic needs of all communities in Angus are provided for in a sustainable manner.

1.16 The Aims set out in the margin are based on broad themes of sustainable development which underpin the strategy and policies of this Plan addressing a range of issues arising in Angus for:

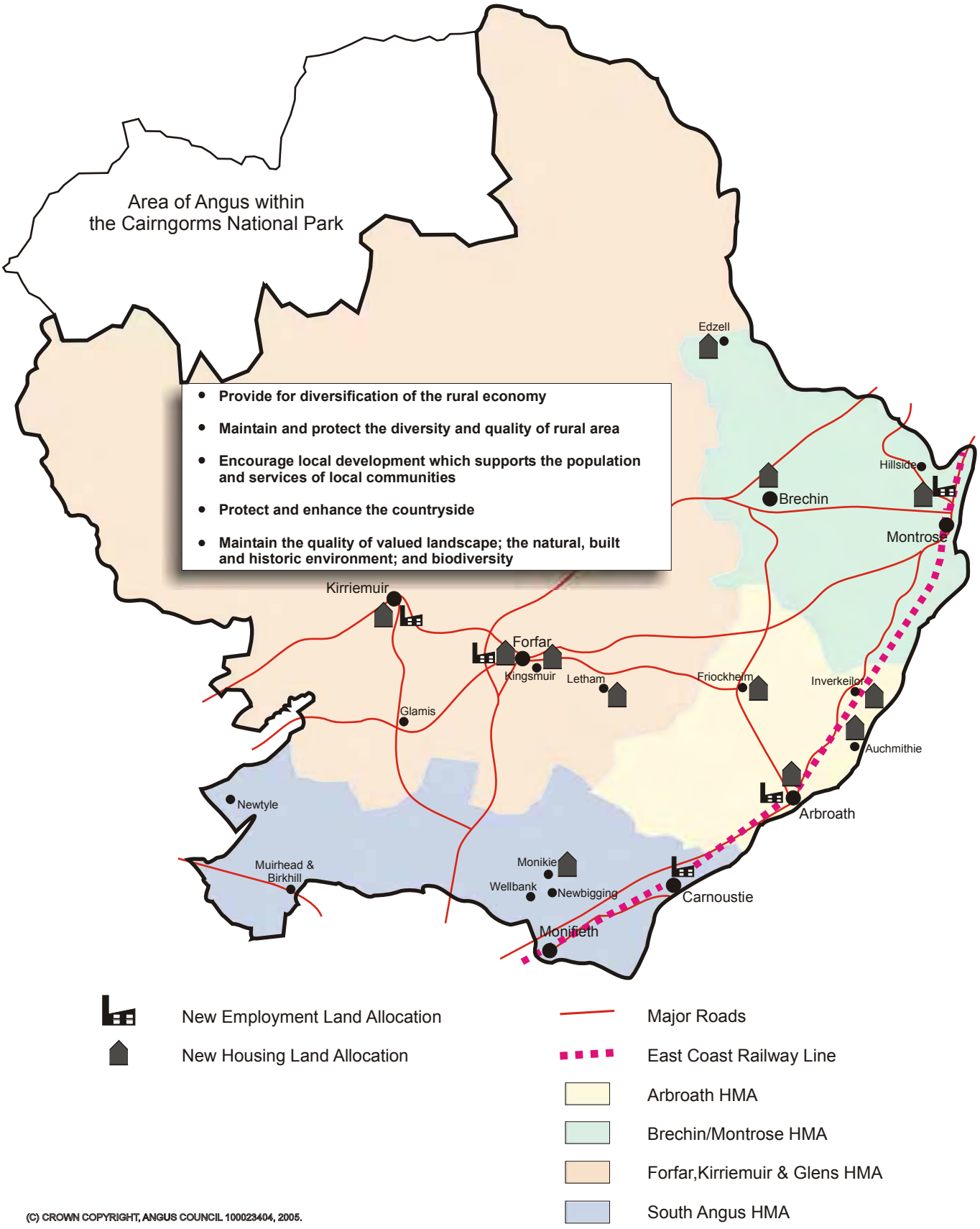
- Living and Sustainable communities;
- Working and a sustainable economy;
- Accessing services and sustainable transport;
- Environmental Integrity and sustainable resources.

1.17 These Aims are fully compatible with the Guiding Principles of the Dundee and Angus Structure Plan thereby ensuring a complementary approach which encompasses both Strategic and Local Community Interests.

Aims of the Angus Local Plan Review

- ***Integrate land use and transport to improve accessibility for everyone between home, work, leisure and services with a view to reducing unnecessary travel.***
- ***Create the conditions for a vibrant and diverse economy providing increased and varied job opportunities.***
- ***Promote urban renewal and community regeneration and address rural and urban disadvantage to reduce poverty and inequality.***
- ***Give priority to the reuse of previously developed sites where appropriate.***
- ***Promote environmentally sustainable use of existing and planned infrastructure and service capacity to support and facilitate development.***
- ***Provide for local housing need, and ensure access to affordable housing.***
- ***Encourage the continued development and maintenance of viable and vital communities with an appropriate range of essential facilities.***

Figure 1.1 Development Strategy



DEVELOPMENT STRATEGY

1.18 The development strategy of the Local Plan seeks to meet the stated aims of the Plan and sets the context within which the policies and proposals of the Plan provide for the sustainable development of Angus and the protection of the wider environment.

The Development Strategy of the Local Plan is to:

- Draw on the inherent strengths and synergy of the close network of Angus towns and villages, and consolidate the role of the seven towns as locally accessible centres serving a diverse rural hinterland;
- Guide and encourage the majority of development, including local housing and employment opportunities, to locations within the larger settlements that have the capacity to accommodate new development well integrated with transport infrastructure.
- Provide opportunities for diversification of the rural economy;
- Maintain and protect the diversity and quality of the rural area and encourage local development which supports the population and services of local communities;
- Support the protection and enhancement of the countryside; and
- Maintain the quality of valued landscapes; the natural, built and historic environment; and biodiversity.

Local Plan Aims (continued)

- ***Promote community safety and reduce community severance caused by road traffic.***
- ***Promote access to the countryside for residents and visitors.***
- ***Promote the use of renewable energy and resources, the efficient use of energy and the reuse, recovery and recycling of waste.***
- ***Reduce pollution from developments and traffic.***
- ***Protect and promote the quality and diversity of the built and natural environment, including the heritage, biodiversity and landscape of Angus.***
- ***Plan for climate change by maintaining existing undeveloped coasts, and protecting flood plains from development.***

DEVELOPMENT PRIORITIES

1.19 One of the principal objectives of the Development Strategy is to direct the majority of new development to the main settlements. Each of the seven towns in Angus – Arbroath, Brechin, Carnoustie, Forfar, Kirriemuir, Monifieth and Montrose provides a central focus for a wide range of services and facilities, and serves a diverse rural hinterland with a network of smaller settlements. The towns are the natural focus for the majority of new development, where there is opportunity to accommodate new homes and business opportunities well related to and connected with existing land uses and transport networks.

1.20 In **Arbroath** the Local Plan maintains the focus on the regeneration of brownfield and opportunity sites within the built up area. Greenfield housing sites are also identified to extend the distribution and choice in the housing land supply. The Local Plan promotes development opportunities within Arbroath to take advantage of improved accessibility provided by the upgraded A92. This includes identifying and safeguarding future employment land at Elliot and encouraging new development and investment which reinforce the town as an important retail and service centre and further develop the town's visitor potential.

1.21 For **Brechin** the Local Plan seeks to stimulate investment by encouraging economic regeneration and increasing the opportunities for housing development by allocating additional greenfield land to the west. Measures that sustain the role of the town centre and enhance its historic character and general environment are supported.

1.22 In **Carnoustie and Barry** the Local Plan seeks to consolidate development opportunity from both existing brownfield and greenfield sites, taking advantage of the enhanced accessibility provided by the improvements to the A92 road. In addition the Local Plan includes a new provision of employment land to accommodate the needs of local companies.

1.23 The Local Plan confirms **Forfar** as a focus for development in Angus. Whilst continuing to promote the redevelopment of a range of central sites for housing and other uses the Local Plan allocates a range of sites within the town for residential development. This proposal incorporates residential development, community facilities, business opportunities and recreational open space. Sites for residential development are also identified in the east of the town. Taking advantage of the town's strategic location at the junction of the A90(T), the development of high quality business and employment uses on land at Orchardbank is also promoted.

1.24 To consolidate the role of **Kirriemuir** the Local Plan identifies sites to provide for local housing and employment needs. Proposals that sustain and enhance Kirriemuir as a local service centre, complement its tourist role as a "Gateway to the Glens" and maintain its character and heritage will also be supported.

1.25 In **Monifieth** the Local Plan seeks to consolidate its mainly residential role by limiting the supply of sites for housing to opportunities within the town rather than promoting further greenfield land release. Opportunities to enhance the environment and improve the physical fabric of Monifieth, including the town centre will be encouraged, together with the development of the Angus Coastal Path.

1.26 To meet the housing needs of **Montrose, Ferryden and Hillside** the Local Plan promotes the regeneration and reuse of vacant and underused land and buildings including proposals that would maintain and secure the future of listed buildings at Sunnyside Hospital. The Local Plan also allows for the release of greenfield land in the north west of the town for residential development together with significant areas of landscaping and open space. Additional employment land is identified in the north of Montrose to consolidate and build on its economic strengths while taking account of the fragile Links areas which are essential features of the town's character and identity.

1.27 The **Angus countryside** encompasses a diverse rural area ranging from coastal lowlands and farmed countryside around towns, to remote upland areas. It contains a wide variety of landscape character, land uses and population levels, with differing levels of access to a range of services and facilities. Parts of rural Angus have lost people and local services, and the rural economy is changing significantly. The Local Plan encourages diversity in the rural economy and enables new housing development which can support rural services and facilities particularly in remoter areas.

BACKGROUND

1.28 Several of the policies in this part of the Plan may be relevant to some development proposals. Development boundaries differentiate between built-up areas and the countryside and are used as a tool to guide the application of policies in the Plan which apply to particular locations. The policies on integration of land use and transport, design matters, environmental protection, safeguard areas and Development Guidelines provide guidance for the consideration of relevant development proposals in the first instance before referring to detailed policies and proposals elsewhere in the Plan.

DEVELOPMENT BOUNDARIES

1.29 Angus Council has defined development boundaries around settlements to protect the landscape setting of towns and villages and to prevent uncontrolled growth. The presence of a boundary does not indicate that all areas of ground within that boundary have development potential.

***Development boundaries**: Generally provide a definition between built-up areas and the countryside, but may include peripheral areas of open space that are important to the setting of settlements.*

Policy S1 : Development Boundaries

(a) Within development boundaries proposals for new development on sites not allocated on Proposals Maps will generally be supported where they are in accordance with the relevant policies of the Local Plan.

(b) Development proposals on sites outwith development boundaries (i.e. in the countryside) will generally be supported where they are of a scale and nature appropriate to the location and where they are in accordance with the relevant policies of the Local Plan.

(c) Development proposals on sites contiguous with a development boundary will only be acceptable where there is a proven public interest and social, economic or environmental considerations confirm there is an overriding need for the development which cannot be met within the development boundary.

Public interest:
Development would have benefits for the wider community, or is justifiable in the national interest. Proposals that are solely of commercial benefit to the proposer would not comply with this policy.

ACCESSIBLE DEVELOPMENT

1.30 A key element in the creation of sustainable communities is how well new development is integrated with the existing form of development and transport networks. The Local Plan allocates land for new development within the main settlements, in locations that are well related to the existing form and pattern of development and therefore the existing transport network.

1.31 New transport provision should take account of existing and planned growth in particular locations and form part of the overall planning of the layout of new development.

SPP17 : Planning for Transport
The planning system is a key mechanism for integration through supporting:

- ***a pattern of development and redevelopment that:***
  - ***supports economic growth and regeneration;***
  - ***takes account of identified population and land use changes in improving accessibility to public services, including health services jointly planned with health boards;***

1.32 The accessibility of sites by a range of travel modes and ease of access by all sectors of the community is a key principle of the Local Plan. In considering land allocations it is recognised that the interrelationships between land uses e.g. homes and schools, homes and jobs and promotion of mixed use developments, can assist in reducing the need to travel. In the same way accessibility criteria will be important in assessing development proposals on windfall sites. Alongside this the application of maximum parking standards as set out in SPP17 : Planning for Transport will encourage sustainable transport choices.

1.33 The design and layout of new development should, where appropriate, ensure that accessibility for walking, cycling and public transport, including access for people with mobility difficulties has been properly addressed. Opportunities to enhance path networks for walking and cycling and the provision of public transport links should be maximised.

Policy S2 : Accessible Development

Development proposals will require to demonstrate, according to scale, type and location, that they: -

- **are or can be made accessible to the existing or proposed public transport networks and make provision for suitably located public transport infrastructure such as bus stops, shelters, lay-bys, turning areas which minimise walking distances and allow easy access for the mobility impaired.**
- **provide and/or enhance paths for walking and cycling which are safe, provide pleasant routes, are suitable for use by the mobility impaired, and link existing and proposed path networks.**
- **are located where there is adequate local road network capacity or where capacity can be made available.**

1.34 A Transport Assessment containing relevant information (including an assessment of travel characteristics, description of measures to influence travel to the site and assessment of impacts) will require to be submitted for development proposals which meet the criteria outlined in Appendix 1 (page 309). A Transport Assessment may also be required for smaller scale developments where a fuller understanding of the transport implications of the proposal is considered necessary.

1.35 Travel Plans will be required where they provide an appropriate means of promoting sustainable travel patterns and reducing reliance on the private car. These will be implemented through appropriate planning conditions or other agreements.

1.36 Where appropriate Angus Council will also seek developer contributions towards improvement of existing or provision of new footpaths or cycleways, bus services and public transport infrastructure.

- ***reduces the need to travel;***
- ***promotes road safety and safety on public transport;***
- ***facilitates movement by public transport including provision of interchange facilities between modes;***
- ***encourages and facilitates freight servicing by rail or water; and***
- ***enables people to access local facilities by walking and cycling.***

- ***provision of high quality public transport access, in orderto encourage madal shift away from cars to more sustainable forms of transport, and to fully support those without access to a car;***
- ***effective management of motorised travel, within the context of sustainable transport objectives; and***
- ***the infrastructure for modern electronic communication networks which support home-working, real time information on public transport and in-car Information systems to reduce car commuting and congestion.***

Transport Assessment*: an assessment of the travel demand and impacts of proposed development, including during construction.*

Travel Plan*: a scheme introduced by employers to reduce the level of travel demand and implement mode sharing.*

DESIGN QUALITY

1.37 High quality, people-friendly surroundings are important to a successful development. New development should add to or improve the local environment and should consider the potential to use innovative, sustainable and energy efficient solutions. A well-designed development is of benefit to the wider community and also provides opportunities to:

- create a sense of place which recognises local distinctiveness and fits in to the local area;
- create high quality development which adds to or improves the local environment and is flexible and adaptable to changing lifestyles;
- create developments which benefit local biodiversity;
- create energy efficient developments that make good use of land and finite resources.

Designing Places - A policy statement for Scotland – cottish Executive 2001

This is the first policy statement on designing places in Scotland and marks the Scottish Executive's determination to raise standards of urban and rural development. Good design is an integral part of a confident, competitive and compassionate Scotland.

Good design is a practical means of achieving a wide range of social, economic and environmental goals, making places that will be successful and sustainable.

1.38 Design is a material consideration in determining planning applications. In all development proposals consideration should be given to the distinctive features and character of the local area. This includes taking account of existing patterns of development, building forms and materials, existing features such as hedgerows, trees, treelines and walls and distinctive landscapes and skylines.

PAN 68 Design Statements
Design Statements should explain the design principles on which the development is based and illustrate the design solution.

1.39 The preparation of a design statement to be submitted alongside a planning application is encouraged, particularly for major developments or those affecting listed buildings or conservation areas. Early contact with Planning and Transport is recommended so that the requirement for a design statement can be determined.

The PAN explains what a design statement is, why it is a useful tool, when it is required and how it should be prepared and presented.

The aim is to see design statements used more effectively in the planning process and to create places of lasting quality.

Policy S3 : Design Quality

A high quality of design is encouraged in all development proposals. In considering proposals the following factors will be taken into account:

- **site location and how the development fits with the local landscape character and pattern of development;**
- **proposed site layout and the scale, massing, height, proportions and density of the development including consideration of the relationship with the existing character of the surrounding area and neighbouring buildings;**
- **use of materials, textures and colours that are sensitive to the surrounding area; and**
- **the incorporation of key views into and out of the development.**

Innovative and experimental designs will be encouraged in appropriate locations.

ENVIRONMENTAL PROTECTION

1.40 Effective environmental protection requires a co-ordinated approach by those with legislative responsibility for development proposals and their consequences. Planning authorities and environmental protection bodies (mainly SEPA and the Council's Environmental Protection Service) have different powers and functions that can on occasions overlap, and planning controls should not duplicate other statutory controls.

SPP1 The Planning System
The planning system should not be used to secure objectives that are more properly achieved under other legislation. The grant of planning permission does not remove the need to seek other statutory consents nor does it imply that the consents will be forthcoming.

1.41 The need for collaboration between the relevant agencies is stressed in PAN 51 Planning and Environmental Protection and research published by SEDD* in 2004. Angus Council will therefore further strengthen joint working with the other enforcing agencies to guide and control relevant forms of development. This will apply to the environmental regimes listed in PAN51 or subsequent regimes. (See also Policy S6 : Development Principles)

SEDD Research Findings No. 192/2004
'The Interaction between Land Use Planning and Environmental Regulation.'

Policy S4 : Environmental Protection

Where development proposals raise issues under environmental protection regimes, developers will require to demonstrate that any environmental protection matter relating to the site or the development has been fully evaluated. This will be considered alongside planning matters to ensure the proposal would not unacceptably affect the amenity of the neighbourhood.

SAFEGUARD AREAS

1.42 Angus Council is required to consult a number of statutory agencies, such as the Health and Safety Executive (HSE) or the Civil Aviation Authority (CAA), where development proposals fall within the prescribed consultation zones of notifiable installations, pipelines or hazards. Where appropriate, the consultation areas are illustrated on the Proposals Maps.

1.43 Angus contains a number of installations handling notifiable substances, including pipelines. Whilst they are subject to stringent controls under existing health and safety legislation such as the Health and Safety at Work etc. Act 1947 and the Control of Major Accident Hazards Regulations 1999 (COMAH), it is also a requirement of European Council Directive 96/82/EC (Seveso II) to control the kinds of development permitted in the vicinity of these installations. For this reason the Planning Authority has been advised by the HSE of consultation distances for each of these installations. In determining whether or not to grant planning permission for a proposed development within these consultation distances the Planning Authority will consult with the HSE about risks to the proposed development from the notifiable installation in accordance with the Town and Country Planning (Hazardous Substances) (Scotland) Regulations 1993 (Circular 5/1993). This will take account of the requirements of the Seveso II Directive to maintain appropriate distances between establishments and residential areas, areas of public use and areas of particular natural sensitivity or interest, so as not to increase the risks to people.

Policy S5 : Safeguard Areas

Planning permission for development within the consultation zones of notifiable installations, pipelines or hazards will only be granted where the proposal accords with the strategy and policies of this Local Plan and there is no objection by the Health & Safety Executive, Civil Aviation Authority or other relevant statutory agency.

DEVELOPMENT PRINCIPLES

1.44 The principles in Schedule 1 provide a 'checklist' of factors which should be considered where relevant to development proposals. They include amenity considerations; roads and parking; landscaping, open space and biodiversity; drainage and flood risk, and supporting information. The Local Plan includes more detailed policies relating to some of the principles set out. Not all development proposals will require to comply with all of the principles.

Policy S6 : Development Principles

Proposals for development should where appropriate have regard to the relevant principles set out in Schedule 1 which includes reference to amenity considerations; roads and parking; landscaping, open space and biodiversity; drainage and flood risk, and supporting information.

(See page 15 for Schedule 1: Development Principles)

Schedule 1 : Development Principles

Amenity

(a) The amenity of proposed and existing properties should not be affected by unreasonable restriction of sunlight, daylight or privacy; by smells or fumes; noise levels and vibration; emissions including smoke, soot, ash, dust, grit, or any other environmental pollution; or disturbance by vehicular or pedestrian traffic.

(b) Proposals should not result in unacceptable visual impact.

(c) Proposals close to working farms should not interfere with farming operations, and will be expected to accept the nature of the existing local environment. New houses should not be sited within 400m of an existing or proposed intensive livestock building. (Policy ER31).

Roads/Parking/Access

(d) Access arrangements, road layouts and parking should be in accordance with Angus Council's Roads Standards, and use innovative solutions where possible, including 'Home Zones'. Provision for cycle parking/storage for flatted development will also be required.

(e) Access to housing in rural areas should not go through a farm court.

(f) Where access is proposed by unmade/private track it will be required to be made-up to standards set out in Angus Council Advice Note 17 : Miscellaneous Planning Policies. If the track exceeds 200m in length, conditions may be imposed regarding widening or the provision of passing places where necessary.

(g) Development should not result in the loss of public access rights. (Policy SC36)

Landscaping / Open Space / Biodiversity

(h) Development proposals should have regard to the Landscape Character of the local area as set out in the Tayside Landscape Character Assessment (SNH 1998). (Policy ER5)

(i) Appropriate landscaping and boundary treatment should be an integral element in the design and layout of proposals and should include the retention and enhancement of existing physical features (e.g. hedgerows, walls, trees etc) and link to the existing green space network of the local area.

(j) Development should maintain or enhance habitats of importance set out in the Tayside Local Biodiversity Action Plan and should not involve loss of trees or other important landscape features or valuable habitats and species.

(k) The planting of native hedgerows and tree species is encouraged.

(l) Open space provision in developments and the maintenance of it should be in accordance with Policy SC33.

Drainage and Flood Risk

(m) Development sites located within areas served by public sewerage systems should be connected to that system. (Policy ER22)

(n) Surface water will not be permitted to drain to the public sewer. An appropriate system of disposal will be necessary which meets the requirements of the Scottish Environment Protection Agency (SEPA) and Angus Council and should have regard to good practice advice set out in the Sustainable Urban Drainage Systems Design Manual for Scotland and Northern Ireland 2000.

(o) Proposals will be required to consider the potential flood risk at the location. (Policy ER28)

(p) Outwith areas served by public sewerage systems, where a septic tank, bio-disc or similar system is proposed to treat foul effluent and /or drainage is to a controlled water or soakaway, the consent of SEPA and Angus Council will be required. (Policy ER23).

Waste Management

(q) Proposals should incorporate appropriate waste recycling, segregation and collection facilities (Policy ER38).

(r) Development should minimise waste by design and during construction.

Supporting Information

(s) Where appropriate, planning applications should be accompanied by the necessary supporting information. Early discussion with Planning and Transport is advised to determine the level of supporting information which will be required and depending on the proposal this might include any of the following: Air Quality Assessment; Archaeological Assessment; Contaminated Land Assessment; Design Statement; Drainage Impact Assessment; Environmental Statement; Flood Risk Assessment; Landscape Assessment and/or Landscaping Scheme; Noise Impact Assessment; Retail Impact Assessment; Transport Assessment.

PART 2: Building Sustainable Communities

Contents

BUILDING SUSTAINABLE COMMUNITIES

2.1 Key elements of sustainable and vibrant places include a variety of quality, affordable homes in attractive locations, access to the right type of job, interesting and exciting leisure pursuits, and a wide range of shops and services. In such communities there is a careful balance between the need for new development and the protection of the local environment, development is energy efficient and does not generate unnecessary waste and pollution, people don't have to travel far between home, work, shops and leisure and where they have to there are a variety of ways to get around.

2.2 In helping to build sustainable communities in Angus this Local Plan gives priority to:

- Guiding the majority of development such as housing, employment, retail and leisure to locations within the Angus towns and villages which can best accommodate development making use of existing and planned transport and other infrastructure;

- Locating residential, employment, leisure and shopping uses in proximity to one another in order to improve accessibility for all and minimise the need to travel, especially by car;

- Locating new developments, particularly those generating high levels of traffic, to sites where there is a choice of means of transport;

- Providing a mix and range of housing developments to meet the needs and aspirations of all sectors of the community;

- Providing a range of employment sites in key locations to meet demand and stimulate investment in Angus, and making provision for rural diversification projects;

- Supporting the maintenance and improvement of the transport network to provide safe and efficient ways to travel, including promoting alternatives to the use of the private car;

- Supporting the provision of a range of facilities such as shops, schools, hospitals and other public facilities to serve local areas;

- Ensuring development makes a contribution towards protection of the environment, resource management, reducing pollution, and developing energy efficiency.

HOUSING

2.3 Housing is a significant land use and as such can have a major impact on the character of an area. In promoting a sustainable approach to development in Angus, the Local Plan seeks to provide opportunities for more people to gain access to housing which meets their needs and to encourage the creation of a variety of high quality housing developments whether it is a single house in the countryside or urban development on a larger scale.

SPP3 : Planning for Housing (2003)
A key aim of planning is to provide well-located, high quality, new housing.

2.4 This Local Plan directs the majority of new housing to sites within existing settlements where development can best be accommodated and the most effective use of existing and planned infrastructure can be made. Land allocations are made with regard to the requirements of the Dundee and Angus Structure Plan, and are expressed on the basis of housing market areas (HMAs).

*The housing strategy of the **Dundee and Angus Structure Plan** seeks to:*

- *establish the broad scale and distribution of housing land provision across housing market areas;*
- *provide opportunities for building quality homes within each housing market area in support of the existing role of communities, affording priority to the reuse of previously developed land where appropriate; and*
- *accommodate sensitive residential development in the countryside.*

2.5 In rural areas, outwith defined development boundaries, priority is given to encouraging the conversion of appropriate buildings and the reuse of underused or vacant sites. There is also support for limited new house building in the countryside. In the more remote rural areas which are losing population and/or local services, single new dwellings on appropriate sites and the creation of small groups of housing related to existing properties will be supported, to encourage the maintenance and growth of rural communities.

PAN 67 : Housing Quality (2003)
Housing development is changing the face of urban and rural Scotland. What we build today will constitute an enduring legacy.

Housing is the largest single urban land use. The design, quality and character of what is built will play a large part in shaping our cities, towns, villages and rural places for decades to come.

2.6 The Scottish Executive has published specific guidance in relation to the design of housing developments in February 2003 – Planning Advice Note 67: Housing Quality. The publication of this guidance emphasises the higher level of importance placed on the quality of design in new housebuilding. The guidance reinforces that the planning process has an essential role to play in ensuring that the design of new housing reflects its context, reinforces local and Scottish identity and is integrated into the movement and settlement patterns of the wider area.

Housing Market Areas

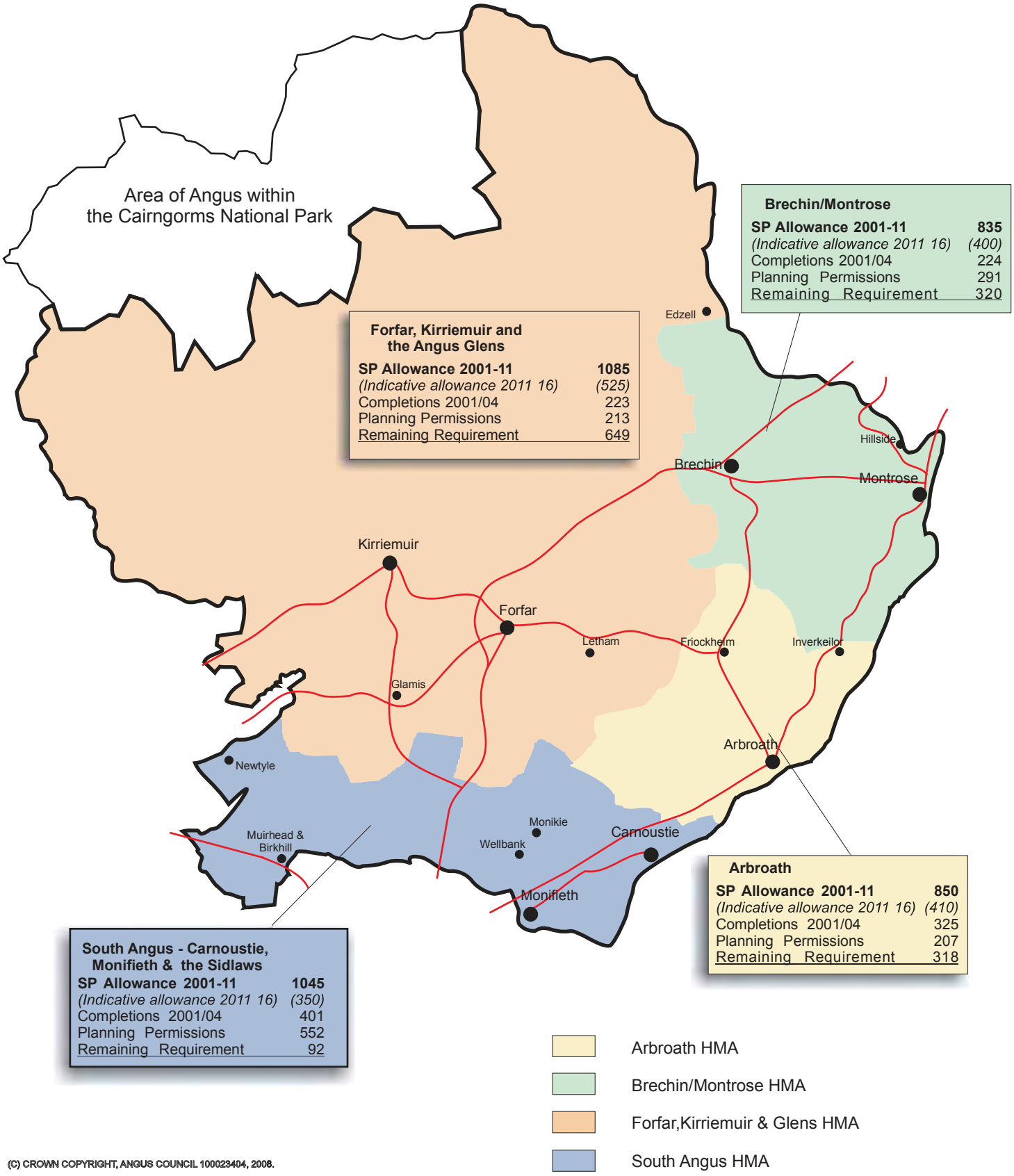
2.7 The housing figures in this Local Plan are expressed on the basis of the housing market areas identified by Communities Scotland and reflect those referred to in the Dundee and Angus Structure Plan (DASP). These are:

- Arbroath
- Brechin/Montrose
- Forfar, Kirriemuir and the Angus Glens
- South Angus (that part of the Greater Dundee HMA within Angus and covering Carnoustie, Monifieth and the Sidlaws).

Dundee and Angus Structure Plan
Housing Policy 2 : Dundee and South Angus Housing Market Area (part) *– In allocating land in the Dundee and South Angus housing market area to meet the additional allowances in Schedule 1, Local Plans will ensure that :*

- *Priority is given to the reuse of previously developed land to provide a 5 year land supply;*
- *The Dundee Western Gateway provides a focus for planned integrated development, including greenfield housing land release; and*

Figure 2.1 Housing Market Areas



2.8 Figure 2.1, page 22 shows the housing market areas and includes a summary of the housing land supply position at 2004 for each. The Dundee and Angus Structure Plan allowances for each area over the 2001 – 2011 and 2011 – 2016 periods are identified. The level of new housing which this Local Plan needs to plan for, taking account of completions between 2001 and 2004 and the number of sites with planning permission is also shown. Sites are allocated in the Settlement Statements in Part 4 of the Plan. Where sites allocated in the Plan are phased to extend beyond 2011 they will contribute towards meeting the indicative allowances for the 2011 – 2016 period. Where appropriate, specific proposals refer to this in order to guide the phasing of future development and investment planning.

- *Proposals for major development on greenfield sites elsewhere in the Dundee and South Angus housing market area will not be permitted where this would seriously prejudice implementation of the Dundee Western Gateway development. In the Monifieth, Carnoustie and Sidlaw area, additions to the effective housing land supply will be focussed on the main settlements of Monifieth and Carnoustie and contribute to a range and choice of sites throughout the wider housing market area.*

Dundee and Angus Structure Plan
Housing Policy 4 : Angus Housing Market Areas – *Local Plans will allocate land to meet the allowances detailed in Schedule 1. A range and choice of sites should be provided in each housing market area and priority given to the reuse of previously developed land. The majority of the additional allowances for each market area should be directed to Arbroath, Forfar, Montrose and Brechin respectively.*

Housing Land Supply

2.9 The Local Plan allocates housing development in the main settlements in each housing market area, giving priority to the reuse and redevelopment of brownfield sites where possible, and where the resulting development is capable of providing an attractive, liveable residential environment. In addition some greenfield sites are allocated to provide an element of choice and to assist in meeting the housing requirements of the Dundee and Angus Structure Plan. These allocations augment the existing supply of sites that already have planning permission. The continuing effectiveness and progress of the housing land supply is monitored through the annual Dundee and Angus Housing Land Audit.

2.10 The allocations of housing land are detailed in the Settlement Statements in Part 4 of the Local Plan. **It should be noted that the figures attributed to each allocation are indicative only and may change subject to the achievement of a satisfactory residential environment, which has regard to the character and appearance of the surrounding area.** Appendix 2 (page 307) provides a summary of all housing sites, which together contribute towards the allowances of the Dundee and Angus Structure Plan.

Brownfield Sites:
Land which has previously been developed. The term may encompass vacant or derelict land; infill sites; land occupied by redundant or unused buildings; and developed land within the settlement boundary where further intensification of use is considered acceptable.

Greenfield Sites:
Land which has never previously been developed, or fully-restored formerly derelict land which has been brought back into active or beneficial use for agriculture, forestry, environmental purposes or outdoor recreation. (SPP3 Planning for Housing, February 2003).

Dundee and Angus Housing Land Audit: *prepared annually, in consultation with Communities Scotland and Homes for Scotland.*

Existing Sites: *Sites with planning permission or which are under construction. Shown in the Settlement Statements and listed in Appendix 2.*

Effective Housing Land: *Land free or expected to be free of constraints in the five year period under consideration and therefore available for the construction of houses.*

Policy SC1 : Housing Land Supply

Adequate land has been allocated in the Local Plan to meet the allowances of the Dundee and Angus Structure Plan up to 2011 as illustrated in Table 2.1. Land identified for residential development will be safeguarded from alternative uses, and its effectiveness will be monitored through the annual audit of housing land. Where sites allocated in the Plan are phased to extend beyond 2011 they will contribute towards meeting the indicative allowances for the 2011 – 2016 period.

Table 2.1 : Housing Land Allowances 2001 – 2011 (on sites of 5 or more houses)

	a	b	c	d	e	f	g	h	i	
Housing Market Areas	Dundee and Angus Structure Plan Allowance 2001-2011	Indicative Allowance 2011 - 2016	Completions June 2001 – 2004[1]	Existing Sites[1]	Remaining Requirement a-(c+d)	Angus Local Plan Review Allocated Sites 2004 - 2011[2]	Plan Provision d+f	Affordable housing potential[3]	% Brownfield of Plan Provision (column g)	% Greenfield of Plan Provision (column g)
Arbroath HMA	**850**	**410**	**325**	**207**	**318**	**460**	**667**	**86**	**33.7%**	**66.3%**
Arbroath			267	125		382	507	76	36.5%	63.5%
Landward			58	82		78	160	10	24.5%	75.5%
Brechin/Montrose HMA	**835**	**400**	**224**	**291**	**320**	**384**	**675**	**80**	**36.3%**	**63.7%**
Brechin			1	119		120	239	25	19.2%	80.8%
Montrose (including Hillside)			200	121		258	379	55	47.2%	52.8%
Landward			23	51		6	57	0	35.1%	64.9%
Forfar, Kirriemuir and the Angus Glens HMA	**1085**	**525**	**223**	**213**	**649**	**654**	**867**	**94**	**22.4%**	**77.6%**
Forfar			144	118		440	558	62	31.2%	68.8%
Kirriemuir			46	47		130	177	18	4.5%	95.5%
Landward			33	48		84	132	14	9.1%	90.9%
South Angus HMA	**1045**	**350**	**401**	**552**	**92**	**393**	**945**	**70**	**28.6%**	**71.4%**
Carnoustie			45	144		288	432	52	37.4%	62.6%
Monifieth			153	29		25	54	10	48.1%	51.9%
Landward			203	379		80	459	8	20.5%	79.5%
ANGUS Totals	**3815**	**1685**	**1173**	**1263**	**1379**	**1891**	**3154**	**330**	**24.9%**	**75.1%**

[1] Dundee and Angus Housing Land Audit 2004
[2] Including sites previously allocated in the first Angus Local Plan and reallocated in this Local Plan
[3] Refer to Affordable Housing section, page 31 below, and Policy SC9 : Affordable Housing

Towns, Villages and Other Settlements

2.11 The design and layout of all new housing is required to produce a viable and attractive development which relates well to the surrounding area, whether it is an allocated site, an unexpected windfall site or a small site within an existing settlement. Policy S6 : Development Guidelines seeks to ensure that relevant developments take account of a range of factors and make a positive contribution to the local environment. Housing proposals will be considered against the relevant guidelines. Angus Council's Advice Notes 6 – Backland Housing Development and 14 – Small Housing Sites provide detailed guidance relevant to small housing sites within development boundaries.

2.12 Allocations of land for residential development are made in the Settlement Statements in Part 4 of this Local Plan. In addition to allocated sites and land with planning permission, there may be other currently unidentified sites which may be suitable for residential development. The Plan provides scope for such sites to come forward, within development boundaries, where development is in accordance with the principles of the Local Plan.

Policy SC2 : Small Sites

Proposals for residential development on small sites of less than 5 dwellings within development boundaries should provide a satisfactory residential environment taking account of the following:-

- **compatibility with established and proposed land uses in the surrounding area;**
- **plot sizes compatible with those in the area;**
- **provision of at least 100m^2 private garden ground ; and**
- **maintenance of residential amenity and privacy of adjoining housing.**

Proposals will also be required to take account of the provisions of Policy S6 : Development Principles.

Development Boundaries: *Generally provides a definition between built-up areas and the countryside, but may include peripheral areas of open space that are important to the setting of settlements.*

Policy SC3 : Windfall Sites

Angus Council will support proposals for residential development of 5 or more dwellings on windfall sites within development boundaries in addition to the identified supply where they:

- **will make a significant contribution towards regeneration and renewal;**
- **are compatible with established and proposed land uses in the surrounding area;**
- **include affordable housing in accordance with Policy SC9; and**
- **take account of the provisions of Policy S6 : Development Principles.**

Windfall Sites: *These are sites with potential to accommodate 5 or more dwellings but which are not allocated or otherwise identified in the Local Plan or the Housing Land Audit.*

Figure 2.2 : Rural Settlement Units - Categories 1 & 2

R.S.U Category 1

R.S.U Category 2

Countryside Housing

2.13 Rural Angus is not a single homogenous area, varying significantly in character, land use, population levels and availability of and access to a range of services and facilities. The strategy of the Local Plan aims to maintain the diversity of rural Angus whilst making provision for new development in appropriate locations to encourage people to live and work in rural communities.

2.14 In the rural area the strategy of the Plan supports new housing development on appropriate sites within the development boundaries of existing settlements. Outwith development boundaries, in the countryside, the conversion and renovation of buildings is encouraged as the preferred type of rural housing development.

2.15 The policy guiding new housebuilding in the Angus countryside allows for new housing on sites related to existing housing i.e. within building groups and on gap sites. The policy also provides for limited new housing development on rural brownfield sites and allows for a single new house on a self-contained site in the open countryside within Category 2 RSUs.

Rural settlement units (RSUs): *Geographical areas loosely based on primary school catchment areas.*

Category 1 RSUs :
These areas are generally non – remote areas with stable or increasing populations or where there are no services or facilities in need of support. In these areas new housing development outwith settlements should be restricted.

Category 2 RSUs :
Primarily remote rural areas where limited new development outwith settlements may be appropriate in order to stem rural depopulation and/or support existing services.

2.16 Proposals for housing development in the countryside will be considered against Policies SC4, SC5 or SC6 as appropriate. These policies are closely interlinked and related through the application of Policy S6: Development Principles, the associated Schedule 1, and Schedule 2: Countryside Housing Criteria (page 30). Proposals will be considered against the appropriate policy depending upon the nature of the site and the type of proposal. In all circumstances, applicants are encouraged not to demolish any structures on site until an application for redevelopment is approved.

2.17 Everyone who is involved with housing developments in the countryside, including architects and their clients, builders, and planners, have a collective responsibility to ensure that the Angus countryside remains as rural and attractive as possible whilst accommodating the needs of people who have the opportunity to live and work there. All development proposals are required to respect the scale and character of their location, and should not result in uncharacteristic urban forms of development in rural locations. A house design which might suit one location in Angus may not fit well in another place!

Reuse and Redevelopment of Existing Sites and Buildings

2.18 It is recognised that opportunities to convert and/or redevelop buildings in rural areas are increasing as a result of ongoing changes in the structure of farming in particular. The conversion and renovation of stone-built buildings in the countryside helps to maintain the existing rural character of Angus, and is the preferred form of housing development in the countryside.

PAN 72 : Housing in the Countryside. Feb 2005.

The purpose is to create more opportunities for good quality rural housing which respects Scottish Landscapes and building traditions.

2.19 Policy SC4 sets out the policy on the retention of existing houses in the countryside or their replacement. The policy framework for consideration of proposals relating to non-residential buildings in the countryside is set out in Policy SC5. The policy base is consistent with Government guidance in SPP15: Planning for Rural Development and provides clear guidance on the approach to housebuilding in the Angus countryside.

Policy SC4 : Countryside Housing – Retention of Existing Houses

In preference to demolition and replacement, Angus Council will encourage the retention and renovation of stone-built houses and other houses of visual, architectural or historic merit which are sound and/or wind and watertight, or which have four walls standing to eaves height and at least 50% of the roof structure and covering in place and are therefore capable of attracting improvement grant. Sensitively designed extensions forming part of the renovation of such houses will also be supported.

Where such a house is demonstrated by a suitably qualified professional to be structurally incapable of renovation or is of minimal visual, architectural or historic interest, demolition and reconstruction or replacement may be acceptable.

The replacement house should represent a substantial improvement on the original property and meet Schedule 2: Countryside Housing Criteria as applicable (page 30).

2.20 In line with SPP15: Rural Development and PAN 73 : Rural Diversification the contribution that the redevelopment of non-residential rural buildings can make to the local economy is recognised. Angus Council will support the retention and conversion of stone-built and other buildings of merit for residential use. This will secure the retention of buildings which contribute to the character of rural Angus but which are no longer required for their original use.

Policy SC5 : Countryside Housing - Conversion of Non-residential Buildings

Conversion of stand alone, redundant, stone-built, non-residential buildings and other non-residential buildings of visual, architectural or historic merit will be supported where proposals:

- **retain or enhance the existing architectural style of the building,**
- **utilise the whole building or demonstrate that a satisfactory residential environment can be created,**
- **do not provide an excessive number of small housing units, and**
- **meet Schedule 2 : Countryside Housing Criteria as applicable (page 30).**

Examples of the main opportunities include:

- ***Conversion or rehabilitation–*** *the sympathetic restoration of buildings which are structurally sound, largely in tact, safely accessible and linked to water and other services maintains the character and distinctiveness of places.*
- ***Small-scale infill*** *– in existing communities can bring economic and social benefits by supporting existing services such as schools and shops.*
- ***New groups of houses –*** *housing related to existing groupings will usually be preferable to new isolated developments. The groupings should not be suburban. They should be small in size, and sympathetic in terms of orientation, topography, scale, proportion and materials to other buildings in the locality.*
- ***Single houses –*** *there will continue to be a demand for single houses, often individually designed. But these have to be planned, with location carefully selected and design appropriate to locality.*

Proposals for sensitively designed extensions to such buildings will also be supported.

Proposals for conversion of appropriate buildings which sit within a larger site will only be permitted where the whole site is redundant, and the improvement of the environment of the area is provided for. Any additional new build housing within the building group will be considered under Policy SC6.

Where such a building is demonstrated by a suitably qualified professional to be structurally incapable of conversion - demolition and reconstruction of it for residential use may be supported where the new building is in keeping with the scale, form and character of the original.

New Houses in the Countryside

2.21 The opportunity to build new houses in the Angus countryside has been provided for by successive local plans. Taking account of recent changes to Government policy, the policy continues to allow new housebuilding mainly in locations next to existing houses throughout the rural area. The potential of some available brownfield sites to provide opportunities for net environmental improvement through removal of an eyesore and redevelopment for housing is also recognised, and the policy allows for up to four new houses depending on the size of the site. It should be noted that such sites may also contribute towards diversification of the rural economy, for example through development for business or tourism uses. Policies SC19 : Rural Employment and SC20 : Tourism Development, allow consideration of such proposals. Policy SC6 also continues the provision for single new houses to be built on appropriate sites in the more remote parts of the open countryside.

Policy SC6 : Countryside Housing – New Houses

a) Building Groups – One new house will be permitted within an existing building group where proposals meet Schedule 2 : Countryside Housing Criteria and would round off or consolidate the group (page 30).

b) Gap Sites – In Category 1 RSUs a single new house will be permitted on a gap site with a maximum road frontage of 50 metres; and in Category 2 RSUs up to two new houses will be permitted on a gap site with a maximum road frontage of 75 metres. Proposals must meet Schedule 2 : Countryside Housing Criteria as applicable (page 30).

Gap Sites:
The space between the curtilages of two dwellings or between the curtilage of one dwelling and a metalled road – ie. a stone surface with a hard, crushed rock or stone surface as a minimum. The site should have established boundaries on three sides

Building Group:
A group of at least 3 closely related existing dwellings or buildings capable of conversion for residential use under Policy SC5. The building group will require to have a sense of containment (defined below).

c) Rural Brownfield Sites – Redevelopment of redundant rural brownfield sites will be encouraged where they would remove dereliction or result in a significant environmental improvement. A statement of the planning history of the site/building, including the previous use and condition, must be provided to the planning authority. In addition, where a site has been substantially cleared prior to an application being submitted, or is proposed to be cleared, a statement by a suitably qualified professional justifying demolition must also be provided. Proposals should be small scale, up to a maximum of four new houses and must meet Schedule 2: Countryside Housing Criteria as applicable (page 30).

Exceptionally this may include new build housing on a nearby site where there is a compelling environmental or safety reason for removing but not redeveloping the brownfield site.

Large scale proposals for more than four new houses on rural brownfield sites will only be permitted exceptionally where the planning authority is satisfied that a marginally larger development can be acceptably accommodated on the site and it can be demonstrated beyond reasonable doubt that there are social, economic or environmental reasons of overriding public interest requiring such a scale of development in a countryside location.

d) Open Countryside - Category 2 RSUs - Development of a single house will be supported where Schedule 2 : Countryside Housing Criteria is met (page 30).

Sense of Containment:
A sense of containment is contributed to by existing, physical boundaries such as landform, buildings, roads, trees, watercourses, or long established means of enclosure such as stone walls. Fences will not normally be regarded as providing a suitable boundary for the purposes of this definition unless they can be demonstrated to define long standing and established boundaries as evidenced by historic OS maps. Any boundaries artificially created to provide a sense of containment will not be acceptable.

Rural brownfield :
Brownfield Sites are broadly defined as sites that have previously been developed. In rural area this usually means sites that are occupied by redundant or unused buildings or where the land has been significantly degraded by a former activity.
PAN 73 : Rural Diversification Feb 2005

Essential Worker Housing

2.22 The local plan policies provide significant opportunities for new residential accommodation to be provided in rural areas. In addition a new house may be permitted where it is required for the management of land, or for family purposes related to the management of land (retired farmers and/or their spouses), or in relation to another form of rural business where all other options have been investigated and dismissed. These options include the conversion or renovation of an existing property on the same landholding, availability of accommodation in a settlement in close proximity to the location, the existence of a valid planning permission for a dwelling which has not been taken up, and development of a new house on a site which would comply with Policy SC6. These options will have the benefit of not being subject to occupancy conditions.

Essential Worker:
A full time worker required by the operational needs of a farm or rural business to live in close proximity to their place of work for reasons of security or animal welfare or similar.

2.23 To obtain support under Policy SC7 it is expected that the agricultural unit will be of a sufficient size to demonstrate long term viability. Small units will not normally be acceptable to justify a house. Where a new business is proposed it may be that temporary accommodation only will be acceptable pending demonstration of the viability of the business venture.

Policy SC7 : Essential Worker Housing

Proposals for a house for an essential worker will only be supported where:

a) All alternatives have been demonstrated to be inappropriate, and a new house is the only option;
b) There is no evidence of houses or plots having been sold off from the landholding in the past five years;
c) Supporting evidence is provided that there is a functional requirement for the person to live at their place of work, which must be a viable agricultural unit or an existing business which has been established for at least 1 year. Where the proposal is for a house related to a proposed rural business the submission of adequate supporting information will be required, including a business plan, to establish that the business is genuine and viable.
d) The site forms part of the landholding where the worker is employed.
e) Schedule 2 : Countryside Housing Criteria is met as applicable (page 30).

Applicants will be required to enter into a Section 75 Agreement to ensure the property continues to meet the needs of an essential worker.

A new house for a retired farmer and/or their spouse may also be permitted where parts a), b) and e) of this policy are met, and the site forms part of the existing landholding.

New Country Houses

2.24 It is recognised that meeting the requirements of the countryside housing policies in Angus may preclude the achievement of one-off modern day country houses. Existing country house properties in Angus such as Turin, the House of Dun, Kinnordy and Pitmuies, contribute to the architectural heritage and landscape quality of Angus. This policy is not there to allow large houses in large gardens – it seeks to provide the opportunity for new country houses which will contribute to the future architectural and landscape heritage of the area.

SC8 : New Country Houses

Angus Council will support a proposal for a new country house where the following criteria can be met :

a) the house should be sited within a substantial area of established landscaped ground. Exceptionally, opportunity for a new country house could exist on a site which has an existing landscaped setting which can be strengthened through the implementation of a scheme of planting, approved as part of the overall design concept for the new country house;
b) the footprint of the proposed house should be around 500 sq m or more, excluding garaging and outbuildings;

c) the proposal should represent a major contribution to the architectural heritage of Angus;
d) the house should be of exceptional merit, individually designed to the highest standards and may be submitted to Architecture + Design Scotland for their comments.

Proposals must also meet Policy S6 : Development Principles, the associated Schedule 1 and Schedule 2 : Countryside Housing Criteria (page 30).

Schedule 2 : Countryside Housing Criteria

In addition to taking account of the provisions of the General Policies including Policy S6 : Development Principles, and the associated Schedule 1, all countryside housing proposals should meet the following criteria as applicable (except where specific exclusions are set out). Development proposals should :

a) be on self-contained sites and should not set a precedent or open up further areas for similar applications; (does not apply to proposals for conversion under Policy SC5, rural brownfield sites under Policy SC6(c) or essential worker houses under Policy SC7)
b) meet the plot size requirements; (does not apply to proposals for conversion under Policy SC5, or new country house proposals under Policy SC8)
c) not extend ribbon development;
d) not result in the coalescence of building groups or of a building group with a nearby settlement;
e) have regard to the rural character of the surrounding area and not be urban in form and/or appearance;
f) provide a good residential environment, including useable amenity space/private garden ground, and adequate space between dwellings whilst retaining the privacy of adjacent properties. Angus Council's Advice Note 14 - Small Housing Sites provides guidance on minimum standards in relation to private amenity space and distance between dwellings which will be acceptable for proposals involving between one and four dwellings on sites within existing built up areas. In countryside areas it will commonly be expected that these standards should be greater than the minimum having regard to the nature of the location. The extension of property curtilage in relation to proposals for renovation or conversion of existing buildings may be permitted in line with Angus Council's Advice Note 25 – Agricultural Land to Garden Ground.
g) be acceptable in relation to the cumulative effect of development on local community infrastructure including education provision;
h) not adversely affect or be affected by farming or other rural business activities*(may not apply to proposals for essential worker houses related to the farm or business under Policy SC7);*
i) not take access through a farm court *(may not apply to proposals for essential worker houses for farm workers under Policy SC7);*
j) not require an access road of an urban scale or character. The standard of an access required to serve a development will give an indication of the acceptability of the scale of the development in a rural location, e.g. where the roads standards require a fully adoptable standard of road construction with street lighting and is urban in appearance it is likely that the development proposals will be too large; and
k) make provision for affordable housing in line with Policy SC9 : Affordable Housing.

***Self – contained sites**:*
The whole site must be fully occupied by a single plot which meets the plot size requirements. Sites must not breach field boundaries and should have existing, physical boundaries such as landform, buildings, roads, trees, watercourses, or long established means of enclosure, such as stone walls. Fences will not normally be regarded as providing a suitable boundary for the purposes of this definition unless they can be demonstrated to define long standing and established boundaries as evidenced by historic OS maps. Plots which have been artificially created will not be acceptable.

Plot size requirements:
Category 1 RSUs : between 0.08ha (800m^2) and 0.2ha (2000m^2)
Category 2 RSUs : between 0.06ha (600m^2) and 0.4ha (4000m^2)

The size of the footprint of the dwelling, including contiguous buildings, will depend on local circumstances including the size of the plot and the character of the surrounding area. Where a plot is created by sub-division of an existing plot, both the original and new plot must comply with the plot size requirements.

Ribbon development :
A string of three or more houses along a metalled road – ie. a road with a hard, crushed rock stone surface as a minimum.

Affordable Housing

2.25 The supply of housing land on a variety of sites allows the market to provide a range of house types and tenures to meet the different housing aspirations of the people of Angus. However, the general housing market does not always meet the housing needs of everyone.

2.26 Angus Council commissioned a Local Housing Needs Assessment (LHNA) to assist the development of the Angus Local Housing Strategy (LHS) that seeks to address the housing needs of all sectors of the community by a variety of housing providers.

2.27 As part of the analysis of the local housing system in Angus, the LHNA sought to assess the current need for affordable housing in Angus as well as in each of the 4 housing market areas (HMAs) - Arbroath, Brechin/Montrose, Forfar/Kirriemuir and the Glens, and South Angus (Carnoustie, Monifieth and the Sidlaws). The estimated need for both social rented (SR) and low cost home ownership (LCHO) forms of affordable housing for each HMA over the period 2003 - 2008 is set out in Table 2.2 below.

2.28 Taking the findings of the LHNA and the potential supply of allocated housing land into account, Angus Council will seek to address the 5 year requirement for affordable housing identified in Table 2.2 over the period to 2011. This is shown in Table 2.3. Implementation of the Local Housing Strategy will include an assessment of the local requirement for affordable housing through supplementary research at a more local level. The results of this research will be used to inform future reviews of the Local Plan approach to delivering affordable housing.

Affordable Housing:
Housing of a reasonable quality that is affordable to people on modest incomes. The main types of affordable housing are:-

- *Social rented accommodation;*
- *low cost housing for sale, for example shared ownership, self-build, or other subsidised or discounted housing for sale;*
- *some private sector rented accommodation, available at lower cost than market rents, and provided by local landowners or commercial landlords.*

SPP3: Planning for Housing (2003)

Low Cost Home Ownership (LCHO):
Subsidised housing provided at below market cost available for sale or shared ownership.

Local Housing Needs Assessment (LHNA):
A research process to provide robust and current information on the Housing System in Angus. It looks at current and future housing needs and identifies key issues within local housing markets. The Angus LHNA, which was jointly commissioned by Angus Council and Communities Scotland was completed in November 2003 and assesses housing need in Angus over the period to 2008.

Local Housing Strategy (LHS):
The Housing (Scotland) Act 2001 requires all local authorities to produce a local housing strategy. The strategy should outline how the local authority, acting in partnership with housing and other providers and policy-makers will influence the operation of the housing system in order to maximise the well-being of its communities, taking account of the national housing priorities set out by the Scottish Executive. The Angus Local Housing Strategy has been assessed by Communities Scotland and approved for publication in October 2004.

Table 2.2: Affordable Housing Need in Angus - 2003-2008

Housing Market Area	Affordable Housing Need		Existing Affordable Housing Land Supply		Additional Affordable Housing Sites Required		
	SR*	LCHO	SR	LCHO	SR	LCHO	TOTAL
Arbroath	0*	95	66	0	0	95	**95**
Brechin/Montrose	0*	95	58	0	0	95	**95**
Forfar/Kirriemuir & Angus Glens	0*	100	105	17	0	83	**83**
South Angus	330*	90	75	0	255	90	**345**

** Mainstream General Needs Social Rented only. Does not include any requirement for Special Needs groups or targeted regeneration of low demand stock.*
Source : Angus Local Housing Needs Assessment, 2003.

2.29 The Angus LHNA identifies a need for LCHO housing across all four areas, however there is only a shortfall of social rented housing highlighted in the South Angus housing market area. Here the LHNA indicates a requirement for an additional 345 affordable houses (both social rented and LCHO) in the period to 2008.

2.30 Across Angus, particularly in the South Angus housing market area, a significant proportion of sites identified in this Local Plan for housing development already have planning permission with no affordable housing provision secured. Where circumstances change the opportunity to seek affordable housing provision will be pursued.

2.31 Policy SC9 provides guidance on the level of provision of affordable housing from all new allocated sites and housing developments on opportunity or windfall sites across the four housing market areas in Angus. The percentage of affordable housing sought from sites in each housing market area varies in relation to the identified requirement and the supply of sites suitable for affordable housing development.

Table 2.3: Affordable Housing Provision - 2004-2011

Housing Market Area	Total Affordable Housing Requirement (from Table 2.2)	Housing Allocations in the Local Plan Review[1]	% Affordable Housing sought (see Policy SC9)	Potential Affordable units [2]
Arbroath	**95**	460 **(422)**	**20%**	**86**
Brechin/Montrose	**95**	384 **(318)**	**25%**	**80**
Forfar/Kirriemuir & Angus Glens	**83**	714 **(689)**	**15%**	**106**
South Angus	**345**	263 **(45)**	**40%**	**18**

[1] Figures in brackets represent total allocations to which affordable housing requirement is applied. This excludes sites granted planning permission between June and December 2004, and/or awaiting completion of S75 Agreements.

[2] The requirement for the provision of affordable housing on allocated sites is specified in Settlement Statements in Part 4 of the Plan.

[3] The 40% figure for the South Angus HMA is justified by the exceptional circumstances in South Angus arising from a high unmet need for affordable housing coupled with the low supply of housing land capable of contributing affordable housing.

[4] All appropriate development proposals will be considered against Policy SC9 and take into account the material considerations outlined in paragraph 2.32 below.

Source: Angus Council

Affordable Housing:
Housing of a reasonable quality that is affordable to people on modest incomes. The main types of affordable housing are:-

- *Social rented accommodation;*
- *low cost housing for sale, for example shared ownership, self-build, or other subsidised or discounted housing for sale;*
- *some private sector rented accommodation, available at lower cost than market rents, and provided by local landowners or commercial landlords.*

SPP3: Planning for Housing (2003)

2.32 In considering the application of this policy in order to secure an achievable level of affordable housing on individual sites the following material considerations will also be taken into account:-

- site location, characteristics and local market conditions;
- suitability of the site to accommodate mixed tenure development;
- overall project viability; and
- availability and timing of grant assistance/ subsidy.

2.33 Effective partnership and joint working will be key to delivering affordable housing to meet the identified requirements, particularly in South Angus. Angus Council is keen to work with developers, Registered Social Landlords and Communities Scotland to facilitate the provision of affordable housing on suitable sites and to maximise the potential benefits of targeted public subsidy. Developers are urged to make early contact with the Council.

Policy SC9: Affordable Housing

Angus Council will seek to secure the provision of affordable housing from housing developments on allocated sites, opportunity and windfall sites which will contribute towards meeting identified needs in each Housing Market Area as follows:-

- **Arbroath – 20% LCHO housing;**
- **Brechin/ Montrose – 25% LCHO housing;**
- **Forfar, Kirriemuir and Glens – 15% LCHO housing;**
- **South Angus – 40% social rented and/or LCHO housing.**

The requirement for affordable housing in each Housing Market Area will be applied to the overall capacity of sites of 10 or more units, or a site size equal to or exceeding 0.5 hectares. Where a site is being developed in phases of less than 10 units or less than 0.5 hectares the affordable housing requirement will still be applied.

Affordable housing developments may be permitted on sites outwith but adjacent to development boundaries provided it can be demonstrated that:-

- **there is an identified local need that cannot be met on a suitable site within defined development boundaries;**
- **the proposal takes account of the provisions of Policy S6: Development Principles; and**
- **proposals are in accord with other relevant policies of the Local Plan.**

In all circumstances, Section 75 or other legal agreements may be used to secure the delivery of affordable housing.

Low Cost Home Ownership (LCHO):
Subsidised housing provided at below market cost available for sale or shared ownership.

Special Needs Housing

2.34 Special needs housing contributes to the housing supply by catering for the special housing needs of specific client groups who require either specially built or adapted dwellings or supported housing, therefore potentially releasing general needs housing for occupation by others.

Special Needs Housing:
Housing specifically intended for use by particular groups such as older people, those with disabilities, learning difficulties, etc.

2.35 The Community Care Act 1990 promotes a multi-agency approach to meeting the housing needs of certain groups, including older people and those with disabilities. Through the Angus Community Care Plan 2003 and the Angus Local Housing Strategy, Angus Council recognises the requirement to ensure that the housing needs of these client groups are satisfied through a range of housing providers. The Strategy seeks to coordinate housing provision and housing support services across a variety of different broad categories of need, working in partnership with the Tayside Health Board, Communities Scotland, Registered Social Landlords and voluntary organisations.

Policy SC10 : Special Needs Housing

Angus Council will support proposals to provide housing for special needs groups through new build, change of use or redevelopment schemes. Special needs housing should:

- **be compatible with surrounding land uses;**
- **be conveniently located for local shops, other services and public transport connections; and**
- **provide adequate useable garden ground for residents.**

Residential Homes

2.36 Residential homes provide an important element of housing provision in a community. They should be well located in relation to town centres, facilities and local transport routes, and should provide a safe and attractive living environment for their residents. Additional detailed guidance is provided in Angus Council Advice Note 11 : Residential Homes.

Policy SC11 : Residential Homes

Development proposals for new residential homes, or extensions to existing homes, should:

- **be compatible with surrounding land uses;**
- **be conveniently located for local shops, other services and public transport connections; and**
- **provide adequate useable garden ground for residents.**

Residential Caravans

2.37 Angus Council recognises the need for temporary residence in a residential caravan whilst a dwelling is being built or renovated, however permanent occupation of caravans is not favoured. Other than in circumstances similar to the above, applications for the siting and occupation of residential caravans will generally be resisted. However, where there is demand for the establishment of a site for residential caravans (also referred to as mobile homes) as a place to live the following policy sets out the criteria for the development of such sites. Further detailed guidance is available in Angus Council Advice Note 13: Residential Caravan Sites.

Policy SC12 : Residential Caravans

(a) Proposals to site a residential caravan will only be acceptable where it provides a temporary residence to allow a dwelling to be built or renovated or in similar circumstances.

(b) Proposals for the development of residential caravan sites should:

- **be compatible with surrounding land uses;**
- **provide for a minimum of six and a maximum of 25 mobile homes/caravans;**
- **provide a good residential environment for the people living there, including private amenity space;**
- **be connected to public utilities and not served by a communal amenity block.**

Gypsy/Traveller Sites

2.38 Communities Scotland, Angus Council, Dundee City Council and Perth and Kinross Council jointly commissioned a study – An Assessment of the Housing Needs and Aspirations of Gypsies/Travellers in Tayside (2003). The report found that some sites which were originally temporary have become permanent, and some private sites are no longer available to Gypsies/Travellers and so there is a need to provide more transit spaces. The Angus Local Housing Strategy seeks to address the accommodation needs of Gypsies and Travellers through direct liaison with these groups, the provision of additional spaces where necessary and access to housing. There are existing local authority sites at Tayock, Montrose, and Balmuir, Tealing as well as a privately run site at Maryton, Kirriemuir.

SPP3 : Planning for Housing (2003) *states that planning authorities should continue to play a role through development plans, by identifying suitable locations for Gypsies/Traveller's sites where need is demonstrated, and setting out policies for dealing with applications for small privately owned sites.*

Policy SC13 : Sites for Gypsies/Travellers

Angus Council will support existing sites and consider the development of new sites for Gypsies/Travellers where they satisfy an identified local demand and:

- **are compatible with surrounding land uses;**
- **provide a good residential environment for the people living there, including the provision of public utilities for each pitch or in amenity blocks as appropriate; and**
- **are well located for access to the local road network.**

Villa Property

2.39 In some of the Angus burghs there are areas of large, stone built houses set in mature garden grounds, such as Lour Road/Hillside Road, Forfar; Brechin Road, Kirriemuir; and Park Road, Brechin. These properties often have extensive stone boundary walls which contribute to their character. The gardens of some of these properties would be large enough to accommodate new houses, which would substantially alter the amenity and character of the area. In order to protect the character and appearance of villa property areas, proposals will be considered under the following policy. This policy does not apply outwith development boundaries.

Policy SC14 : Villa Property

Development proposals for new residential development within the garden ground of stone-built villa properties within development boundaries will only be acceptable where:

- **the development (including roads and driveways) does not damage the character and appearance of the existing property and/or the surrounding area;**
- **the proposal respects the density, scale, form, siting, orientation and materials of existing buildings;**
- **development does not result in the unacceptable loss of important trees;**
- **car parking and garaging are unobtrusively sited; and**
- **the proposal complies with other relevant policies of this Plan.**

Development proposals involving the change of use of villa property which would adversely affect the residential character of the surrounding area or significantly impact on the amenity enjoyed by adjoining properties, will not be permitted.

House Extensions

2.40 The extension of houses to provide additional accommodation is one of the most common forms of development. Badly designed or inappropriate extensions can spoil the external appearance of buildings and can have a negative impact on the surrounding area.

2.41 Planning legislation provides guidelines within which proposals for extensions to property are considered. Angus Council have a duty to consider the wider environmental impacts of development, protect the character and appearance of towns and villages, and take account of the potential impacts on neighbours. Specific guidance on extensions to listed buildings is set out in Policy ER15.

2.42 Further detailed guidance on extensions to houses is contained in Angus Council's Advice Notes 3: Roofspace Extensions, 15: Front Extensions, and 19: House Extensions.

Policy SC15 : House Extensions

Development proposals for extensions to existing dwellings will be permitted except where the extension would:

- **adversely affect the appearance and character of the dwelling and/or the surrounding area. Alterations and extensions should respect the design, massing, proportions, materials and general visual appearance of the area;**
- **have a significant and unacceptable detrimental effect on the residential amenity enjoyed by adjoining households;**
- **reduce the provision of private garden ground to an unacceptable level;**
- **result in inadequate off-street parking provision and/or access to the property.**

2.43 Access to suitable employment opportunities is an essential part of a sustainable Angus. Jobs provide more than just income, and are an important part of most peoples' lives. Angus retains a higher proportion of the workforce in agriculture, forestry, fishing and manufacturing (20%) than the Scottish average (14%), but the service sector provides the majority of jobs (74%).

2.44 Most employment is focused on the towns where infrastructure, communications and labour force are most readily available. Changes in farming and associated activities have had a significant impact on the rural economic structure. Tourism is an important part of the Angus economy and provides opportunities throughout Angus.

2.45 In promoting the development of sustainable communities, this Local Plan aims to stimulate investment in Angus by encouraging the retention or upgrading of existing business sites and premises and providing a range of employment sites in key locations to meet demand. There is also support for tourism activities and proposals for farm diversification that contribute to the rural economy.

Vision:

To raise the quality of life of the Scottish people through increasing economic opportunities for all on a socially and environmentally sustainable basis.

The Way Forward: Framework for Economic Development in Scotland; Scottish Ministers, June 2000

Angus Towns - Employment Land

2.46 In line with the Dundee and Angus Structure Plan, a supply of employment land will be maintained in Arbroath, Forfar, Montrose, Brechin, Carnoustie and Kirriemuir that reflects their size and requirements. Development will generally be directed to existing and proposed serviced industrial estates and business parks. Whilst this does not prohibit new business development outwith these areas, there is a presumption in favour of directing employment uses within the towns to sites identified for that purpose.

Land used for employment purposes also needs to be well located in relation to the transport network and the labour force.

The Way Forward: Framework for Economic Development in Scotland; Scottish Ministers, June 2000

2.47 Employment land available for development is currently well distributed across the Angus towns:

Dundee And Angus Structure Plan
Aims –

- *provide a range of employment sites in key locations to meet and encourage demand through-out the plan period;*
- *identify and encourage major tourism opportunities; and*
- *facilitate the sensitive development and diver-sification of the rural economy.*

Arbroath	Kirkton	9.2ha
	Elliot	1.0ha
Brechin	Business Park	7.8ha
Carnoustie	Panmure	0.5ha
Forfar	Orchardbank	29.6ha (gross)
Kirriemuir	North Mains of Logie	2.7ha
Montrose	Forties	7.6ha
	Broomfield	4.8ha
Angus Total		**63.2ha**

Source: 2004 Employment Land Survey, Department of Planning and Transport – land available for development now or within five years

Employment Land Supply

2.48 Employment opportunities should be well related to the transport network and available workforce. The allocation of employment land is based on the accessibility of sites, availability of infrastructure, environmental quality and capacity, and transport

links. To provide a range of sites capable of meeting the changing needs of business throughout the plan period and beyond, provision is made in each of
the main towns for a minimum five-year supply. Monitoring the take up and distribution of employment development will ensure land is continually available.

Policy SC16 : Employment Land Supply

Angus Council will maintain a supply of employment land to which proposals for business and industry will be directed as follows:

- **Arbroath, Elliot and Kirkton, (minimum 10 ha);**
- **Forfar, Orchardbank (minimum 10 ha);**
- **Montrose, Forties Road and Broomfield (minimum 10 ha);**
- **Brechin, Business Park (minimum 5 ha);**
- **Carnoustie (up to 5 ha);**
- **Kirriemuir (up to 5 ha).**

At these locations, and other established employment areas, planning permission will not normally be granted for uses other than Class 4* (business), Class 5* (general industry), and Class 6* (storage and distribution), but may be considered where they are small scale, complementary and ancillary to the existing or proposed use. Development proposals will require to demonstrate there is no detriment to the surrounding amenity.

** As defined in the Town and Country Planning (Use Classes) (Scotland) Order 1997.*

2.49 Business park developments at Brechin and Forfar provide good quality facilities adjacent to the A90(T) and these are expected to meet demand for prime employment land over the plan period. In accordance with the Dundee and Angus Structure Plan and Policy SC16, this Local Plan will allocate land to maintain a minimum five-year supply throughout the plan period. Provision is made as follows:

- Arbroath – land allocated west of the Elliot Estate. The Local Plan will resist development proposals that would prejudice the future expansion of the Elliot Industrial Estate to the west, to ensure this site can be developed as the need arises.
- Forfar – land allocated at Carseview Road provides for general employment use.
- Montrose - part of the former Montrose airfield allocated to meet an anticipated shortage of available land during the plan period.
- Carnoustie – land allocated at Carlogie.
- Kirriemuir – land allocated at East Muirhead of Logie.

SPP2: Economic Development (2002)

The Planning System has an important role in supporting business development and contributing to economic prosperity.

Industrial And Business Use

2.50 Not all business and industrial activities will be located on existing or proposed employment land allocations. Where new employment development is proposed within a settlement, is in a suitable location, and can be accommodated without detriment to amenity, such proposals will normally be welcomed.

Policy SC17 : Industrial And Business Use

Outwith allocated sites employment proposals within Use Class 4* (business), Class 5* (general industry), and Class 6* (storage and distribution) may be permitted in locations within development boundaries where the proposal:

- **can be accommodated within existing or planned infrastructure capacity;**
- **is not detrimental to the surrounding amenity; and**
- **accords with other relevant policies of the Local Plan.**

** As defined in the Town and Country Planning (Use Classes) (Scotland) Order 1997.*

Low Amenity Uses

2.51 Angus Council will require that proposals for employment on both allocated and unallocated sites have no unacceptable adverse impact on the environment or surrounding land uses (see Policy S4: Environmental Protection; page 13).

Working From Home

2.52 Opportunities to work from home have increased and this is now a real alternative to more traditional office or factory based employment. It can create new jobs throughout urban and rural areas in both trades and services. As well as contributing to economic diversification, home/tele-working can reduce the need to travel and use skills within the community that might otherwise be lost. Further planning guidance on working from home is available in Angus Council Advice Note 17: Miscellaneous Planning Policies.

Angus Council Advice Note 17:
Naturally, if the proposal can be accommodated with little or no adverse effects in respect of external storage or processes etc. and only utilise a small part of the residential accommodation, then the application is likely to be treated sympathetically. If, however, the activity is of such a commercial nature that the quiet residential atmosphere is jeopardised, a refusal is likely to ensue.

2.53 Running a business from home will require planning approval if it constitutes a 'material change of use' i.e. significantly affects the use of a building as a house. It is advisable to consult the Planning and Transport Department to clarify whether planning permission is required.

Policy SC18 : Working From Home

Angus Council will support proposals for working from home which utilise only a small part of the residential accommodation; and are not detrimental to the amenity of neighbours or the surrounding area.

Rural Employment

2.54 Angus Council recognises the need and aspirations for economic diversification in the rural areas. The Local Plan takes account of the dynamics of the countryside and aims to help create the conditions that will encourage sustainable and prosperous rural communities. This is an ongoing process involving a wide range of activities throughout Angus. Rather than attempt to channel economic activity to identified sites, it is acknowledged that development opportunities are likely to be spread throughout the rural area. In many cases proposals will involve the re-use of existing buildings or will be developed because of a particular locational need or advantage.

NPPG15: Rural Development (1999)
It is European and Government Policy to promote diversification in agriculture and fishing to create alternative income generating opportunities and rural employment, subject to appropriate environmental safe-guards being taken.

2.55 The development of new technologies, tourism projects and niche markets offer potential for innovative proposals that can assist in the diversification of the rural economy and create employment throughout rural Angus. There is also scope to develop integrated living/working accommodation, where this accords with the housing policies in this Local Plan.

2.56 In accordance with NPPG15 : Rural Development, new build housing is not considered to be an acceptable diversification proposal. However, housing proposals which meet the countryside housing policies of this plan e.g. for farm building conversion may be acceptable.

Policy SC19 : Rural Employment

Employment opportunities throughout rural Angus will be supported where they make a positive contribution to the rural economy and are of a scale and nature appropriate to the location, including proposals that assist diversification of an existing rural business.

Tourism

2.57 Tourism is a major source of income and employment throughout Angus. There is a need to extend and maintain both the range and quality of visitor attractions and accommodation to satisfy visitor aspirations, but not at the expense of the environmental qualities that attract people to Angus. Major tourism proposals will be more easily accommodated in and around the Angus towns while small-scale projects may be appropriate in rural and remote areas. In particular, remoter areas have the potential to benefit from small-scale eco-tourism projects.

2.58 The range and quality of accommodation is vital to developing tourism and extending the length of the tourist season. New build and conversions to provide growing and niche markets such as bunkhouses can add to choice of accommodation. Caravan and camping sites form an important part of the local tourist industry, particularly along the coastal strip and in some parts of Strathmore. Chalet developments are generally regarded as less visually intrusive than caravan parks and subject to meeting appropriate criteria they should be encouraged in suitable locations. It is important that developments are sensitively located and designed to provide quality facilities within the capacity of the environment and the local area.

Policy SC20 : Tourism Development

Development proposals to provide new or improved tourist related facilities/attractions and accommodation will be permitted and encouraged where they:

- **improve the range and quality of visitor attractions and tourist facilities and/or extend the tourist season;**
- **have no unacceptable detrimental effect on the local landscape or rural environment;**
- **are in keeping with the scale and character of adjacent buildings or surrounding countryside;**
- **are generally compatible with surrounding land uses; and**
- **accord with other relevant policies of the Local Plan.**

Policy SC21 : Caravan Sites and Holiday Chalets

Development proposals for static holiday and touring caravan sites will not be permitted on undeveloped coastline or in the Angus Glens. Holiday chalet developments will not be permitted on undeveloped coastline. Outwith these areas such development will be generally supported where:-

(a) the site is in an unobtrusive location avoiding skylines, prominent hillsides and/or exposed flat sites;
(b) the site is designed to fit into surrounding landscape and incorporates:-

- **(i) substantial landscaping and tree/shrub planting;**
- **(ii) appropriate density of chalets/pitches;**
- **(iii) satisfactory access arrangements and adequate parking;**
- **(iv) waste management facilities; and**
- **(v) suitable and adequate water supply and drainage arrangements.**

Angus Council will impose conditions on any planning permission to prevent the use of holiday chalets for permanent residential occupation.

Defence Establishments

2.59 The defence establishments at RM Condor at Arbroath and Barry Buddon Camp at Carnoustie are important both in terms of land use and their contribution to the local economy. There is a need to recognise, however, that the role of defence installations may change in response to national defence policy and may result in land or property becoming surplus to requirements.

Policy SC22 : Defence Establishments

Buildings and ground associated with defence establishments at RM Condor and Barry Buddon Camp will continue to be reserved primarily for military use. Where land and/or buildings are declared surplus to military needs, opportunities for redevelopment will be considered in the context of Structure and Local Plan policy.

2.60 The Angus towns contribute to the character, vitality and prosperity of the area and their centres provide opportunities for people to access goods and services, generate employment and attract investment. The individual character of each town adds to its social and community role, creating a sense of place and belonging for many people. The central areas provide a focus for transport and are often the most accessible parts of the town, making them the best location for a wide range of activities and services – shopping, work, leisure, health and welfare and personal services such as banking and hairdressing.

Dundee And Angus Structure Plan *aims for town centres and retailing are to :*

- *promote town and district centres in their roles as important shopping, leisure and service destinations, meeting the more localised requirements of the city, town and landward communities;*
- *promote city, town and district centres as the location of first choice for new retail development; and*
- *promote measures for the selective support of local shopping provision in villages and rural areas.*

2.61 The role of the Angus town centres must respond to the pressures facing them in a period of increasing centralisation and competition. Greater personal mobility, ease of access to larger centres such as Dundee and Aberdeen and the rationalisation of both public and private organisations all affect the role of the seven towns and their centres.

Town Centres

2.62 Angus Council wish to encourage the town centres in Angus to develop and diversify but this must not be at the expense of their historic fabric and individuality. The primacy of town centres as the most appropriate location for a variety of leisure, service and retail activities will be reinforced where possible, by directing major retail and leisure investment to sites that support the town centres in accordance with the policy objectives of NPPG8 Town Centres and Retailing (Revised 1998) and the Dundee and Angus Structure Plan. The Local Plan defines town centre boundaries and these are shown on the Proposals Map for each town.

NPPG 8 Town Centres and Retailing (Revised 1998)
The Government's broad policy objectives are:

- *to sustain and enhance the vitality, viability and design quality of town centres, as the most appropriate location for retailing and other related activities;*
- *to maintain an efficient competitive and innovative retail sector offering consumer choice, consistent with the overall commitment to town centres; and*
- *to ensure that ways of meeting these objectives are compatible with sustainable development and, in particular that new developments are located where there are good public transport services, and better access for those walking and cycling, leading to less dependence on access by car.*

2.63 The Angus town centres provide a variety of levels of shopping provision. The smaller towns and villages provide local food shopping while the larger towns have a wider range of shops and provide a greater range of comparison goods. It is recognised that patterns of retailing and customer requirements change and therefore a flexible approach is needed to allow for compatible non-retail uses to be accommodated within town centres, particularly where vacancy levels are high.

2.64 The sensitive reuse or renewal of sites and properties can help to improve both the visual and commercial attraction of the town centres. In order to create opportunities for successful redevelopment, imaginative and well-designed schemes will be required to take advantage of the potential available within the confines of the historic Angus town centres.

NPPG8 Town Centres and Retailing (Revised 1998)
In small towns and villages there is therefore a clear presumption in favour of central locations for new developments.

2.65 Angus Council recognises the importance of the full range of town centre functions and will adopt a pro-active role to maintaining the vitality and viability of the centres. Where appropriate the Council will actively support schemes that will enhance the central areas to the benefit of the Angus population and their ability to access goods and services locally.

Policy SC23 : Support For Town Centres

Angus Council will continue to initiate and support measures designed to enhance the vitality and viability of the town centres and will work in partnership with other bodies and interested parties to promote and develop opportunities which:

- **sustain the role and key functions of each of the Angus towns and their central areas; and**
- **safeguard their existing character and complement and enhance their environment and historic value.**

Town Centre: *provides a broad range of facilities and services which fulfil a function as a focus for both the community and public transport.*

NPPG8 Town Centres and Retailing (Revised 1998)

2.66 Within the larger town centres the main retail frontage forms the core retail area and are shown on the Proposals Map for Arbroath, Brechin, Forfar, Kirriemuir and Montrose, Within these areas development proposals which foster the development of a range of town centre activities, whilst maintaining the prime retail function, will be encouraged.

Policy SC24 : Core Retail Areas

Within the Core Retail Areas, proposals involving the change of use of existing ground floor retail premises (Class 1, Shops) will be acceptable where the proposed use is a restaurant or café (Class 3)* or:

- **it can be demonstrated that the property has been vacant for at least 12 months and actively marketed for retail use during that time; or**
- **at least 5% of the retail units within the core retail area are vacant.**

Where development proposals satisfy the above criteria the following will also apply:

- **ground floor frontage development should include a shop window frontage and maintain an appropriate window display; and**
- **a condition will be applied (in accordance with Circular 4/1998) to restrict the permission to the use specified.**

** As defined in the Town and Country Planning (Use Classes) (Scotland) Order 1997.*

Core Retail Areas**:** *The core of the central shopping area typified by its concentration of key multiple retailers and other prominent comparison outlets.*

Vacancy Levels (2003)
(as a *% of all retail floorspace, including vacant, within defined town centres,)*

Arbroath	*16%*
Brechin	*14%*
Carnoustie	*17%*
Forfar	*4%*
Kirriemuir	*8%*
Monifieth	*16%*
Montrose	*4%*

Source: Angus Council

2.67 Active use of premises above ground floor level adds to the visual and economic attractiveness of town centres. Proposals for upper floors can include a range of uses, which will add to the vitality and viability of the town centres by encouraging investment and attracting more people into the centre.

Policy SC25 : Upper Floor Use

Within the town centres the use of upper floors for residential and non-residential purposes will be supported, subject to amenity considerations.

Retailing

2.68 The attraction of the historic town centres in Angus relies on their ability to offer a wide range of services. Shopping, however, remains the essential activity that underpins their vitality and viability. Angus Council commissioned a study* of the retail sector in Angus which found:-

- a highly self-contained convenience sector;
- outflow of comparison goods expenditure (65%) to Dundee and other centres; and
- some capacity for development of the comparison goods sector particularly in Arbroath, Montrose and Forfar.

2.69 There is scope for development that supports town centres and improves the range of shopping on offer where it can be demonstrated that the level of impact on the individual centre is not detrimental to its viability. The impact of such proposals on rural shops and petrol stations will also be considered in accordance with NPPG 8 (Revised 1998). A Retail Impact Assessment will be required for all developments over 1000m^2 floorspace, whether freestanding or as an extension of an existing store. Angus Council will require such supporting evidence for any retail development, regardless of its size, where there is concern about the potential retail impact on the town centre.

Policy SC26 : Large Scale Retail Development Proposals

Town centres are the preferred location for major retail developments within Angus.

All retail development proposals over 1000m^2 gross floorspace including extensions to existing stores will be required to submit retail impact and transport assessments, and satisfy the following criteria:

- **comply with the sequential approach giving priority to development within the defined town centre before edge-of-centre or out-of-centre sites;**
- **do not individually or cumulatively undermine the vitality and viability of any of the town centres in Angus;**
- **tackle deficiencies in existing provision, in qualitative or quantitative terms;**
- **are accessible to all sections of the community by a variety of modes of transport;**
- **ensure provision of dedicated pedestrian and cycle access**;
- **are of a high standard of design that contributes to the attractiveness of the surrounding area; and**
- **accord with other policies of this Local Plan.**

Proposals for out-of-town retail developments on sites outwith development boundaries will not be acceptable.

Angus Retail Study*
The main findings are: -

Convenience Goods

- *a highly self-contained convenience sector - estimated 6% leakage*
- *an adequate provision of convenience floorspace - estimated 5% overtrade at two supermarkets*
- *no overall spare convenience capacity in Angus in the foreseeable future*
- *expect slight decline in convenience goods expenditure*

Comparison Goods *(e.g. furniture, clothing, electrical goods)*

- *outflow of expenditure (65%) to Dundee and other centres*
- *there is limited capacity in Angus to support additional comparison retailing assuming heavy leakage continues*
- *there is some capacity for development of the comparison goods sector, particularly Arbroath, Montrose and Forfar*
- *predict substantial growth in comparison expenditure per capita.*

Sequential approach**:** *first preference should be for town centre sites, where sites or buildings suitable for conversion are available, followed by edge-of-centre sites, and only then out-of-centre sites in locations that are or can be made easily accessible by a choice of means of transport.*

Edge-of-centre**:** *A location within easy walking distance of the town centre, and usually adjacent to the town centre, and providing parking facilities that serve the centre as well as the store, thus enabling one trip to serve several purposes.*

Out-of-centre *A location that is clearly separate from a town centre but within the urban area, including programmed extensions to the urban area in approved or adopted development plans.*

Out-of-town**:** *An out-of-centre development on a greenfield site or on land not clearly within the current urban boundary.*

Definitions - NPPG8 Town Centres and Retailing (Revised 1998)

Local Shops

2.70 Outside the defined town centres, local shops in the towns and villages play an important role in the provision of neighbourhood stores and speciality retailing. Their establishment and retention offers a local service and a range of individual outlets that complement the town centre shops. Rural shops and related services such as post offices, restaurants and petrol stations are important to many rural residents, particularly those without a car.

NPPG8 Town Centres and Retailing (Revised 1998)

The implications for village shops should be fully addressed when planning authorities are assessing new retail development proposals in nearby towns.

Policy SC27 : Local Shops

Subject to amenity considerations, proposals for the development and improvement of local shops will be supported, particularly in areas deficient in shopping facilities where they:

- **add to retail provision within the development boundaries; or**
- **provide a visitor facility in a suitable location;**
- **are ancillary to an existing rural business; or**
- **provide or retain convenience goods shops and post offices in the rural area.**

Village Shop and Community Post Office Conversion Grant Scheme may apply

Grants may be available for physical improvements to a food shop/general store over one mile from the nearest alternative town or Community Status Post Office in a rural community.

Amenity Considerations

2.71 Certain activities that require or seek a central location may create problems for adjacent uses. Public houses, hot food takeaways, restaurants, cafes and amusement arcades can cause external disturbance through noise, smell and perceived anti-social associations. This does not mean that such uses should be prohibited but that care should be taken in selecting suitable sites or premises.

2.72 These should preferably be within mixed-use areas, such as in town centres, outwith the core areas, where there will be no detrimental impact on adjacent activities. Although referring primarily to Hot Food Takeaways, Advice Note 18 also provides guidance on similar issues raised by other uses such as public houses and restaurants and cafes.

Policy SC28 : Public Houses and Hot Food Takeaways, Restaurants and Cafes

Development proposals for public houses, hot food takeaways, restaurants and cafes will be assessed against the criteria in Angus Council's Advice Note 18: Hot Food Takeaways. They will only be permitted where:-

- **they do not conflict with neighbouring land uses in terms of noise, disturbance, cooking odours, fumes and vapours, and**
- **traffic, parking, pedestrian and cyclist safety is not compromised.**

Policy SC29 : Amusement Arcades

Amusement arcades will only be permitted:

- **within mixed use areas of the town centres outwith core retail areas, or developed pleasure beach facilities;**
- **where they are not located immediately adjacent to, below or above residential property;**
- **where they do not conflict with neighbouring land uses and are not in close proximity to a school building, church, hospital or hotel; and**
- **where they meet environmental standards relating to noise.**

Car Showrooms

2.73 Proposals for car showrooms should be directed towards suitably accessed sites within towns or larger villages. There can be an obvious attraction for these to be grouped together, as at Queenswell Road, Forfar, and this is one reason why rural areas or good quality employment land are not considered appropriate locations for such developments.

Policy SC30 : Car Showrooms

Car showrooms will only be permitted on sites within development boundaries. Proposals must satisfy the following criteria:

(a) the development would not lead to a shortage of good quality employment land; and
(b) the scale and location would not have a detrimental impact on residential amenity.

SPORT AND RECREATION

2.74 The pursuit of sport and recreational activity can make a significant contribution towards the quality of life, health and well being enjoyed by the area's residents and visitors and is an increasingly important element in the Angus economy. This is recognised by NPPG11 : Sport, Physical Recreation and Open Space which considers the protection and enhancement of an areas recreational resource to be an important objective of the planning system. The Local Plan contributes towards addressing recreational needs and opportunities throughout Angus.

NPPG11 Sport, Physical Recreation and Open Space

Providing opportunities for sport and recreation near to where people live can make an important contribution to sustainable development. Not only does it enhance people's quality of life, but it also reduces the need for people to travel, thereby contributing to a reduction in fuel consumption and pollution.

Sports and Recreation Facilities

2.75 A wide range of opportunities for sport and recreation exist in Angus through the provision of public and privately run facilities. Angus Council operates a number of sports facilities including sports centres, swimming pools, community halls, sports pitches and golf courses. These serve as a focus for the community, promote health and well being, and provide educational opportunities whilst a number of halls function as both sports and entertainment venues. In addition the three formal country parks provide opportunities for outdoor sports and activities as well as hosting major sporting events.

2.76 Angus Council is developing an Angus Sports Plan, which seeks to enhance and develop opportunities for sport and recreation in Angus through partnership working. The Local Plan seeks to encourage the development of sport and recreational facilities in Angus where they support the objectives of the Angus Sports Plan.

The Angus Sports Plan seeks to:-

- *Improve the quality of life through Leisure and Sport;*
- *Provide equality of opportunity for Angus residents and visitors to participate in Leisure and Sports activities;*
- *Strengthen partnerships for co-operation in sport to maximise the resources available and reduce duplication of effort;*
- *Create an environment to attract external funding;*
- *Promote and encourage Leisure and Sports contribution to the Angus economy;*
- *Provide a clear reference point against which to identify gaps and measure developments;*
- *Further develop the network of quality sports facilities across Angus.*

Angus Sports Plan 2004

Policy SC31: Sports and Recreation Facilities

Development proposals for new and/or enhanced sport and recreational facilities should be located within the existing development boundaries, unless requiring a countryside location. Proposals will be supported where they:

- **would significantly improve the range and/or quality of sport and recreational opportunity; or**
- **would meet an identified community need; and**
- **are of an appropriate scale and nature, and in a location which would not have a significant detrimental impact on residential amenity;**
- **would accord with other relevant policies of this Local Plan.**

Open Space

2.77 One of the characteristics of the Angus towns and villages is the diversity of open spaces, including public parks, coastal links areas, school playing fields, private gardens and grounds, allotments, path networks, civic spaces and general amenity areas including areas of tree planting. These spaces and the way they link together form a network of open space within the built up area and define the layout and structure of the Angus towns and villages.

2.78 Open spaces serve a range of functions, they contribute towards the amenity and character of an area, are an important sporting, recreational and social resource, provide opportunities for wildlife and nature conservation and are valued and enjoyed for a variety of reasons. The Local Plan seeks to protect the open space network from development, which might erode the function of open spaces or the characteristics for which they are valued. This includes green corridors, which provide physical linkages to major open spaces and direct access to the countryside.

Policy SC32 : Open Space Protection

There is a general presumption against development of open spaces of sporting, recreational, amenity or nature conservation value including those shown on the Proposals Maps, for other forms of development. The loss of open space will only be considered acceptable where:

- **the retention or enhancement of existing facilities in the area can best be achieved by the redevelopment of part of the site where this would not affect its sporting, recreational, amenity or nature conservation value or compromise its setting; or**
- **replacement open space of the same type and of at least equal quality, community benefit and accessibility to that being lost will be provided within the local area; or**
- **it is demonstrated through an open space audit that there is an identified excess of open space provision in the local area to meet existing and future requirements taking account of the sporting, recreational and amenity value of the site.**

2.79 As well as protecting existing open spaces the Local Plan seeks to ensure that new development is accompanied by an appropriate level and type of open space. The design of open space must cover the new development as a whole and provision will be linked to phases of development. New spaces should be designed according to their intended use or function, be well located and properly maintained.

PAN 65: Planning and Open Space

Types of Open Space: -
Public parks and gardens – *Areas of land normally enclosed, designed, constructed, managed and maintained as a public park or garden;*

Private gardens or grounds -*Areas of land normally enclosed and associated with a house or institution and reserved for private use;*

Amenity greenspace -*Landscaped areas providing visual amenity or separating different buildings or land uses for environmental, visual or safety reasons i.e. road verges, or greenspace in business parks, and used for a variety of informal or social activities such as sunbathing, picnics or kickabouts;*

Playspace for children and teenagers - *Areas providing safe and accessible opportunities for children's play, usually linked to housing areas;*

Sports areas – *Large and generally flat areas of grassland or specially designed surfaces, used primarily for designated sports i.e. playing fields, golf courses, tennis courts, bowling green; areas which are generally bookable;*

Green corridors *– Routes including canals, river corridors and old railway lines, linking different areas within a town or city or part of a designated and managed network and used for walking, cycling or horse riding, or linking towns and cities to their surrounding countryside or country parks. These may link green spaces together;*

Natural/semi-natural greenspaces *– areas of undeveloped or previously developed land with residual natural habitats or which have been planted or colonised by vegetation and wildlife, including woodland and wetland areas;*

Other functional greenspaces *allotments, churchyards and cemeteries;*

Civic space *– squares, streets and waterfront promenades, predominantly of hard landscaping that provide a focus for pedestrian activity and make connections for people and for wildlife, where trees and planting are included.*

2.80 Apart from the physical provision of open space it is important that linkages with the overall green space network are recognised. New open spaces will require to be integrated with the existing network by incorporating green access corridors which link up with existing path networks and open spaces. An Open Space Audit is currently underway which will establish existing levels of open space provision at a local level, assess current and future requirements and identify deficiencies and problems with the existing network. This will form the basis of the preparation of an Open Space Strategy and will be used to derive local standards for open space provision.

2.81 In the interim, open space requirements for new housing developments will generally be based on the National Playing Fields Association (NPFA) six acre standard (2.43 hectares of open space per 1000 head of population). However the amount and type of open space to be provided by the developer will be dependant upon existing provision in the locality and the scale and type of development proposed. There may be circumstances where the provision of open space is considered unnecessary due to the level and location of existing open space areas. In these circumstances a financial contribution based upon the scale of the development may be required in order to improve the quality of existing provision. In applying Policy SC33 the potential population of any housing development will be assessed using the general standard of 2.5 persons per household.

PAN 65: Planning and Open Space
Open space should be:-

well located *– linking into the open space network, connecting into well used routes and overlooked by buildings, helping to foster a feeling of safety and discouraging anti-social behaviour as well as being easily accessible to all.*

well designed *– designed to reduce vandalism and, where appropriate, maintenance, with the use of high quality durable materials and incorporating elements of interest, for example through public art.*

well managed *– covered by a management and maintenance regime attuned to the type of space, durability, wildlife habitats present, level of usage and local interest.*

adaptable *– be capable of serving a number of functions and adapting to different uses while promoting a range of benefits such as biodiversity, flood control or environmental education.*

Policy SC33 : Open Space Provision

Development proposals will require to provide open space and make provision for its long term maintenance. Angus Council will seek to ensure that as a minimum the NPFA standard of 2.43 hectares of open space/recreational space per 1000 head of population is met. The specific requirements of any development will be assessed on a site by site basis and this standard exceeded or relaxed as appropriate taking account of the level, quality and location of existing provision.

Noise and Sport

2.82 Certain forms of sporting activity can give rise to noise issues, including motor sports, war games, and clay pigeon and target shooting. The scale, nature and location of such activities are major factors in determining whether noise will be an issue. NPPG 11 : Sport, Physical Recreation and Open Space recognises potential conflicts between sporting activities and other land uses and recommends that noise-generating activities should only be located where their impact on the environment and local residents can be contained and minimised.

Policy SC34 : Noisy Sports

Development proposals involving noisy sporting uses will only be permitted where the scale, nature and location of the activity would:

- **not result in unacceptable levels of noise detrimental to the amenity enjoyed by nearby housing or other uses requiring a quiet environment;**
- **not conflict with nearby recreation or tourist use;**
- **not be significantly detrimental to local landscape or rural environment;**
- **accord with other policies of the Local Plan.**

Details of all noise sources, levels of intensity and measures to mitigate against potential impact, including full details of screening and landscaping will require to be submitted. An Environmental Assessment may be requested, depending on the scale, location and nature of the activity.

Golf Courses

2.83 Golf is a popular activity in Angus for residents and visitors alike. With courses available throughout Strathmore, the Sidlaws and the coastal area, golf is an important tourist attraction/resource and makes a significant contribution to the local economy. PAN 43 'Golf Courses and Associated Developments' (1984) highlighted an unmet demand for golf courses around the urban fringe of Dundee. Following recent interest in golf course development across the area, Angus Council commissioned **sport**scotland to assess the current supply of and demand for golf course development in Angus. The outcome of the study reaffirmed the previous findings that outwith the urban fringe around Dundee, there is no significant unmet demand for golf courses arising from Angus residents.

Provision of Golf Facilities In Angus – An Assessment Based on sportscotland's Facilities Planning Model.

*Study conducted by **sport**scotland to assess the supply of and demand for golf courses in Angus, taking account of investment in golf course provision in around the Angus area since 1999.*

sport**scotland **2004

Policy SC35 : New Golf Course Development

Angus Council will only support proposals for additional golf courses where it can be demonstrated that the development:-

- **would meet unfulfilled local and/or visitor demand, and**
- **is consistent with other relevant policies of this Local Plan**.

Housing and/or other land uses proposed in support of a new golf course will only be supported where it accords with the development strategy and relevant policies of this Local Plan.

Paths and Access Rights

2.84 Path networks used for walking, cycling and horseriding provide an important recreational resource in Angus enabling accessibility in and around towns and villages and to the countryside. Such off road pedestrian and cycle links can also perform an important function as transport routes and are an important part of the infrastructure required to promote alternative modes of travel to the car particularly for short journeys. Paragraphs 2.97 to 2.99 of the Transport and communication chapter refer to walking and cycling routes in this context. Angus Council considers it important that such routes are protected from any adverse effects of development and where appropriate, will seek walking and cycling routes to be provided and enhanced as part of development proposals linking into existing networks where possible in accordance with Policy S2 : Accessible Development

2.85 The diversity of the Angus countryside is one of the areas greatest assets and is a valuable recreational resource. In seeking to provide and enhance opportunities for people of all abilities to access and enjoy the Angus countryside, Angus Council has prepared and approved a Finalised Draft Angus Countryside Access Strategy. The Strategy takes account of legislation and national guidance on countryside access including new access rights introduced by the Land Reform (Scotland) Act 2003. Angus Council will develop and promote access to the Angus countryside in accordance with the Strategy.

2.86 The Land Reform (Scotland) Act 2003 establishes a general right of access to land in Scotland and places a duty on local authorities to uphold access rights. Consequently, Angus Council will seek to ensure that there is no significant loss to the public of linear access, area access or access to inland water as a result of development proposals. Development may be permitted in instances where the loss of public access is considered to be minor. Where the loss of access would be significant, there may be instances where suitable alternative provision can be made available.

Land Reform (Scotland) Act 2003 – *establishes a statutory right of access to most land and inland water and places a Duty upon Local Authorities to: -*

Uphold Access Rights *– to assert, protect and keep open and free from obstruction or encroachment any route, waterway or other means by which access rights may reasonably be exercised.*

Core Paths Plan – *to draw up a plan for a system of paths (core paths) sufficient for the purpose of giving the public reasonable access throughout their area.*

Finalised Draft Angus Countryside Access Strategy – *sets out priorities for the provision and development of access to the countryside in Angus and includes policies and proposals for: -*

- *Protection of Public Rights of Way and Access Rights;*
- *Developing access provision, including; Burgh Path Networks, a Coastal Path and, paths in the Angus Glens;*
- *Preparation of a Core Paths Plan for Angus;*
- *Setting up of a Local Access Forum for Angus*

Policy SC36 : Access Rights

Development proposals, which will result in a significant loss to the public of linear access, area access or access to inland water will be resisted.

Linear access *– along paths and tracks including core paths and public rights of way.*

Area access *– such as unenclosed land, the coast, woodland, riverbanks and other areas of public interest.*

Community Service Provision

2.87 Each of the Angus towns provides a range of social, education and health services. In rural areas, particularly the more remote Angus Glens, the range and distribution of facilities and their accessibility is a challenge for service providers. A strong community support network enhances the quality of life for Angus residents, can help prevent or reverse rural depopulation and can provide employment opportunities.

2.88 Angus Council will work in partnership with other public and private sector agencies and the voluntary sector in seeking to maintain and enhance basic service provision and delivery of community and health services in Angus, particularly in rural communities. The provision of new services and initiatives, which increase the accessibility of facilities, will be encouraged.

Healthcare

2.89 The local healthcare trust, NHS Tayside, has a considerable landholding in the area. There are hospital facilities in all the towns, except Kirriemuir, and in rural locations at Stracathro, Hillside and Strathmartine. Reorganisation of healthcare facilities may lead to redevelopment opportunities and the Plan makes provision for alternative uses for these sites to be considered.

Policy SC37 : Healthcare Facilities

Buildings and grounds associated with existing and proposed healthcare facilities throughout Angus will be reserved for healthcare use. Where sites become available for redevelopment, alternative uses, which are in line with the policies of the Local Plan, will be encouraged.

Education

2.90 Angus Council provides nursery, primary, secondary and special needs education facilities within the Council area. There are further education facilities based in Arbroath at Angus College.

2.91 School facilities often provide a valuable community facility within the areas they serve, for example, use of school playing fields for sport and recreation and local community education or evening classes. Where possible this additional role for schools will be supported. Provision for new or replacement education facilities is considered in the Settlement Statements in Part 4 of the Local Plan, including where school provision is required to support further housing development. In particular the Carnoustie and Forfar Schools Public Private Partnership (PPP) project proposes new and replacement primary schools in those burghs.

2.92 School rolls throughout the area continue to fluctuate in response to changing population numbers, structure and distribution. Small rural primary schools in particular can be affected by low or decreasing school rolls, and can come under pressure to close orrationalise in order to maintain effective learning and teaching in the area. Schools can also provide a valuable community focus, particularly smaller schools in the remoter parts of Angus, and therefore are a vital part of rural life.

Policy SC38 : Community Use of School Facilities

Angus Council will encourage the use of school facilities, for extra curricular sporting, recreational and community uses. Development affecting school facilities will only be permitted where:

- **it can be demonstrated that facilities to be lost will not be required in the future by either the school or the local community;**
- **the proposed use is compatible with the existing use or activity; or**
- **it can be demonstrated that alternative facilities of at least equal community benefit and accessibility can be provided to serve the local area.**

Cemetery Provision

2.93 There are a number of locations in Angus which will require additional cemetery provision over the Plan period. These areas are identified in the Plan to safeguard the land from alternative uses. Land allocations in relation to Arbroath, Brechin, Carnoustie, Forfar, Kirriemuir, Monifieth, Montrose and Liff are specified in the relevant Settlement Statements in Part 4 of the Plan. Detailed consideration remains to be given to the use of the land for such purposes and to matters relating to access, site preparation and boundary treatment. At Dunnichen the cemetery extension will be into the field to the north of the existing facility and will require boundary treatment as part of site preparation.

Proposal SC39 : Safeguard of Land for Cemetery Use

Land is reserved for cemetery purposes at Aberlemno, Dunnichen Cemetery, Farnell, Kirkton of Auchterhouse, and Panbride. With the exception of Dunnichen, the areas are detailed on the relevant village boundary maps.

2.94 Accessibility to jobs, services and facilities is a key issue throughout Angus where the network of towns, villages and countryside generate a variety of travel patterns and range of travel demands reflecting the geography of Angus and its transport and communications links with other areas.

2.95 Key elements of transport and communications infrastructure in Angus include the A90 Trunk Road, A92 and other public roads totalling 1750 km, 37 public car parks, East Coast Main Railway Line with four rail stations and three rail halts, Arbroath Bus Station, Montrose Port and Arbroath Harbour. In addition to local and national rail links, the public transport network is mainly bus based overlaying parts of the strategic and local road network. The National Cycle Route also passes through the coastal towns and mainly follows minor roads. As elsewhere in Scotland, telecommunications infrastructure has developed rapidly in Angus with the Scottish Executive emphasising the economic and social necessity to maintain the momentum in continuing network development.

2.96 In encouraging sustainable, integrated and inclusive transport, this Local Plan aims to promote a pattern of development that supports a choice of travel throughout Angus and to other areas. Complementing the Angus Local Transport Strategy, this includes land use planning measures that facilitate travel by foot, cycle and public transport and, where possible, reduce the need to travel by car. Alongside this there is a need to secure a balance between the demands of the telecommunications industry and the protection and enhancement where possible of the local environment.

Angus Local Transport Strategy Key Objectives:-

- *To maintain and improve accessibility to jobs, services and facilities for all members of the Angus Community in the most sustainable way;*
- *To promote greater integration within and between transport modes and across transport, land use, social, economic and environmental policies aimed at reducing the need to travel;*
- *To widen travel choices and improve the convenience and efficiency of transport services for the benefit of Angus residents, visitors and businesses;*
- *To take full account of the effect of transport movements on the environment and to reduce adverse environmental impacts;*
- *To reduce accident casualties associated with the transport network, improve road safety and assist safe travel throughout Angus.*

Dundee and Angus Structure Plan: Transport Policy 3: Sustainable Transport *– In order to promote and enhance an efficient, attractive and sustainable transport system through Local Plans and Local transport Strategies, this Structure plan supports and requires measures which will:-*

- *maintain and improve facilities for public transport;*
- *promote new and attractive pedestrian and cycle priority routes which link to established routes where feasible;*
- *promote the enhancement of integration and convenience between different modes of transport;*
- *provide for freight terminal facilities at locations which are convenient and accessible to the rail network, ports and airport;*
- *improve accessibility to facilities for people with restricted mobility; and*
- *encourage opportunities for electronic communication.*

Walking and Cycling

2.97 Walking and cycling are healthy, environmentally friendly means of transport suitable for a broad range of travel purposes, including journeys to work and school and for shopping, social and leisure trips.

2.98 There is considerable scope to enhance the links between walking/cycling and public/private transport, including combined trips, as part of a more integrated approach to meeting accessibility needs of everyone in the Angus towns, villages and countryside.

2.99 In addition to ensuring that the needs of pedestrians and cyclists are catered for as part of development proposals, measures will be carried out to encourage more use of walking and cycling throughout Angus as a means of transport as well as for informal recreation. These are directed towards improving the safety, attractiveness and convenience of journeys by foot and cycle within and around towns and villages and in the Angus countryside. This includes improvements to existing routes, the provision of missing links and the development of new ones. Key elements of the Finalised Draft Angus Countryside Access Strategy set out in paragraph 2.85 play an important role in this respect.

Figure 2.3 : Principal Transport Network

Proposal SC40 : Walking and Cycling

Angus Council will pursue a range of measures and initiatives to enhance accessibility for walking and cycling, by:

- **providing local walking and cycling routes within and around each town;**
- **developing the existing cycleway provision north of Montrose in support of the National Cycle Network and North Sea Cycle Route;**
- **developing the "Safe Routes to School" initiative;**
- **improving the linkages to and within town centres and other areas with high pedestrian activity such as schools and leisure facilities;**
- **pursuing the phased implementation of an integrated coastal path and cycleway;**
- **incorporating a footpath/cycleway as part of upgrading the A92 between Arbroath and Dundee in accordance with Policy SC43.**

Key Elements of the Finalised Draft Angus Countryside Access Strategy are:-

- *Angus Coastal Path;*
- *Burgh Path Network;*
- *Eastern Cairngorms Access Project.*

Buses

2.100 Most public transport requirements in Angus are met by local bus services operated commercially or provided with financial support from Angus Council. Despite high levels of car ownership, particularly in rural Angus, local bus services remain essential to maintain accessibility for the public as a whole and particularly for some of the more vulnerable groups who remain wholly or partly dependant upon public transport provision, including many elderly people. A well developed bus service also provides a suitable alternative to the use of the private car for at least some journeys.

The Angus Public Transport Policy Statement *allocates resources in the following priority order:*

- *Journeys to work*
- *Journeys for hospital visiting*
- *Journeys for shopping*
- *Journeys for education (not entitled to free transport);*
- *Journeys for leisure*.

2.101 Support will continue to be given to the provision of a local network of bus routes and services linking communities throughout Angus. Complementary bus services including community transport initiatives that help people with restricted mobility and local communities access services and facilities particularly in rural parts of Angus will also be encouraged. The general approach to maintaining and supporting bus transport services is set out in the Angus Local Transport Strategy and the Public Transport Policy Statement adopted by the Council.

Policy SC41 : Bus Transport

Angus Council will:

- **promote the improvement of passenger waiting infrastructure including the provision of bus laybys, bus stops, shelters and interchange facilities conveniently located for access to and from housing, employment, shopping and other main destinations;**
- **promote the improvement of passenger information facilities by extending Real Time Information facilities across Angus;**
- **make provision for bus transport as part of the upgrading of the A92 between Arbroath and Dundee including bus laybys, bus stops and shelters at locations which are well related to existing facilities and path networks and allow safe and easy access by the communities along this route.**

Rail

2.102 The northern leg of the East Coast Main Rail line passes through Angus linking stations at Montrose, Arbroath, Carnoustie and Monifieth (along with halts at Golf Street (Carnoustie), Barry Links and Balmossie) to the national rail network

2.103 Angus Council is actively involved in a number of rail partnerships and initiatives including the Tay Estuary Rail Study and CREATE which are aimed at improving the provision of rail services through, to and from Angus and the Angus Rail Interchange Project which seeks to secure infrastructure and access improvements at Montrose, Arbroath and Carnoustie rail stations.

Angus Local Transport Strategy *aims for rail are:*

To secure and maintain fast, frequent and attractive rail services to and through Angus, as an integral part of the passenger and freight rail network, providing a principal mode of transport linking improved stations and rail infrastructure in Angus with major Scottish cities, England and Europe.

Tay Estuary Rail Study *– investigating the potential and priorities for investment in new local rail services, complementing wider investigations in the Scottish Strategic Rail Study.*

CREATE *– the Campaign for Rail Enhancement Aberdeen to Edinburgh which seeks to secure the best possible rail infrastructure and rail services for the areas served by the East Coast Main Line north of Edinburgh.*

Angus Rail Interchange Project *– utilising an award from the Public Transport Fund to secure station infrastructure improvements and enhanced interchange facilities at Montrose, Arbroath and Carnoustie Rail Stations.*

Proposal SC42 : Rail Station Improvements

Angus Council, working with rail industry partners, will implement a package of enhanced pedestrian, cycle and public transport access and interchange facilities including car and cycle parking improvements at Montrose, Arbroath and Carnoustie Rail Stations.

Road Network

2.104 The road network provides the basis for most travel and transport options in Angus. An efficient and safe road network, which is capable of meeting the needs of all users, and where conflict between users is minimised, provides opportunities for effective movement throughout Angus. In relation to the A90(T), Scottish Ministers have established a policy of closing central reserve gaps on road safety grounds when finance is available and/or the opportunity arises. Consequently there will be a general presumption by the Scottish Executive against development proposals, which result in an increase in the use of a central reserve gap, or would prevent or inhibit the closure of a central reserve gap. In addition the establishment of new junctions or new junctions incorporating a central reserve gap on the trunk road network will be resisted.

2.105 The construction of the new A92 road bridge at Montrose which is expected to be complete in 2005 will maintain an invaluable road link for Montrose and its surrounding area. The bridge has been designed to cater for the needs of various users including public transport, cyclists and pedestrians.

2.106 The upgrading of the A92 between Arbroath and Dundee to dual carriageway standards together with improved linkages to Carnoustie and Monifieth is under construction and will improve road safety, and support economic and tourism opportunities within the coastal corridor. The approved alignment is safeguarded from development proposals, which may adversely affect the implementation of the project.

Policy SC43 : Upgrade of A92/A930

Angus Council will safeguard land required to enable the implementation of the dualling of the A92 between Arbroath and Dundee and improved linkages to Carnoustie and Monifieth.

2.107 Angus Council also recognises the benefits of the following projects which will be progressed within the local plan period:

- route action plans for the A92 Arbroath to Northwaterbridge and on the A935 Brechin to Montrose Road; and
- construction of an A935/A90(T) link at Brechin.

2.108 The implementation of route action plans and associated improvement works on the A92 from Arbroath to Montrose and on the A935 Montrose to Brechin will improve the safety of these routes. The construction of a new A935/A90(T) road link at Brechin will bring economic benefits to Montrose by providing more direct transport links to the trunk road network as well as environmental benefits within Brechin through the removal of heavy traffic from the town centre.

Policy SC44 : Road Network Improvements

Angus Council will implement route action plans for the A92 north of Arbroath to the boundary with Aberdeenshire and the A935 Montrose to Brechin road and investigate the possibility of a link from the A935 to the A90(T) at Brechin.

Roadside Facilities

2.109 The provision of necessary roadside facilities in the interests of road safety and convenience must be coordinated to avoid detrimental effects on the environment, the appearance of the countryside and must consider the impact on facilities currently available in bypassed communities.

2.110 Guidance on the provision of roadside facilities on motorways and other trunk roads is contained in NPPG 9: The Provision of Roadside Facilities on Motorways and Other Trunk Roads in Scotland. In Angus the A90(T) Dundee to Aberdeen route forms part of the trunk road network to which the guidance applies. Existing roadside facilities on the 50 km of the A90(T) in Angus are located at Forfar (on the east side of the Orchardbank/Glamis Road junction), Finavon, Balnabreich (Little Chef) and Stracathro. In addition planning permission was granted in 2004 for overnight accommodation at Orchardbank, Forfar. The range of facilities available to road users at these locations is complemented by facilities available in the bypassed towns of Forfar and Brechin.

2.111 The allocation (B11) of a site for a hotel/travel lodge at Dubton Farm, Brechin, also provides a potential facility for road users prepared to divert from the A90(T). Proposals for additional facilities on the A90(T) will only be permitted where existing services are already located and where full access standards required by the Scottish Executive (normally related to grade separated junctions) can be achieved. The existing facilities at Finavon and Balnabreich are not accessed from the A90(T) by grade separated junctions and therefore proposals for additional roadside facilities at these locations would not be appropriate. The existing facilities at Forfar (Orchardbank/Glamis Road junction) and Stracathro however have grade separated access therefore proposals to improve and extend the range of existing services provided at these locations will be supported where these also accord with other policies of this Local Plan.

Policy SC45 : Roadside Facilities on A90(T)

The preferred locations for commercial roadside facilities (including food, fuel, overnight accommodation and associated parking) on the A90(T) are at the sites of the existing facilities at Stracathro and at Orchardbank, Forfar, on the north east quadrant of the junction with the A94. Proposals to extend the range and quality of the facilities at these locations will be acceptable provided they are mainly directed to meeting the needs of road users. Outwith these two areas, new and extended commercial roadside facilities on the A90(T) to serve road users will not be acceptable.

Roadside Facilities** include**:

- *free short term parking for both commercial and private vehicles, including those only wishing to rest and not to use any facilities;*
- *fuel;*
- *free toilets;*
- *picnic areas with tables ;*
- *telephones;*
- *all facilities accessible to disabled people;*
- *catering;*
- *retail;*
- *tourist information;*
- *cash dispenser;*
- *overnight accommodation.*

(It is expected that all facilities are to be provided primarily to meet the reasonable needs of travellers and the scale of provision should be consistent with these needs)

(PAN 75 : Planning for Transport)

2.112 The A92 coastal tourist route through Angus extends from Monifieth to Lower North Water Bridge north of Montrose, a distance of some 26 miles (41 km). Within the coastal corridor a range of facilities providing for the needs of tourists and long distance travellers are located adjacent to the A92 or within existing towns and villages all of which are easily accessible from the A92. On the 11 mile (17 km) stretch between Monifieth and Arbroath, which is currently being upgraded to dual carriageway standard, existing facilities are located at Ethiebeaton Park (travel lodge, restaurants, fast food and toilets together with planning permission for fuel), whilst a range of other facilities are located within Monifieth, Carnoustie and Arbroath. Between Arbroath and Lower North Water Bridge facilities are generally located within the communities at Inverkeilor and Montrose. Local Plan policy seeks to support facilities within existing communities adjacent to the A92 by directing proposals for new facilities to locations within existing development boundaries in preference to the development of facilities within the open countryside.

Policy SC46 : Roadside Facilities on the A92

Any new roadside facilities serving the A92 should be accommodated within the existing development boundaries and no new provision will be permitted within areas of open countryside.

Freight

2.113 Angus Council seeks to encourage more freight to be carried by rail or water where it provides a feasible alternative to road based transport and will safeguard appropriate sites for freight use, including the railway goods yard at Helen Street in Arbroath. Where appropriate these are identified in the relevant Settlement Statements in Part 4.

Policy SC47 : Rail and Sea Freight Facilities

Angus Council will support proposals for freight facilities at locations that are convenient and accessible to the rail network or the Port at Montrose where these are compatible with adjacent land uses.

Telecommunications

2.114 Modern telecommunications are an essential and beneficial element in the life of the local community and in the national economy. The use of telecommunication technologies can enhance accessibility
to services and facilities for the less mobile within a community, and in particular for those living in the more remote parts of Angus. It can also contribute to reducing the need to travel through increasing the flexibility of working arrangements for some people.

PAN 62 : Radio Telecommunications
The Scottish Executive is committed to securing world class telecommunications services for Scotland while safeguarding our natural and built environment.

2.115 In seeking a balance between the Government's desire to extend the economic and social benefits of modern telecommunications technology and the protection of the natural and built environment, changes to the planning legislation in 2001 brought most forms of telecommunication development within planning control. National Planning Policy Guideline 19 : Radio Telecommunications (July 2001) sets out guidance on how planning authorities should deal with the requirements of the industry through planning policy. The Guidance advises that in dealing with development proposals for telecommunications installations, the main issues to be considered are siting, design including scale and colour, visual impact and opportunities for the sharing of existing telecommunication developments.

NPPG 19 : Radio Telecommunications
The siting and design of telecommunications develop-ment are the key issues to be addressed through the planning system.

2.116 Angus Council Advice Note 26 provides supplementary guidance in relation to the siting and design of telecommunications installations and indicates that the preferred locations for these is in industrial areas away from any boundary with residential properties. Within the open countryside the Advice Note highlights the possibility of utilising topographical features and concentrations of existing structures such as masts, pylons and farm buildings to minimise the visual impact of new installations. Development proposals will require to demonstrate that the preferred options and suggestions set out in the Advice Note have been fully explored.

Angus Council Advice Note 26: Telecommunications Developments

Built-Up Areas: *The most preferred locations for telecommunications installations is in industrial areas (including railway land, wastewater treatment sites, landfill sites etc) away from any boundary with residential properties. Business and town centre locations (especially if mounted on buildings) are also likely to be generally acceptable subject to their visual impact being minimized particularly in conservation areas.*

Open Countryside: *Site selection in the countryside has in the past been largely driven by purely technical demands but operators will now be expected to give greater consideration to visual impact alongside their practical requirements. It is possible to find perfectly acceptable rural locations by carefully exploiting topographical features, for instance by utilizing land form to hide or partly screen a mast.*

It may be possible to utilize concentrations of existing rural "clutter" (e.g. existing masts or pylons, farm buildings (eg.silos) or other structures and buildings) to accommodate new installations in a less visually intrusive manner

Policy SC48 : Telecommunications

Planning permission will be granted for telecommunications development where the following criteria are met:

- **there is an established operational need for the development in the location proposed;**
- **there is no reasonable prospect of sharing existing facilities due to operational, technical or environmental constraints;**
- **in the case of radio masts there is no reasonable possibility of erecting antennae on any existing building or other structure;**
- **there are no more satisfactory alternative sites available;**
- **the proposed development does not conflict with other relevant policies contained in the Local Plan.**

Any development should be sited and designed so as to minimise its visual impact, subject to technical and operational considerations.

PART 3: Environment and Resources

Contents

ENVIRONMENT AND RESOURCES

3.1 The environmental assets and resources of Angus have long been recognised as important in both local and national terms. The area is essentially rural in nature with an interdependent network of seven towns and numerous villages.

3.2 The diverse landscape ranges from sandy beaches and cliffs along the 55km coastline, the attractive and productive Strathmore valley with its market towns, to the remote splendour of the upland areas of the Glens.

3.3 Angus has a rich and varied biodiversity that is reflected in the broad range of sites designated for their natural heritage value and when combined with the areas distinctive built heritage and important historic environment provide a high quality environment, attractive to both residents and visitors.

3.4 Protecting and enhancing the environmental assets and built and historic heritage of Angus is central to the Council's approach to the sustainable development and the use of the areas finite and non-renewable resources which can help to enhance the health and quality of life for both present and future generations of people living and working in Angus.

3.5 The capacity of the natural and built environment of Angus to accept development and absorb change varies from area to area depending on local characteristics. The Local Plan complements the aims set out in the Dundee and Angus Structure Plan for the sustainable management of the areas environmental resources by giving priority to:

- protecting and enhancing wildlife habitats identified as being of international, national or local importance;
- protecting and enhancing the biodiversity of Angus;
- conserving and enhancing important landscapes and landscape features and ensuring that new development is sympathetic to landscape character;
- protecting and enhancing the quality of the built and historic environment and ensuring that development proposals respect local characteristics;
- promoting the sustainable use of water resources and ensuring that new development does not exacerbate any flood risk;
- promoting the integrated management of the coastal area and minimising unnecessary coastal development;
- guiding proposals for renewable energy;
- safeguarding good quality agricultural land from inappropriate and irreversible development;
- providing a framework for the selection of sites for mineral extraction, landfill and land raise developments to minimise environmental damage to landscape, heritage and environmental assets.

The Dundee and Angus Structure Plan *aims for the sustainable management of the areas environmental resources are to :*

- *protect and enhance the natural environment in Angus in ways which respect landscape character, promote biodiversity conservation, and enable public enjoyment and understanding;*
- *conserve the heritage value of the built and historic environment and enhance environmental quality in and around the main settlements of the area;*
- *encourage the sustainable use of the area's natural resources and provide a framework for managing the impact of development that supports the economic viability of rural areas; and*
- *provide a framework for renewable energy development and waste management.*

3.6 Areas of the natural environment of Angus are of international, national and local importance for their ecological, geological and geomorphological interest. In line with Government objectives the protection and enhancement of the area's rich and varied environmental assets is central to Angus Council's approach to the stainable use of resources.

NPPG 14: Natural Heritage (1999):
The Government's objectives for Scotland's natural heritage are to conserve, safeguard and, where possible, enhance:

- *the overall populations and natural ranges of native species and the quality and range of wildlife habitats and ecosystems;*
- *geological and physiographical features;*
- *the natural beauty and amenity of the countryside and the natural heritage interest of urban areas; and*
- *opportunities for enjoying and learning about the natural environment*

Ecology, Habitat and Geological Conservation

3.7 A range of sites in Angus have been recognised for their wildlife and geological interest. Those of international importance for wild birds include Ramsar sites and Special Protection Areas. Those of international importance for rare, vulnerable or endangered habitats and species of plants or animals are designated as Special Areas of Conservation. Together these form a European Community wide network of protected areas, known as Natura 2000. In addition Angus has a number of areas covered by national designations, including National Nature Reserves and Sites of Special Scientific Interest. The areas of international and national natural heritage designation are listed in Figure 3.1 and shown on the main Proposals Map.

Natura 2000:
a network of areas designated to conserve rare, endangered or vulnerable natural habitats and species of wildlife comprising:-

Special Protection Areas (SPAs):
areas classified by the Scottish Ministers in accordance with the EC Birds Directive for the purpose of protecting the habitats of rare, threatened or migratory bird species.

Special Areas of Conservation (SACs):
areas designated by the Scottish Ministers in accordance with the EC Habitats Directive to ensure that rare, endangered or vulnerable habitats and species of Community interest are either maintained at or restored to a favourable conservation status.

Ramsar Site:
wetland of worldwide importance particularly those containing large numbers of waterfowl. Sites include marshes, fens, peatlands, estuaries, open water and in-shore marine areas, and their associated plant life and animals.

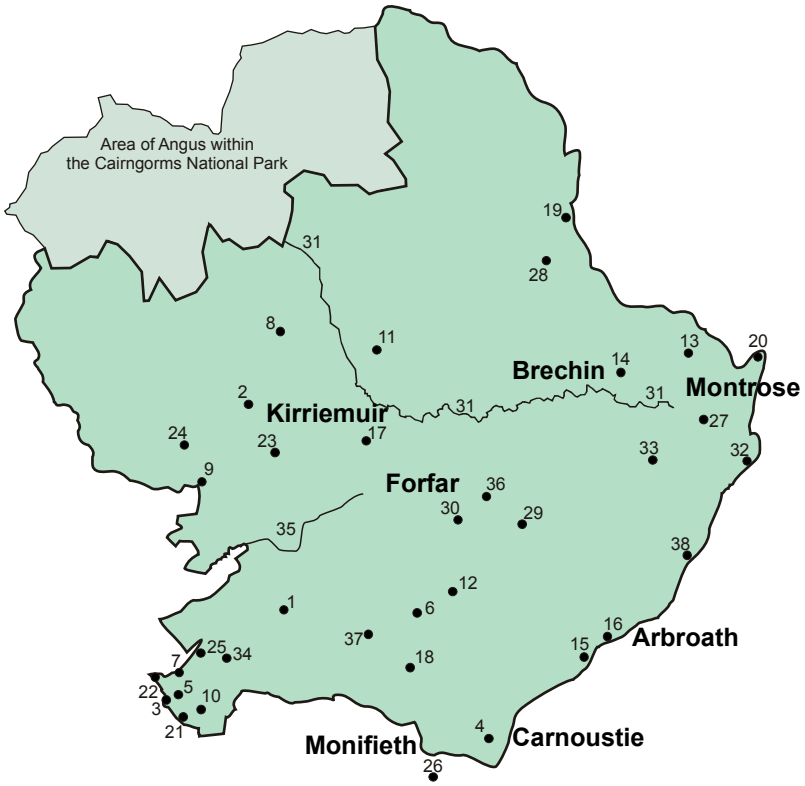
Policy ER1 : Natura 2000 and Ramsar Sites

Development likely to have a significant effect on a designated, candidate or proposed Natura 2000 site (Special Protection Areas and Special Areas of Conservation), or Ramsar site and not connected with or necessary to the conservation management of the site must undergo an appropriate assessment as required by Regulation 48 of the Conservation (Natural Habitats etc.) Regulations 1994. Development will only be permitted exceptionally and where the assessment indicates that:

(a) it will not adversely affect the integrity of the site; or
(b) there are no alternative solutions; and
(c) there are imperative reasons of overriding public interest, including those of a social or economic nature.

Where proposals affect a priority habitat and/or priority species as defined by the Habitats Directive (92/43/EEC), the only overriding public interest must relate to human health, public safety or beneficial consequences of primary importance to the environment. Other allowable exceptions are subject to the views of the European Commission.

Figure 3.1 - Natural Heritage Designations



REF		NNR	SAC	SPA	RAMSAR	SSSI	GCR	OTHER
1	AUCHTERHOUSE HILL					●		
2	BALLOCH MOSS					●		
3	BALSHANDO BOG					●		
4	BARRY LINKS		●	●		●	●	
5	BLACKLAW HILL MIRE					●		
6	CARROT HILL MEADOW					●		
7	CRAIGS OF LUNDIE AND ARDGARTH LOCH					●		
8	CROSSBOG PINEWOOD					●		
9	DEN OF AIRLIE*	●				●		
10	DEN OF FOWLIS					●		
11	DEN OF OGIL					●		
12	DILTY MOSS					●		
13	DRYLEY'S BRICKPIT					●	●	
14	DUN'S DISH			●	●	●		
15	EASTHAVEN					●		
16	ELLIOT LINKS					●		
17	FORESTMUIR					●		
18	GAGIE MARSH					●		
19	GANNOCHY GORGE					●	●	
20	KINNABER LINKS (part of ST. CYRUS S.S.S.I.)	●				●		
21	LITTLE BALLO					●		
22	LOCHINDORES					●		
23	LOCH OF KINNORDY			●	●	●		
24	LOCH OF LINTRATHEN			●	●	●		
25	LONG LOCH OF LUNDIE					●		
26	MONIFIETH BAY		●		●	●		
27	MONTROSE BASIN			●	●	●	●	● LNR
28	NORTH ESK & WEST WATER PALEOCHANNELS					●	●	
29	RESCOBIE AND BALGAVIES LOCHS					●		
30	RESTENNETH MOSS					●		
31	RIVER SOUTH ESK (linear)		●					
32	RICKLE CRAIG - SCURDIE NESS					●	●	
33	ROSSIE MOOR					●		
34	ROUND LOCH OF LUNDIE					●		
35	THE RIVER TAY & ITS TRIBUTARIES(linear)		●					
36	TURIN HILL (composite site)					●	●	
37	WHITEHOUSE DEN					●	●	
38	WHITING NESS - ETHIE HAVEN COAST					●	●	

NNR - National Nature Reserve
SAC - Special Area of Conservation
SPA - Special Protection Area
SSSI - Site of Special Scientific Interest
GCR - Geological Conservation Review Site (i.e. site is partly or wholly a SSSI for its geological interest.)
LNR - Local Nature Reserve
NSA - National Scenic Area

● Designated
x Candidate
o Proposed
* Site in process of being de-declared as an NNR

Policy ER2 : National Nature Reserves and Sites of Special Scientific Interest

Developments affecting National Nature Reserves and Sites of Special Scientific Interest will only be permitted exceptionally where it can be adequately demonstrated that either:

(a) the proposed development will not compromise, destroy or adversely affect the conservation objectives and/or particular interest for which the site was notified; or
(b) there is an overriding and proven public interest where social or economic considerations outweigh the need to safeguard the ecological, geological or geomorphological interest of the site and the need for the development cannot be met in other less damaging locations or by reasonable alternative means.

National Nature Reserves (NNRs):
areas of national or international importance for nature conservation which include some of the most important natural and semi-natural habitats in Great Britain.

Sites of Special Scientific Interest (SSSIs):
areas of land or water which in the opinion of Scottish Natural Heritage are of special interest by reason of their flora, fauna, or geological or physiographical features.

Local Nature Reserves:
areas of locally important nature conservation or amenity value which give access to the public.

3.8 Angus also contains a number of sites of regional or local nature conservation or geological interest including Regionally Important Geological Sites, Local Nature Reserves and sites of recognised local nature conservation importance.

Policy ER3 : Regional and Local Designations

Development which would adversely affect sites containing habitats, species, and/or geological or geomorphological features of local or regional importance, whether designated or otherwise, will only be permitted where:

(a) ecological appraisals have demonstrated to the satisfaction of the Council that the overall integrity of the site and the features of natural heritage value will not be compromised; or
(b) the economic and social benefits arising from the proposal significantly outweigh the natural heritage value of the site.

Local Biodiversity Action Plan:
A Local Biodiversity Action Plan focuses resources to conserve and enhance biodiversity (at a local level) by means of local partnerships taking account of both national and local priorities.

Wider Natural Heritage and Biodiversity

3.9 The protection and enhancement of the natural heritage value of the wider environment beyond the confines of designated areas is necessary to promote biodiversity. Species or habitats protected under the Wildlife and Countryside Act 1981, EC Birds or Habitat Directives or identified as priorities in the UK Biodiversity Action Plan may be found outwith designated sites. Local Biodiversity Action Plans have been prepared for both Tayside and the Cairngorms with the aim of safeguarding the future of the area's habitats and species. Implementation of these LBAPs is progressing through the preparation and implementation of a series of habitat and species action plans. The Local Biodiversity Action Plans for Tayside and the Cairngorms will be material considerations in the determination of planning applications.

Policy ER4 : Wider Natural Heritage and Biodiversity

The Council will not normally grant planning permission for development that would have a significant adverse impact on species or habitats protected under British or European Law, identified as a priority in UK or Local Biodiversity Action Plans or on other valuable habitats or species.

Development proposals that affect such species or habitats will be required to include evidence that an assessment of nature conservation interest has been taken into account. Where development is permitted, the retention and enhancement of natural heritage and biodiversity will be secured through appropriate planning conditions or the use of Section 75 Agreements as necessary.

Landscape Character

3.10 The landscape of Angus is one of its most important assets. It ranges in character from the rugged mountain scenery of the Angus Glens, through the soft rolling cultivated lowland landscape of Strathmore to the sandy bays and cliffs of the coast.

3.11 A small part of north-west Angus is statutorily designated as part of a larger National Scenic Area (NSA). The character and quality of this landscape is of national significance and special care should be taken to conserve and enhance it. Part of the upland area of Angus, including the NSA, is contained within the Cairngorms National Park which is excluded from the Angus Local Plan Review. The guidance provided by the adopted Angus Local Plan will remain in force until it is replaced by a Cairngorms National Park Local Plan prepared by the National Park Authority. The Cairngorms was made a National Park in September 2003 because it is a unique and special place that needs to be cared for – both for the wildlife and countryside it contains and for the people that live in it, manage it and visit it. It is Britain's largest national park.

3.12 In seeking to conserve the landscape character of the area it is important to assess the impact of development proposals on all parts of the landscape. To assist in this the "Tayside Landscape Character Assessment (1999)" commissioned by Scottish Natural Heritage establishes landscape character zones and key character features within the local plan area to provide a better understanding of them and thus to enable better conservation, restoration, management and enhancement. Landscape Character Zones for the Local Plan Area are shown in Figure 3.2.

National Scenic Area:
Nationally important area of outstanding natural beauty, representing some of the best examples of Scotland's grandest landscapes particularly lochs and mountains.

***National Park (Scotland) Act 2000** sets out four key aims for the park:*

- *To conserve and enhance the natural and cultural heritage of the area;*
- *To promote sustainable use of the natural resources of the area;*
- *To promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public;*
- *To promote sustainable economic and social development of the area's communities.*

Tayside Landscape Character Assessment 1999:
A detailed hierarchical assessment based on variations in the Tayside landscape, with a series of management and planning guidelines designed to conserve and enhance its distinctive character.

Figure 3.2 : Landscape Character Zones

3.13 Where appropriate, development proposals will be considered in the context of the guidance provided by the Tayside Landscape Character Assessment. The assessment identifies different landscape character zones, considers their capacity to absorb change, and indicates how various types of development might best be accommodated to conserve characteristic landscape features and to strengthen and enhance landscape quality. Particular attention is focussed on the location, siting and design of development and the identification of proposals which would be detrimental to the landscape character of Angus.

Policy ER5 : Conservation of Landscape Character

Development proposals should take account of the guidance provided by the Tayside Landscape Character Assessment and where appropriate will be considered against the following criteria:

(a) sites selected should be capable of absorbing the proposed development to ensure that it fits into the landscape;
(b) where required, landscape mitigation measures should be in character with, or enhance, the existing landscape setting;
(c) new buildings/structures should respect the pattern, scale, siting, form, design, colour and density of existing development;
(d) priority should be given to locating new development in towns, villages or building groups in preference to isolated development.

Trees, Woodlands and Hedgerows

3.14 Trees, woodlands, hedgerows and treelines make valuable contributions to nature conservation and recreational activity and are integral to the landscape and townscape of Angus. Ancient woodland is of particular ecological value and is an irreplaceable resource. Such woodland requires special protection as once destroyed it cannot be recreated. Where appropriate, the Council will use Tree Preservation Orders to ensure the protection of an individual tree or group of trees considered important to the amenity value of the surrounding area. In addition and wherever possible the opportunity should be taken to strengthen woodland cover with local native species, either as part of a development proposal, or through the establishment of urban forestry and community woodland initiatives. Angus Council has established the Angus Millennium Forest (AMF) which covers around 83 ha of Council land in the main towns. The AMF makes a significant contribution to biodiversity, urban wildlife conservation and the provision of green spaces in these towns and should be protected from development.

***Treeline** (lowland)*
As defined in The Local Biodiversity Action Plan this is a row of standard trees growing in a hedgerow or as a separate avenue of trees.

Tree Preservation Order(TPO):
An order made by the Planning Authority to preserve trees or woodlands in their area which are considered to have a high amenity value.

Policy ER6 : Trees, Woodlands and Hedgerows

Trees, woodlands and hedgerows which have a landscape, amenity and/or nature conservation value will be protected from development. Development that would result in the loss of or damage to ancient or semi-natural woodlands will not be permitted. Tree Preservation Orders will be promoted to protect groups of trees or individual significant trees of importance to the amenity of a surrounding area where such trees and woodland are under threat. Management Agreements will be introduced, where appropriate, to ensure the establishment of new and replacement planting. Tree planting initiatives such as Community Woodland proposals and other amenity planting will continue to be supported and encouraged.

Trees on Development Sites

3.15 The importance of trees and treelines on development sites should not be under estimated. They can make a substantial contribution towards the overall amenity and integration of new development into the environment and the layout of development proposals should, wherever possible, accommodate trees and treelines worthy of retention.

3.16 A full tree survey may be required to accompany planning applications on sites with existing trees so that the impact of the development on existing trees can be fully assessed. Care should also be taken to avoid damage to trees on sites adjacent to the proposed development. Additional guidelines on this matter are contained in Angus Council Advice Note 22: The Survey of Trees on Development Sites.

Policy ER7 : Trees on Development Sites

Planning applications for development proposals affecting sites where existing trees and hedges occur and are considered by Angus Council to be of particular importance will normally be required to:

(a) provide a full tree survey in order to identify the condition of those trees on site;
(b) where possible retain, protect and incorporate existing trees, hedges, and treelines within the design and layout;
(c) include appropriate new woodland and or tree planting within the development proposals to create diversity and additional screening, including preserving existing treelines, planting hedgerow trees or gapping up/ enhancing existing treelines.

Gapping up
Planting up gaps in hedgerows. This ensures that the hedgerow will retain both its ecological and historical value.

In addition developers may be required to provide an Arboricultural Methods Statement, a Performance Bond and/or enter into Section 75 Agreements.

Commercial Forestry

3.17 Commercial forestry is of importance to Angus and whilst afforestation is not subject to planning control, the planning process has a role in integrating forestry with other land use interests. The Tayside Indicative Forestry Strategy (IFS) was originally introduced as part of the Approved Tayside Structure Plan 1993. That part of the IFS relating to Dundee and Angus has been endorsed by the approved Dundee and Angus Structure Plan and continues to provide a strategic framework for considering commercial forestry proposals.

Policy ER8 : Commercial Forestry Development

Proposals for afforestation which are in accordance with the framework provided by the Tayside Indicative Forestry Strategy and the Tayside Landscape Character Assessment will be supported. Tree planting initiatives, such as community woodland proposals and other amenity planting will continue to be supported and encouraged.

Tayside Indicative Forestry Strategy (IFS):
An assessment at a Tayside level of the opportunities for new woodland planting taking account of the presence and complexity of conflicting land use interests. The IFS identifies those areas where forestry planting is preferred, those areas where there is potential and those areas that are sensitive and where forestry would not be encouraged.

Advertising in the Countryside

3.18 The uncontrolled erection of advertisements and signs can have a particularly detrimental effect on the appearance of the countryside. Almost all of Angus outwith the towns is designated as an Area of Special Advertisement Control. This designation enables the Council to resist the erection of advertisements that are not regarded as "reasonably necessary". Further guidance is contained in Angus Council Advice Note 7: Advertising in the Countryside.

Policy ER9 : Advertising in the Countryside

Proposals for advertising in the countryside will only be permitted where it is in accordance with the guidance contained in Angus Council Advice Note 7: Advertising in the Countryside.

Light Pollution

3.19 Light pollution has increasing implications for degrading the integrity of the environment. Measures to reduce spillage not only minimise the impact of light pollution from new development but also contributes to greater energy efficiency. Angus Council will seek to minimise light spillage from exterior lighting.

Policy ER10 : Light Pollution

Where developments incorporate exterior lighting, Angus Council will require designs which minimise light spillage through use of low pressure sodium lights, full cut-off lanterns and other measures as appropriate. Where floodlighting is needed for sports pitches, golf driving ranges etc, it should be directed and hooded in such a way that the light source is not seen from any neighbouring properties, roads, or paths.

Noise Pollution

3.20 Noise can have a significant impact on our health, quality of life and the general quality of the environment. The planning system has an important role in preventing and limiting noise pollution and the noise implications of development can be a material consideration in determining applications for planning permission adjacent to existing noise sensitive development or where new noise sensitive development is proposed.

Policy ER11 : Noise Pollution

Development which adversely affects health, the natural or built environment or general amenity as a result of an unacceptable increase in noise levels will not be permitted unless there is an overriding need which cannot be accommodated elsewhere. Proposals for development generating unacceptable noise levels will not generally be permitted adjacent to existing or proposed noise sensitive land uses.

Proposals for new noise-sensitive development which would be subject to unacceptable levels of noise from an existing noise source or from a proposed use will not be permitted.

Planning Advice Note 56 - Planning and Noise (1999)
Noise sensitive land uses should be generally regarded as including housing, hospitals, educational establishments, offices and some livestock farms.

BUILT ENVIRONMENT

3.21 The built environment of Angus is rich and varied. Built development, both historic and modern contributes to the character of the towns, villages and countryside of the area. Angus Council aims to protect and enhance the best of the built environment and improve on the general standard of design. SPP1: The Planning System (2002) emphasises the importance of design considerations in reaching planning decisions.

NPPG 18: Planning and the Historic Environment(1999)
The Government's aim is to promote sustainable development by:

- *applying the legislative framework to protect, maintain, conserve and promote the continued use of historic property and environments.*
- *promoting economic, social and physical change that respects the character of the historic environment.*

Historic Built Environment

3.22 The best of the historic built environment of Angus is protected through the listing of buildings, the designation of Conservation Areas, ancient monuments, archaeological sites and sensitive areas, historic parks and gardens. National policy advice on management of the built heritage is contained in the "Memorandum of Guidance on Listed Buildings and Conservation Areas, 1993" published by Historic Scotland. Reference will be made to the Memorandum in assessing development proposals which affect Listed Buildings or buildings in Conservation Areas.

Conservation Areas

Conservation Area
Area of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance.

Character Statement
Outlines the characteristics and qualities of a Conservation Area which are worth protecting. Character Statements have been prepared for Arbroath and Montrose.

3.23 There are 19 conservation areas in Angus, shown in Figure 3.3, of which nine are designated as outstanding. Most of the Angus conservation areas were designated in the 1970s and as part of ongoing work by Angus Council, they are being reviewed. It is proposed to prepare character statements for all conservation areas to inform development control decisions and enhancement proposals. These will identify particular characteristics and local qualities that should be protected.

Article 4 Directions
Promoted by Angus Council and confirmed by the Scottish Ministers they require planning permission for specific types of development, which would otherwise be regarded as 'permitted development', i.e. a development that does not require planning permission.

3.24 Article 4 Directions exist in five of the Angus conservation areas (Arbroath Abbey to Harbour, Lundie, Montrose, Murroes and Fowlis). These provide Angus Council with greater control over development proposals by requiring planning permission to be sought for minor works that would not normally require permission. Angus Council intends to review, revise and update the Article 4 Directions for Lundie, Montrose, Murroes and Fowlis within the Plan period.

Figure 3.3 : Heritage Designations

- Conservation Area (Outstanding)
- Conservation Area
- Article 4 Direction
- Gardens & Designed Landscapes
- Ancient Monuments (in care of Scottish Ministers)

Development Affecting Conservation Areas

3.25 Development proposals in conservation areas should be sympathetic to their surroundings and will be assessed on the contribution they would make to the character or appearance of each area. Support will be given to proposals which are consistent with the aims of preservation or enhancement but equally, development proposals which are poorly designed or where the setting, scale, use of materials, colours, or finish is inappropriate, will be discouraged.

3.26 In order to fully assess the impact of a proposal, applications should be accompanied by sufficient information on the historical, architectural, environmental and archaeological significance of the site along with details of the nature of the proposed development.

Policy ER12 : Development Affecting Conservation Areas

Development proposals within conservation areas or affecting the setting of such areas will be supported where they:

(a) respect the character and appearance of the area in terms of:
- **density, scale, proportion and massing;**
- **layout, grouping and setting;**
- **design, materials and finish;**

(b) contribute positively to the setting of the area and maintain important views within, into or out of the area;

(c) retain particular features which contribute to the character and appearance of the area;
- **open spaces;**
- **walls and other means of enclosure;**
- **ground surfaces;**
- **natural features such as trees and hedgerows;**

(d) accord with the Character Statement for the area.

Demolition of Buildings in Conservation Areas

3.27 Conservation area designation brings the demolition of most buildings under planning control by introducing the requirement for Conservation Area Consent. This recognises the damage that demolition of 'unlisted' but important buildings can do to the character and appearance of the area. There is a general presumption in favour of retaining buildings that make a positive contribution to the character or appearance of conservation areas. applications for demolition of unlisted buildings in conservation areas will usually require to be accompanied by:

Conservation Area Consent
Consent required to demolish an unlisted building in a conservation area.

- a detailed scheme for the redevelopment of the site;
- details of site layout if it is to be retained as an open area;
- an indication of project timescale; and
- a structural engineer's report.

3.28 Where demolition is approved it may be necessary to impose a planning condition or to seek a legal agreement to ensure that the project is only commenced when evidence of a legally binding contract for the redevelopment project is in place.

Policy ER13 : Demolition of Buildings in Conservation Areas

There will be a presumption in favour of the retention of buildings which contribute to the character and appearance of conservation areas.
Development involving demolition of buildings or parts of buildings which make a positive contribution to the character and appearance of conservation areas will only be supported where:

(a) it has been demonstrated that the condition of the building makes it impractical to repair, renovate or adapt it to any reasonably beneficial use for which planning permission would be granted; and
(b) there is evidence that all reasonable efforts have been made to sustain the existing use or find a viable and acceptable new use or uses for the building including marketing of the building nationally for at least 6 months; and
(c) planning permission for the reuse of the site, including any replacement building or other structure has been granted.

Submission of the necessary information does not imply that consent for demolition will be automatically granted.

In most cases demolition will only be permitted where work on the erection of a replacement building is to start immediately following the date of demolition or other such period as may be agreed with Angus Council.

Trees in Conservation Areas

3.29 Trees make a valuable contribution to the character of several of the designated conservation areas. felling or insensitive lopping could adversely affect this character. anyone who wishes to fell, lop, prune or top trees in conservation areas is required to give six weeks prior written notice to the Council who may then make a Tree Preservation Order if it is considered appropriate and/or ensure that appropriate new or replacement planting is undertaken. In general works that sustain the future of important trees will be supported, although it is accepted that trees that are dead or unsafe will require to be removed. Where a tree or trees can be shown to detract from the character of a conservation area felling may also be appropriate.

Policy ER14 : Trees in Conservation Areas

Felling, lopping, topping or other work to trees in conservation areas will be acceptable where the applicant can demonstrate sound arboricultural or safety reasons for the proposal or demonstrate that the trees detract from the character of the conservation area. Where trees are important to the character of the area, Angus Council will consider the use of a Tree Preservation Order. Where felling is acceptable appropriate new and/or replacement planting will be required.

Listed Buildings

Listed Building
A building that is included in a list compiled by Historic Scotland as being of architectural or historic interest.

3.30 There are over 2000 listed buildings in Angus. The Council has a statutory duty to protect these buildings for their special architectural or historic interest. The Council will seek to ensure that development proposals respect and sustain the character and quality of the buildings and their settings.

3.31 Listed buildings are an important part of the heritage of the area and will be protected from alteration, extension or development that will affect their character, setting or any features which have led to their designation. The demolition of a listed building will not be supported unless a very strong case is made.

3.32 Alterations to listed buildings that require to meet other legislative requirements, particularly The Building Standards (Scotland) Regulations 1990, as amended, must be undertaken sensitively and ensure that the impact on both internal or external features is minimised.

3.33 Further guidance can be found in Angus Council Advice Note 20: Listed Buildings and Conservation Areas.

Policy ER15 : Change of Use, Alterations and Extensions to Listed Buildings

Change of use, or alterations and extensions to a listed building will only be permitted where they are in keeping with the fabric, character and appearance of the building or its setting.

3.34 The relationship of a listed building with the buildings, landscape and spaces around it is an essential part of its character. The setting of a listed building is, therefore, worth preserving and may extend to encompass land or buildings some distance away. Insensitive development can erode or destroy the character and/or setting of a listed building. Consequently planning permission will not be granted for development which adversely affects the setting of a Listed Building. Trees and landscaping, boundary walls and important elevations may be particularly sensitive to the effects of development.

Policy ER16 : Development Affecting the Setting of a Listed Building

Development proposals will only be permitted where they do not adversely affect the setting of a listed building. New development should avoid building in front of important elevations, felling mature trees and breaching boundary walls.

3.35 Listed buildings represent the very best examples both locally and nationally of particular building types and there is a strong presumption against demolition in whole or in part. Where proposals for demolition are put forward considerable supporting evidence will be required as part of any application for Listed Building Consent.

Policy ER17 : Demolition of Listed Buildings

Listed Building Consent
A legal requirement which authorises work to listed buildings.

There will be a presumption against the demolition of listed buildings. applications for consent to demolish a listed building will only be considered where:

(a) it has been demonstrated through a detailed structural and feasibility report that the condition of the building makes it impractical to repair, renovate or adapt it to any reasonably beneficial use for which planning permission would be granted; and
(b) there is evidence that all reasonable efforts have been made to sustain the existing use or find a viable and acceptable new use or uses for the building including marketing of the building nationally for at least 6 months; and
(c) detailed planning permission for the reuse of the site, including any replacement building or other structure has been granted.

Submission of the necessary information does not imply that consent for demolition will be automatically granted.

In most cases demolition will only be permitted where work on the erection of a replacement building is to start immediately following the date of demolition or other such period as may be agreed with Angus Council.

Ancient Monuments and Archaeological Sites

NPPG 5: Planning and Archaeology (1994)
Sets out the role of the planning system in protecting ancient monuments and archaeological sites and landscapes. The Government seeks to encourage the preservation of our heritage of sites and landscapes of archaeological and historic interest. The development plan system provides the policy framework for meeting the need for development along with the need for preserving archaeological resources.

3.36 Angus has a rich heritage of archaeological remains ranging from crop marks and field systems through to structures such as standing stones, hill forts, castles and churches. They are evidence of the past development of society and help us to understand and interpret the landscape of today. They are a finite and non-renewable resource to be protected and managed.

3.37 Sites considered to be of national importance are scheduled by Scottish Ministers as Ancient Monuments. There are over 200 such sites in Angus with additional sites regularly being incorporated into the List. In addition, there are other monuments of regional or local significance. All of these sites and monuments, whether scheduled or not, are fragile and irreplaceable.

PAN 42 : Archaeology – the Planning Process and Scheduled Monument Procedure (1994)
Archaeological remains offer a tangible, physical link with the past. They are a finite and non-renewable resource containing unique information about our past and the potential for an increase in future knowledge. Such remains are part of Scotland's identity and are valuable both for their own sake and for education, leisure and tourism. The remains are often fragile and vulnerable to damage or destruction; care must therefore be taken to ensure that they are not needlessly destroyed.

3.38 The owner or occupier of a scheduled ancient monument is required to obtain consent from Historic Scotland for repairs, alterations, demolition, or any work affecting the monument. In order therefore to protect the scheduled monument any planning application that may affect it will be notified to Historic Scotland and their comments taken into account in determining development proposals.

Scheduled Ancient Monument (SAM):
The site of a scheduled monument and any other monument which in the opinion of the Scottish Ministers is of public interest by reason of its historic, architectural, traditional, artistic or archaeological interest.

Policy ER18 : Archaeological Sites of National Importance

Priority will be given to preserving Scheduled Ancient Monuments in situ. Developments affecting Scheduled Ancient Monuments and other nationally significant archaeological sites and historic landscapes and their settings will only be permitted where it can be adequately demonstrated that either:

a) the proposed development will not result in damage to the scheduled monument or site of national archaeological interest or the integrity of its setting; or
b) there is overriding and proven public interest to be gained from the proposed development that outweighs the national significance attached to the preservation of the monument or archaeological importance of the site. In the case of Scheduled Ancient Monuments, the development must be in the national interest in order to outweigh the national importance attached to their preservation; and
c) the need for the development cannot reasonably be met in other less archaeologically damaging locations or by reasonable alternative means; and
d) the proposal has been sited and designed to minimise damage to the archaeological remains.

Where development is considered acceptable and preservation of the site in its original location is not possible, the excavation and recording of the site will be required in advance of development, at the developer's expense.

3.39 While the best examples of valuable archaeological sites are designated of national importance there are numerous examples of historic sites in both urban and rural areas that are of local significance. There are also other sites where finds may have been made in the past but no remains are known to date.

3.40 Within the mediaeval burghs of Arbroath, Brechin, Forfar and Montrose areas of primary and secondary archaeological significance were identified through the Scottish Burgh Surveys undertaken in the late 1970s. This provides an indicator for prospective developers that where redevelopment is being proposed an archaeological assessment may be required prior to commencement of works or at least a watching brief during excavations.

Policy ER19 : Archaeological Sites of Local Importance

Where development proposals affect unscheduled sites of known or suspected archaeological interest, Angus Council will require the prospective developer to arrange for an archaeological evaluation to determine the importance of the site, its sensitivity to development and the most appropriate means for preserving or recording any archaeological information. The evaluation will be taken into account when determining whether planning permission should be granted with or without conditions or refused.

Where development is generally acceptable and preservation of archaeological features in situ is not feasible Angus Council will require through appropriate conditions attached to planning consents or through a Section 75 Agreement, that provision is made at the developer's expense for the excavation and recording of threatened features prior to development commencing.

Historic Gardens and Designed Landscapes

3.41 There are many fine examples of estates, parks and gardens, which help to form the landscape quality of Angus. The contribution of these historic and designed landscapes to the appearance of Tayside is recognised in the Tayside Landscape Character Assessment (1999).

3.42 Angus Council will seek to protect and enhance historic gardens and designed landscapes currently included in the Inventory of Gardens and Designed Landscapes in Scotland (1989), and any others that may be identified during the plan period as well as non-inventory sites of local or regional importance. Although it is recognised that non-inventory sites make an important contribution to the character of the landscape of Angus, further research is required to determine their number and location.

Inventory of Gardens and Designed Landscapes in Scotland(1989):
A detailed list compiled by Historic Scotland and Scottish Natural Heritage as being of architectural or historic interest. Inventory sites in Angus include:
Airlie Castle
Ascreavie
Brechin Castle
Cortachy Castle
Edzell Castle
Glamis Castle
Guthrie Castle
The Guynd
House of Dun
House of Pitmuies
Kinnaird Castle

Policy ER20 : Historic Gardens and Designed Landscapes

Sites included in the "Inventory of Gardens and Designed Landscapes in Scotland", and any others that may be identified during the plan period, will be protected from development that adversely affects their character, amenity value and historic importance. Development proposals will only be permitted where it can be demonstrated that:

(a) the proposal will not significantly damage the essential characteristics of the garden and designed landscape or its setting; or
(b) there is a proven public interest, in allowing the development, which cannot be met in other less damaging locations or by reasonable alternative means.

Protection will also be given to non-inventory historic gardens, surviving features of designed landscapes, and parks of regional or local importance, including their setting.

Shopfronts, Advertisements and Signs in Conservation Areas, Dutch Canopies, Window Alterations and Security Grilles

3.43 Angus Council has produced a series of Advice Notes to provide further policy guidance on design issues with regard to alterations to existing buildings. The guidance is intended to ensure that alterations to existing buildings are carried out in a sympathetic manner that does not detract from the character of a building or area. Guidance has been published for shopfronts, advertisements and signs in conservation areas, dutch canopies, window alterations and security grilles.

Policy ER21 : Design Guidance

Development proposals affecting shopfronts, advertisements and signs in Conservation Areas, dutch canopies, security grilles and window alterations will be required to take account of the guidance provided by:

- **Advice Note 2 – Shopfronts and Signs in Conservation Areas;**
- **Advice Note 8 – Dutch Canopies/Sunblinds;**
- **Advice Note 9 – Window Alterations;**
- **Advice Note 10 – Shop Window Security.**

3.44 The Water Environment and Water Services (Scotland) Act 2003 introduced legislation to implement the EC Water Framework Directive. This established a requirement for river basin management by SEPA in partnership with other agencies including Angus Council. The Water Framework Directive requires the sustainable management of Scotland's water resources on the basis of natural river basin districts taking account of all the impacts that cause harm to the aquatic environment, including physical development, land use activity and effluent discharge. In the interim period until detailed controls are introduced through River Basin Management Plans, the Local Plan seeks to ensure that development activity does not lead to a deterioration of the quality and status of the water resource in Angus.

Foul Drainage

3.45 Recent major investment by Scottish Water, including the Tay Waste Water Project, to meet the requirements of the Urban Waste Water Treatment (Scotland) Regulations 1994 and Bathing Water (Classification) (Scotland) Regulations 1991 has significantly improved treatment standards and enhanced development prospects at Arbroath, Carnoustie, Monifieth, Forfar and Montrose. Drainage constraints do however continue to affect a number of locations across Angus and influence site selection and the timing of land release for development. In order to secure implementation of the Local Plan strategy the Council will continue to press Scottish Water to allocate appropriate resources for the Angus area in their Investment Plan to remove longstanding development constraints.

3.46 The nature and scale of some development constraints may present the opportunity for developer/Scottish Water partnership initiatives and investment. This approach is welcomed by Angus Council where it supports development proposals which are in accordance with the Local Plan strategy.

3.47 Private drainage systems, including septic tanks and biodiscs, are vital in bringing forward development proposals in locations outwith areas served by public sewers. Such private systems have however been increasingly viewed by developers as providing an opportunity to overcome development constraints affecting towns and villages served by public sewerage. Concerns remain over long-term maintenance and the potential for pollution and environmental damage.

3.48 Consequently, the general approach of the Local Plan will be to require development within sewered areas to be connected to the public drainage system and to discourage the use of private drainage solutions in areas served by public sewers, regardless of whether or not capacity is available.

Policy ER22 : Public Drainage Systems

Within towns and villages served by public sewers all development proposals requiring drainage must be connected to the public drainage system. Private drainage solutions will not be permitted within areas served by public sewers, even where they are subject to constraint.

Policy ER23 : Private Drainage Systems

Development proposals requiring the private provision of waste water treatment plant, biodiscs, septic tanks or similar arrangements will only be acceptable where:-

(a) the site is located outwith the public sewerage network;
(b) the proposed development is in accord with the development strategy and other relevant policies of the Local Plan;
(c) there is no detrimental effect to a potable water supply, or supply for animals or an environmentally sensitive water course or loch, including ground and surface waters; and
(d) the requirements of SEPA and/or The Building Standards (Scotland) Regulations 1990, as amended, are met in relation to installation, e.g. proximity to other buildings.

PAN 61: Planning and Sustainable Urban Drainage Systems (2001)

Sustainable Urban Drainage Systems (SUDS) aim to deal in an integrated way with surface water, based on the following principles:

- *managing surface water run-off on-site as near to source as possible;*
- *slowing down run-off;*
- *treating it naturally; and*
- *releasing good quality surface water to watercourses or groundwater.*

Sustainable Urban Drainage Systems - Design Manual for Scotland and Northern Ireland (2002):
prepared by the Sustainable Urban Drainage Scottish Working Party the Manual provides a definitive source of advice for SUDS design, planning and implementation in Scotland.

Surface Water Management

3.49 In the Angus towns and villages much of the existing drainage network is a combined system which deals with both foul water and surface water run-off from roads, roofs and other impermeable surfaces. This significantly reduces the capacity of the foul drainage network during storm water conditions. Scottish Water does not accept surface water run-off from new greenfield development into the foul drainage network and separate arrangements are required for surface water disposal. Depending on local circumstances such arrangements will also be required for brownfield redevelopment sites.

3.50 Developers are required to make appropriate provision for the collection, treatment, decontamination and disposal of all surface water arising from development sites to the standards and requirements of SEPA, Angus Council Planning & Transport and Roads Departments and Scottish Water as appropriate. Isolating pollutants at source and providing the necessary treatment can reduce the potential for pollution. The use of permeable surfaces and other water attenuation measures designed to slow surface water run-off from the development site can reduce the risk of flooding in water catchment areas. Detailed guidance on the effective management of surface water run-off through the use of Sustainable Urban Drainage Systems (SUDS) is provided by PAN61: Planning and Sustainable Urban Drainage Systems (2001) and the Sustainable Urban Drainage Systems - Design Manual for Scotland and Northern Ireland (2002).

Policy ER24 : Surface Water Disposal

Sustainable Urban Drainage Systems are preferred in dealing with surface water drainage from all new development. In considering development proposals Angus Council will consult and liase closely with SEPA, Scottish Water and developers in order to ensure that appropriate methods of surface water run-off collection, treatment, decontamination and disposal are implemented to minimise the risk of flooding and the pollution of water courses, lochs and ground water.

Proposals that adopt ecological solutions to surface water management which promote local biodiversity by the formation of ponds and/or wetlands for example, and create or improve habitats will also be encouraged.

Water Supply

3.51 As a result of programmed investment by Scottish Water over a number of years the Angus water supply infrastructure (sources, treatment plant, service reservoirs and distribution network) is of a very high standard and generally capable of meeting the water demands of the development proposals identified in the Local Plan.

3.52 Although localised water supply problems continue to affect a number of villages in Angus including Monikie and Tannadice, there are no schemes currently proposed by Scottish Water to resolve these issues. Angus Council will continue to encourage Scottish Water to make timeous and appropriate investment in Angus to remove existing water supply constraints and maintain the current high standard of water supply and treatment.

3.53 Some more remote areas of rural Angus, where public water supply is not available, are dependent on private water supplies. It is important that these supplies and water catchment areas that are the source of potable water are protected from development which may adversely affect water quality. Applications for planning permission will require to prove to the satisfaction of Angus Council that the development proposal will not detrimentally affect existing water supplies. Use of private water sources in areas served by a public water supply will not be acceptable.

Policy ER25 : Water Resource Protection

Development proposals which adversely affect a water catchment area to the detriment of the potable quality of a public or private water supply will not be permitted.

Policy ER26 : Private Water Supplies

In areas outwith the public water supply network, development proposals requiring connection to a private supply will require to ensure that:-

(a) the supply is certified fit for human consumption by the Environmental and Consumer Protection Department of Angus Council; and

(b) abstraction rates from the source will not contaminate or deplete the supply to the detriment of existing users.

Flood Risk

SPP7: Planning and Flooding (2004):

The central purpose of the Governments Policy is to prevent further development which would have a significant probability of being affected by flooding or which would increase the probability of flooding elsewhere.

Planning authorities must take the probability of flooding from all sources and the risks involved into account during the preparation of development plans and in determining planning applications.

3.54 Parts of Angus, principally around lochs, rivers and watercourses, are prone to localised flooding as a consequence of periods of heavy rainfall or rapid snow melt. In addition some low lying areas may be at risk from flooding due to tidal influence and wave action. Climate change is likely to have an increasing impact on both flooding and sea level rise over the life of this Local Plan. Recent trends show increasing levels of rainfall with storms likely to become more frequent and unpredictable. While flood events are most likely to occur along the North Esk, South Esk, Brothock Water, parts of the Elliot Water, and catchment of the Dighty Water and its tributaries, low-lying areas adjacent to other watercourses, such as the Barry Burn, can also be prone to localised flooding.

3.55 The effects of natural flood events can be compounded by surface water run-off from developed areas and the amount of existing development in low-lying areas at risk from flooding. It is therefore important when assessing development proposals or options for future development land that the potential for flooding should be minimised by taking full account of flood risk, both on site and elsewhere in the local catchment area.

Flood Liaison and Advice Group (FLAG):

A non-statutory advisory group of public and private sector representatives, convened by Councils to share concerns and knowledge and provide advice on a wide range of planning and other flooding issues.

3.56 The Angus Flood Liaison and Advice Group has considered the potential for flooding in Angus taking into account flood frequency information provided by SEPA which identified those areas most susceptible to flood risk. As a general principle there will be a presumption against locating 'built' development in areas of known significant flood risk. A precautionary principle will be adopted in considering development options or proposals in flood plains and low-lying areas adjacent to watercourses.

3.57 Where development is proposed, an assessment of the potential for flooding will be required, taking account of the location of the site and the flow characteristics of the local watercourse. Where appropriate, developers will be required to provide a detailed flood risk assessment in support of a planning application. SPP7: Planning and Flooding includes a Risk Framework based on flood return periods for coastal, tidal and watercourse flooding that provides a basis for assisting the assessment of development proposals in areas known or suspected to be at risk from flooding.

3.58 Angus Council will consult SEPA on all development proposals in areas known to be subject to flooding. To minimise the risk of localised flooding, surface water run-off from all new development will be managed using Sustainable Urban Drainage Systems (SUDS) as specified by Policy ER24 above.

Policy ER27 : Flood Risk - Consultation

Angus Council will routinely consult with SEPA on all development proposals adjacent to or potentially affected by:-

(a) the North Esk, south of Edzell;
(b) the South Esk;
(c) the Brothock Burn, south of Leysmill;
(d) the Elliot Water, south of Arbirlot;
(e) the catchment of the Dighty Water and its tributaries; and
(f) other watercourses and lochs of known potential flood risk.

Angus Council may require developers to submit a flood risk assessment in support of a planning application.

Policy ER28 : Flood Risk Assessment

Flood Risk Assessment
An assessment carried out to predict and assess the probability of flooding for a particular site or area and recommended mitigation measures including maintenance.

Proposals for development on land at risk from flooding, including any functional flood plain, will only be permitted where the proposal is supported by a satisfactory flood risk assessment. This must demonstrate to the satisfaction of Angus Council that any risk from flooding can be mitigated in an environmentally sensitive way without increasing flood risk elsewhere. In addition, limitations will be placed on development according to the degree of risk from coastal, tidal and watercourse flooding. The following standards of protection, taking account of climate change, will be applied:-

- **In <u>Little or No Risk Areas</u> where the annual probability of flooding is less than 0.1% (1:1000 years) there will be no general constraint to development.**

- **<u>Low to Medium Risk Areas</u> where the annual probability of flooding is in the range 0.1% - 0.5% (1:1000 – 1:200 years) are suitable for most development. Subject to operational requirements these areas are generally not suitable for essential civil infrastructure. Where such infrastructure has to be located in these areas, it must be capable of remaining operational during extreme flood events.**

- **<u>Medium to High Risk Areas (see 2 sub areas below)</u> where the probability of flooding is greater than 0.5% (1:200 years) are generally not suitable for essential civil infrastructure, schools, ground based electrical and telecommunications equipment.**

Essential Civil Infrastructure *includes hospitals, fire stations, emergency depots, etc.*

  (a) *Within areas already built up* sites may be suitable for residential, institutional, commercial and industrial development where an appropriate standard of flood prevention measures exist, are under construction or are planned.
  (b) *Undeveloped or sparsely developed areas* are generally not suitable for additional development.

Coastal Management

3.59 The Angus coastline is one of the area's most important assets extending from Montrose in the north to Monifieth in the south. The wider coastal area is home to around 50% of the Angus population and is a significant communications corridor for road, rail and sea as well as containing important employment centres at Arbroath and Montrose and contributing to the area's tourism industry. The coastal area also contains a number of sites protected for their natural and historic interest. In general there is a need to minimise unnecessary development on the coast whilst providing for development that requires a coastal location.

3.60 In line with the Dundee and Angus Structure Plan and Government advice outlined in National Planning Policy Guideline 13: Coastal Planning and Planning Advice Note 53: Classifying the Coast for Planning Purposes the Angus coast has been divided into two categories; developed and undeveloped coast. The undeveloped coast is shown on the Proposals Map.

3.61 The developed coast comprises the main towns of Monifieth, Carnoustie, Arbroath and Montrose and includes the traditional "links areas" which are important recreation zones. New development requiring a coastal location will generally be directed toward the main towns, within established development boundaries. Opportunity for the establishment of a coastal footpath/cycle route to link developed and undeveloped coast will also be progressed (see Proposal SC40: Walking and Cycling).

3.62 There is very little physical development on the undeveloped coast, the exceptions being at Barry Links which is used as a military training area, a number of fishing villages (Easthaven, Auchmithie, Ethiehaven and Usan) and farmsteads. The undeveloped coast is also important with regard to natural heritage and scenic views. Montrose Basin is a unique estuarine basin of rich natural heritage recognised as being internationally important. Priority for the undeveloped coastline will be to safeguard and protect the landscape character, biodiversity, natural and cultural heritage from inappropriate development.

3.63 The Tay Estuary Forum provides the opportunity to develop an integrated approach to the management and development of the Angus coastline through the preparation of a Coastal Zone Management Plan. In addition Angus Council has published the Angus Shoreline Management Plan that sets out the strategy for coastal defence. All development proposals affecting the Angus coastline will be assessed against the Shoreline Management Plan.

Developed Coast
Includes towns and cities as well as substantial freestanding industrial and energy developments. It may also contain sites of significance for national and international nature conservation, important cultural heritage resources as well as valuable areas of open space and recreation such as golf courses.

Undeveloped Coast
Includes agricultural and forestry land, low intensity recreational uses and smaller settlements which depend on the coast for their livelihood. Extensive sections of the undeveloped coast are protected by national and international natural heritage designations and contain important cultural heritage resources.

NPPG13 – Coastal Planning (1997)

Tay Estuary Forum
The Forum, established in 1997, aims to promote the wise and sustainable use of the Tay Estuary and adjacent coastline.

Shoreline Management Plan
This outlines the risks, to people and the environment, from coastal erosion and flooding and identifies preferred policies to manage the risks. Its aim is to ensure that future land use and development of the shoreline take account of these factors.

Policy ER29 : Coastal Development

New development requiring a coastal location will generally be directed toward the developed coast.
Development proposals for the undeveloped coast will generally only be considered acceptable where it can be demonstrated that:

- **the proposal requires a coastal location; and**
- **no other suitable alternative site exists within the developed coast; and**
- **the social and economic benefits of the proposal outweigh the potential detrimental impact on the Angus coastal environment.**

In addition, <u>all development proposals</u> affecting either the developed or undeveloped coast will be assessed against the Angus Shoreline Management Plan and other relevant policies of this Local Plan.

Agriculture

Agricultural Land

3.64 Current national policy protects prime quality agricultural land from inappropriate and irreversible development. It is estimated that Angus has around 9.6% of this scarce and non-renewable national resource, predominantly located in the lowland area along Strathmore and the coastal strip between Carnoustie and Arbroath. As the Local Plan strategy seeks to accommodate development in and around the main towns, it is inevitable that some prime quality land will be required for development.

Prime Quality Agricultural Land – *Grade 1, 2 and 3.1 as defined and identified on the Macauley Land Use Research Institutes Land Capability for Agriculture maps.*

Policy ER30 : Agricultural Land

Proposals for development that would result in the permanent loss of prime quality agricultural land and/or have a detrimental effect on the viability of farming units will only normally be permitted where the land is allocated by this Local Plan or considered essential for implementation of the Local Plan strategy.

Intensive Livestock Buildings

3.65 Agriculture is a major business activity throughout rural Angus and has a role in both economic and environmental terms. The scale of some farming practices has resulted in certain types of development now being subject to planning regulations. This applies particularly to intensive livestock rearing and Angus Council will seek to ensure that such developments do not adversely impact on neighbouring residents, and that existing and proposed units are not compromised by the development of housing in close proximity.

Intensive Livestock Building: *a building, structure or installation used or to be used for housing pigs or poultry*

Protected Building:
any permanent building which is normally occupied by people or would be so occupied, if it were in use for purposes for which it is apt; but does not include-

- *a building within the agricultural unit; or*
- *a dwelling or other building on another agricultural unit which is used for or in connection with agriculture.*

Source - Town and Country Planning (General Permitted Development)(Scotland) Order 1992.

Policy ER31 : Intensive Livestock Buildings

Proposals for intensive livestock buildings:

- **should not be located within 400 metres of the curtilage of a protected building; and**
- **the scale, design, access, traffic implications and waste disposal measures of the intensive livestock building must be appropriate and acceptable to its location.**

Planning permission will not normally be granted for new (non-agriculturally related) houses within 400 metres of an existing or proposed intensive livestock building.

Minerals

3.66 Mineral deposits are finite and valuable natural resources of national and strategic importance which can make a significant contribution to the Angus economy. However, mineral extraction and associated activity can affect the landscape, heritage and environment of the area and the residential amenity of properties and

NPPG4: Land for Mineral Working (1994)

A sustainable framework for mineral extraction should seek:

- *To conserve minerals as far as possible, while ensuring an adequate supply to meet*

communities adjacent to operational sites.

3.67 NPPG4: Land for Mineral Working (1994) and the UK Strategy for Sustainable Development both promote a positive framework for mineral extraction. Accordingly, the extraction of mineral resources should only be considered where it is required to maintain an effective landbank equivalent to 10 years supply and construction material cannot be obtained from more sustainable or less environmentally damaging sources. The use of recycled or secondary minerals can both prolong the life of existing quarrying operations and reduce the requirement to establish new sites. Proposals for mineral extraction should avoid the most sensitive and vulnerable areas of Angus through application of a sequential approach (Policy ER39) to the selection of sites for mineral development.

3.68 Development proposals for hard rock or sand and gravel extraction in Angus will be considered in the context of the guidance provided by the Dundee and Angus Structure Plan and the Angus Mineral and Waste Landfill Audit (2001).

Policy ER32 : Minerals

Angus Council will seek to conserve existing mineral reserves within Angus taking account of market demand and promoting the use of recycled and secondary minerals.

Proposals for mineral extraction will only be permitted where it can be demonstrated that:

a) **development is justified to maintain an effective 10 year land bank for construction aggregates and that the market requirement cannot be met from existing renewable, recycled or secondary sources;**
b) **the development conforms to a sequential consideration of international, national and locally important planning designations established by Policy ER39;**
c) **proposals for land restoration, aftercare and after use are satisfactory. Where considered necessary and prior to the commencement of development Angus Council will require a bond to cover the cost of an agreed scheme for the restoration, aftercare and after-use of the site;**
d) **the roads leading to and from the site are capable of accommodating the type and volume of heavy traffic movements generated by the development;**
e) **development will not have a detrimental impact on the residential amenity or general environment;**
f) **they do not adversely affect watercourses, lochs or groundwater resources; and**
g) **the proposal conforms to other relevant policies of the Local Plan.**

Where appropriate, development proposals will require to be accompanied by an Environmental Statement and/or Transport Assessment.

the needs of society for minerals.

- *To minimise production of waste and to encourage efficient use of materials, including appropriate use of materials and recycling of wastes.*
- *To encourage sensitive working practices during minerals extraction and to preserve or enhance the overall quality of the environment once extraction has ceased.*
- *To protect designated areas of critical landscape or nature quality from development, other than in exceptional circumstances where it has been demonstrated that development is in the public interest.*

3.69 Angus Council supports the Government policy to address the causes of climate change, and has adopted an Environmental Policy Statement along with a draft Local Agenda 21 Strategy for Angus. The effective conservation and management of energy resources is important for economic, environmental and ecological reasons. The production of energy from renewable sources prevents the production of emissions in power generation, while the reduction of energy consumption reduces the demand for electricity from all sources and should make homes and businesses more cost efficient. In terms of sustainable development, energy efficiency and non-polluting power generation are fundamental to establishing a stable and environmentally acceptable energy policy.

Energy Efficiency

Securing a Renewable Future, Scottish Executive 2003

Energy efficiency has a crucial role to play if we are to achieve significant cuts in carbon emissions. …It is also vital to improving Scotland's economic performance and business competitiveness.

3.70 Energy efficiency, the reduction of pollution and the use of renewable resources are elements of the sustainable principles on which this plan is based. The key factors that impact on the energy efficiency of a building are site location and building design. The gradient and orientation of a site, together with the spacing between buildings and the height of possible obstructions have an impact on the amount of exposure a building has to direct sunlight and therefore its potential for solar energy gain. Heat loss is influenced by the number and/or construction of external walls and, on exposed sites, by the presence of planting and other types of windbreaks.

3.71 The choice of materials, amount of insulation, use of renewable energy sources and the installation of energy efficient heating/cooling systems can contribute to the wise use of resources. Energy generation and conservation technologies using renewable sources and energy efficient systems can reduce demand for fossil fuels and reduce running costs of domestic and commercial properties. Re-use of building materials and/or the local sourcing of materials also contributes to the conservation of resources and should be incorporated into development proposals wherever possible.

Policy ER33 : Energy Efficiency

Angus Council will encourage energy efficiency through the promotion of:

- **siting, form, orientation and layout of buildings to maximise the benefits of solar energy, passive solar gain, natural ventilation and natural light;**
- **the use of landscaping and boundary treatment to modify temperature extremes, minimise heat loss due to exposure and create shelter on inner faces and entrances to buildings;**
- **optimum provision of insulation and the use of energy efficient heating/cooling systems;**
- **the re-use of building materials;**
- **local sourcing of materials;**

- **the use of a flexible design to facilitate possible future adaptation for other uses;**
- **renewable energy generation and energy efficient systems in domestic and commercial buildings where appropriate, which reduce demand for power from non-renewable sources.**

Renewable Energy

3.72 The Scottish Executive is strongly supportive of renewable energies and has set a target of 17-18% of Scotland's electricity supply to come from renewable sources by 2010. NPPG6: Renewable Energy Developments (Revised 2000) considers a range of renewable energy technologies and encourages the provision of a positive policy framework to guide such developments. The Scottish Executive's aspiration is for renewable sources to contribute 40% of electricity production by 2020, an estimated total installed capacity of 6GW (Minister for Enterprise, July 2005). This will require major investment in commercial renewable energy production and distribution capacity throughout Scotland.

NPPG6: Renewable Energy Developments (Revised 2000)

The Scottish Ministers wish to see the planning system make positive provision for renewable energy whilst at the same time:

- *meeting the international and national statutory obligations to protect designated areas, species, and habitats of natural heritage interest and the historic environment from inappropriate forms of development; and*
- *minimising the effects on local communities.*

3.73 The Dundee and Angus Structure Plan acknowledges the advantages of renewable energy in principle but also recognises the potential concerns associated with development proposals in specific locations. Angus Council supports the principle of developing sources of renewable energy in appropriate locations. Large-scale developments will only be encouraged to locate in areas where both technical (e.g. distribution capacity and access roads) and environmental capacity can be demonstrated.

3.74 Developments which impinge on the Cairngorms National Park will be considered within the context of the National Park Authority's Planning Policy No1: Renewable Energy.

Renewable Energy Sources

3.75 Offshore energy production, including wind and tidal methods, has the potential to make a significant contribution to the production of renewable energy in Scotland. Other than small-scale onshore support buildings, such developments currently fall outwith the remit of the planning system.

***Large-scale** projects which may or will require an Environmental Assessment. These are defined as hydroelectric schemes designed to produce more than 0.5MW and wind farms of more than 2 turbines or where the hub height of any turbine or any other structure exceeds 15m.*

3.76 All renewable energy production, including from wind, water, biomass, waste incineration and sources using emissions from wastewater treatment works and landfill sites will require some processing, generating or transmission plant. Such developments, that can all contribute to reducing emissions will have an impact on the local environment and will be assessed in accordance with Policy ER34.

*SNH's **EIA Handbook** identifies 6 types of impact which may require an assessment:*

- *Landscape and visual;*
- *Ecological;*
- *Earth heritage;*
- *Soil;*
- *Countryside access; and*
- *Marine environment.*

Policy ER34 : Renewable Energy Developments

Proposals for all forms of renewable energy development will be supported in principle and will be assessed against the following criteria:

(a) the siting and appearance of apparatus have been chosen to minimise the impact on amenity, while respecting operational efficiency;
(b) there will be no unacceptable adverse landscape and visual impacts having regard to landscape character, setting within the immediate and wider landscape, and sensitive viewpoints;
(c) the development will have no unacceptable detrimental effect on any sites designated for natural heritage, scientific, historic or archaeological reasons;
(d) no unacceptable environmental effects of transmission lines, within and beyond the site; and
(e) access for construction and maintenance traffic can be achieved without compromising road safety or causing unacceptable permanent and significant change to the environment and landscape.

Wind Energy

3.77 Onshore wind power is likely to provide the greatest opportunity and challenge for developing renewable energy production in Angus. Wind energy developments vary in scale but, by their very nature and locational requirements, they have the potential to cause visual impact over long distances. Wind energy developments also raise a number of environmental issues and NPPG 6 advises that planning policies should guide developers to broad areas of search and to establish criteria against which to consider development proposals. In this respect, Scottish Natural Heritage Policy Statement 02/02, Strategic Locational Guidance for Onshore Wind Farms in Respect of the Natural Heritage, designates land throughout Scotland as being of high, medium or low sensitivity zones in terms of natural heritage. Locational guidance is provided to supplement the broad-brush zones.

3.78 A range of technical factors influence the potential for wind farm development in terms of location and viability. These include wind speed, access to the distribution network, consultation zones, communication masts, and proximity to radio and radar installations. Viability is essentially a matter for developers to determine although annual average wind speeds suitable for commercially viable generation have been recorded over most of Angus, other than for sheltered valley bottoms. Environmental implications will require to be assessed in conjunction with the Council, SNH and other parties as appropriate.

Strategic Locational Guidance for Onshore Windfarms in Respect of the Natural Heritage - Scottish Natural Heritage Policy Statement No 02/02

Zone 3 *– high natural heritage sensitivity. Developers should be encouraged to look outwith Zone 3 for development opportunities*

Zone 2 *– medium natural heritage sensitivity. …while there is often scope for wind farm development within Zone 2 it may be restricted in scale and energy output and will require both careful choice of location and care in design to avoid natural heritage impacts.*

Zone 1 *- …inclusion of an area in Zone 1 does not imply absence of natural heritage interest. Good siting and design should however enable such localised interests to be respected, so that overall within Zone 1, natural heritage interests do not present a significant constraint on wind farm development*

Figure 3.4 : Geographic Areas

TLCA Designation
- 1a Upper Highland Glens
- 1b Mid Highland Glens
- 3 Highland Summits & Plateaux
- 5 Highland Foothills

TLCA Designation
- 8 Igneous Hills
- 10 Broad Valley Lowland
- 12 Low Moorland Hills
- 13 Dipslope Farmland

TLCA Designation
- 14a Coast with sand
- 14b Coast with cliffs
- 15 Lowland Basin

3.79 Scottish Natural Heritage published a survey of Landscape Character, the Tayside Landscape Character Assessment (TLCA), which indicates Angus divides naturally into three broad geographic areas – the Highland, Lowland and hills and the Coast. The Tayside Landscape Character Assessment provides a classification to map these areas based on their own particular landscape characteristics (Fig 3.4).

Area	TLCA Classification	Landscape Character
1 Highland	1a, 1b, 3, 5	Plateaux summits, glens and complex fault line topography
2 Lowland and hills	8, 10, 12,13	Fertile strath, low hills and dipslope farmland.
3 Coast	14a, 14b, 15	Sand and cliff coast and tidal basin

The impact of wind farm proposals will, in terms of landscape character, be assessed against the TLCA classifications within the wider context of the zones identified in SNH Policy Statement 02/02.

3.80 The open exposed character of the Highland summits and the Coast (Areas 1 and 3) is sensitive to the potential landscape and visual impact of large turbines. The possibility of satisfactorily accommodating turbines in parts of these areas should not be discounted although locations associated with highland summits and plateaux, the fault line topography and coast are likely to be less suitable. The capacity of the landscape to absorb wind energy development varies. In all cases, the scale layout and quality of design of turbines will be an important factor in assessing the impact on the landscape.

3.81 The Highland and Coast also have significant natural heritage value, and are classified in SNH Policy Statement 02/02 as mainly Zone 2 or 3 - medium to high sensitivity. The development of large scale wind farms in these zones is likely to be limited due to potential adverse impact on their visual character, landscape and other natural heritage interests.

3.82 The Lowland and Hills (Area 2) comprises a broad swathe extending from the Highland boundary fault to the coastal plain. Much of this area is classified in Policy Statement 02/02 as Zone 1- lowest sensitivity. Nevertheless, within this wider area there are locally important examples of higher natural heritage sensitivity such as small- scale landscapes, skylines and habitats which will influence the location of wind turbines. In all cases, as advocated by SNH, good siting and design should show respect for localised interests.

3.83 Wind farm proposals can affect residential amenity, historic and archaeological sites and settings, and other economic and social activities including tourism. The impact of wind farm developments on these interests requires careful assessment in terms of sensitivity and scale so that the significance can be determined and taken into account.

3.84 Cumulative impact occurs where wind farms/turbines are visually interrelated e.g. more than one wind farm is visible from a single point or sequentially in views from a road or a footpath.

Landscape and visual impact can be exacerbated if wind turbines come to dominate an area or feature. Such features may extend across local authority, geographic or landscape boundaries and impact assessments should take this into account. Environmental impacts can also be subject to cumulative effect – for example where a number of turbine developments adversely affect landscape character, single species or habitat type.

3.85 SNH advise that an assessment of cumulative effects associated with a specific wind farm proposal should be limited to all existing and approved developments or undetermined Section 36 or planning applications in the public domain. The Council may consider that a pre-application proposal in the public domain is a material consideration and, as such, may decide it is appropriate to include it in a cumulative assessment. Similarly, projects outwith the 30km radius may exceptionally be regarded as material in a cumulative context.

Policy ER35 : Wind Energy Development

Wind energy developments must meet the requirements of Policy ER34 and also demonstrate:

(a) the reasons for site selection;
(b) that no wind turbines will cause unacceptable interference to birds, especially those that have statutory protection and are susceptible to disturbance, displacement or collision;
(c) there is no unacceptable detrimental effect on residential amenity, existing land uses or road safety by reason of shadow flicker, noise or reflected light;
(d) that no wind turbines will interfere with authorised aircraft activity;
(e) that no electromagnetic disturbance is likely to be caused by the proposal to any existing transmitting or receiving system, or (where such disturbances may be caused) that measures will be taken to minimise or remedy any such interference;
(f) that the proposal must be capable of co-existing with other existing or permitted wind energy developments in terms of cumulative impact particularly on visual amenity and landscape, including impacts from development in neighbouring local authority areas;
(g) a realistic means of achieving the removal of any apparatus when redundant and the restoration of the site are proposed.

NPPG6 : Renewable Energy Developments (Revised 2000)

***Large-scale** projects which may or will require an Environmental Assessment. These are defined as hydroelectric schemes designed to produce more than 0.5MW and wind farms of more than 2 turbines or where the hub height of any turbine or any other structure exceeds 15m.*

Local Community Benefit

3.86 Where renewable energy schemes accord with policies in this local plan there may be opportunities to secure contributions from developers for community initiatives. Such contributions are not part of the planning process and as such will require to be managed through other means than obligations pursuant to Section 75 Planning Agreement. Community contributions are separate from planning gain and will not be considered as part of any planning application.

3.87 As part of the Government's drive for sustainable development and in support of the wider environment, waste management is entering a period of change aimed at stopping the continued growth of waste arisings and dealing more effectively with the waste produced. Driven by European Legislation and the need for improved environmental protection, the current dependence on landfill is no longer appropriate, requiring a move towards more sustainable waste management.

The EU Landfill Directive (1999):
requires a progressive reduction in the landfilling of bio-degradable municipal waste and the pre-treatment of wastes before landfilling, to both reduce waste volume and minimise environmental impact of disposal.

3.88 The National Waste Strategy: Scotland (1999) introduced the principles that require to be taken into account in establishing an integrated approach to the sustainable management of waste. The waste hierarchy is key to the approach promoted by the National Waste Strategy. The objective of sustainable waste management is to minimise the amount of waste produced at source and increase the percentage of waste that is reused, recycled and recovered. Ultimately this approach should reduce the amount of waste being disposed of to landfill.

***The National Waste Strategy: Scotland (1999)*:**
sets out a framework within which individuals and organisations can make a contribution by better use of resources available to them and by making better decisions about how to dispose of waste products.

Municipal Solid Waste

3.89 The Tayside Area Waste Plan (2003), was prepared in the context of the National Waste Strategy by a partnership of SEPA, Angus, Dundee City, and Perth and Kinross Councils and the waste industry. This established the Best Practicable Environmental Option (BPEO) for the collection and management of municipal solid waste. Consideration of non-municipal wastes will be addressed in future development of the Tayside Area Waste Plan.

The Tayside Area Waste Plan (March 2003):
aims to contribute to the sustainable development of the Tayside Area by developing waste management systems that will control waste generation, reduce the environmental impacts of waste production, improve resource efficiency, stimulate investment and maximise the economic opportunities arising from waste.

3.90 The Area Waste Plan provides an integrated approach to waste management in Tayside and promotes a range of measures to achieve Landfill Diversion Targets for Angus. Although the BPEO seeks to extend the existing range of waste management infrastructure and activity in Tayside through further development of centralised facilities and significantly improve the proportion of municipal waste that will be minimised, reused, recycled, composted and recovered, it is recognised that a proportion of municipal waste in the area will still need to go to landfill sites.

Best Practicable Environmental Option (BPEO):
The outcome of a decision-making procedure, which emphasises the protection and conservation of the environment across land, air and water.
The procedure establishes the option that provides the most benefits or the least damage to the environment as a whole, at an acceptable cost, in the long term as well as in the short term.

3.91 NPPG10: Planning and Waste Management (1996) places a requirement on local authorities to maintain a 10 year capacity for landfill. The Waste Landfill Audit (June 2001) projected, on the basis of a 25% reduction of municipal waste going to landfill in the period to 2010, that Angus had sufficient capacity for non-inert waste until 2015 at its existing landfill site at Lochhead, Forfar. Although the most recent projections based on current rates of disposal confirm that the site has capacity to around 2017 (in excess of the 10 year requirement) Angus Council will require to commence work to identify and consider landfill options for future disposal of residual waste.

Landfill Diversion Targets for Angus:

- *bio-degradeable municipal waste to landfill reduced to 35% of 1995 levels by 2020.*
- *85% household participation in recycling by 2010.*
- *85% household participation in composting by 2010.*
- *85% household participation in kerbside segregated collection by 2010.*

3.92 Proposals to develop or identify sites for new or extended landfill sites and other waste management facilities for municipal solid waste will be considered in the context provided by the Tayside Area Waste Plan and against Policy ER35.

Municipal Solid Waste:
Household waste and any other wastes collected by a waste collection authority or its agents, such as municipal parks and garden waste, beach cleansing waste, commercial or industrial waste, and waste resulting from the clearance of fly-tipped materials.

Policy ER36 : Municipal Solid Waste Management

In accordance with the Tayside Area Waste Plan and the provisions of the National Waste Strategy: Scotland and National Waste Plan, Angus Council will support the provision of local facilities to reduce, reuse, recycle, recover and pre-treat municipal solid waste.

Proposals for new or extended landfill sites and/or the development of facilities for the management and disposal of municipal solid wastes will be permitted where it can be demonstrated that:

NPPG10 : Planning and Waste Management (1996)

Self-sufficiency:
the principle that waste areas should seek to provide sufficient facilities to manage local waste arisings.

Proximity Principle:
establishment of adequate waste management facilities to handle waste arisings as close as possible to the point of production.

(a) the proposal accords with the Development Strategy and BPEO set out by the Tayside Area Waste Plan;
(b) the proposal would assist in the delivery of the Angus Council Waste Implementation Plan;
(c) there is evidence of local need;
(d) the capacity and location of the site accords with the principles of self-sufficiency and the proximity principle;
(e) the development conforms to a sequential consideration of international, national and locally important planning designations established by Policy ER39;
(f) the proposal provides a proven and acceptable system for the containment, collection, treatment and disposal of leachate;
(g) the proposal provides a proven and acceptable system for the containment, collection and active use of landfill gas;
(h) there is no detrimental impact on residential amenity or the general environment through noise, dust and odours;
(i) there is no adverse affect on watercourses, lochs or groundwater resources;
(j) the proposal will result in the positive regeneration of already degraded areas;
(k) land restoration, aftercare and after use details are satisfactory; and
(l) the roads leading to and from the site are capable of accommodating the type and volume of heavy traffic movements generated by the development.

Proposals for waste management facilities which can satisfy the above criteria may, where considered suitable, be acceptable on employment land (defined by Policy SC16 : Employment Land Supply and Policy SC17 : Industrial and Business Use).

Where appropriate, development proposals will require to be accompanied by an Environmental Statement and Transport Assessment.

Non-Municipal Solid Waste

3.93 The collection and disposal of non-municipal waste, includes inert and special wastes. Normally undertaken by commercial waste operators the treatment and disposal of inert waste is based around a small number of material waste treatment facilities on industrial estates and a range of landfill sites, usually former quarry sites in the Angus countryside. Increasing the recovery and re-use of metals, stone, slate and other construction wastes contributes to a more sustainable use of natural resources and can considerably extend the lifespan of landfill sites.

3.94 There are few facilities for the disposal of special wastes in Angus. The vast majority of special wastes are transported outwith Angus for treatment and disposal at specialist facilities.

3.95 The Tayside Area Waste Plan does not currently deal with non-municipal waste. In the absence of this guidance, proposals to develop or identify sites for new or extended landfill sites and other waste management facilities for non-municipal solid waste will be considered against Policy ER36.

Policy ER37 : Non-Municipal Waste Management

Angus Council will support the provision of local facilities to reduce, reuse, recycle, recover and pre-treat non-municipal waste in accordance with the provisions of the National Waste Strategy: Scotland and National Waste Plan.

Proposals for new or extended landfill sites and/or the development of facilities for the management and disposal of non-municipal solid waste will be permitted where it can be demonstrated that:

a) **there is evidence of a strategic local or national need;**
b) **the development conforms to a sequential consideration of international, national and locally important planning designations established by Policy ER39;**
c) **sites for inert waste include provision of facilities for the treatment of construction and demolition waste;**
d) **sites for hazardous or special waste are required to meet a strategic national requirement;**
e) **the proposal provides a proven and acceptable system for the containment, collection, treatment and disposal of leachate;**
f) **the proposal provides a proven and acceptable system for the containment, collection and active use of landfill gas;**
g) **there is no detrimental impact on residential amenity or the general environment through noise, dust and odours;**
h) **there is no adverse affect on watercourses, lochs or groundwater resources;**
i) **the proposal will result in the positive regeneration of already degraded areas;**
j) **land restoration, aftercare and after use details are satisfactory; and**
k) **the roads leading to and from the site are capable of accommodating the type and volume of heavy traffic movements generated by the development.**

Non-Municipal Solid Waste:
Non-municipal wastes fall into two main types defined as:

Industrial waste is waste from a factory or any premises used for, or in connection with, the provision of public transport; the public supply of gas, water, sewerage or electricity services; the provision to the public of postal or telecommunications services.

Commercial waste is waste from premises used for a trade or business or for the purposes of sport, recreation or entertainment.

In addition non-municipal waste often also contains difficult or hazardous materials that may require specialist handling and treatment.

Inert Waste:
Waste that does not undergo any significant physical, chemical or biological transformations as defined by the EU Landfill Directive (99/31/EEC).

Proposals for waste management facilities which can satisfy the above criteria may, where considered suitable, be acceptable on employment land (defined by Policy SC16 : Employment Land Supply and Policy SC17 : Industrial and Business Use).

Where appropriate, development proposals will require to be accompanied by an Environmental Statement and Transport Assessment.

Recycling and Composting Facilities

3.96 Angus Council already promotes and supports the principles of waste reduction, recycling and re-use. Recycling centres are located in the main towns and collect a range of household wastes, paper, glass, metal and green waste as well as other bulkier household goods and waste that can be recycled and disposed of safely.

Recycling facilities in Angus include:

- *civic amenity sites at Arbroath, Brechin, Carnoustie, Forfar, Kirriemuir, Monifieth and Montrose;*
- *mini recycling points at Friockheim, Glamis, Inverkeilor, Letham and Newtyle;*
- *34 recycling points.*

3.97 Angus Council will, through implementation of the Waste Implementation Plan, seek to extend this area of waste management activity through further development of centralised facilities, mini-recycling points in new retail, business and residential developments, kerbside collections and other initiatives. The requirement for mini recycling points to be provided in residential development in the towns and main villages will be considered in the context of the roll out of kerbside collections for glass, paper and plastic containers. Angus Council intend to produce Supplementary Guidance setting out detailed requirements for the provision of recycling facilities in new residential, business, industrial, residential and commercial developments. Where appropriate, developers will be encouraged to establish strategies to minimise waste from new development, including during the design and construction of the project.

Policy ER38: Recycling and Composting Facilities

In support of the Tayside Area Waste Plan and Angus Waste Implementation Plan, Angus Council will promote the further development of local recycling facilities including:

- **centralised in-vessel composting (compliant with the Animal By-Products (Scotland) Regulations 2003) of green waste at Lochhead Landfill/Restenneth; and**
- **community recycling facilities to serve Carnoustie and Monifieth.**

Proposals for new retail, business, commercial, industrial and residential developments must include appropriate provision for recycling facilities for the collection of glass, metal cans, paper and other recyclable material. Recycling facilities must be located in a conveniently accessible location within the development and should be designed in consultation with Angus Council Environmental and Consumer Protection Department. This will include provision for the separate collection and storage of recyclates within the curtilage of individual houses.

SEQUENTIAL APPROACH FOR MINERAL EXTRACTION, LANDFILL AND LAND RAISE PROPOSALS

3.98 Proposals for mineral extraction, landfill and land raise development can result in significant issues of potential impact on the wider Angus environment and amenity enjoyed by residents and local communities. It is considered appropriate to establish a sequential approach to directing development, taking full account of a hierarchy of international, national and local designations. The hierarchy seeks to direct development to the least sensitive areas.

This broad sequential approach based on the hierarchy of natural heritage designations is supported in a range of NPPGs including NPPG14: Natural Heritage.

3.99 As the impact of different types of development on designations and other identified features varies, certain factors appear in different levels on the hierarchy. For instance prime agricultural land is in a lower level for renewable energy development than the others as the potential land take is relatively low.

The hierarchy also includes factors considered important in Angus, including settlement development boundaries, distance from a Trunk or "A" Class road, coastal sand and dune systems, and river and stream beds.

Policy ER39 : Sequential Approach for Mineral Extraction, Landfill and Land Raise Proposals

Proposals for mineral extraction, landfill and land raise development must demonstrate and satisfy a sequential consideration of the international, national and locally important planning designations detailed in Table 3.1.

<u>Level 1: International Designations</u>:

Development that would have an adverse impact on the conservation interests of international designations will only be permitted where:

- **there are reasons of overriding public interest; and**
- **there is no alternative solution (including the full exploration of alternative sites in levels 2, 3 and 4).**

<u>Level 2: National Designations</u>:

Development that would have an adverse impact on a designated area of national importance will only be permitted where:

- **the designation objectives and overall integrity of the area will not be compromised; or**
- **any significant adverse impact on the area are clearly outweighed by social or economic benefits of national importance; or**
- **no suitable alternative site is available in levels 3 and 4.**

<u>Level 3: Local Designations</u>:

Development that would have a significant adverse impact on local designations or features will only be permitted where:

- **the importance or value of the designation or feature to local environmental quality is clearly outweighed by the local economic and social benefits ; and**
- **no suitable alternative site is available in level 4.**

<u>Level 4: Preferred Areas</u>:

Development may be permitted subject to local circumstances and amenity considerations.

TABLE 3.1

	Mineral Extraction	Landfill and Land Raise
LEVEL 1 INTERNATIONAL	• Special Protections Areas (SPAs) • Special Areas of Conservation (SACs) • Ramsar Sites • Priority habitats, as defined in Article 1 of the Habitats Directive	• Special Protection Areas (SPAs) • Special Areas of Conservation (SACs) • Ramsar Sites • Coastal sand and dune systems • River and stream beds • Priority habitats as defined in Article 1 of the Habitats Directive
LEVEL 2 NATIONAL	• National Nature Reserves • Sites of Special Scientific Interest which are not SPAs or SACs • Scheduled Ancient Monuments (and their settings) • Historic Gardens and Designed Landscapes • Listed Buildings (and their settings) • Prime Agricultural Land (Classes 1, 2 and 3.1) • Coastal sand and dune systems • River and stream beds • UK Biodiversity Action Plan priority habitats	• National Nature Reserves • Sites of Special Scientific Interest which are not SPAs or SACs • Scheduled Ancient Monuments (and their settings) • Historic Gardens and Designed Landscapes • Listed Buildings (and their settings) • Prime Agricultural Land (Classes 1, 2 and 3.1) • UK Biodiversity Action Plan priority habitats
LEVEL 3 LOCAL	• Other archaeological sites appearing on the Sites and Monuments Record • Areas of Wildlife Interest • Local or non-statutory Nature Reserves • Local Biodiversity Action Plan priority habitats • Recreation areas and facilities • Pipeline wayleave routes carrying water, oil, gas and petrochemical products • Buffer zones extending 400m from settlement boundaries • Sites safeguarded for possible future development • Outwith 2km of 'A' Class or Trunk Road	• Other archaeological sites appearing on the Sites and Monuments Record • Areas of Wildlife Interest • Local or non-statutory Nature Reserves • Local Biodiversity Action Plan priority habits • Recreation areas and facilities • Pipeline wayleave routes carrying water, oil, gas and petrochemical products • Buffer zones extending 400m from settlement boundaries • Sites safeguarded for possible future development • Outwith 2km of 'A' Class or Trunk Roads
LEVEL 4	• Areas not covered by designations included in tiers 1-3	• Areas not covered by designations included in tiers 1-3

CONTAMINATED LAND

3.100 There are a number of sites across Angus, principally in the towns and villages, which may as a consequence of previous use be unstable and/or contaminated. The planning system has a key role to play in addressing the legacy of contaminated land through the consideration of proposals for its future use.

3.101 Part IIA of the Environmental Protection Act 1990 established a framework for Local Authorities aimed at addressing the issue of land contamination which is considered to be at risk of causing harm to human health or the environment. Under this legislation Angus Council has prepared a Contaminated Land Strategy, which indicates how the Council intends to identify and deal with contaminated land across Angus.

3.102 Guidance on dealing with proposals to develop or change the use of contaminated land is provided by PAN33 : Development of Contaminated Land (Revised 2000) and Angus Council Advice Note 27: Planning and Contaminated Land. In principle development proposals on sites suspected of being contaminated will be considered using a `Suitable for Use` approach.

PAN33 (Revised 2000): Development of Contaminated Land

The `Suitable for Use` approach to dealing with contaminated land consists of three elements:

- *Ensuring that land is suitable for its current use;*
- *Ensuring that land is made suitable for any new use, as planning permission is given for that new use; and*
- *Limiting requirements for remediation to the work necessary to prevent unacceptable risks to human health or the environment in relation to the current use or future use of the land for which planning permission is being sought.*

Policy ER40 : Contaminated Land

Development on land known or suspected to be unstable or contaminated will only be permitted where it can be demonstrated to the satisfaction of Angus Council that any actual or potential risk to the proposed use can be overcome.

Development proposals on such land will require to be supported by an appropriate site investigation (detailing the extent and nature of ground instability and/or contamination), risk assessment and details of any remediation measures necessary to make the site suitable for the intended use. Where appropriate Angus Council will require necessary remedial measures to be undertaken prior to the commencement of development.

PART 4: Town and Village Directory Statements and Boundary Maps

TOWNS & VILLAGES

- TOWN INSET MAPS (WITH SETTLEMENT STATEMENT)
- VILLAGE INSET MAPS AND STATEMENT
- VILLAGE BOUNDARY MAPS

- Arbroath HMA
- Brechin/Montrose HMA
- Forfar,Kirriemuir & Glens HMA
- South Angus HMA

Town and Village Directory

Statements and Boundary Maps

A statement is provided for those settlements shown in bold where land has been allocated for development.

Boundary maps have been prepared for all other settlements listed.

ARBROATH

ARBROATH

1. Arbroath is the largest town in Angus, with a range of manufacturing, retail and service businesses. Originally established as a market town around the Abbey, Arbroath developed a significant fishing industry with associated activities – including production of Arbroath 'smokies'. More recently the town has developed as a popular holiday resort based on the beach, harbour, historic Abbey and other attractions.

2. Diversification of the economy and regeneration of the town continues to be a priority. While inward investment has introduced new businesses, Arbroath's traditional manufacturing sector has continued to contract. Regeneration of the harbour, Abbey precinct, town centre and other parts of the town have enhanced the quality of the environment and attracted additional investment. The upgrading of the A92 road, between Arbroath and Dundee, will be completed during the early part of this Local Plan and will improve accessibility to the town.

3. Whilst the existing supply of greenfield employment land at Kirkton and Elliot industrial estates currently satisfy the provisions of the Dundee and Angus Structure Plan, the Local Plan requires to identify an additional greenfield site to ensure that a marketable supply can be maintained throughout the plan period.

4. The Kirkton area of Arbroath has provided the principal focus for greenfield housing land over many years and development is now nearing completion. The redevelopment of a wide range of brownfield sites throughout the town has augmented this land supply. Land at Montrose Road and Cliffburn are identified as the locations for greenfield housing land release in the period to 2011.

5. The challenge for the Local Plan will be how promote the regeneration of Arbroath and enhance the opportunities for jobs, investment and tourism by allocating appropriate sites for development.

KEY ISSUES

6. The key issues facing Arbroath are:

- How Arbroath can best take advantage of improved accessibility to Dundee and the trunk road network;
- How to develop opportunities that continue the physical and economic regeneration of the town;
- How to develop and promote the historic and recreational potential of Arbroath whilst preserving the town's historic character; and
- How to improve the quality and range of convenience shopping and retain retail expenditure within Arbroath.

PROFILE

Role:
Major employment centre and holiday resort.

Population:
Census 2001 - 22785;
1991 – 23680;
% change 91/01 : - 3.8

Housing Land Supply June 2004:

existing	150
allocated first ALP	237
constrained	76

Employment Land Supply 2004 :

Kirkton	9.2 ha
Elliot	1.0 ha
Total	10.2 ha

Drainage: available

Water Supply: available

DEVELOPMENT STRATEGY

7. The Local Plan Development Strategy for Arbroath seeks to:

- Give priority to regeneration of brownfield and opportunity sites within the built up area.
- Promote a partnership approach to area regeneration through the Regenerate! North Arbroath initiative and allocating a site at Cliffburn for housing in support of the project.
- Identify land for housing development at Montrose Road.
- Promote development opportunities within the town, where these can take advantage of improved accessibility provided by the A92 road improvements, including identifying and safeguarding further employment land in the Elliot area of the town.
- Encourage new development and investment where this will strengthen the role of the town as a retail and service centre.
- Support investment and initiatives related to the development and improvement of the town's visitor potential based on the Abbey, High Street and Harbour.
- Support the enhancement of the Historic core of Arbroath through the Abbey to Harbour Townscape Heritage Initiative (THI).
- Retain the open, undeveloped character of the beachfront and Victoria Park as a major asset to the town.

HOUSING

EXISTING SITES

8. Sites with planning permission or under construction as identified in the Housing Land Audit June 2004, are shown in Table 1.

9. The regeneration initiative for North Arbroath (see A6 below) incorporates a number of small housing renewal schemes. These sites are not included in Table 1, as they replace existing stock and do not contribute to the Structure Plan housing requirements.

SITES PREVIOUSLY IDENTIFIED BY THE FIRST ANGUS LOCAL PLAN

10. The sites summarised in Table 2 were previously identified in the first Angus Local Plan. This Plan continues the allocation of these sites for housing development, and where appropriate the wording of the proposal and/or the indicative yield from the site may have changed.

11. The Montrose Road site was identified for housing in the first Angus Local Plan and part of the area was allocated for 80 houses, with the remainder identified for longer term housing use. The whole area is now released for development to maintain an effective housing land supply to 2011 and beyond. This is a major development at the north entrance to the town and this should be reflected in development proposals for the site. Appropriate landscaping and integration of existing commercial development on Montrose Road can help create an attractive gateway to Arbroath.

Table 1 :Existing Sites

(a) The Elms/ Cairnie Road	6
(b) McGregors Wa k	15
(c) Lochlands Drive/Cairnie Street	10
(d) East Newgate 2	13
(e) Cliffburn Road	7
(f) Millgate/Alma Works	8
(g) Abbeybank House	9
(h) Seagate	14
(i) Elliot	31
(j) Edradour	12
Total	**125**

Table 2 : Sites from First ALP

A1: Montrose Road	200
A2 : James Street Hall	17
A3 : Millgate Loan/ East Mary Street	20
A4 : Benedict Road	20
Total	**257**

A1 : Housing - Montrose Road

15 ha of land at Montrose Road is allocated for the phased development of around 200 dwellings up to 2011 with potential for further housing in the period beyond 2011. Proposals should be in accordance with the development brief which will be prepared for this site and will include details of the following requirements:

- **20% of the capacity of the site to provide LCHO affordable housing;**
- **the need to acknowledge the location of this site on the edge of Arbroath and its visual impact on the approach to the town; and**
- **the relationship between existing commercial land uses along the Montrose Road frontage and new housing.**

(Outline Planning Permission for the site allocated in the Adopted Angus Local Plan was granted in December 2004)

A2 : Housing - James Street Hall

0.04 ha of land at the James Street Hall is allocated for around 17 dwellings.

A3 : Housing - Millgate Loan/Chalmers Street

0.15 ha of land at Millgate Loan/Chalmers Street is allocated for around 20 dwellings.

A4 : Housing – Benedict Road

0.6 ha of land at Benedict Road is allocated for around 20 dwellings. This site should be developed in conjunction with land at Cliffburn as part of the wider regeneration project (see A5 below)

NEW ALLOCATIONS

12. Table 3 summarises new allocations of housing land that will contribute towards meeting the Structure Plan allowances to 2011.

Table 3 : New Allocations

A5 : Cliffburn	125
Total	**125**

13. An area of greenfield land at Cliffburn Road is available adjacent to the ongoing regeneration project in the Cliffburn area of Arbroath. The development of this site could assist in diversifying the range and type of housing available in this part of town, and also adds to the greenfield housing land opportunities which exist in the town.

A5 : Housing - Cliffburn

4.9 ha of greenfield land at Cliffburn is allocated for around 125 dwellings. Development proposals should include the following:

- **20% of the capacity of the site to provide LCHO affordable housing;**
- **the principal vehicular access to be taken from Cliffburn Road;**
- **road widening and footpath provision on Cliffburn Road;**
- **formalising the footpath on the eastern edge of the site;**
- **provision of public open space to serve the wider Cliffburn area.**

REGENERATE! NORTH ARBROATH

14. The Cliffburn, Strathairlie and Demondale areas of Arbroath are the subject of a major regeneration initiative - Regenerate! North Arbroath. This is a partnership project involving the local community, Angus Council, Communities Scotland, Angus Housing Association, Scottish Enterprise Scotland, Angus College, Tayside Police and Angus Healthcare with the support of monies from the European Regional Development Fund. The regeneration scheme will involve the renewal of some existing housing and new residential development, as well as a range of community and environmental projects.

15. Whilst the social and economic regeneration of these three communities is at the core of the project, there are a number of proposals to improve the built environment including:

- demolish existing vacant/unpopular property (several small sites) and replace with new housing;
- establish an integrated approach to the provision and improvement of landscaping, sports pitches and playgrounds;
- improve the level of community facilities provision and services;
- establish an area capable of being developed for new mixed tenure housing.

Individual development proposals are not identified in this Local Plan, as housing renewal and replacement do not contribute towards meeting Structure Plan allowances for new housing.

A6 : Regenerate! North Arbroath

Angus Council in partnership with the local community, Communities Scotland, Angus Housing Association and other service providers will develop and implement proposals as part of a community based regeneration scheme for the Cliffburn, Strathairlie and Demondale areas of the town.

OPPORTUNITY SITES

16. There are a number of sites in Arbroath that provide opportunities for redevelopment. Where proposals involve new housing development they will require to contribute towards meeting the provisions of Policy SC9: Affordable Housing (see page 33).

***Opportunity Sites**: Sites available for redevelopment for housing and/or other uses. Given uncertainties related to the timing of release of such sites for development and the range of potentially suitable uses, they are not counted towards meeting the Structure Plan housing allowances until planning permission is granted.*

Opportunity Sites
A 7 : Little Cairnie
A 8 : Marine Ballroom
A 9 : Ernest St/ Palmer St
A10 : Cairnie Street/Stobcross
A11 : Wardmill/ Dens Road

A7 : Opportunity Site - Little Cairnie

0.3 ha of land to the rear of Little Cairnie Hospital provides an opportunity for redevelopment for around 6 dwellings or other uses compatible with the surrounding area. Improvements to the existing access from Forfar Road will be required.

A8 : Opportunity Site - Marine Ballroom, Hill Street

The site of the Marine Ballroom on Hill Street provides an opportunity for redevelopment for alternative uses, including housing (approximately 20 dwellings). Any development proposals should respect the scale, mass and density of surrounding development.

A9 : Opportunity Site - Ernest Street/Palmer Street

1.5 ha of disused land and buildings provides an opportunity for redevelopment for around 50 houses and flats. Proposals should include the following:

- **20% of the capacity of the site to provide LCHO affordable housing unless a reduction in this requirement for affordable housing can be agreed in writing with the planning authority, based on the nature and extent of exceptional development costs resulting from site contamination problems or poor ground conditions ; and**
- **investigation of ground contamination issues and any necessary remediation which would be required to take place in advance of development.**

17. Wardmill/Dens Road is a mixed-use area in various ownerships, with degraded land and buildings among well-maintained and viable businesses. The area would benefit from investment and regeneration, particularly where all or a significant part of the area is included. The Baltic Mills, a Category A listed building, is an important landmark in the area. The use of, or impact on, the building should be considered in any development proposals.

A10 : Opportunity Site - Wardmill/Dens Road

The Dens Road/Wardmill Road area of Arbroath offers an opportunity for regeneration for one or more uses, including business, commercial, leisure. Residential use may also be acceptable.

Development proposals will require to be accompanied by a masterplan demonstrating how regeneration proposals will be managed, taking account of existing activities and addressing the following:

- **flood protection;**
- **drainage**
- **access**
- **assessment and remediation of potential contamination;**
- **impact on the Baltic Works; and**
- **quality of the amenity of any proposed housing.**

WORKING

18. An area west of the existing industrial estate at Elliot provides the opportunity to take advantage of the upgrading of the A92 road and to extend the range and quantity of the long-term employment land supply in Arbroath. Development proposals which would prejudice the expansion of employment land to the west of the existing Elliot Industrial Estate will not accord with this Local Plan. Brownfield sites within Arbroath that are well related to the town centre and transport links provide the potential for reuse for more specialised needs such as office or business use.

A11 : Working - West of Elliot Industrial Estate

21 ha of land to the west of the existing Elliot Industrial Estate is allocated for Class 4* (business), Class 5* (general industry), and Class 6* (storage and distribution) uses.

Development proposals which would prejudice the expansion of employment land to the west of the existing Elliot Industrial Estate will not accord with this Local Plan.

**As defined in the Town and Country Planning (Use Classes) (Scotland) Order 1997.*

19. The Council has identified opportunities to attract mobile inward investment to the Angus towns through the provision of well-located and accessible sites for office and call centre developments. The acquisition and preparation of such sites within the central areas of the main towns, initially in Arbroath, supports land use policies to promote the physical and economic regeneration of urban areas. There are a number of brownfield locations that could contribute towards the strategy of renewal and provide opportunity for a range of office and other business uses.

A12 : Domestic Scale Fish Processing

Smoking and processing of fish on a small domestic scale will continue to be supported within the Fit o' the Toon area.

TOURISM

20. Tourism remains an important activity and source of employment for Arbroath, and Angus Council will continue to promote and support projects and investment that improve the town's facilities and role in this sector.

21. The completion of a number of partnership projects has enhanced the visitor attractions and historic area of the town. Projects have included the Abbey visitor centre, West Links, town centre improvements and improved signing. Recently approved development proposals at the harbour will further extend the range of visitor facilities and attractions. Marketing initiatives such as the annual 'Seafest' complement the physical works projects and assist in attracting more visitors into the town. Improved links between attractions will make them more accessible to visitors, encouraging them to stay longer and explore the town.

A13 : Arbroath Harbour

Development opportunities in and around the harbour which encourages tourism and leisure uses, whilst retaining and supporting the needs of the fishing and boat building industries, will be supported.

Opportunity exists to promote a gateway development at the entrance to the harbour. Further opportunities to regenerate underused and vacant sites and to implement environmental projects, which will retain and enhance the unique character of the Harbour, will be sought.

A14 : Improvement Of Tourist Linkages

Angus Council will continue to pursue the strengthening of linkages between the Abbey Precinct, High Street and Harbour area and the West Links as a means of consolidating and promoting tourist and environment benefits to both Arbroath and Angus.

TOWN CENTRES AND RETAILING

22. Although vacancy rates are relatively low, there has been relatively little investment in new retailing within the town centre in recent years and a large non-food retail unit has closed. More positively, the redevelopment of the vacant retail property at Gravesend to provide a Lidl discount store and two non-food units has been approved and will provide opportunities to strengthen the town centre.

23. In relation to out of centre retailing, the Morrison store is close to the town centre. It is the Council's policy that an additional foodstore of around 5000 square metres should be provided to increase choice and reduce expenditure leakage from the catchment.

24. Following planning appeals planning permissions have been granted for further food retail development at the former Westburn Foundry site. Implementation of these consents will improve the range and choice of retailing and reduce the leakage of expenditure from the catchment area. As the developer does not have control over the whole of the sites which have planning permission, there is some uncertainty as to the timing and size of the retail store which will be developed. It is considered appropriate to allocate the site of the former Westburn foundry for the development of a foodstore up to 3,500 square metres gross floorspace, in accordance with the planning permission for the site. There may be scope to increase the scale of the foodstore up to around 5,000 square metres gross, if land ownership can be consolidated. However, such consolidation is far from certain and will be subject to the outcome of a feasibility study into the possible relocation of the Council offices currently located on part of the site. It is intended to monitor this position and to consider proposals for other sites outwith the town centre against policy SC26 and other relevant development plan policies and national planning guidance.

A15 : Cairnie Street/Stobcross

The site of the former Westburn Foundry is allocated for a supermarket of up to 3,500 square metres gross floor area, subject to meeting the requirements of the reserved matters planning application granted for this site in June 2006.

A16 : Westway - Dundee Road

Land at Westway/Dundee Road is reserved for leisure use and non food retail warehouses for sale of durable goods (limited to bulky and electrical goods.)

25. The town centre contains a mixture of land uses, which the Local Plan seeks to maintain and strengthen, through the implementation of a package of environmental improvements and other initiatives (such as the Townscape Heritage Initiative). These aim to support the physical and economic regeneration of the town and its historic core. The High Street remains a focus both for shopping and as a link between two major attractions within the town, at the Abbey and the Harbour.

Townscape Heritage Initiative (THI)

A five-year programme of grant assistance for the social, economic and heritage regeneration of historic town centres.

26. The West Port is an important part of Arbroath, both as a shopping street and a conservation area. Whilst Angus Council will encourage new uses where they are compatible with existing activities, retailing is important in retaining the vitality and viability of the area.

A17 : West Port Shopping Frontage

Proposals involving the change of use of existing ground floor retail premises (Class 1*) shops will only be acceptable where:-

- **it can be demonstrated that the property has been vacant for at least 12 months and actively marketed for retail use in that time; or**
- **at least 5% of retail units within the West Port are vacant.**

Where development proposals satisfy the above criteria the following will also apply:-

- **ground floor frontage development should include a shop window frontage and maintain an appropriate window display; and**
- **a condition will be applied (in accordance with Circular 4/1998) to restrict the permission to the use specified.**

Circular 4/1998 – The use of conditions in Planning Permissions

Proposals for the establishment of hot food takeaways will be considered in the context of Policy SC25: Public Houses and Hot Food Takeaways, Restaurants and Cafes.

**As defined in the Town and Country Planning (Use Classes) (Scotland) Order 1997.*

TRANSPORT AND COMMUNICATION

27. The implementation of projects to improve transport links is important to maintaining and improving accessibility within and around Arbroath. The former goods yard at Helen Street has been identified by Network Rail as a strategic site, which will be safeguarded for future use as a potential rail freight facility.

A18 : Helen Street - Goods Yard

The site of the former railway goods yard at Helen Street is safeguarded as a potential site for a rail freight facility.

ENVIRONMENT

TOWNSCAPE HERITAGE INITIATIVE

28. The approval of the application for Townscape Heritage Initiative (THI) recognises the quality of Arbroath's historic town centre. The THI is a partnership of the Heritage Lottery Fund, the European Regional Development Fund, Scottish Enterprise Tayside, Historic Scotland and Angus Council. The THI has funds to support projects, which further social, economic and heritage regeneration within the Arbroath No1 Conservation Area.

Townscape Heritage Initiative (THI)

A five-year programme of grant assistance for the social, economic and heritage regeneration of historic town centres.

HOSPITALFIELD

29. Hospitalfield House (a Category A listed building and Scheduled Ancient Monument), set in around 22 ha of managed woodland and open agricultural land, is a prominent feature in the local landscape and a unique private open space within Arbroath. The Local Plan policy seeks to maintain this unique character and all development proposals will require to be accompanied by a conservation and/or design statement demonstrating how they contribute to the character and setting of the area. This policy is not intended to prevent all development, but to ensure any future development proposals are in keeping with this historic property and its landscape setting.

A19 : Hospitalfield House

Hospitalfield House and grounds will be protected from development that would be detrimental to the historic character and landscape setting of the property.

Arbroath (Inset Map 1)

This Proposals Map should be read in conjunction with the Written Statement

62 63 64 65

43 42 41 40

St Vigeans
Warddykes
Kirkton
Carlogie
Demondale
Cairnie
Lochlands
Hayshead
Cliffburn
Springfield Park
Hospitalfield
ARBROATH

A1 A4 A5 A7 A(a) A(b) A10 A(c) A15 A18 A9 A(g) A(j) A(e) A(d) A8 A(h) A19 A11 A16 A(i)

CENTRAL AREA INSET

WEST PORT INSET

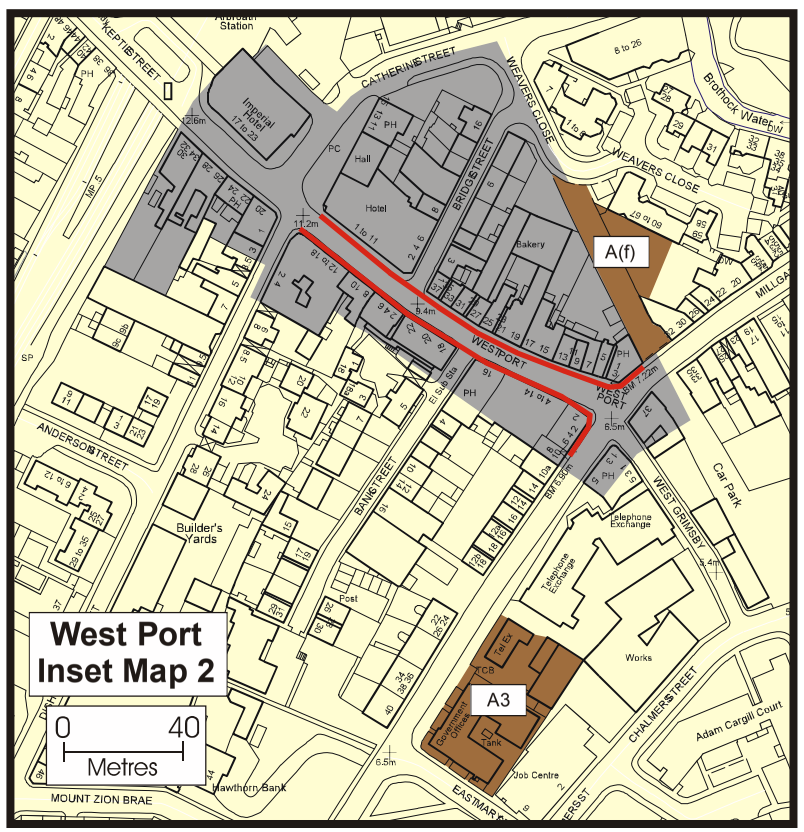
SC40

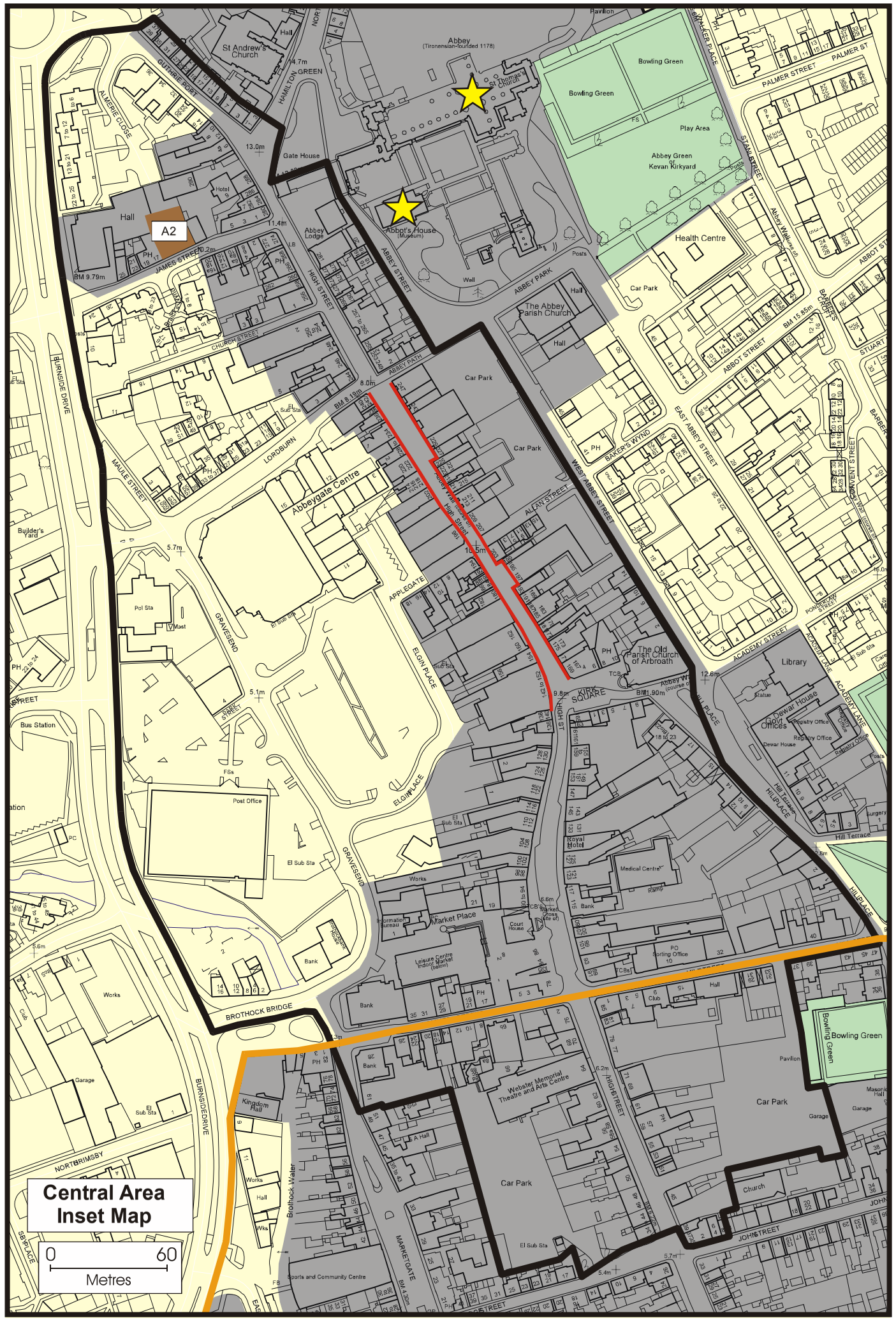
0 1km

	Arbroath settlement statement	Topic chapter
Development boundary		Policy S1
Development in existing built up areas		Policy S1
Inset map boundary		
Housing		
Existing sites	A(a) (j)	
Allocated sites	A1 A5	
Opportunity sites	A7 A10	
Working		
Employment land allocated site	A11	Policy SC16
Domestic scale fish smoking	A12	
Employment land supply		Policy SC16

	Arbroath settlement statement	Topic chapter
Environment		
Regenerate: North Arbroath	A6	
Conservation area		Policy ER 12 14, 21
Hospitalfield	A19	
Town Centres & Retailing		
Westway Dundee Road retail park	A16	
Transport & communication		
Helen Street, goods yard	A18	Policy SC47
A92 road upgrade(part)		Policy SC43
Sport & Recreation		
Arbroath harbour	A13	
Open space protection		Policy SC32
Community Facilities & Services		
School facilities community use		Policy SC38

	Arbroath settlement statement	Topic chapter
Housing		
Existing sites	A(f)	
Allocated sites	A2, A3	
Employment & Enterprise		
Domestic scale fish smoking	A12	
Development in existing built up areas		Policy S1
Environment		
Conservation area		Policy ER12 14 & 21
Ancient monuments (in the care of Scottish Ministers)		Policy ER18
Town Centres & Retailing		
Town centre		Policy SC 23, 25 & 26
Core retail area		Policy SC24
West port shopping frontage (map2)	A17	
Sport & Recreation		
Open space protection		Policy SC32





BRECHIN

BRECHIN

1. The 'Cathedral City' of Brechin functions as an employment, commercial and service centre for north Angus. The town contains a number of attractive and distinctive areas including its characterful town centre, the Cathedral precinct with its round tower and lanes, St Ninians Square and the Caledonian Railway Station.

2. The first Angus Local Plan encouraged economic regeneration and inward investment by providing opportunities for business, leisure, tourism and housing together with environmental improvement of the town centre. This Local Plan maintains this approach and continues to support and build upon measures aimed at improving the attractiveness of the town for inward investment. This includes the provision of attractive and well located sites for housing to the west of the town, developing the potential for recreation and tourism and promoting the regeneration and improvement of vacant and underused sites. Further improvement of the town centre environment remains a key focus of the strategy. Angus Council will seek to establish a Townscape Heritage Initiative for Brechin to facilitate the restoration, repair and reuse of historic buildings within the central area of the town.

PROFILE

Role:
North-east Angus market town providing a range of services and facilities to the surrounding area.

Population:
Census 2001 – 7199;
1991 – 7655;

% Change 91/01 : - 5.96.

Housing Land Supply June 2004 :
existing - 119
constrained - 80

Employment Land Supply 2004:
Brechin Business Park-7.85ha
Montrose Road **–** 0.14ha

Drainage:
Capacity with localised constraints affecting parts of the town.

KEY ISSUES

3. The main issues affecting Brechin include:-

- how to encourage and improve the vitality and viability of the town centre;
- how to encourage the regeneration of vacant and underused buildings and land;
- how to fully build upon measures already in place aimed at improving the attractiveness of Brechin for inward investment.

DEVELOPMENT STRATEGY

4. The Development Strategy for Brechin seeks to:-

- provide for a range of housing development by releasing greenfield land on the west side of the town and promoting the use of available brownfield land;
- support measures which will regenerate the town centre and enhance its historic character and general environment;
- improve the environment by encouraging urban renewal of vacant and underused sites;
- support the potential for recreation and tourism development by reserving a site in the west of Brechin for improved visitor accommodation as part of the existing gateway facility.
- integrate recreational open space in association with the release of new land for housing development in the west of the town.

HOUSING

EXISTING SITES

5. The existing housing land supply, comprising sites with planning permission or under construction as identified in the Housing Land Audit June 2004, is shown in Table 1.

Table 1 : Existing Sites

(a)	River Street	8
(b)	Bearehill /Rosehill	93
(c)	Witchden Road	8
(d)	Guthrie Park	10
Total		**119**

NEW ALLOCATIONS

6. Table 2 summarises new allocations of housing land which will contribute towards meeting the Structure Plan allowances to 2011.

Table 2 : New Allocations

B1 : Dubton Farm	100
B2 : Andover School	20
Total	**120**

B1 : Housing - Dubton Farm

Approximately 29 ha of greenfield land in the west of Brechin at Dubton is allocated for residential development together with significant areas of landscaping and public open space.

An initial phase of 100 units will be released within the plan period. The scale of further land release in the period beyond 2011 will be determined by a future Local Plan. Proposals should be in accordance with the development brief which will be prepared for this site which will include details of the following requirements:

- **structural landscaping within and around the periphery of the site, including the provision of community woodland adjacent to the A90(T) to provide effective noise mitigation, define development areas and help to integrate new development into the existing landscape framework and adjacent built up area;**
- **access to be taken directly from the A935 and Pittendriech Road;**
- **provision for public transport and linkages for pedestrians and cyclists throughout the whole site and to key public places such as schools, the town centre, community woodland areas, Brechin Business Park and visitor attraction to the west;**
- **developer investment to upgrade off site sewers;**
- **noise impact assessment focusing on the A90(T) and Brechin Business Park to the west;**
- **provision of associated community facilities;**
- **25% of the capacity of the site should provide LCHO affordable housing.**

B2 : Housing - Andover School, Nursery Lane

0.83 ha of land at the former Andover School comprising the existing stone building and adjacent ground is allocated for around 20 dwellings. The school building is Category B listed and will require to be retained. Proposals to convert the school building to housing must comply with Policy ER15 of the Local Plan (page 78). Whilst there is potential for housing to be built within adjacent ground to the south and north of the school, proposals must comply with Policy ER16 (page 79). The site is surrounded by a stone boundary wall which will require to be retained as part of any development proposals. *(Full planning permission granted July 2004 to convert the school building to 10 flats/1 house, and outline planning permission granted July 2004 for 10 houses in adjacent ground).*

REGENERATION PROJECT

7. The Queens Park Housing Estate has been identified as appropriate for regeneration to provide a wider choice of mixed tenure housing through demolition of the existing flats and the construction of new dwellings. Opportunities for environmental improvement including landscaping and boundary treatment will also be promoted to enhance the entrance to the town.

B3 : Regeneration - Queens Park

2.0 ha of land at Queens Park, provides an opportunity for redevelopment to provide around 35 dwellings including private and social rented accommodation and children's nursery. Development proposals should seek to address the north east and north west corners of the site which are highly visible on the approach to and from Brechin. *(Outline planning permission granted September 2004).*

OPPORTUNITY SITES

8. There are a number of sites in Brechin that provide opportunities for redevelopment. Where proposals involve new housing development they will require to contribute towards meeting the provisions of Policy SC9: Affordable Housing (see page 33).

***Opportunity Sites**: Sites available for redevelopment for housing and/or other uses. Given uncertainties related to the timing of release of such sites for development and the range of potentially suitable uses, they are not counted towards meeting the Structure Plan housing allowances until planning permission is granted.*

B4 : Opportunity Site - Albert Place

0.22 ha of land at Albert Place provides an opportunity for re-use/redevelopment to provide around 10 dwellings. The site is partly vacant and partly in industrial use, and its redevelopment is dependent upon the whole site becoming available. Proposals for the comprehensive redevelopment of the whole site will be required taking account of the guidance in Angus Council Advice Note 6: Backland Housing Development.

Opportunity Sites

B4: A bert Place
B5: Scott Street
B6: Witchden Road - former gas works
B7: Southesk Street / Commerce Street

B5 : Opportunity Site - Scott Street, Goods Yard

2.4 ha of land at Scott Street provides an opportunity for redevelopment for around 70 dwellings. A comprehensive landscaping scheme will be required to enhance the amenity of the area and provide a buffer to the railway line.

B6 : Opportunity Site - Witchden Road, Former Gas Works

0.6 ha of land at the former gas works site provides an opportunity for redevelopment for a variety of uses including residential or business use (Class 4*) subject to a site investigation being undertaken to assess potential land contamination and the satisfactory completion of any remediation works.

**As defined in the Town and Country Planning (Use Classes) (Scotland) Order 1997.*

B7 : Opportunity Site - Southesk Street/Commerce Street

The vacant site fronting onto the east side of Southesk Street provides opportunity for redevelopment for alternative uses compatible with the surrounding area including office/business use (Class 4*). The wall forming the boundary with Southesk Street is Category B listed and will require to be incorporated into development proposals.

**As defined in the Town and Country Planning (Use Classes) (Scotland) Order 1997.*

TOWN CENTRES AND RETAILING

9. Building upon previous environmental improvement schemes and in support of a wider regeneration strategy for the town, Angus Council will seek to establish a Townscape Heritage Initiative within the historic centre of Brechin.

B8 : Town Centre Improvements

Angus Council will support appropriate initiatives including the establishment of a Townscape Heritage Initiative for the improvement and/or redevelopment of buildings and sites within Brechin Town Centre where they support and enhance the area's retail and service function.

SPORT AND RECREATION

B9 : Community Woodland - Cookston

Approximately 7.3 ha of land adjacent to the A90(T) at Cookston is allocated for community woodland and recreational open space. All woodland areas should principally comprise native species.

B10 : Open Space Area - Cookston

4.9 ha of land on the west side of Cookston Road, adjacent to the A90(T), is allocated for recreational open space to complement the use of the existing community woodland for recreational activity.

TOURISM

B11 : Hotel/Travel Lodge Development - Dubton Farm

1.5 ha of land in the west of Brechin, north of the A935, is allocated for a hotel/travel lodge (Class7*) use. The site is located on the main approach to Brechin and is set in an attractive landscape adjacent to the Brechin Business Park. Development proposals including boundary treatment should seek to reflect the traditional design and established landscape characteristics of the area.

**As defined in the Town and Country Planning (Use Classes) (Scotland) Order 1997.*

COMMUNITY FACILITIES AND SERVICES

B12 : Brechin Cemetery Extension

0.6 ha of land adjacent to the existing Brechin Cemetery is reserved to provide future cemetery facilities.

ENVIRONMENT AND RESOURCES

9. Following an appraisal of a range of potential options for a Flood Prevention Scheme in Brechin, Angus Council will promote the construction of defences along the north bank of the River South Esk as the preferred option. Public consultation on the nature and design of the scheme will be undertaken as it progresses towards the planning application stage and as part of the planning application process.

B13 : Brechin Flood Prevention Scheme

Angus Council will promote the construction of defences along the north bank of the River South Esk as the preferred Flood Prevention Scheme for Brechin.

B14 : Brechin Flood Risk Areas

Development proposals in relevant parts of Brechin subject to potential flood risk will be assessed in accordance with Policy ER28 having particular regard to:

- **the stage reached in the planning, design and construction of proposed flood defence measures, including the form and alignment of various sections of defence works along the north bank of the River South Esk;**
- **opportunities for incorporating and extending cycleways and footpaths in association with flood defence works; and**
- **applying measures in sensitive areas downstream of the A933 Brechin Bridge aimed at reducing the intensification of development and promoting biodiversity.**

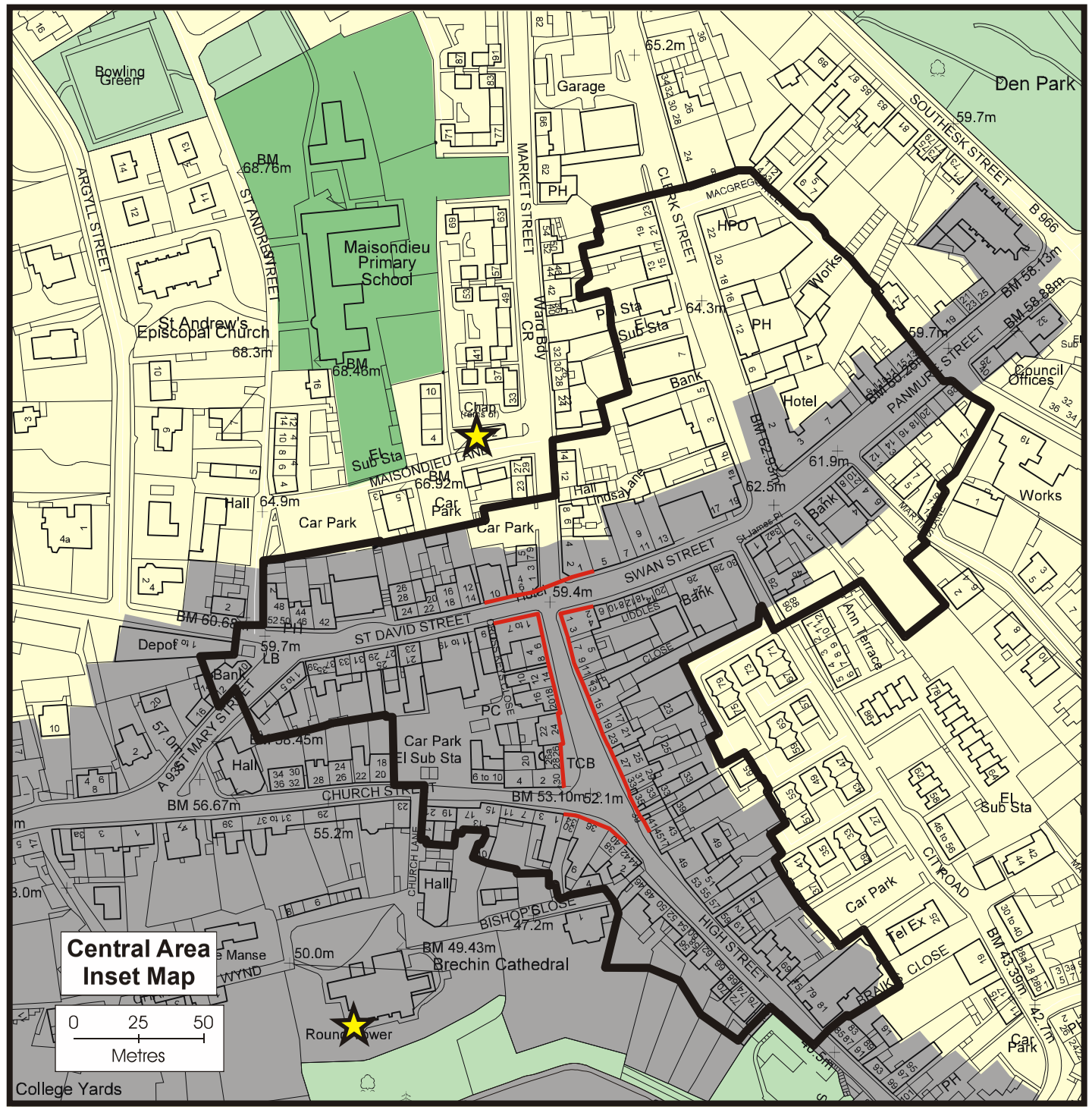
Brechin (Inset Map 2)

This Proposals Map should be read in conjunction with the Written Statement

	Brechin settlement statement	Topic chapter
Development boundary		Policy S1
Development in existing built up areas		Policy S1
Inset map boundary		
Housing		
Existing sites	B(a) (d)	
Allocated sites	B1 & 2	
Urban regeneration	B3	
Opportunity sites	B4 B7	
Working		
Employment land supply		Policy SC16
Environment		
Conservation area		Policies ER12 14, 21

	Brechin settlement statement	Topic chapter
Sport & Recreation		
Community woodland	B9	
Open space provision	B10	
Hotel/Travel lodge	B11	
Open space protection		Policy SC32
Community Facilities & Services		
School facilities community use		Policy SC38
Cemetery extension	B12	

0 500m



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	Brechin settlement statement	Topic chapter
Development in existing built up areas		Policy S1
Environment		Policies ER12 14, 21
Conservation area		
Ancient monuments (in care of Scottish Ministers)		Policy ER18
Town Centres & Retailing		
Town centre	B8	Policies SC23, 25 & 26
Core retail area		Policy SC24
Sport & Recreation		
Open space protection		Policy SC32
Community Facilities & Services		
School facilities community use		Policy SC38

CARNOUSTIE and BARRY

CARNOUSTIE and BARRY

1. Carnoustie is an attractive seaside town, which was originally a fishing village. In recent years it has developed as a popular commuter town, principally satisfying housing demand from the Dundee Housing Market Area. Although opportunity for development was constrained during much of the 1990s, the position has been partly eased by the construction of the wastewater treatment plant at Hatton.

2. Barry village extends from the western edge of Carnoustie along the A930. The provision of the Barry bypass as part of the A92 project will remove through traffic from the village, significantly improving the amenity of residents. Drainage and flooding issues, however, continue to restrict opportunities for development in Barry.

3. The first Angus Local Plan allocated greenfield housing land north of Newton Road, Carnoustie. This, together with a contribution from a range of brownfield sites, will meet housing land requirements for this plan period.

4. The lack of a site for industrial/business use requires to be addressed taking account of the improved road access afforded by the upgrading the A92 road and associated linkages to the town.

5. The beach, seafront and golf links provide Carnoustie and Barry with an excellent base for the holiday and tourism market and the Championship golf course enjoys an international reputation with the return of the British Open in 2007.

PROFILE

Role:
A popular seaside holiday, golfing and service centre with strong links to the wider South Angus and Dundee housing market.

Population:
Census 2001 - 10561;
1991 - 10488;
% change 91/01 : +0.78

Housing Land Supply June 2004 :
existing 144
allocated first ALP 74

Employment Land Supply 2004 :
Panmure 0.75ha

Drainage: available

Water Supply: available

KEY ISSUES

6. The key issues facing Carnoustie and Barry are:-

- How Carnoustie and Barry can best take advantage of the upgrading of the A92 road and associated link roads, including the location of accessible employment land;
- The provision of affordable housing for sale and rent;
- How to strengthen and improve shopping and facilities in the town centre;
- How to develop opportunities that sustain and promote Carnoustie as a holiday location, including its international golfing reputation;
- How to stimulate the regeneration of vacant sites within the town; and
- The development of Carnoustie as a tourism and recreation asset.

DEVELOPMENT STRATEGY

7. The Local Plan development strategy for Carnoustie and Barry seeks to:-

- Establish a site for employment use;
- Encourage the provision of affordable housing;
- Support the role of Carnoustie town centre;
- Support the development of golfing facilities, where appropriate, to further strengthen this internationally recognised asset; and
- Encourage the redevelopment of underused brownfield sites within the built up area; and
- Continued enhancement of the seafront area including foot and cycle paths.

HOUSING

EXISTING SITES

8. Sites with planning permission or under construction as identified in the Housing Land Audit June 2004, are shown in Table 1.

Table 1 : Existing Sites

(a)	Westhaven Farm	12
(b)	Lochend Road	10
(c)	Newton Road 1	31
(d)	Ravensby Road	10
(e)	Taymouth Terrace	81
Total		**144**

SITES PREVIOUSLY IDENTIFIED BY THE FIRST ANGUS LOCAL PLAN

9. This Local Plan continues to reserve part of the site at Newton Road for housing development. However the yield has been amended to reflect the recent planning permission.

Table 2 : Sites from First ALP

C1 : Newton Road 2	158
Total	**158**

C1 : Housing - Newton Road 2

8.5 ha of land at Newton Road is reserved for 158 houses.

NEW ALLOCATIONS

10. Table 3 summarises new allocations of housing land that will contribute towards meeting the Structure Plan allowances to 2011.

Table 3 : New Allocations

C2 : Former Maltings	130[1]
Total	**130**

[1] Estimate based on indicative layout. Full planning permission granted for 68 flats on part of site.

C2 : Housing – Former Maltings, Victoria Street

2.6ha of land at the former maltings, Victoria Road is reserved for housing. Full planning permission will be subject to a Section 75 relating to a master plan for this site and adjoining industrial areas and the provision of 40% affordable housing or as agreed following the Local Plan Review public Inquiry. (Planning permission for the development was granted in August 2005).

OPPORTUNITY SITES

11. There are a number of sites in Carnoustie that provide opportunities for redevelopment. Where proposals involve new housing development they will require to contribute towards meeting the provisions of Policy SC9: Affordable Housing (see page 33).

***Opportunity Sites**: Sites available for redevelopment for housing and/or other uses. Given uncertainties related to the timing of release of such sites for development and the range of potentially suitable uses, they are not counted towards meeting the Structure Plan housing allowances until planning permission is granted.*

Opportunity Sites

C3 : Woodside/Pitskelly
C4 : Barry Road
C5 : Greenlaw Hill
C6 : Former Dalhousie Golf Club

C3 : Opportunity Site - Woodside/Pitskelly

4.5 ha of land at Woodside/Pitskelly provides an opportunity for a number of uses including residential, Class 11* (assembly and leisure), recreation or Class 4* (business) where they are compatible with surrounding activities.

Vehicular access will be from the new Upper Victoria Link Road. Ground condition surveys establishing the suitability of the ground for housing or other built uses will be required.

A landscaping scheme incorporating new tree planting will be required as an integral part of proposals for this site, and should have regard to the valuable tree belt on the raised beach adjacent to this site.

**As defined in the Town and Country Planning (Use Classes) (Scotland) Order 1997.*

C4 : Opportunity Site - Barry Road

Approximately 1 ha of land at Barry Road provides an opportunity for a number of uses including residential, Class 4* (business) and Class 11* (assembly and leisure) where they are compatible with surrounding activities. The site comprises a disused social club building and part of the former junior football ground.

Access should be taken from Barry Road. Ground condition surveys establishing the suitability of the ground for housing or other built uses will be required.

**As defined in the Town and Country Planning (Use Classes) (Scotland) Order 1997.*

C5 : Opportunity Site - Greenlaw Hill

1.7 ha of land at Greenlaw Hill provides an opportunity for residential development which should reflect the rural setting and open nature of this site, and its prominence at the entrance to Carnoustie on the Upper Victoria Link.

Access will be from the Upper Victoria Link road and development will not be permitted until the new road is completed.

**C6 : Opportunity Site – Links Parade,
Former Dalhousie Golf Club**

Approximately 0.7ha of land at Links Parade provides an opportunity for redevelopment for leisure uses, holiday accommodation, offices, housing or mix of these uses.

WORKING

12. The investigation and identification of a suitable site to meet the needs of new, expanding and relocating businesses in the Carnoustie and Monifieth area has involved a number of sites in and around Carnoustie being assessed by the Council for employment use. This has included consideration of issues relating to servicing, access and environmental impact.

13. The recent closure of the former maltings on Victoria Street has prompted interest in a possible wider renewal for non-business uses of the area between the railway, Kinloch Street, Brown Street and the new housing at Taymouth Terrace. Such a scheme would require the provision of suitable land and premises elsewhere in Carnoustie to accommodate the relocation of existing businesses which may wish to move from this area. Angus Council will seek to work in partnership with the local business community and other interested parties to promote this redevelopment and renewal opportunity in Carnoustie.

14. As a result of this, a larger area of land (approximately 15 ha) than initially sought will need to be identified to meet the new Structure Plan requirement for a five year supply of marketable employment land, to accommodate relocating and expanding companies and to provide for new employment opportunities. A new site will need to be located to meet the demands of a range of modern business, whilst being located and designed to minimise potential detrimental effects on the built and natural heritage.

15. A site at Carlogie provides an opportunity to address issues of accessibility within Carnoustie, the impact of some business activities on surrounding amenity and to provide a modern facility for the long term business needs of Carnoustie and Monifieth with good access to the A92. It also takes advantage of the landscape setting which contains this site, and opportunities to reduce the wider environmental impact of development on an important entrance to Carnoustie.

C7 : Working - Land at Carlogie
Approximately 15 ha of land at Carlogie is allocated for Class 4* (business), Class 5* (general industry), and Class 6* (storage and distribution) uses.

Proposals should be in accordance with the development brief which will be prepared for this site and will include details of the following requirements:-

- **road access and construction of a realigned Carlogie Road to the standards set by the Director of Infrastructure Services;**
- **provision of access by pedestrian, cycle and public transport;**
- **foul and surface water drainage;**
- **site layout and design to accommodate a range of business uses;**
- **investigate the need for archaeological evaluation and undertake/ implement as necessary; and**
- **structure planting and landscaping within and around the site.**

This should take place at an early stage and will require to be to a high standard, particularly given the gateway location of this site.

**As defined in the Town and Country Planning (Use Classes) (Scotland) Order 1997.*

TOWN CENTRES AND RETAILING

16. As with many small towns, Carnoustie town centre provides for a range of uses including retail, business, office, other service activities and housing. The mix of uses and layout which contribute to the town's unique character, also limit the opportunity for major redevelopment. Angus Council will support private sector initiatives for the appropriate improvement and/or redevelopment in Carnoustie town centre. This could include proposals to strengthen and enhance the area's retail and service function, including mixed-use redevelopment and housing in upper floors.

COMMUNITY FACILITIES AND SERVICES

17. The Health Authority has determined that the present health centre on Dundee Street is inadequate to meet the future requirements of Carnoustie and Barry residents. Following extensive investigation a site for a replacement facility has been identified at Pitskelly Park.

C8: Replacement Health Centre, Barry Road

0.4 ha of land at Pitskelly Park, Barry Road, is reserved for a new health centre. *(Planning permission for the development was granted in November 2004)*

18. School facilities in Carnoustie are to be upgraded as part of the Carnoustie and Forfar Schools Public Private Partnership (PPP) project, programmed for completion by July 2008. For Carnoustie the project comprises:-

- a new two stream primary school at Thomas Street;
- a new build single stream primary school for central Carnoustie at Queen Street/Newton Road;
- upgrading of the existing Carlogie Primary School; and
- replacement of Carnoustie High School teaching blocks.

19. Completion of the project in Carnoustie will result in the primary schools at Kinloch, Dundee Street; Barry and Panbride becoming surplus to the Education Department's requirements. Proposals for the redevelopment or reuse of these sites will be required to take account of the amenity of surrounding areas and relevant policies of this Local Plan.

C9 : Primary School Site - Thomas Street

2.4 ha of land at Thomas Street is allocated for a new two stream primary school.

C10 : Primary School Site - Queen Street

1.2 ha of land at Queen Street is reserved for a new single stream primary school. *(Planning permission for the development was granted on 17 May 2005)*

20. An extension to Shanwell Cemetery was allocated in the first Angus Local Plan. This Local Plan reaffirms the allocation of land for a cemetery extension.

C11 : Shanwell Cemetery Extension

0.4 ha of land adjoining the existing Shanwell Cemetery is reserved as an extension. Upgrading of the access road from the Upper Victoria Link along the line of the existing track will be required.

SPORT AND RECREATION

21. This Local Plan continues the land allocation from the first Angus Local Plan for a new sports ground and associated facilities at Shanwell Road, adjacent to Carnoustie High School.

C12 : Sports Ground, Shanwell Road

2.25 ha of land north of Shanwell Road and west of Balmachie Road is allocated for the development of a recreational sports ground and associated facilities, including new access road and car parking.

22. Carnoustie is firmly re-established on the Golf Open Championship circuit with the return of The Open in 2007 following the successful staging of The Championship in 1999. The Consultative Draft Local Plan Review suggested investigating the feasibility of establishing a new 18 hole golf course with ancillary facilities in order to consolidate Carnoustie as an internationally renowned golf centre. This also had regard to the development of further courses which have reinforced the competitive attraction of other major international golf tourism locations elsewhere in Scotland and beyond.

23. The tentative suggestions advanced in the Draft Plan have resulted in significant interest being expressed by landowner and developer interests, including some preparatory studies being undertaken. Such a major development requires clear evidence that it will fully meet the qualitative demands which underpin the international golf tourism market which itself has been subject of some downturns. At this stage, however, there remain significant uncertainties as to how or whether a course of the exceptional quality sought can be developed in the optimum location.

24. In these circumstances, and recognising the potential risks to existing golf and related facilities in Carnoustie of falling below the high standard required, it is proposed that further work and consultation is required before an informed view can be taken on this matter. In the event that proposals are subsequently advanced which meet the high expectations and requirements for a new golf course at Carnoustie these would most appropriately be considered and progressed as part of a future alteration or review of the Local Plan. This would also have regard to the scale, location and type of housing and other development which may be required to financially support the development of the golf course.

C13 : Golf Course Development

The scope and opportunities for creating a new high quality championship standard 18 hole golf course with ancillary facilities on a suitable site on the periphery of Carnoustie will be kept under review for potential further consideration in a future alteration or review of this Local Plan.

Carnoustie & Barry (Inset Map 3)

This Proposals Map should be read in conjunction with the Written Statement

		Carnoustie settlement statement	Topic chapter
	Development boundary		Policy S1
	Development in existing built up areas		Policy S1
	Housing		
	Existing sites	C(a) (e)	
	Allocated sites	C1, C2	
	Opportunity sites	C3 C6	
	Working		
	Employment land	C6	Policy SC16
	Employment land supply		Policy SC16
	Town Centres & Retailing		
	Town centre		Policy SC23, 25, 26
	Sport & Recreation		
	Sports ground	C12	
	Open space protection		Policy SC32
	Community Facilities & Services		
	School facilities community use		Policy SC38
	Primary school	C9 & C10	
	Health centre	C8	
	Cemetery Extension	C11	
	Transport & Communication		
	Upgrade of A92 / A930 Improved Linkages to Carnoustie (part)		Policy SC43

0 1km

FORFAR

FORFAR

1. Forfar is a traditional market town providing a wide range of services and facilities to a large rural hinterland. It is one of the main towns in Angus, located centrally in Strathmore. The town is well connected to the strategic road network. The Glamis Road and Kirriemuir Road junctions on the A90(T) have been reconfigured to grade separated status, which provides improved accessibility to the town.

2. The Dundee and Angus Structure Plan (approved 2002) identifies Forfar as a focus for growth in Angus. In addition to a number of brownfield sites previously identified in the first Angus Local Plan which have still to come forward, there are further areas of land within the town which have now become available to accommodate residential development.

PROFILE

Role:
Important market town in central Angus providing a wide range of services and facilities to the surrounding area.

Population:
Census 2001 – 13206;
1991 – 12832;
% Change 91/01: +2.91

Housing Land Supply June 2004:
existing - 118,
allocated first ALP - 115
constrained - 115

Employment Land Supply 2004:
Orchardbank 30 ha

Drainage:
Capacity with localised constraints affecting parts of the south and east of the town. Requires completion of Phase 3 of the Forfar Sewers Renewal Scheme, programmed for completion in 2005.

Water Supply:
available

KEY ISSUES

3. The key issues for Forfar are:

- The need to identify appropriate sites to accommodate new housing development, in support of the Structure Plan strategy, whilst safeguarding the form and setting of the town;
- The promotion of the brownfield redevelopment sites for housing where appropriate;
- The resolution of the long standing drainage constraint affecting areas in the south and east of the town;
- The protection of the Strathmore Mineral Water Company ground water resource in West High Street from contamination;
- The protection of the landscape quality and recreational resources of open spaces and the associated path network around the town including Balmashanner and Forfar Loch County Park;
- The opportunity to maximise the advantages of grade separation of the junctions on the A90(T) providing safe and easy access to the transport network;
- The continued protection and enhancement of the character and function of the town centre as an attractive place to visit and as a service centre;
- The provision of marketable employment land and safeguarding other business and industrial sites in the town to provide for continued growth in the local economy.

DEVELOPMENT STRATEGY

4. The Local Plan development strategy for Forfar seeks to:-

- Continue to allow for redevelopment of brownfield sites, which will contribute to the regeneration of vacant and/or underused areas of the town.
- Identify a range of effective housing land allocations.
- Safeguard important landscape features from inappropriate development, including Balmashanner to the south and Forfar Loch Country Park to the north-west.
- Encourage a strong and lively town centre with shopping facilities to meet the area's requirements.
- Support the development of land west of Orchardbank, towards the A90(T) for high quality business and employment uses, and provide for an extension to an existing employment site in the east of the town.
- Continue with the creation and maintenance of a recreational network, connecting open spaces and new development around the town.

GROUND WATER PROTECTION ZONES

5. Surface water disposal in Forfar requires special consideration in order to protect the ground water resource used by the Strathmore Mineral Water Company. Disposal of sewage effluent will be to the public drainage system and is therefore not covered here. Large scale proposals where disposal of surface water via soakaways to the ground, including the use of Sustainable Urban Drainage Systems (SUDS) schemes, could potentially have an impact on the ground water resource. These may include developments with large car parks or other impenetrable areas, garage forecourts, major roads, industrial areas, or development on land which is known to have been previously landfilled. Developers are encouraged to make early contact with Angus Council and/or SEPA in order to establish the need for further assessment of potential risk.

Hydro – Environmental Appraisal and Protection Zone Determination, Hydrogeological Services International Ltd, June 1999 establishes three protection zones to guide activities which may impact on the ground water resource.

F1 : Protection of Ground Water Resources

Large scale development proposals which involve the use of surface water soakaways must consider the potential impact on the ground water resource. In appropriate circumstances Angus Council will require developers to undertake an assessment of potential risk to ground water.

HOUSING

EXISTING SITES

6. Sites with planning permission or under construction as identified in the Housing Land Audit June 2004, are shown in Table 1.

Table 1 : Existing Sites

(a) Montrose Road	25
(b) Slatefield Farm	12
(c) Dundee Road	6
(d) Turfbeg Farm	21
(e) Victoria Street	6
(f) Roberts Street/ Prior Road	25
(g) Service Road	2
(h) Prior Road 1	5
(i) Prior Road 2	3
(j) North Street	6
(k) Manor Rise	7
Total	**118**

SITES PREVIOUSLY IDENTIFIED BY THE FIRST ANGUS LOCAL PLAN

Table 2 : Sites from First ALP

F2 : Beechill Nursery	5
F3 : Green Street	20
Total	**25**

7. The sites summarised in Table 2 were previously identified in the first Angus Local Plan. This Plan continues the allocation of these sites for housing development, and where appropriate the wording of the proposal and/or the indicative yield from the site may have changed. Development may be dependant on the completion of Phase 3 of the Forfar Sewers Renewal Scheme which is indicated by Scottish Water for completion during 2005.

F2 : Housing - Beechill Nursery

1.4 ha of land is allocated for residential development of around 5 dwellings. The site must be accessed directly from Lour Road and development must safeguard trees within the site.

F3 : Housing - Green Street

1 ha of land at Green Street is allocated for residential development of around 20 dwellings. *(Planning permission for 18 flats granted 30 September 2004)*

NEW ALLOCATIONS

Table 3 : New Allocations

F4 : Wester Restenneth	150
F5 : Whitehills Nursery	100
F6 : Dundee Road	100
F7 : Gowanbank	60
F8 : Slatefield	5
Total	**415**

8. Table 3 summarises new allocations of housing land which will contribute towards meeting the Structure Plan allowances to 2011. The sites allocated are considered to have the potential to deliver attractive places to live in a range of locations across Forfar, meeting a variety of different housing needs. Taking account of the scale of the sites identified, the likely timescales within which development might begin and the issues that each of the sites must address, development of some sites is planned to come forward on a phased basis, with development expected to continue beyond 2011.

F4 : Housing - Wester Restenneth

20 ha of land at Wester Restenneth, between the Montrose Road and Brechin Road, is allocated for around 250 dwellings. A first phase of around 150 dwellings will be permitted in the period to 2011.

A comprehensive development scheme will be required for the whole site which should address the following:

- **A full remediation statement will be required for the site.**
- **15% of the capacity of the site to provide LCHO affordable housing.**

Foul drainage arrangements for this site should be agreed in writing with Scottish Water.

F5 : Housing - Whitehills Nursery

6.5 hectares of land at Whitehills Nursery is allocated for around 100 dwellings with a requirement for 15% of the capacity of the site to provide LCHO affordable housing. Vehicular access for a limited number of houses will be permitted from Fyfe Street, and the remainder of the site will be accessed from a new junction on to Prior Road. No through route for vehicles will be permitted between Fyfe Street and Prior Road, although emergency access should be provided.

F6 : Housing - Dundee Road

5.4 ha of land at Dundee Road is allocated for around 100 dwellings. Proposals should include 15% of the capacity of the site to provide LCHO affordable housing.

F7 : Housing - Gowanbank

6 hectares of land at Gowanbank is allocated for residential development of around 60 units.

An appropriate vehicular access will require to be provided from Arbroath Road, or from both Montrose Road and Arbroath road. No through route for vehicles will be permitted between Montrose Road and Arbroath Road, although emergency access should be provided.

The public footpath which crosses the site from north east to south west and connects into the Forfar Path network at those points will require to be taken into account and incorporated into the layout of the site.

Development will require to take account of the amenity of existing properties around the perimeter of the site and respect the cordon sanitaire associated with the operational landfill site to the east.

Foul drainage arrangements for the site should be agreed in writing with Scottish Water.

F8 : Housing – Slatefield

Approximately 2ha of land at Slatefield is allocated for a high quality residential development of around 5 houses.

F9 : Safeguarded Site – North of Turfbeg

17.6 ha of land north of Turfbeg is safeguarded for possible development of around 300 houses and related community facilities in the period beyond 2011.

OPPORTUNITY SITES

9. There are a number of sites in Forfar that provide opportunities for redevelopment. Where proposals involve new housing development they will require to contribute towards meeting the provisions of Policy SC9: Affordable Housing (see page 33). Some sites are within an area affected by a drainage constraint, although it is anticipated foul drainage may be accommodated on a 'like for like' basis. A separate system for disposal of surface water will be required.

***Opportunity Sites**: Sites available for redevelopment for housing and/or other uses. Given uncertainties related to the timing of release of such sites for development and the range of potentially suitable uses, they are not counted towards meeting the Structure Plan housing allowances until planning permission is granted.*

Opportunity Sites

F8 : South Street
F9 : Forfar Infirmary
F10 : New Road
F11 : St James Road

F10 : Opportunity Site - South Street

0.8 ha of land at South Street provides an opportunity for a high density development of town houses and flats. Proposals should provide for improved sightlines at the Strang Street/South Street corner through realignment of the building line and/or reduction in the height of the walls.

F11 : Opportunity Site - Forfar Infirmary

1.2 ha of land at Forfar Infirmary provides an opportunity for around 30 dwellings, business or community uses. The main vehicular access should be from Montrose Road. Pedestrian and cycle routes linking Montrose Road and Arbroath Road should be provided through the site. The existing boundary wall along the Arbroath Road frontage will require to be retained and incorporated into development proposals.

F12 : Opportunity Site - New Road

2.4 ha of land at New Road provides an opportunity for a mixed use redevelopment including an appropriate mix of housing, business, community uses or retailing which is complementary to the town centre. Development should take account of the character of the surrounding area, which includes listed buildings and a conservation area. Proposals should address St James Road, one of the main routes through the southern part of the town. Vehicular access will not be permitted from The Vennel.

F13 : Opportunity Site - St James Road

1.1 ha of land to the south of St James Road provides an opportunity for redevelopment for uses including housing, business or community uses; or an appropriate mix of these uses. Proposals should address St James Road, which is one of the main routes through the southern part of the town.

WORKING

SITES PREVIOUSLY IDENTIFIED BY THE FIRST ANGUS LOCAL PLAN

10. The first Angus Local Plan allocated land at Orchardbank for employment purposes. The construction of roads and infrastructure has commenced on site.

F14 : Working - Orchardbank

29.6 ha of land to the west of Orchardbank adjacent the A90(T) is reserved for a 'Gateway' development comprising business development (Class 4*), general industry (Class 5*), storage and distribution (Class 6*), a landscaped spine incorporating a public path, appropriate boundary treatment including landscaping, screening and mounding for noise attenuation, and roadside facilities including a travel lodge. Development should be in accordance with the approved Development Brief for the site. *(Outline planning permission for a business park, roadside facilities and a travel lodge style hotel was granted 16 July 2004, detailed planning permission for infrastructure and landscaping was granted 8 June 2004).*

**As defined in the Town and Country Planning (Use Classes) (Scotland) Order 1997.*

F15 : Working – Carseview Road

4 ha of land at Carseview Road is allocated principally for general industrial development (Class 5*). There may also be scope for limited areas of business (Class 4*) development in the western part of the site. Access will be from Carseview Road and a landscaped buffer will be required along the northern and western boundaries.

TOWN CENTRES AND RETAILING

11. Forfar is a market town serving a large rural area, and the town centre provides for a range of uses including retail, business, office, other service activities and housing. Angus Council will support private sector initiatives for appropriate improvement and/or redevelopment in the town centre. This could include proposals to strengthen and enhance the area's retail and service function, including mixed-use redevelopment and housing in upper floors.

COMMUNITY FACILITIES AND SERVICES

12. School facilities in Forfar are to be upgraded as part of the Carnoustie and Forfar Schools Public Private Partnership (PPP) Project, programmed for completion by July 2008. The proposals for Forfar are :

- a replacement two-stream primary school at Langlands within the existing site,
- upgrading and extension of Kirkriggs which will continue as a two-stream primary school, and
- a new-build two-stream primary school at Whitehills Nursery, Fyfe Street.

13. Completion of the PPP proposals for Forfar will result in existing primary schools at Wellbrae and Chapelpark, which are both listed buildings, becoming surplus to the Education Department's requirements. Proposals for redevelopment or reuse of these sites will be required to take account of the amenity of surrounding areas and relevant policies of this Local Plan. The site at Lilybank which was formerly reserved for education purposes is surplus to requirements and is no longer reserved for development in this Plan.

F16 : Primary School – Whitehills Nursery

2 ha of land at Whitehills Nursery, Fyfe Street is reserved for the development of a primary school. *(Outline planning permission granted 13 May 2005)*

F17 : Newmonthill Cemetery Extension

1.7 ha of land to the south of Newmonthill Cemetery is reserved for long term cemetery provision. Access will be though the existing cemetery and no direct vehicular access will be permitted from Lour Road.

ENVIRONMENT

14. Two locally important landscape features make a valuable contribution to the setting of Forfar. The town sits in a sheltered location at the foot of Balmashanner Hill to the south, and Forfar Loch Country Park lies on the western side of the town. These features are protected from development which would erode their character and local recreational value.

F18 : Balmashanner

In order to protect the open character and landscape value of Balmashanner Hill development within the area defined on the proposals map will not be permitted.

F19 : Forfar Loch

Development which would adversely affect the landscape or nature conservation value of Forfar Loch, the Country Park or its setting will not be permitted. In particular no further built development will be permitted on land along the northern shore of the Loch.

Forfar Image Enhancement Proposals

15. Proposals for image enhancement are being developed by Angus Council for a variety of locations in Forfar. Projects include environmental improvements around the town centre and The Myre, and enhancements of the main approach routes into the town. These projects are expected to come forward during the life of the Local Plan.

Forfar (Inset Map 4)

This Proposals Map
should be read in conjunction with the
Written Statement

52 43 44 45 46 47

51

50

49

F9 F(d) F15 F5 F14 F(j) F(g) F5 F(h) F4 F(i) F(f) F(a) F7 F11 F10 F19 F12 F13 F2 F17 F14 F6 F18 F(b) F8 F(c)

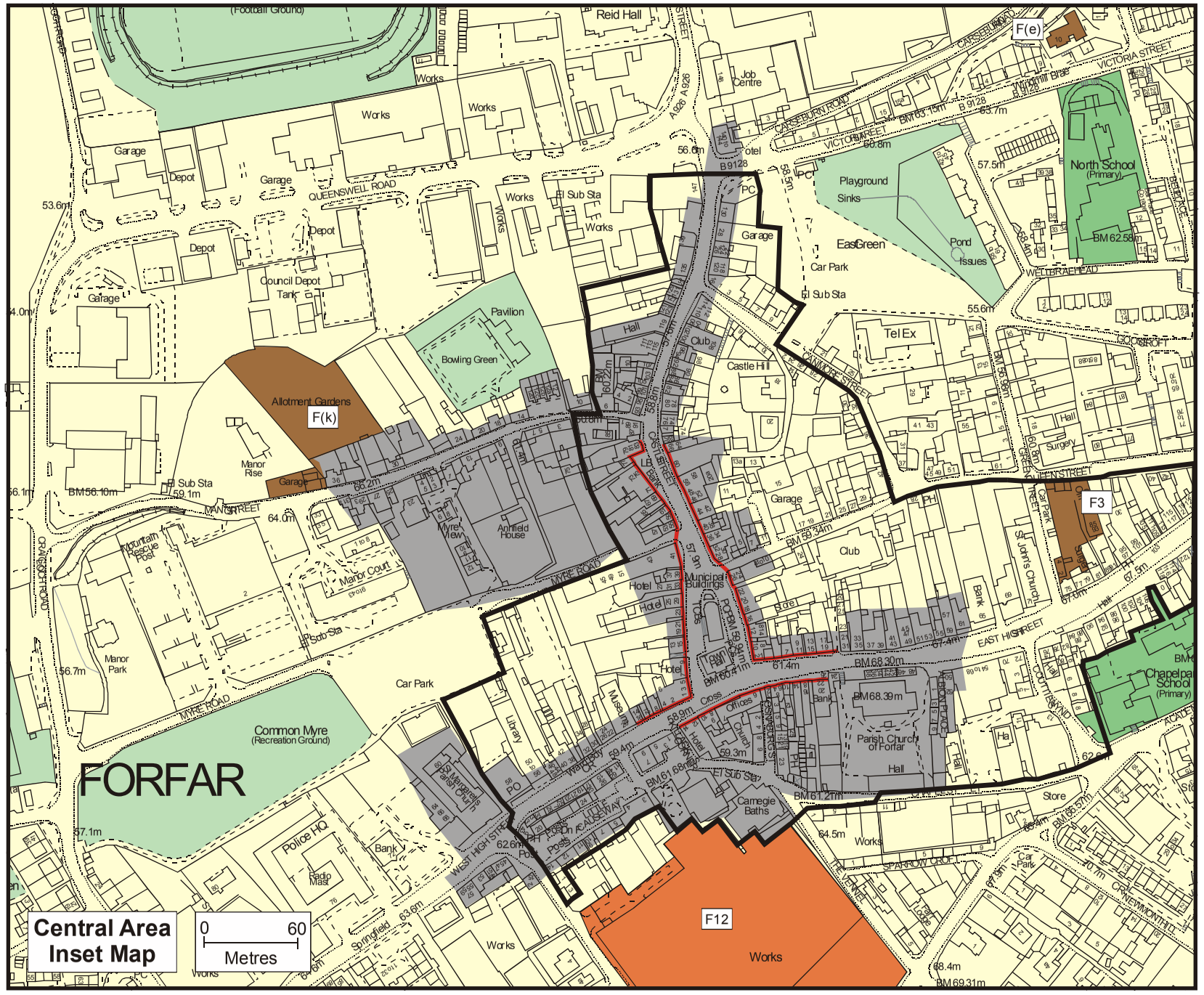
CENTRAL AREA INSET

FORFAR

	Forfar settlement statement	Topic chapter
Development boundary		Policy S1
Development in existing built up areas		Policy S1
Inset Map boundary		
Housing & Associated Uses		
Existing sites Allocated sites	F(a) (k) F2 F8	
Safeguarded Site	F9	
Opportunity sites	F10 F13	
Working		
Employment land allocated site	F14, F15	
Employment land supply		Policy SC16
Town Centres & Retailing		
Town centre		Policies SC23, 25, 26
Sport & Recreation		
Open space protection		Policy SC32
Community Facilities & Services		
School facilities community use		Policy SC38
Primary school site	F14	
Cemetery extension	F17	
Balmashanner	F18	
Forfar Loch	F19	

0 1km

	Forfar settlement statement	Topic chapter
Development in existing built up areas		Policy S1
Housing		
Existing sites	F(e) & F(k)	
Allocated sites	F3	
Opportunity sites	F12	
Town Centres & Retailing		
Town centre		Policies SC23, 25, 26
Core retail area		Policy SC24
Sport & Recreation		
Open space protection		Policy SC32
Community Facilities & Services		
School facilities community use		Policy SC38
Environment		
Conservation area		Policies ER 12 14,21



KIRRIEMUIR

KIRRIEMUIR

1. Kirriemuir is a gateway community at the foot of the Angus Glens, providing a range of services and facilities to the wider area. The town has experienced significant housebuilding in the past, but since 1999 further development has been restricted due to issues at the Waste Water Treatment Plant. The Local Plan identifies sites for housing development largely to meet local needs which will be able to come forward when work is completed at the WWTP which creates capacity for further development.

2. Land previously identified to contribute towards meeting local employment needs has not come forward. In order to provide a marketable supply of employment land in the area the Local Plan allocates land at Forfar Road to accommodate local business development, well located for access to the A90(T).

PROFILE

Role:
Gateway to the Glens. Kirriemuir is a small local centre providing services to a large rural area.

Population:
Census 2001 – 5963;
1991 – 5467;
% Change 91/01 : +9.07

Housing Land Supply June 2004:
existing - 47
allocated first ALP - 10

Employment Land Supply 2004 :
3 hectares

Drainage:
Formal drainage constraint affecting waste water catchment area including Kirriemuir, Maryton and Westmuir.

KEY ISSUES

3. The key issues relating to the future development of Kirriemuir are:

- The need to resolve problems at the Waste Water Treatment Plant which constrain development in Kirriemuir and other settlements within the sewerage catchment area;
- The need to identify sites within and well related to the town to accommodate an appropriate level of new housing development;
- The protection and enhancement of the character and heritage of the town as a visitor attraction and "Gateway to the Glens";
- Protection of the role of Kirriemuir as an important service centre to the surrounding rural area including the maintenance of shopping and other facilities;
- The need to identify a suitable site for a replacement health centre; and
- The need to ensure the continued provision of marketable land for employment uses.

DEVELOPMENT STRATEGY

4. The Local Plan Development Strategy for Kirriemuir aims to:-

- Identify appropriate land to continue to accommodate a range of housing developments to meet local needs;
- Give priority to the redevelopment of brownfield sites within the built-up area where possible;
- Provide well located employment land;
- Sustain a strong and lively town centre with shopping and service facilities to serve the wider area and visitors;
- Support the development of a replacement health centre;
- Encourage the development of visitor attractions in the Kirriemuir area.

DRAINAGE ISSUES

5. The ongoing drainage constraint affecting the Kirriemuir WWTP, which also serves Maryton and Westmuir, continues to have an effect on the level of development that can take place. It is expected that improvement works will take place at the WWTP which will be completed by January 2006, although available drainage for new development would only be confirmed following a review of the operation of the drainage system on completion of the improvement project. The drainage situation will be kept under close review during the life of this Local Plan, and Angus Council will continue to press Scottish Water to make the necessary investment to allow timeous resolution of this issue to allow Kirriemuir to accommodate new development.

HOUSING

EXISTING SITES

6. Sites with planning permission or under construction as identified in the Housing Land Audit June 2004, are shown in Table 1. The planning permission for development at Westfield/Lindsay Street is subject to a condition requiring confirmation of availability of a connection to the public foul drainage system from Scottish Water before development can take place.

Table 1 : Existing Sites

(a) Glengate	8
(b) Westfield/Lindsay Street	39
Total	**47**

SITES PREVIOUSLY IDENTIFIED BY THE FIRST ANGUS LOCAL PLAN

7. The site summarised in Table 2 was previously identified in the first Angus Local Plan. This Plan continues the allocation of this site for housing development, and where appropriate the wording of the proposal and/ or the indicative yield from the site may have changed. New housing development in Kirriemuir will require to be connected to the public foul drainage system.

Table 2 : Sites from First ALP

K1: Shielhill Road	10
Total	**10**

K1 : Housing - Shielhill Road

0.5 ha of land at Shielhill Road is allocated for around 10 dwellings, perhaps town houses or low-rise flats. Appropriate secure boundary treatment between the development and the primary school grounds will be required. *(Planning permission granted for 14 affordable housing units on 18 August 2005).*

NEW ALLOCATIONS

8. Table 3 summarises new allocations of housing land which will contribute towards meeting the Structure Plan allowances to 2011. New housing development in Kirriemuir will require to be connected to the public foul drainage system.

Table 3 : New Allocations

K2 : Hillhead	80
K3 : Sunnyside	40
Total	**120**

K2 : Housing - Hillhead

7.6 ha of land between Kinnordy Road and Shielhill Road is allocated for around 120 dwellings. A first phase of around 80 units will be permitted for development in the period to 2011.

Proposals should all be in accordance with the development brief which will be prepared for this site which will include details of the following requirements:

- **vehicular access from Kinnordy Road. Access from Shielhill Road may be permitted if suitable arrangements can be agreed to relocate or redesign the drop-off/pick-up point for pupils of Northmuir Primary School;**
- **15% of the capacity of the site to provide LCHO affordable housing; and**
- **proposals for suitable use and maintenance of the land not required for phase 1.**

K3 : Housing - Sunnyside

2 ha of land south of site K(b) : Westfield/Lindsay Street, is allocated for around 40 dwellings.

Access will be taken from site K(b). Development will require to have regard to the edge of town location with appropriate landscaping, particularly planting along the western and southern boundaries. The benefits of the southerly aspect of the site should be reflected in an energy efficient layout and design.

WORKING

9. An area of land at North Mains of Logie was allocated in the first Angus Local Plan to provide opportunities for local business development. This site has not come forward for development and in order to provide a marketable supply of employment land in Kirriemuir to meet Structure Plan requirements, a new site for a business park has been identified at Forfar Road. The site at North Mains of Logie is not continued in this Local Plan. New employment land development in Kirriemuir will require to be connected to the public foul drainage system.

K4 : Working – East Muirhead of Logie, Forfar Road

4 ha of land west of Maryton and south of Forfar Road is allocated for Class 4* (business), Class 5* (general industry), and Class 6* (storage and distribution) uses. Vehicular access should be from Forfar Road. Landscaping and other boundary treatments will be required to take account of the location of this site on the edge of the town and provide an appropriate high quality visual entrance to the town in keeping with the character of Kirriemuir.

**As defined in the Town and Country Planning (Use Classes) (Scotland) Order 1997.*

COMMUNITY FACILITIES AND SERVICES

K5 : Kirriemuir Cemetery Extension

0.8 ha of land to the southeast of the existing cemetery is reserved for future cemetery purposes.

Kirriemuir (Inset Map 5)

This Proposals Map should be read in conjunction with the Written Statement

	Kirriemuir settlement statement	Topic chapter
Development boundary		Policy S1
Development in existing built-up areas		Policy S1
nset Map boundary		
Housing		
Existing sites / Allocated sites	K(a) - (b) / K1 - K3	
Working		
Employment land allocated site	K4	Policy SC16
Employment land supply		Policy SC16
Environment		
Conservation area		Policies ER12-14 21
Town Centres & Retailing		
Town centre		Policies SC23 25 26

	Kirriemuir settlement statement	Topic chapter
Sport & Recreation		
Open space protection		Policy SC32
Community Facilities & Services		
School facilities - community use		Policy SC38
Cemetery extension	K5	

CENTRAL AREA NSET

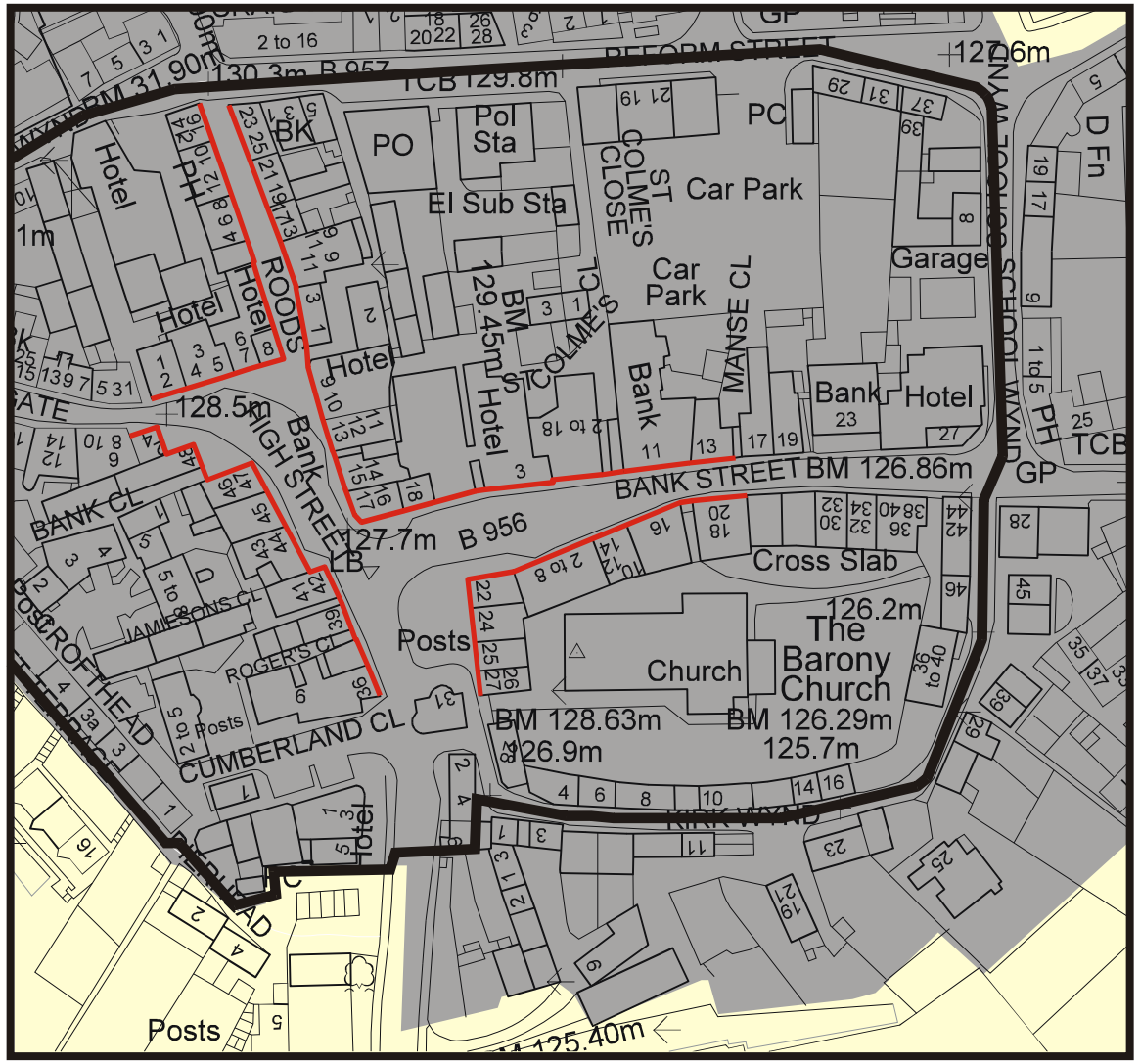
0 500m

	Kirriemuir settlement statement	*Topic chapter*
	Development in existing built up areas	Policy S1
	Town Centres & Retailing	
	Town centre	Policies SC23, 25, 26
	Core retail area	Policy SC24
	Environment	
	Conservation area	Policies ER 12 14,21

N

0 20
Metres

Central Area Inset Map



MONIFIETH

MONIFIETH

1. Monifieth is situated east of Dundee on the northern shore of the Tay Estuary. Originally a small fishing village, Monifieth has grown substantially as a residential centre mainly catering for the needs of the wider Housing Market Area. There is a range of local retail, commercial and community facilities available and the town has easy access to recent commercial and recreational facilities on the A92 to the north.

2. The coastal setting provides Monifieth with much of its character. The important beachfront area has recently been the subject of a major environmental improvement scheme to provide upgraded play facilities, parking and sports pitches which along with its renown for links golf has added to the town's attractions for residents and visitors.

3. The Dundee and Angus Structure Plan specifies that Monifieth should contribute to meeting the housing allowances for the wider Housing Market Area. As the town has had a substantial amount of new housing development in recent years, the strategy for Monifieth is to retain those sites promoted in the first Angus Local Plan but yet come forward and not to allocate further new greenfield sites at this stage.

PROFILE

Role:
Residential centre providing services and facilities for the town and wider catchment area.

Population:
Census 2001 - 8164;
1991 - 7871;
% change 91/01: +3.72

Housing Land Supply June 2004:
existing – 29
allocated first ALP- 25

Drainage:
Although connected to Hatton WWTP the town drainage network is at capacity. Foul drainage from any greenfield development must go west to Panmurefield via trunk sewers along A92. Brownfield development may be possible on a l ke for like basis. All surface water to ground soakaway, SUDS or west to Dighty Water.

KEY ISSUES

4. The main issues affecting Monifieth are:-

- The contribution which can be made to meeting the housing allowances for the South Angus Housing Market Area whilst safeguarding the general form and landscape setting of the town;
- The need to maintain and improve the environment and local shopping provision in Monifieth Town Centre;
- The lack of usable open space to serve the local community;
- The need to improve coastal footpath and cycleway links;
- The need to identify a site for a cemetery.

DEVELOPMENT STRATEGY

5. The Local Plan Strategy for Monifieth aims to:

- Promote the reuse of suitable brownfield sites for housing and employment uses;
- Encourage a strong and lively town centre and shopping facilities to meet local requirements;
- Encourage opportunities to enhance the environment and physical fabric of the town by supporting private sector initiatives to regenerate Monifieth Town Centre;
- Support the extension of the coastal footpath and cycleway from Monifieth seafront to Carnoustie as part of an Angus coastal path network;
- Undertake a search for a new cemetery for inclusion in a future local plan review or earlier if required.

HOUSING

EXISTING SITES

6. Sites with planning permission or under construction as identified in the Housing Land Audit June 2004, are shown in Table 1.

Table 1 : Existing Sites

(a) South Grange	25
(b) Ashludie Terrace	1
(c) West Grange Road	3
Total	**29**

SITES PREVIOUSLY IDENTIFIED BY THE FIRST ANGUS LOCAL PLAN

7. The site summarised in Table 2 was previously identified in the first Angus Local Plan. Land at Ashludie Hospital was allocated for development in the first Angus Local plan and Phase 1 has been completed. Phase 2 has not yet been released. This local plan continues the allocation of the site for housing.

Table 2 : Site from first ALP

Mf1: Ashludie Hospital Phase 2	25
Total	**25**

Mf 1 : Housing - Ashludie Hospital Phase 2

2.2 ha of land at Ashludie Hospital is allocated for around 25 dwellings with a requirement for 40% of the capacity of the site to provide social rented and/or LCHO affordable housing. Proposals should be in accordance with the approved Development Brief.

OPPORTUNITY SITES

***Opportunity Sites**: Sites available for redevelopment for housing and/or other uses. Given uncertainties related to the timing of release of such sites for development and the range of potentially suitable uses, they are not counted towards meeting the Structure Plan housing allowances until planning permission is granted.*

8. The following site in Monifieth provides opportunity for redevelopment. Where proposals involve new housing development they will require to contribute towards meeting the provisions of Policy SC9 : Affordable Housing (see page 33).

Opportunity Sites

Mf2 : Milton Mill

9. The previous local plan allocated land at Milton Mill for residential use. There is a strong desire from the local community for further employment land to be identified in Monifieth and that Milton Mill would be suitable. As more of the site at Milton Mill has now become available for development it is considered that this presents an opportunity to develop the site for one or more uses. The site contains an important listed building, which should, where feasible, be retained in any proposals. It is however accepted that the majority of the site may be more suitable for redevelopment.

Mf 2 : Opportunity Site - Milton Mill

1.2 ha of land at Milton Mill provides an opportunity for the conversion and redevelopment of existing buildings for one or more uses. Proposals for the reuse of this site should, where feasible, include the retention of the listed buildings.

TOWN CENTRES AND RETAILING

10. Monifieth town centre provides for local commercial and retail needs. The High Street is the focus of shopping provision in the town and includes a large foodstore, shopping parade and local shops.

The town centre is in need of upgrading and the Council is keen to work with landowners and developers to regenerate the area and consolidate its retail and service centre function. Development proposals could include mixed-use redevelopment and housing in upper floors.

Mf 3 : Town Centre Improvements

Angus Council will only support private sector initiatives leading to the regeneration and environmental improvement of Monifieth town centre where they strengthen and enhance the area's retail and service function. Piecemeal development that would prejudice the overall objective for regeneration of the town centre would not be supported.

Monifieth (Inset Map 6)

This Proposals Map should be read in conjunction with the Written Statement

48 49 50 33 32

Mf1 Mf2 Mf3 Mf(a) Mf(b) Mf(c)

DUNDEE MONIFIETH Monifieth Sands

Reservoir (covered) North Grange South Grange Garden Centre Track Path Lodge Ashludie Hospital Amb Depot Ashludie Park St Mary's Home Hall Pol Sta PW Crow Hill School Offices Viaduct Fish Ladder Burgh Coast Boundary Co Boundary U/A Boundary Sta Weir Pipe Lines Caravan Park Works Dunes Outfall Sewage Pipe Play Area Sports Ground Football Pitches Pavilion Panmure Hotel Car Park Golf Course Putting Green Go-Kart Track Pipe Line

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	Monifieth settlement statement	Topic chapter
Development boundary		Policy S1
Development in existing built up areas		Policy S1
Housing		
Existing sites	Mf (a) (c)	
Allocated sites	Mf 1	
Opportunity sites	Mf 2	

	Monifieth settlement statement	Topic chapter
Town Centres & Retailing		
Town centre	Mf3	Policies SC23, 25,26
Sport & Recreation		
Open space protection		Policy SC32
Community Facilities & Services		
School facilities community use		Policy SC38
Transport & Communication		
Upgrade of A92/A930		Policy SC43

MONTROSE
including Ferryden and Hillside

MONTROSE including Ferryden & Hillside

1. Montrose is an important service and employment centre for the north east of Angus with a number of distinctive features including attractive townscape, harbour and Basin, the Mid Links, extensive seafront and open links areas. Its significance is enhanced by its location on the A92 coastal tourist route and the rail network making it an attractive place to live as well as a popular destination for visitors, tourists and business. Hillside, located approximately 2 km north of Montrose is one of the larger villages in Angus. Although there are a number of local services in Hillside it is largely dependent upon Montrose for employment, shopping and community facilities. Ferryden located on the southern shore of the river South Esk is characterised by the traditional fishing village to the east and more modern residential expansion to the west. The village is supported by a limited number of basic facilities and the community relies on Montrose for a wider range of services. Whilst the Local Plan seeks to retain the separate character and identity of Ferryden and Hillside it aims to maximise their close geographical and functional relationship with Montrose.

2. Given the physical form of Montrose, its important environmental features and land use constraints, the location of future development particularly for housing and employment remains a key issue. The long standing housing allocation at Brechin Road has finally come forward and a first phase of development is underway. Whilst land at Brechin Road will continue to have a key role in providing a long-term housing land supply for Montrose the need to allow for the reuse and regeneration of Sunnyside Hospital Estate is also recognised. The Local Plan seeks to support development proposals, which will maintain the integrity and secure the future of the listed buildings and allow these to come forward in a phased and coordinated manner in accordance with an approved master plan for the site.

3. In terms of employment land, existing sites at Forties Road and Broomfield satisfy the minimum requirement of the Dundee and Angus Structure Plan. However in a positive attempt to facilitate further industrial development in the area it is considered appropriate to provide additional employment land at the former Montrose Airfield.

4. Due to the location of a fertiliser store in the harbour area the southern part of Montrose is covered by a Health and Safety Consultation Zone that will impact on development within this part of the town. Consultation procedures in respect of development proposals within this consultation zone are set out in Policy S5 : Safeguard Areas contained within the Strategy section (Page 14).

PROFILE

Role:
Important north-east Angus seaside and market town providing wide range of services and facilities to the surrounding villages and area.

Population:
Census 2001 – 13126;
1991 – 13647;
% Change 91/01 : -3.82

Housing Land Supply June 2004:
existing - 121
allocated first ALP- 258
constrained - 100

Employment Land Supply 2004
Forties Road – 7.63 ha
Broomfield – 4.87 ha

Drainage:
No constraints within Montrose; Sewerage System serving Hillside requires upgrading.

KEY ISSUES

5. The main issues affecting Montrose are:-

- the release of Sunnyside Hospital Estate and the need to establish new uses for the existing buildings and grounds;
- the need to allocate additional employment land to satisfy potential future demand;
- the continued protection of the towns important environmental assets including the Basin, Mid Links, South Links, seafront and historic townscape;
- resolution of the drainage constraint affecting Hillside to enable development to come forward.

DEVELOPMENT STRATEGY

6. The Development Strategy for Montrose seeks to:

- safeguard and enhance the natural and built features which are a key part of the character and identity of the town;
- promote as a priority the reuse of available brownfield land for residential and other appropriate uses;
- provide for future housing growth by releasing land at Brechin Road and opportunities presented at Sunnyside Hospital Estate;
- provide for economic growth by allocating additional employment land on part of the airfield;
- encourage a strong and lively town centre including opportunities for additional shopping facilities to meet local requirements;
- pursue a network of paths within and around Montrose and further develop the cycle route north of the town;
- establish measures to mitigate the effects of coastal erosion and dune instability in the context of the Shoreline Management Plan.

HOUSING

EXISTING SITES

7. Sites with planning permission or under construction as identified in the Housing Land Audit June 2004, are shown in Table 1.

Table 1 : Existing Sites

(a) Waldron Road	8
(b) Charleton Road	2
(c) Chapel Works	8
(d) Western Road/ High Street	10
(e) Brechin Road/ Tayock	9
(f) Hill Place	12
(g) New Wynd	15
(h) Provost Johnstone Road	20
(i) Bridge Street	22
(j) Rosemount Road	7
(k) Lower Balmain Street	8
Total	**121**

SITES PREVIOUSLY IDENTIFIED BY THE FIRST ANGUS LOCAL PLAN

8. The sites summarised in Table 2 were previously identified in the first Angus Local Plan. This Plan continues the allocation of these sites for housing development, and where appropriate the wording of the proposal and/or the indicative yield from the site may have changed.

Table 2 : Sites from first ALP

M1 : Brechin Road	200
M2 : Dungmans Tack	18
M3 : Lochside Distillery Tower	40
Total	**258**

9. The site at Brechin Road is identified in the 2004 Housing Land Audit as having a potential capacity of 400 units. However, only 200 units are required to come forward in the period to 2011 to meet the allowances of the Dundee and Angus Structure Plan. This position is reflected in Table 2.

M1 : Housing – Brechin Road

Approximately 30 ha of land at Brechin Road is allocated for residential development together with significant areas of landscaping, open space and associated community facilities. An initial phase of 200 dwellings will be released within the plan period. The scale of further land release in the period beyond 2011 will be determined by a future Local Plan and take account of development progress at Sunnyside Hospital. Development proposals should accord with the approved Development Brief for the site. 25% of the capacity of the site should provide LCHO affordable housing. *(Outline planning permission granted for whole site in February 2005; and full planning permission granted for 112 dwellings in February 2005).*

M2 : Housing - Dungmans Tack

1.2 ha of land at Dungmans Tack is allocated for around 18 dwellings. This backland site is surrounded by residential properties and a nursing home. Development proposals will require to take account of guidance in Angus Council Advice Note 6: Backland Housing Development. 25% of the capacity of the site should provide LCHO affordable housing.

M3 : Housing - Lochside Distillery Tower

0.7 ha of land on the site of Lochside Distillery Tower is allocated for around 40 dwellings. Located on a prominent corner site and visible from the main approaches to the town from the north and west, the site and the existing buildings form a landmark and a gateway to the historic part of the town. Development proposals will require to be of a high design standard, be of a similar mass and scale to the existing buildings on the site and address the street frontage. *(Full planning permission for 37 dwellings was granted in February 2005)*

OPPORTUNITY SITES

10. There are a number of sites in Montrose that provide opportunities for redevelopment. Where proposals involve new housing development they will require to contribute towards meeting the provisions of Policy SC9: Affordable Housing (see page 33).

11. Sunnyside Hospital Estate has been subject of a programme of rationalisation which has resulted in the majority of the buildings becoming surplus to healthcare requirements. Although a portion of the site is still in use it is expected that the Estate will become vacant and marketed for development within the plan period. While some initial work has been undertaken including the preparation of a development brief, further work is required by the landowner and/or prospective developers to bring the site forward for development. This includes the preparation of a master plan to coordinate the effective delivery of the regeneration project. The master plan should accord with the development principles outlined in the development brief, be based on a feasibility appraisal of what uses are achievable and viable and should set out detailed matters including the location and layout of proposed uses, implementation, phasing, timing and viability of development.

12. The approved development brief indicates an estimated site capacity of around 320 dwellings comprising 130 from the reuse of buildings and 190 on potential development areas. However given the scale of the site and the number and size of the buildings involved, the Brief also indicates that the site could be developed for a mix of uses. Therefore whilst the maximum number of dwellings capable of coming forward on this site is estimated as 320, this number may be subject to change depending on specific development proposals and the mix of uses that are advanced.

13. The development brief also allows for the development of associated greenfield parcels of land including a playing field to facilitate the reuse of the listed buildings. In line with Policy SC32 : Open Space Protection, the playing field will require to be relocated within the site unless it is demonstrated that there is an excess of pitch provision in the area.

***Opportunity Sites**: Sites available for redevelopment for housing and/or other uses. Given uncertainties related to the timing of release of such sites for development and the range of potentially suitable uses, they are not counted towards meeting the Structure Plan housing allowances until planning permission is granted.*

Opportunity Sites

M4 : Sunnyside Hospital Estate

M4 : Opportunity Site - Sunnyside Hospital Estate

Land and buildings at Sunnyside Hospital Estate provide an opportunity for regeneration and redevelopment for a range of uses as outlined in the approved Development Brief. The preparation of a Master Plan by prospective developer(s) will be required to provide a framework for the coordination and delivery of development. Development proposals for the reuse of hospital buildings and associated parcels of greenfield areas for housing or any other uses will only be considered in the context of an approved Master Plan and will be assessed against the strategy and relevant policies of the Local Plan. Development on greenfield areas of land will only be permitted where it is necessary to facilitate the reuse of the listed buildings. In accordance with Policy SC32 : Open Space Protection, the existing playing field will require to be relocated within the site unless it is demonstrated that there is a clear excess of pitch provision in the area.

WORKING

14. The first Angus Local Plan allocated an area of 3.6 ha, in the south west corner of Montrose airfield, as an extension to the employment land at Broomfield Industrial Estate. It is considered that a further part of the airfield, forming a gap between the A92, the Waste Water Treatment Plant and the existing Broomfield Industrial Estate, provides an opportunity for supplementing the employment land supply for the town. Given that this area is generally flat, of open aspect and highly visible (particularly from the A92, the links areas and golf courses to the south and the dune system to the east) the potential impact of development in this location needs to be fully addressed. Consideration of building heights, use of materials and landscaping will therefore be particularly important. Guidance on these matters will be established through the preparation of a development brief. In addition as the previously allocated area remains undeveloped, opportunity will be taken to incorporate this area into the development brief to provide development guidelines for both sites. The allocation of the site takes account of the requirement for landscaping around the site boundaries to provide effective screening and integration of development in this area.

M5 : Working - Montrose Airfield

10 ha of land forming part of the former Montrose Airfield adjacent to the A92 is allocated for employment uses comprising business (Class 4*), general industry (Class 5*) and storage and distribution (Class 6*). Proposals should be in accordance with the development brief which will be prepared for this site (and will incorporate the previous allocation from the first Angus Local Plan) which will include details of the following requirements :

- **provision of structural landscaping prior to any development to include a 40 metre landscape belt (including mounding) along the eastern boundary and 10 metre landscape strip along the northern and western boundaries of the site;**
- **transport assessment addressing:-**
  (a) accessibility by a range of transport modes including linkages for pedestrians and cyclists to the site and to the links areas to the south and east;
  (b) provision of a new access from the A92 and associated junction improvements;
- **formation of a link road between the site and Broomfield Industrial Estate to the south;**
- **provision of a new section of cycletrack forming part of the Montrose to St Cyrus cycle route;**
- **aspects of design including heights of buildings, colour of materials and appropriate landscaping.**

** As defined in the Town & Country Planning (Use Classes)(Scotland) Order 1997.*

TOWN CENTRES AND RETAILING

15. Montrose supports a good range of retail provision in terms of type and location comprising a strong and lively town centre which includes a number of multiple retailers and two edge of centre foodstores. Existing planning permissions for new retail development at New Wynd/Baltic Street and a new DIY/garden centre and foodstore to the north of the town at Brechin Road will further improve the range of retail provision and distribution of food shopping within the town.

COMMUNITY FACILITIES AND SERVICES

M6 : Sleepyhillock Cemetery Extension

0.8 ha of land situated between the existing cemetery and Montrose Basin is reserved for future cemetery purposes.

TRANSPORT AND COMMUNICATION

16. The commercial Port of Montrose has an important role in the Angus economy and forms an important link in the wider transport network. The Port provides modern facilities for the handling and storage of commercial and oil related cargoes and imports/exports significant volumes of freight per year. Angus Council supports the maintenance and further development of Montrose Port as an integral part of the health of the Angus economy and as an environmentally friendly means of moving heavy freight. This includes improved transport linkages and opportunities that will enhance its use for sea based transport.

M7 : Montrose Port

Angus Council will safeguard Montrose Port for the development of operations associated with the Port and support proposals that enhance its role as a commercial port where these are compatible with adjacent land uses.

17. The railway siding and goods yard at Montrose Rail Station is a prime location for a rail related use that would benefit from the proximity of the rail station. The site is currently occupied by a timber building and storage area, which is unsightly, in a poor condition and highly visible from the A92 and railway line and as such, would benefit from environmental improvement.

Rail Related Use: *freight generating uses such as storage and distribution where freight by rail can be used as an alternative to road for all or part of a journey; or development generating a large number of workforce and visitor trips with potential to use rail travel as an alternative to the private car.*

M8 : Railway Sidings - Montrose Rail Station

The railway siding and goods yard at Montrose Rail Station is reserved for rail related use. Proposals for the removal of the existing timber building and improvement of the storage area will be supported.

SOUTH MONTROSE REGENERATION

18. The southern part of Montrose comprises a mix of land uses in different ownerships including the GSK pharmaceutical facility, the harbour as well as residential, industrial, warehousing and commercial properties. The area between GSK and the north quay of the harbour is of poor environmental quality and contains a number of older buildings some of which are vacant or in poor condition and several of which are of historic interest. While there may be scope for regeneration, the current road layout and configuration of buildings restricts accessibility within the area and to the harbour in particular and the Health and safety Consultation Zones affects the development potential within this part of town.

19. The Montrose Economic study (January 2006) examined the potential of this area and its relationship to the town and recommended the need for a coordinated approach to deal with the various issues in this part of Montrose. Angus Council together with other relevant parties will investigate measures to facilitate the regeneration and environmental improvement of south Montrose including opportunities arising at GSK and the harbour.

	Montrose settlement statement	Topic chapter
Development boundary		Policy S1
Development in existing built-up areas		Policy S1
nset Map boundary		
Housing		
Existing sites Allocated sites	M(a-c) (e-f) (h-k) M1 - M3	
Opportunity sites	M4	
Working		
Employment land allocated site	M5	Policy SC16
Employment land supply		Policy SC16
Town Centres & Retailing		
Town centre		Policy SC23 25 & 26
Environment		
Conservation area		Policies ER12-14 21
Sport & Recreation		
Open space protection		Policy SC32

	Montrose settlement statement	Topic chapter
Community Facilities & Services		
Cemetery extension	M6	
School facilities - community use		Policy SC38
Transport & Communication		
Cycling facilities		Policy SC40
Montrose Port	M7	
Railway Sidings - Montrose Rail Station	M8	

62 61 60 59 58 57

70 71 72 73

M4 M(j) M5 M(b) M1 M(a) M6 M(e) M3 M2 M8 CENTRAL AREA NSET M(c) M(f) M(h) M(i) M(k)

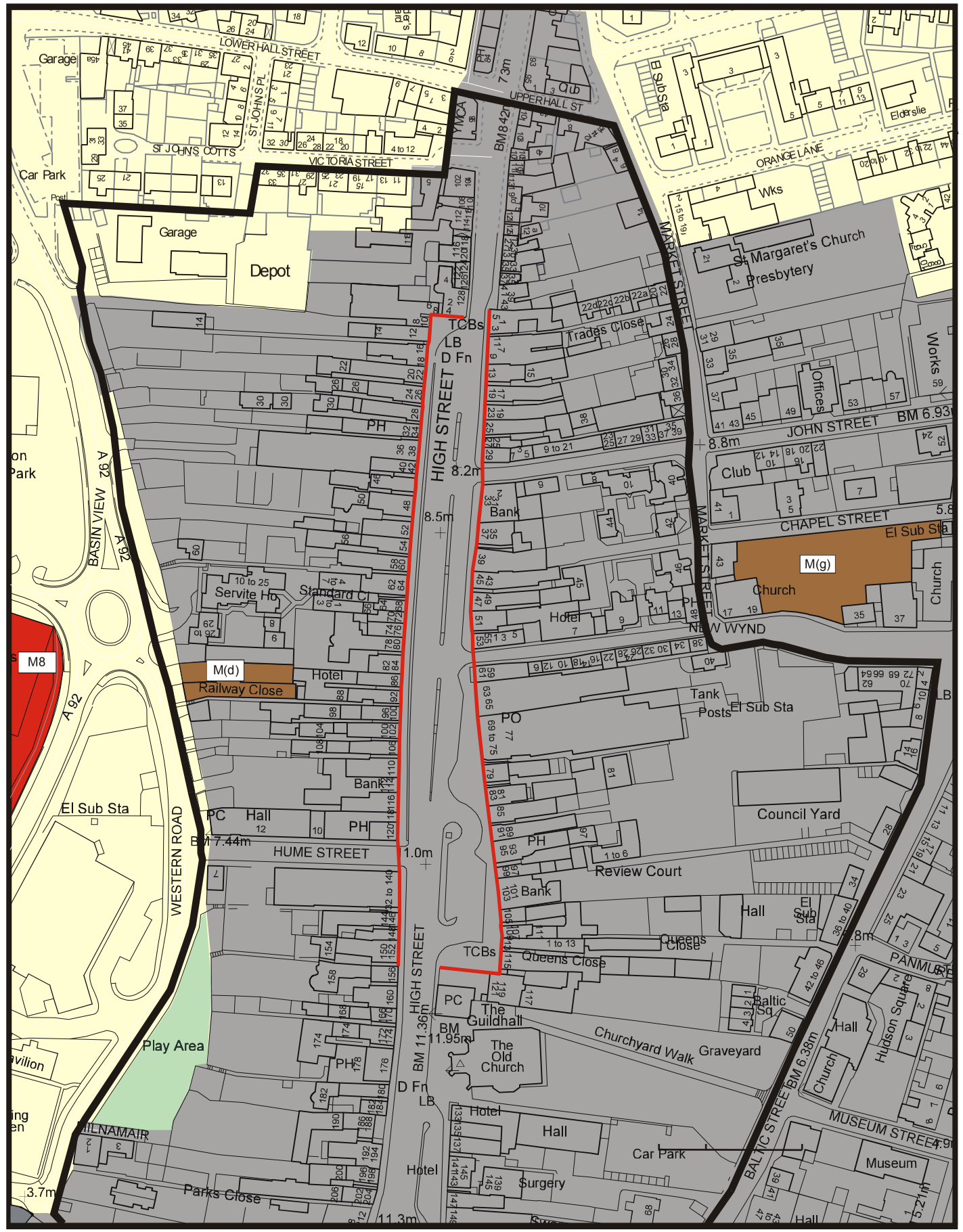
Borrowfield MONTROSE Golf Courses North Links Montrose Bay Ferryden

0 1km

Montrose including Ferryden & Hillside(Inset Map 7)

This Proposals Map should be read in conjunction with the Written Statement

	Montrose settlement statement	Topic chapter
Development in existing built up areas		Policy S1
Housing		
Existing sites	M(d) & (g)	
Town Centres & Retailing		
Town centre		Policy SC23, 25 & 26
Core retail area		Policy SC24
Environment		
Conservation area		Policies ER12 14,21
Sport & Recreation		
Open space protection		Policy SC32
Transport & Communication		
Railway Sidings & Goods Yard	M8	



N

0 20 40
Metres

Central Area Inset Map

Village Directory

Statements and Boundary Maps

A statement is provided for those settlements shown in bold where land has been allocated for development.

Boundary maps have been prepared for all other settlements listed.

TOWNS & VILLAGES

TOWN INSET MAPS (WITH SETTLEMENT STATEMENT)

VILLAGE INSET MAPS AND STATEMENT

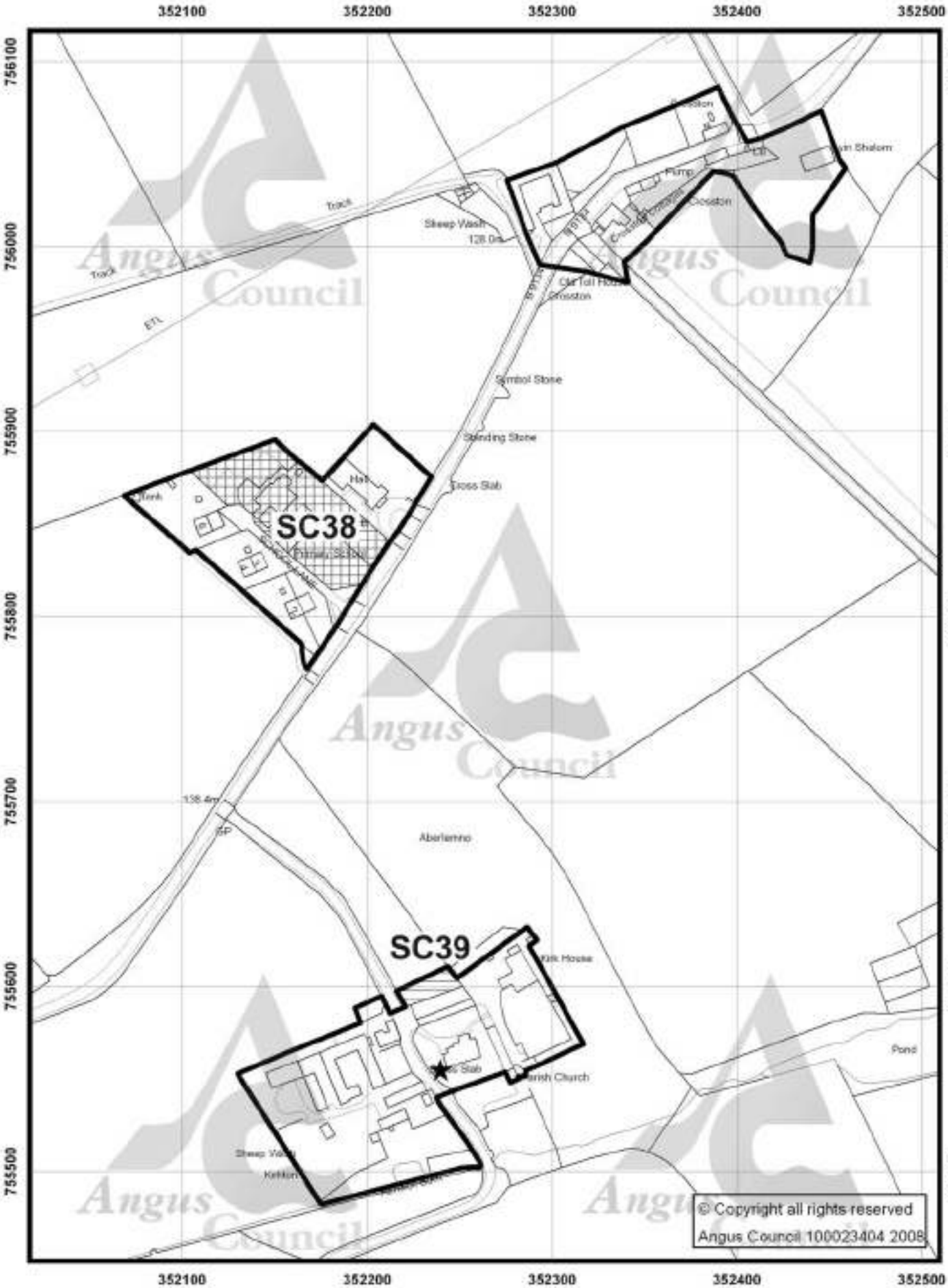
VILLAGE BOUNDARY MAPS

Arbroath HMA

Brechin/Montrose HMA

Forfar,Kirriemuir & Glens HMA

South Angus HMA

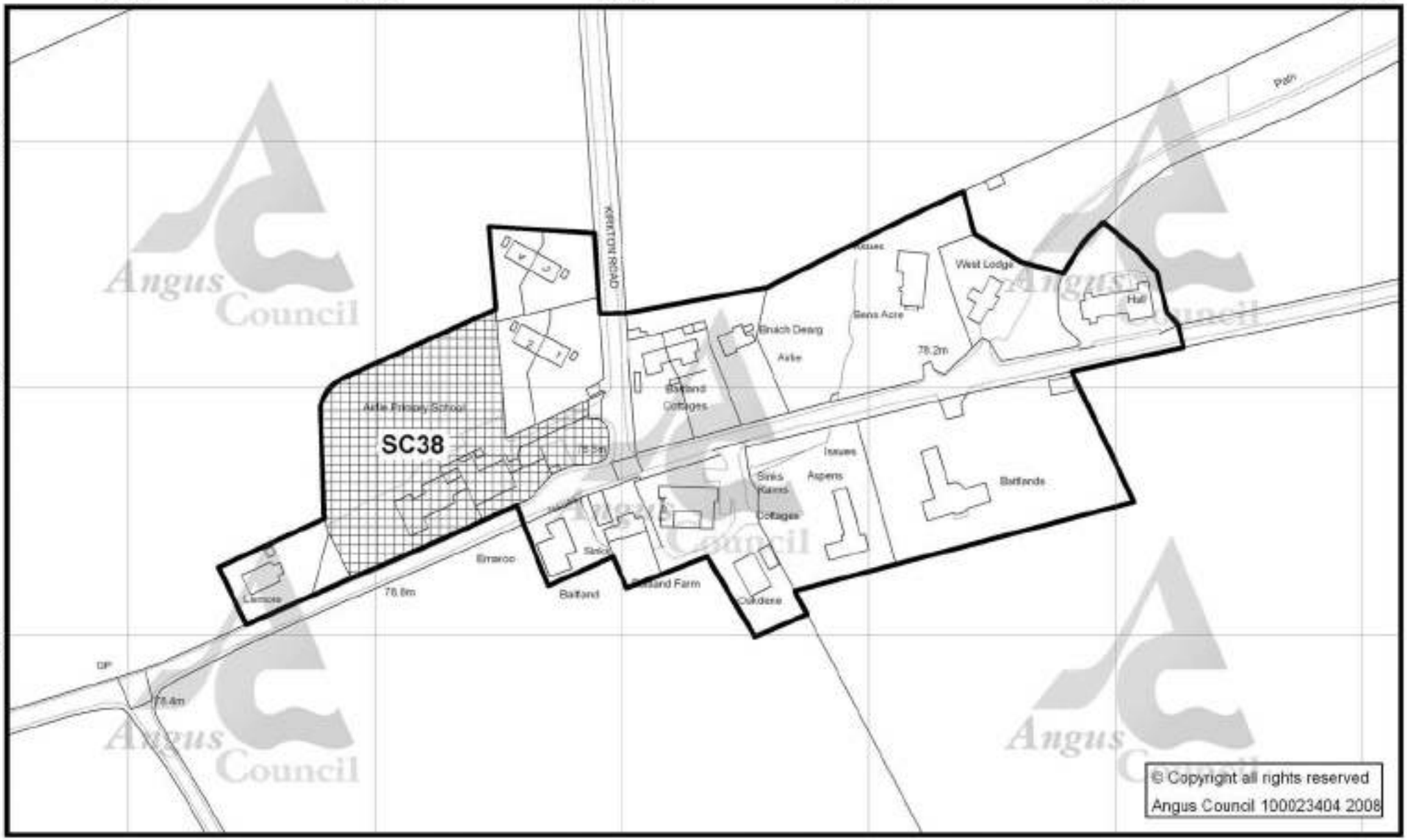


Aberlemno

Angus Local Plan Review

0 35 70 140 Metres

N W E S



Airlie

Angus Local Plan Review

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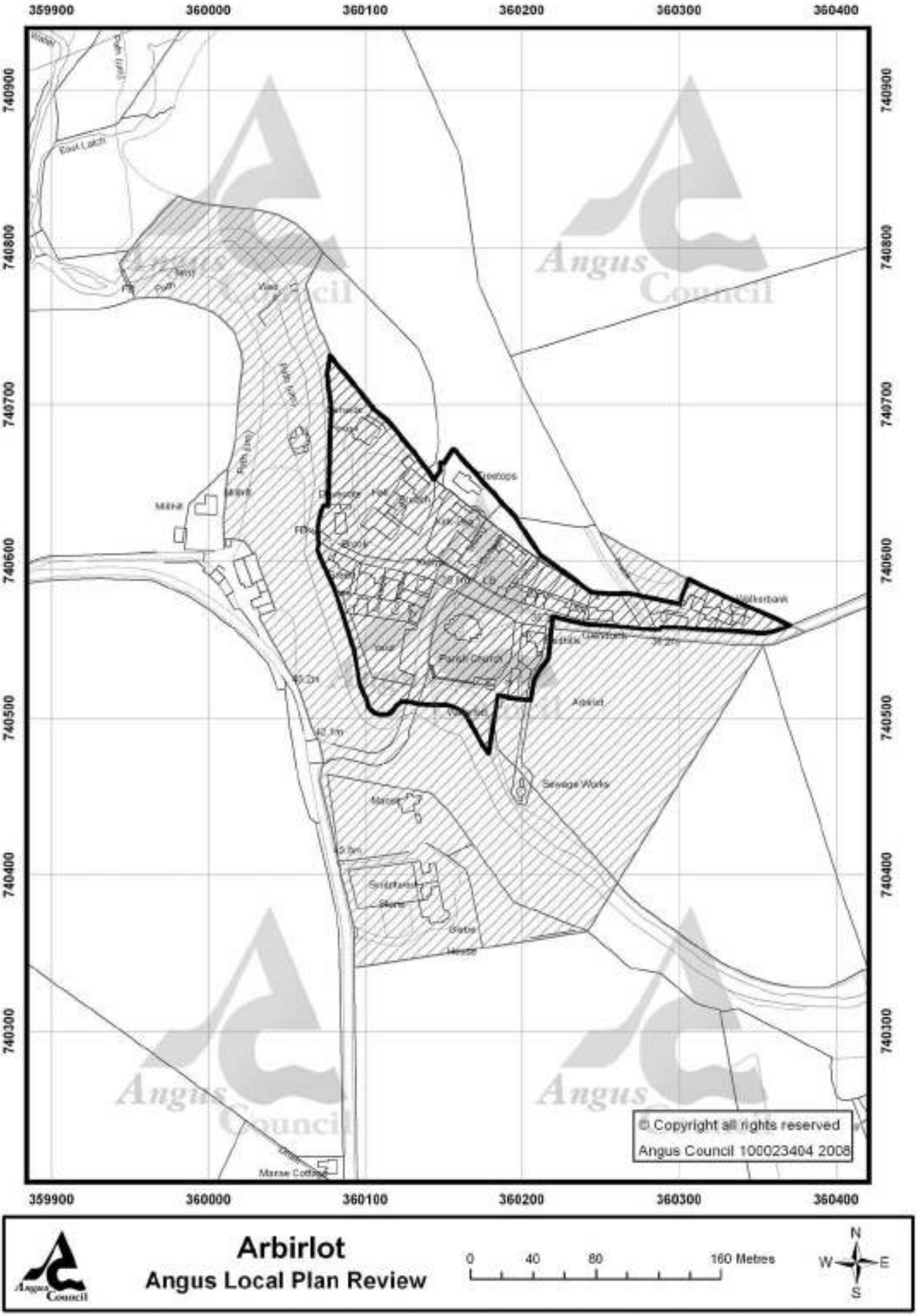

Arbirlot

Angus Local Plan Review

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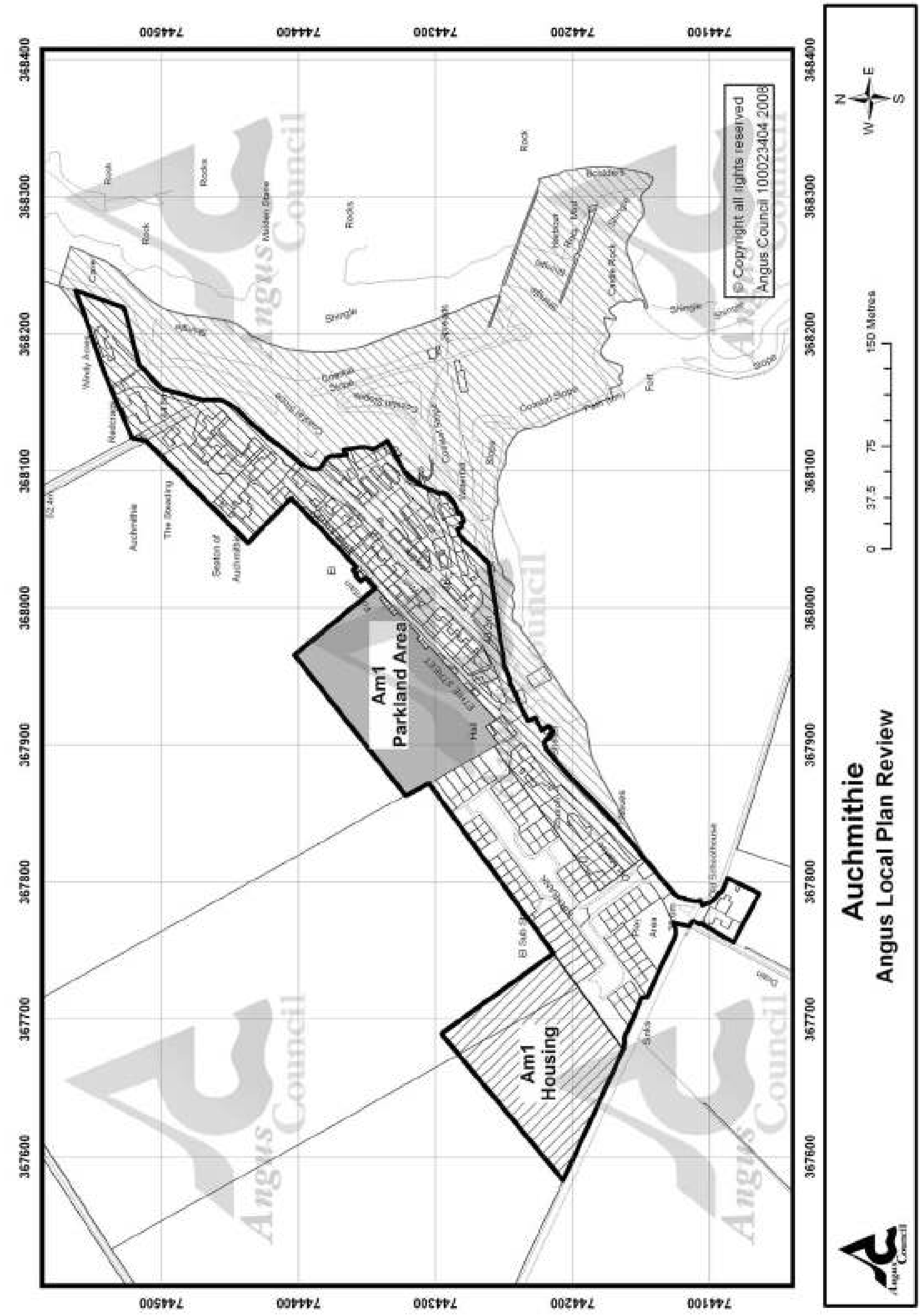
N W E S



Auchmithie

Angus Local Plan Review

AUCHMITHIE

PROFILE

Role:
Originally a small fishing village, about 4km north of Arbroath.

Population:
Census: 2001 - 183
1991 - 221
% change 91/01 - 17%

Drainage:
Formal drainage constraint

Water Supply:
Available

1. The small fishing village of Auchmithie, perched above the cliffs was designated a conservation area in 1972. It is a popular destination for local visitors with its old harbour and cliffs.

KEY ISSUE/DEVELOPMENT STRATEGY

2. A drainage embargo at Auchmithie has constrained the possibility of new development in recent years and consequently the levels of population and available facilities have reduced. Of particular local concern is the lack of any significant area of outdoor recreation facilities.

3. The village is served by a communal septic tank which has recently been replaced by Scottish Water (SW) to improve outflow, to meet environmental standards. SW are monitoring the outflow and there may be capacity in the new tank to accommodate some limited development. SEPA will require to be assured that the future outflow of the tank will not breach mandatory Bathing Waters Standards. If some residential development can be accommodated within the capacity of the existing tank or a privately funded upgrade could be agreed, potential for increasing traffic problems limits options for its location.

4. The development strategy for Auchmithie seeks to provide opportunity for new housing and address the issue of play space. In addition Angus Council will also seek to establish a programme for small scale environmental improvements within the village

HOUSING

NEW ALLOCATIONS

5. 3. Table 1 summarises new allocations for housing land which will contribute towards meeting the Structure Plan allowances to 2011.

Table 1: New Allocations

Am1 : North of Kirkbank	15
Total	15

6. In conjunction with and as part of the proposed new housing development, opportunity will also be sought to establish new village park that will provide for outdoor play needs.

Am1 : Housing - Kirkbank

Approx 1.2ha of land immediately north of the existing houses at Kirkbank is allocated for residential development of around 15 dwellings, subject to available drainage capacity. Development of this site should:-

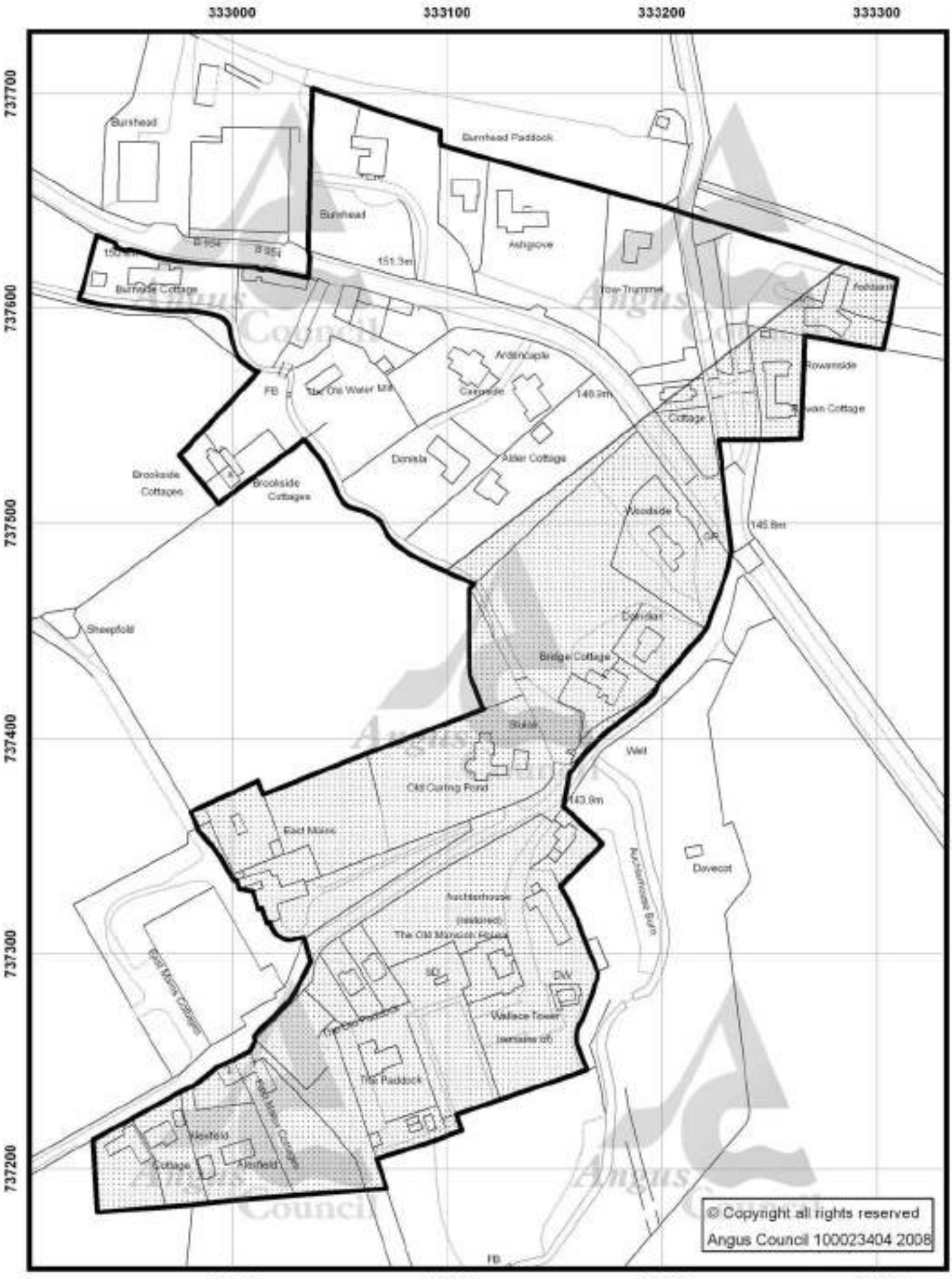
- **allocate 20% of the capacity of the site to provide LCHO affordable housing;**
- **have regard to its edge of village location; and**
- **incorporate appropriate landscaping and boundary treatment.**

In addition and as part of community planning gain, provision of approx 1.1ha of land will be required (to accommodate a seven aside football pitch, play park and car parking) and located adjacent to the Auchmithie Village Hall. This matter may be dealt with by a legal agreement.

ENVIRONMENT

Am2 : Village Environmental Improvements

Angus Council in conjunction with partners will seek to establish a phased programme for small-scale environmental improvements within the village.

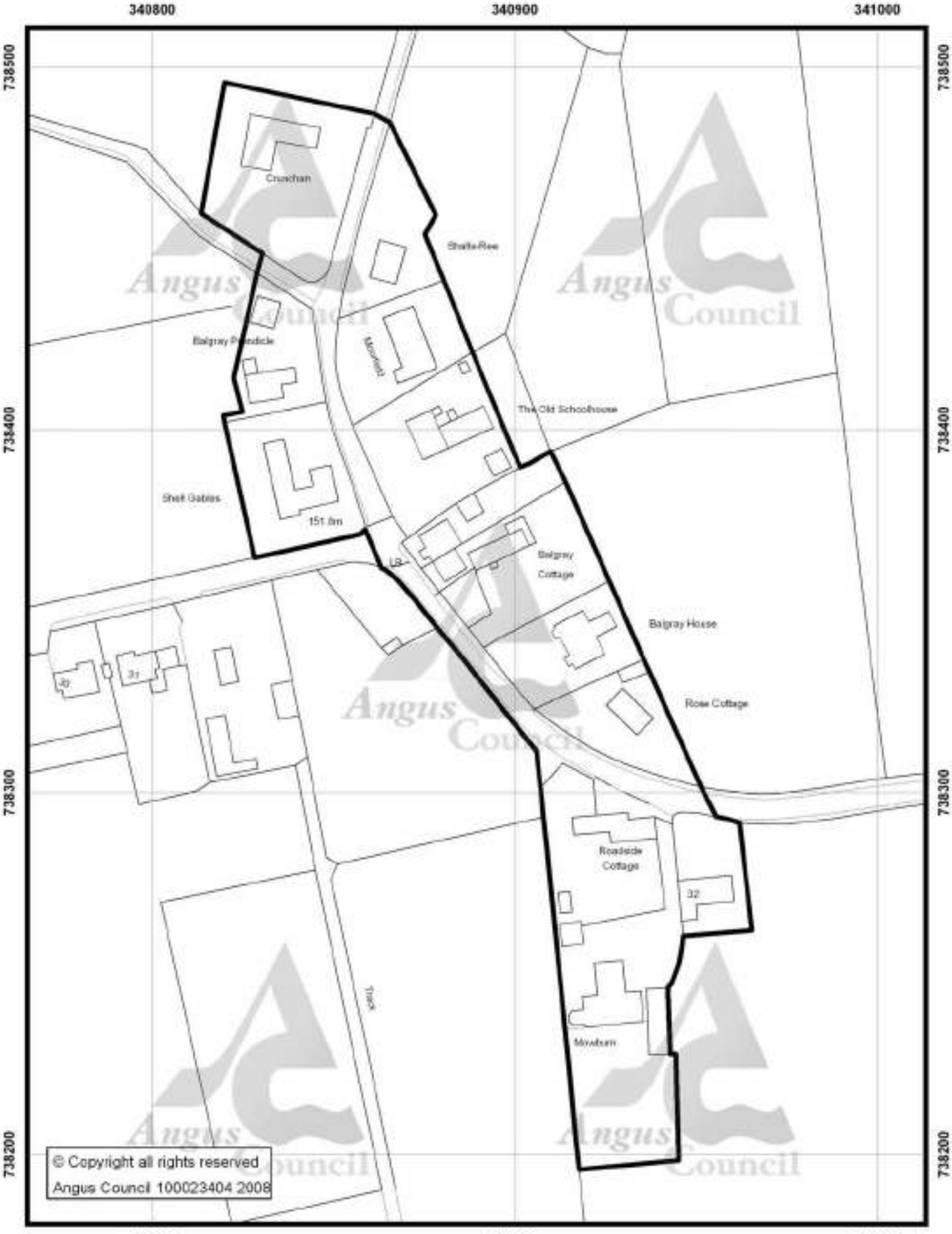


Auchterhouse

Angus Local Plan Review

0 20 40 80 Metres

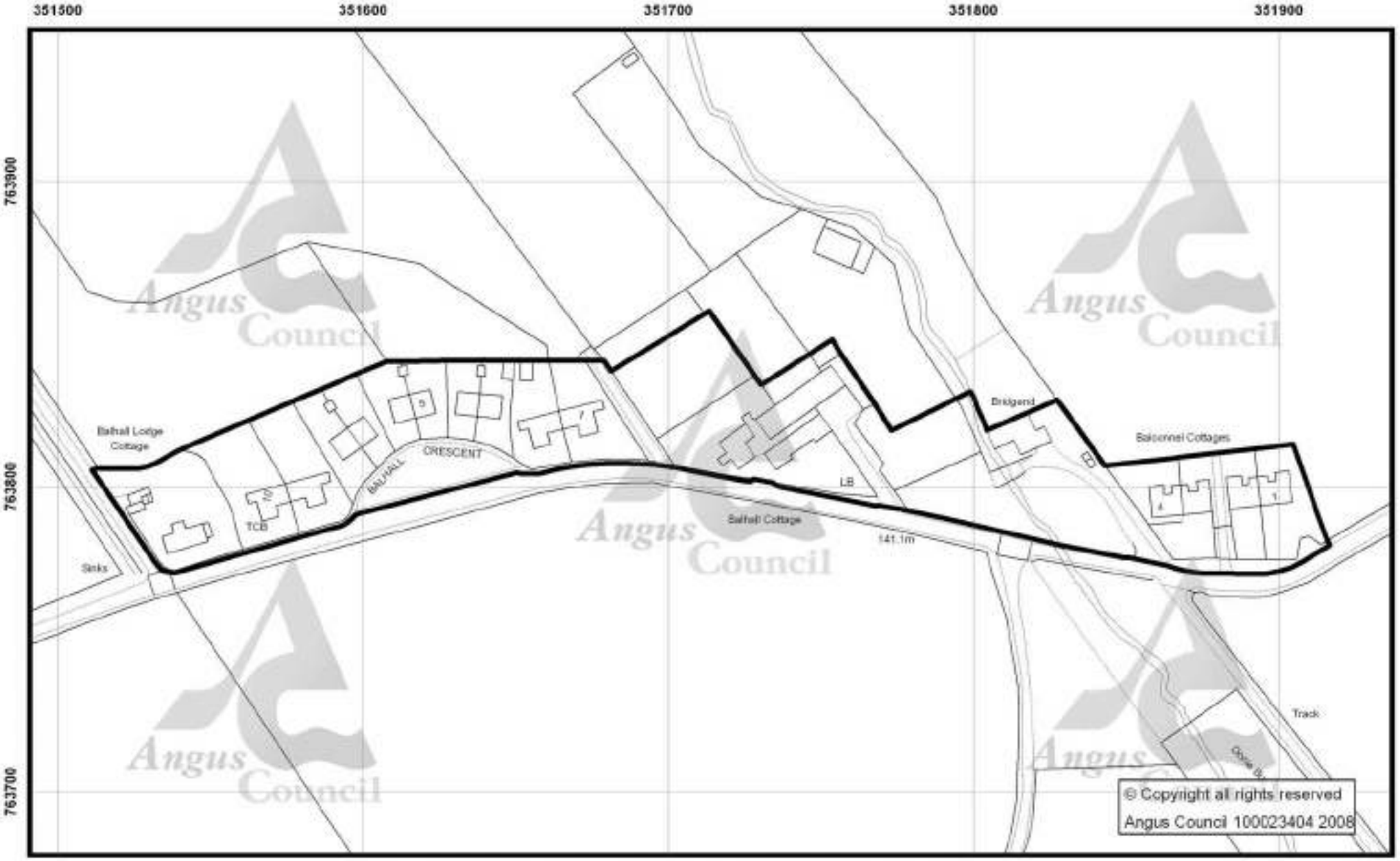
N W E S



Balgray
Angus Local Plan Review

0 20 40 80 Metres

N W E S

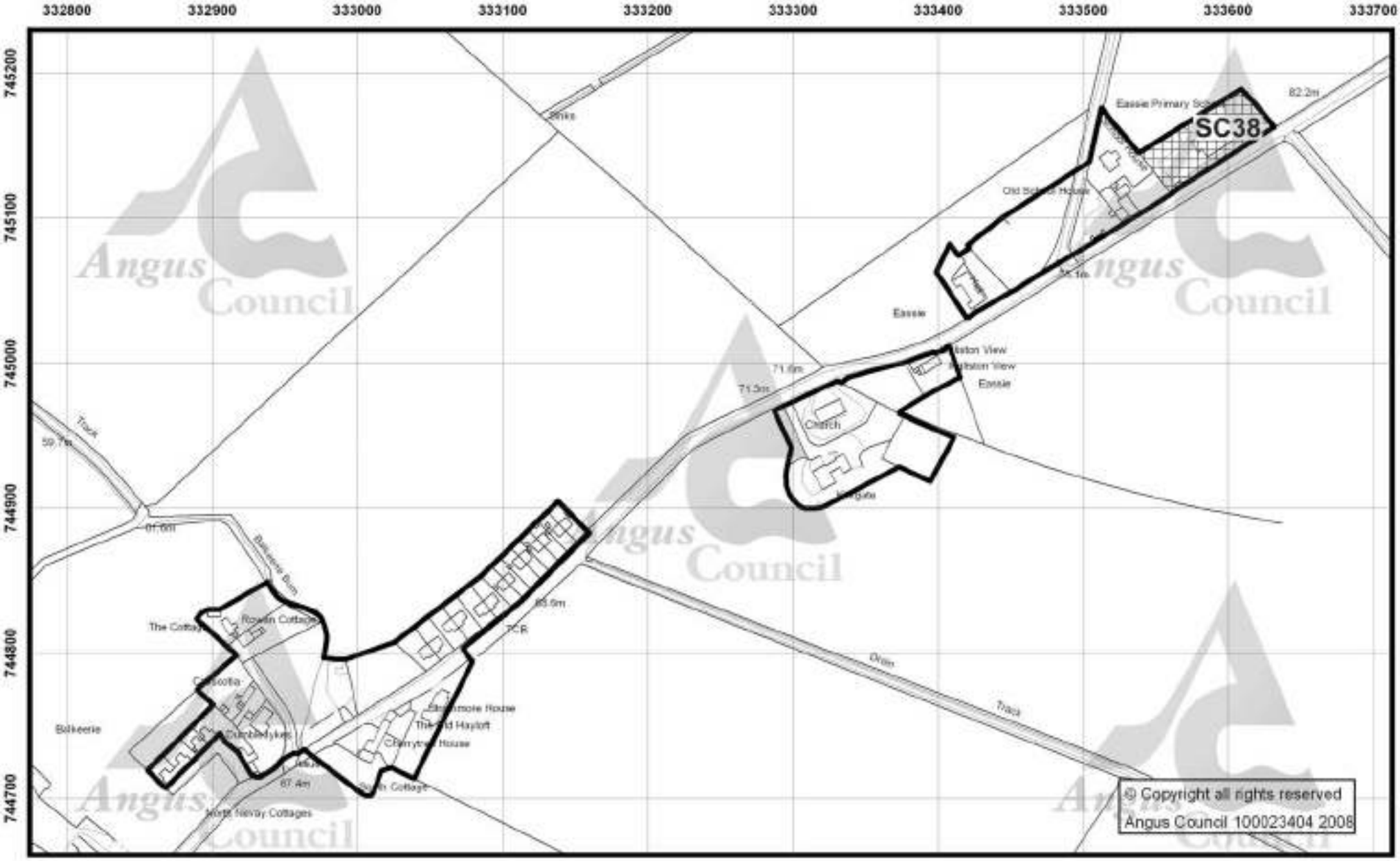


Balhall

Angus Local Plan Review

0 20 40 80 Metres

N W E S



Balkeerie and Eassie
Angus Local Plan Review

0 45 90 180 Metres

N W E S

BALLUMBIE HOUSE

PROFILE

Role:
Mixed golf course and housing development located on the edge of Angus, falling partly within Dundee City.

Housing Land Supply June 2004:
existing – 184

Drainage:
Capacity available.

1. The Ballumbie House area is located on the edge of Angus and lies partly within Dundee City Council`s area. This statement applies only to that part within Angus. Planning permission was granted by Angus Council for a mixed residential and golf course development set in around 95 ha of land. The site includes the former Ballumbie House, a Category 'B' listed building. A Section 75 Agreement is in place to secure the phased development of housing and the restoration of Ballumbie House.

KEY ISSUE/DEVELOPMENT STRATEGY

2. The development approach for Ballumbie House will limit residential development to the existing approved number and distribution of housing sites and maintain or enhance the recreational potential of the golf course and associated facilities.

HOUSING

EXISTING SITES

3. The existing housing land supply, comprising sites with planning permission or under construction as identified in the Housing Land Audit June 2004, is shown in Table 1.

Table 1:**Existing Sites**

(a) Ballumbie House	184
Total	**184**

Ba1 : Ballumbie House

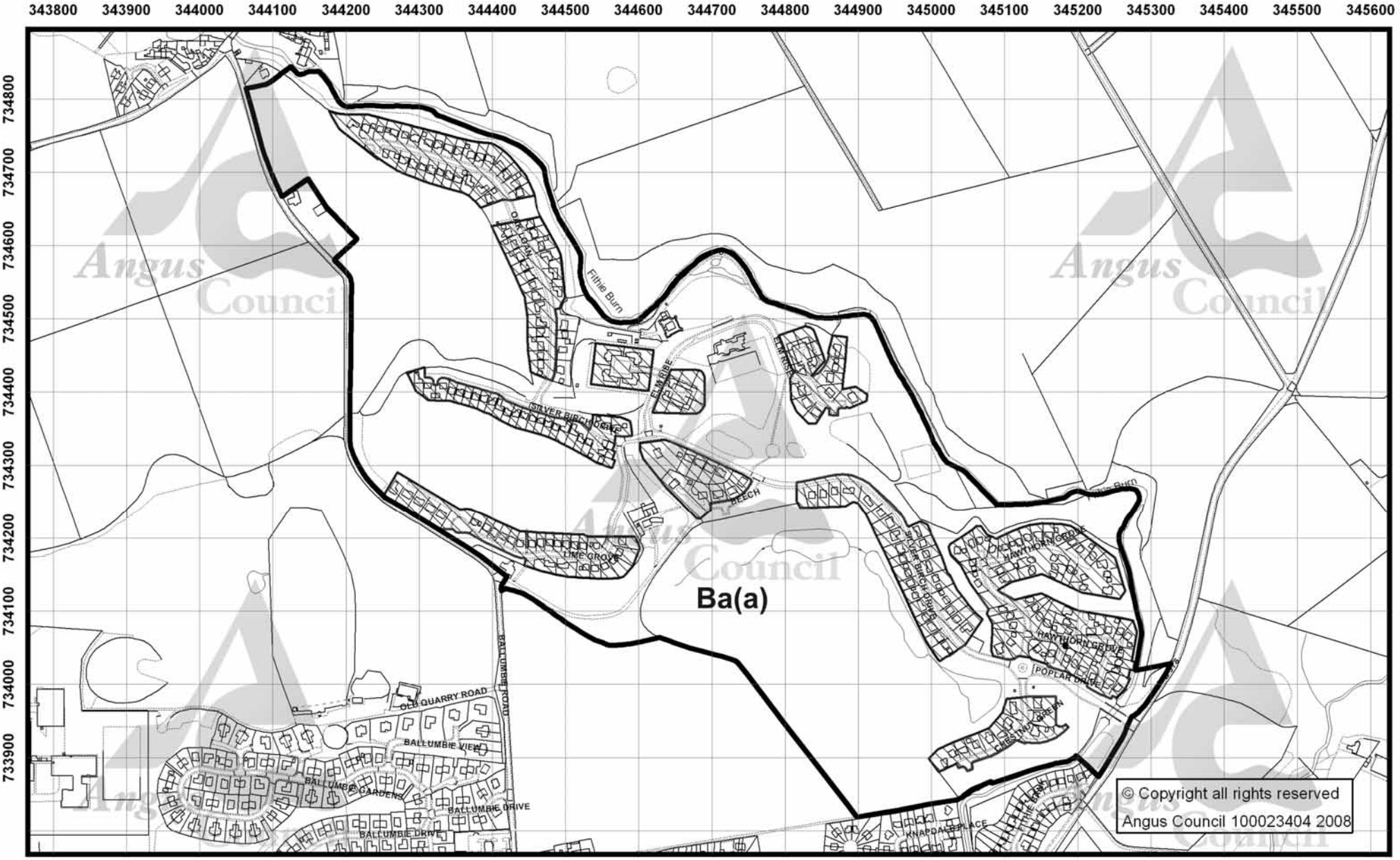
Private housing at Ballumbie House and grounds will be limited to the approved development layout of dispersed groups of houses to a maximum of 238 units and the conversion of Ballumbie House to provide 14 units.

SPORT AND RECREATION

4. The golf course and associated facilities contribute to the recreation and tourism resource of Angus. Proposals that support or enhance the recreational potential of the Ballumbie House area will be supported where they are compatible with existing land uses and do not adversely impact on the amenity of the area.

Ba2 : Recreation Development

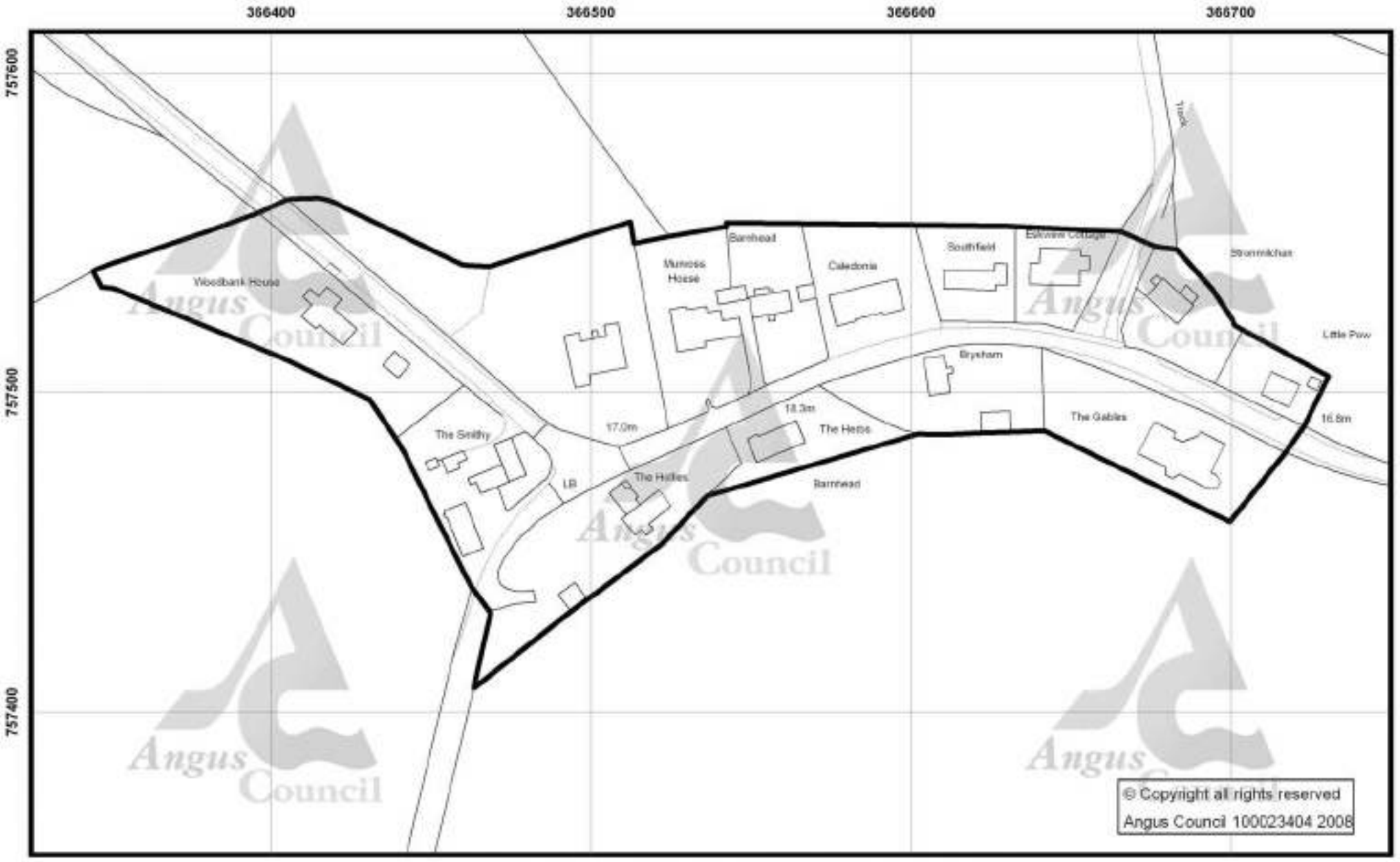
Proposals which extend the recreational potential of the golf related development at Ballumbie House will be supported where they are compatible with the existing land uses/activities and are not detrimental to the area`s unique environment.



Ballumbie House
Angus Local Plan Review

0 90 180 360 Metres

N W E S

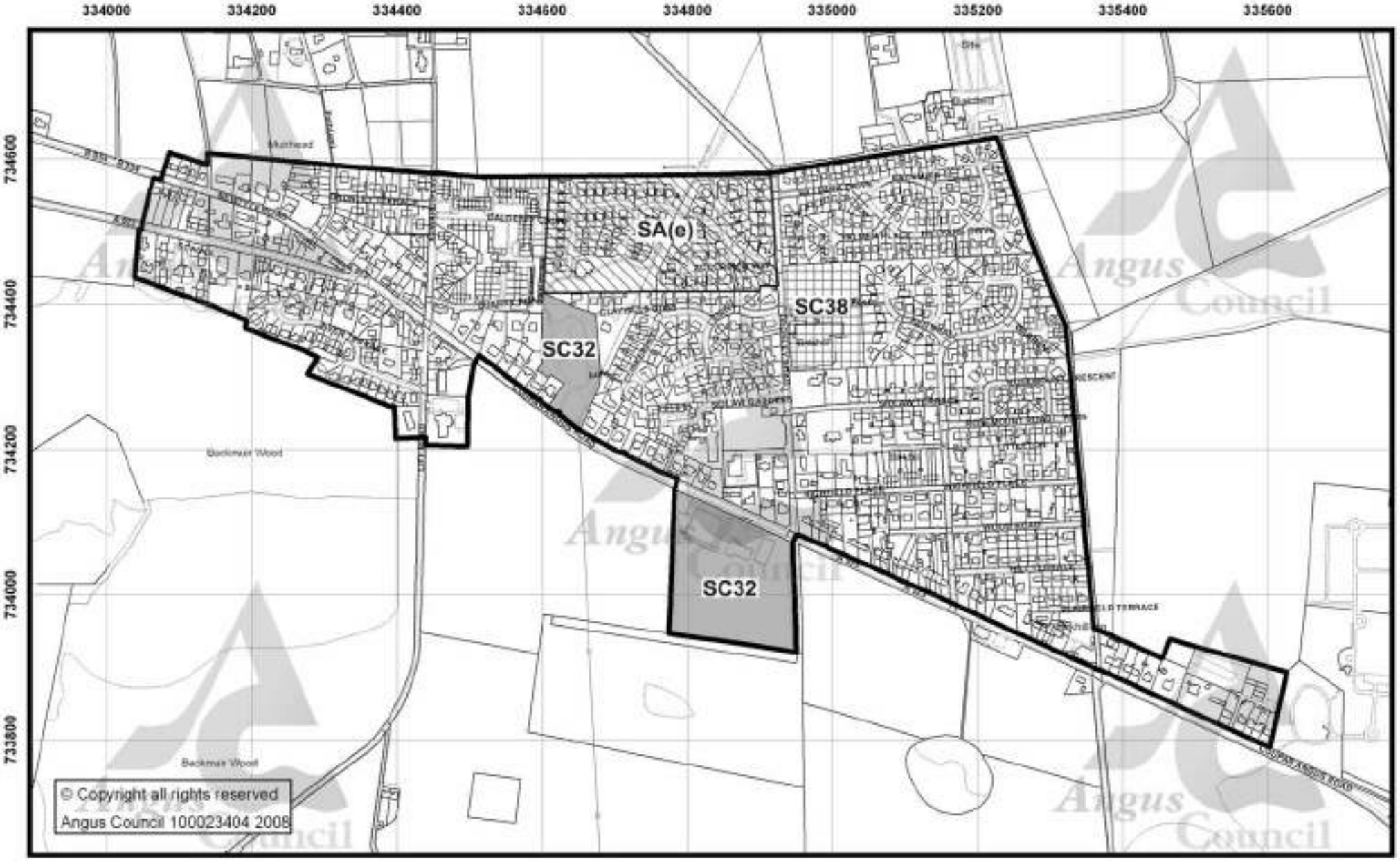


Barnhead

Angus Local Plan Review

0 20 40 80 Metres

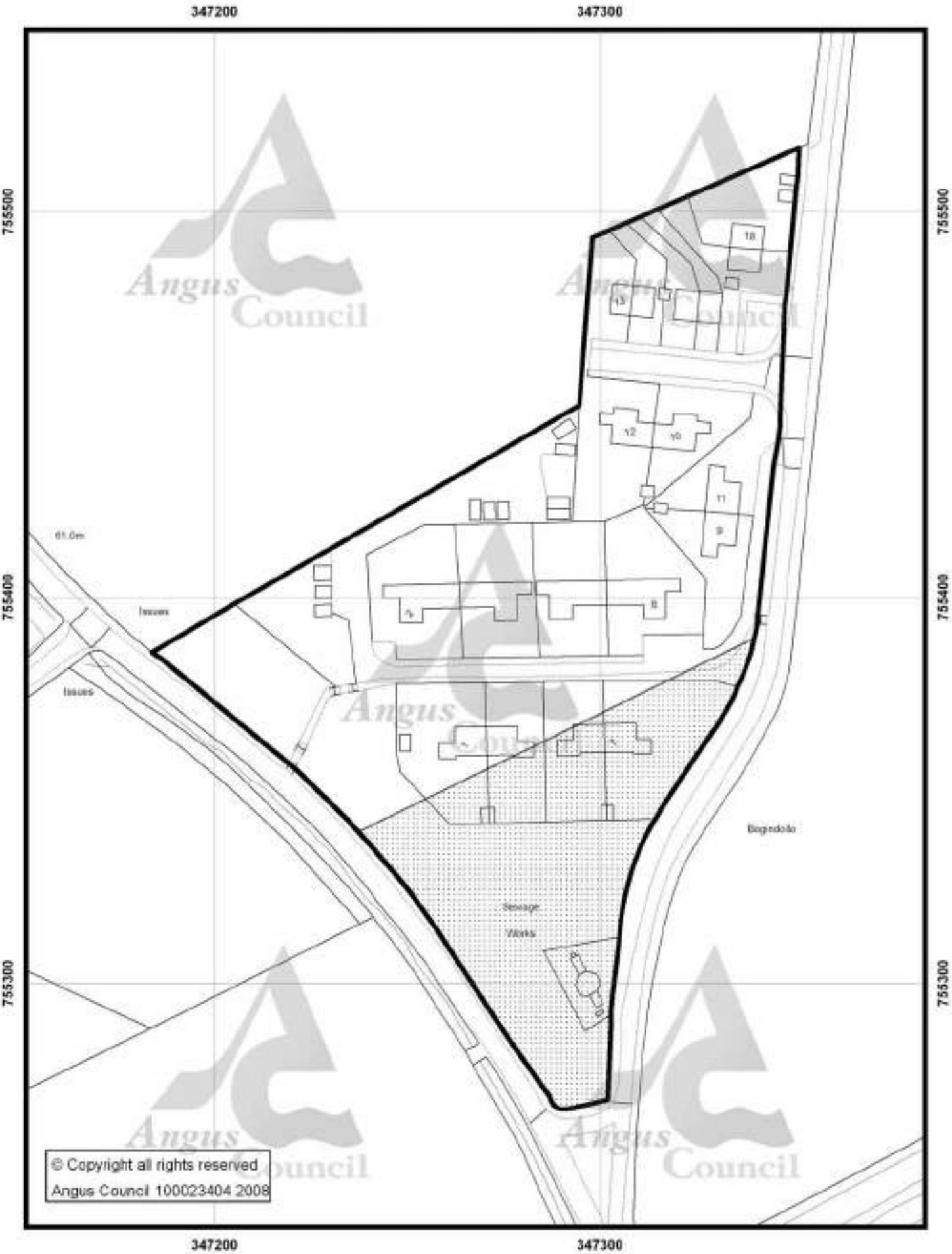
N W E S



Birkhill and Muirhead
Angus Local Plan Review

0 87.5 175 350 Metres

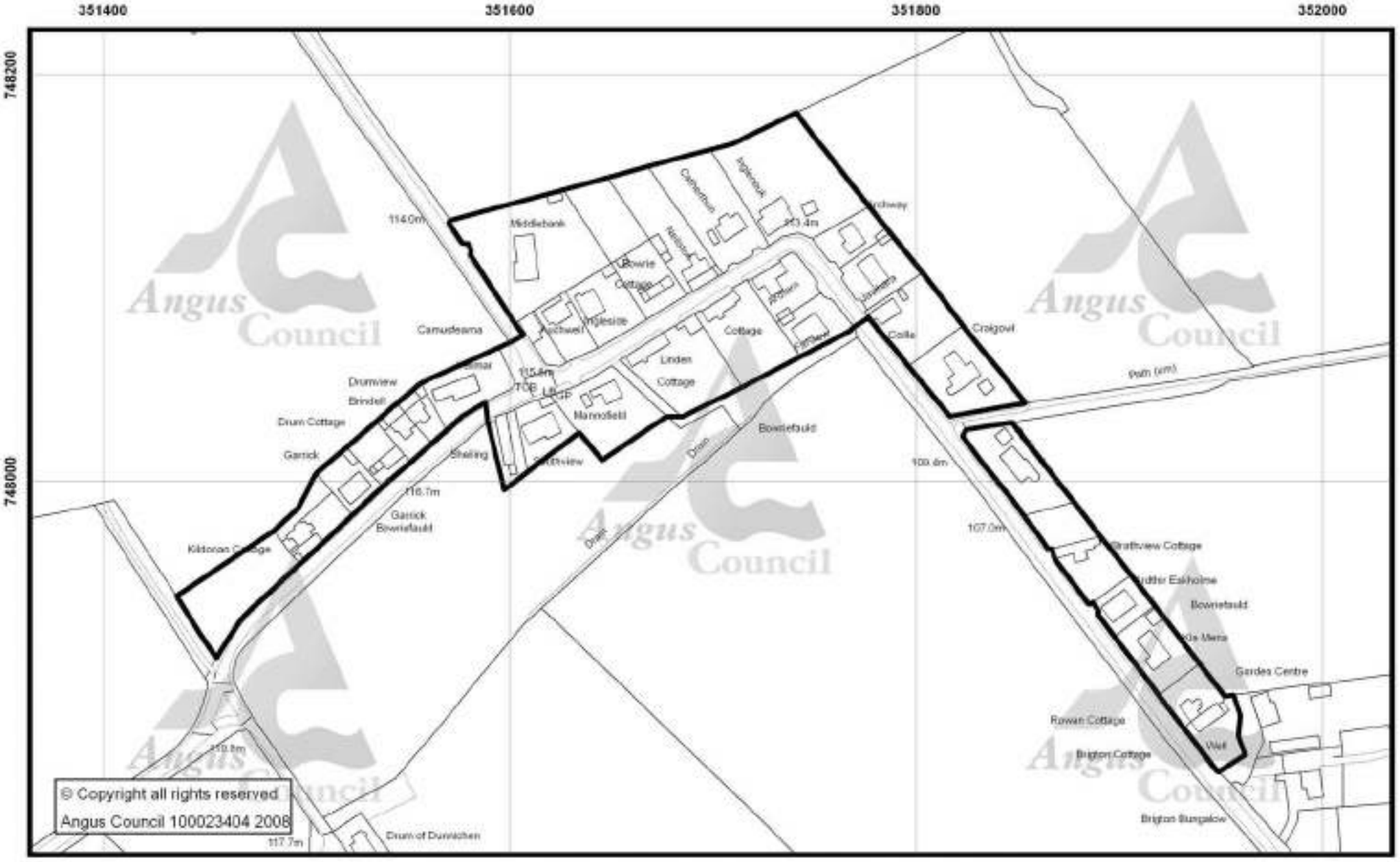
N W E S



Bogindollo
Angus Local Plan Review

0 15 30 60 Metres

N W E S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351600
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352000
748200
748000
Middlebank
Bowrie Cottage
Camusdearna
Drumview
Brindell
Drum Cottage
Garrick
Shieling
Garrick Bowriefauld
Kildonan Cottage
Ardchuel
Inglesida
Linden Cottage
Cottage
Nannofield
Bowriefauld
Craigowl
Coilla
path (um)
Strathview Cottage
Bowriefauld
Garden Centre
Rowan Cottage
Brigton Cottage
Brigton Bungalow
Drum of Dunvalchen
© Copyright all rights reserved
Angus Council 100023404 2008
Bowriefauld
Angus Local Plan Review
0 30 60 120 Metres
N
W E
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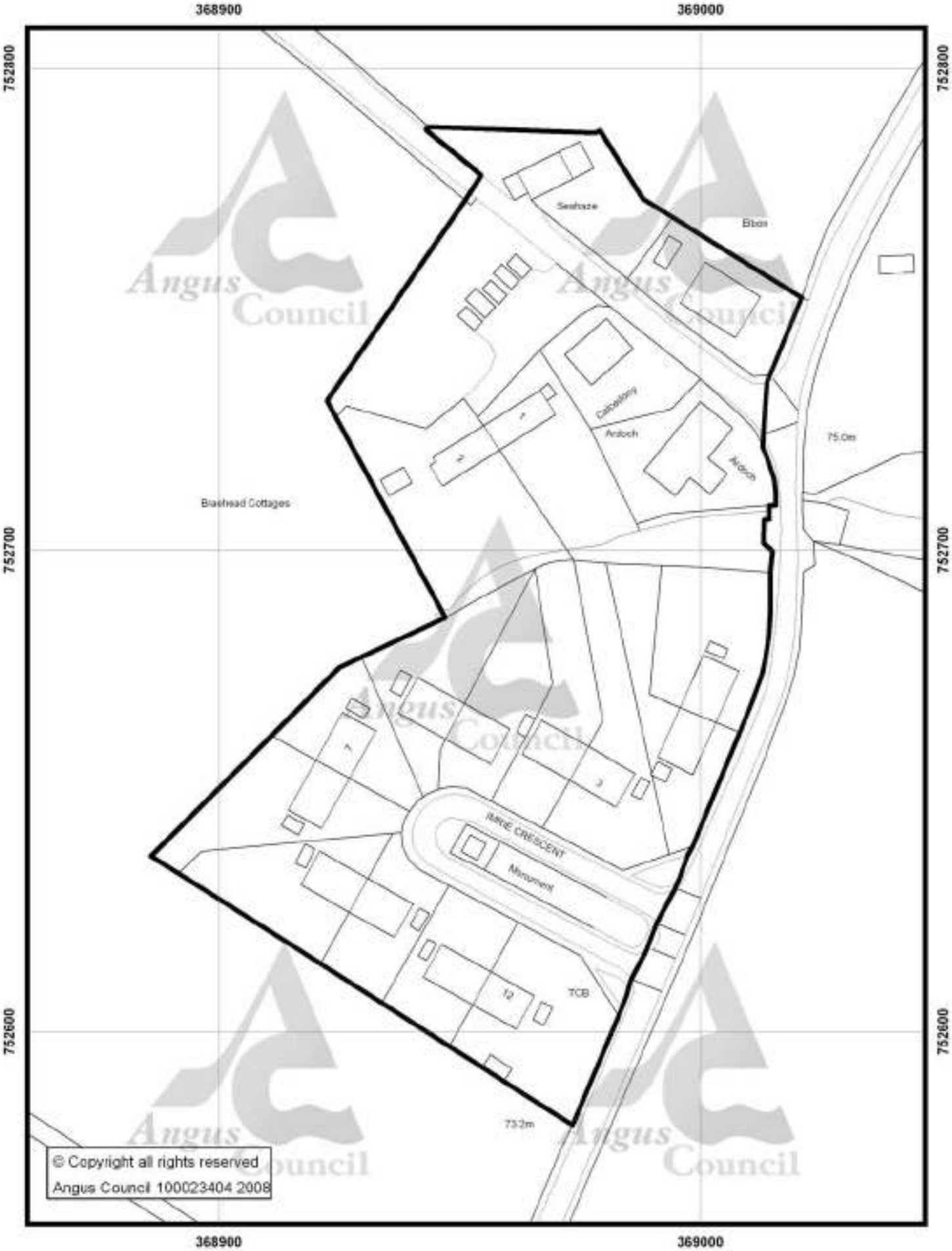
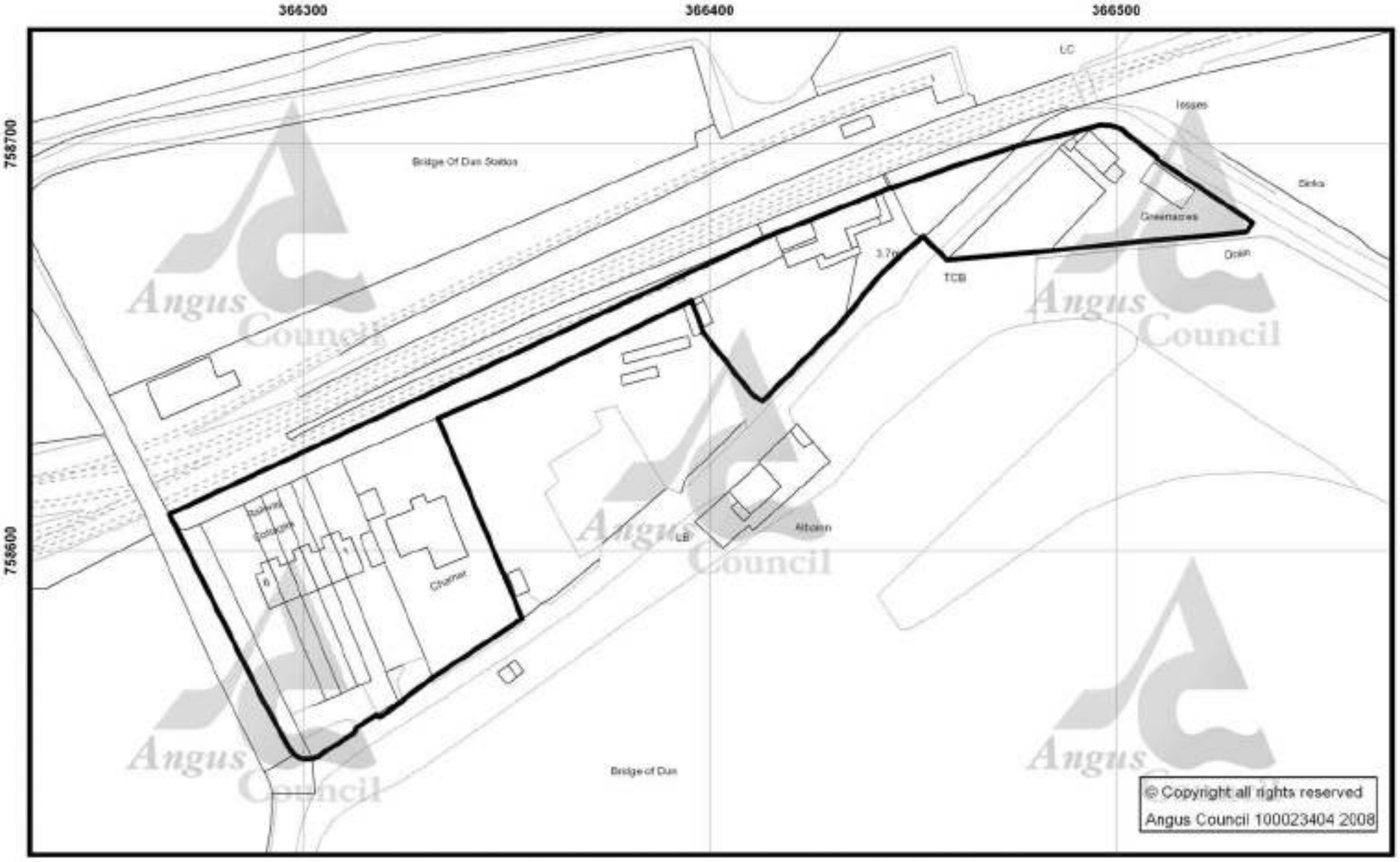


Braehead of Lunan

Angus Local Plan Review

0 10 20 40 Metres

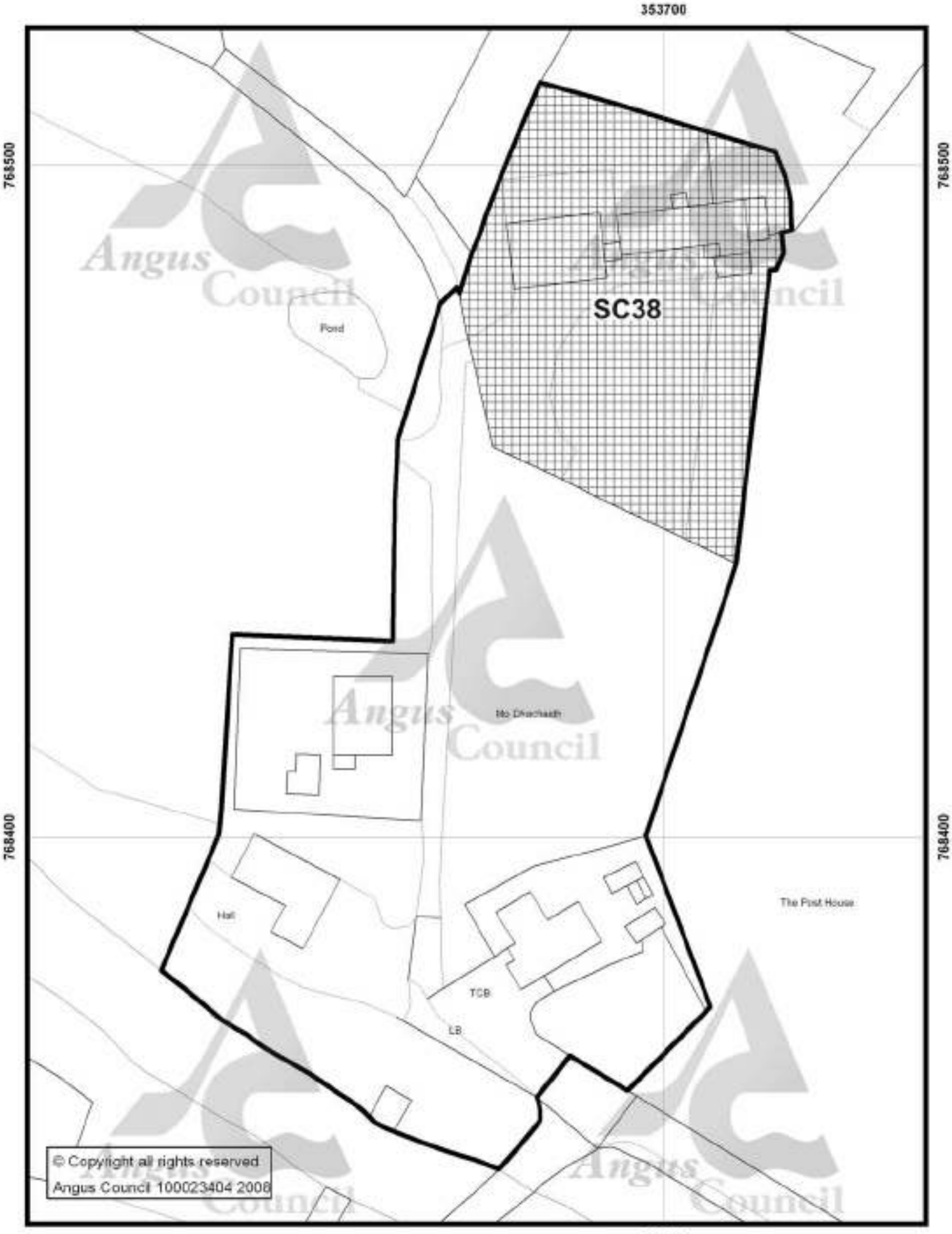
N W E S



Bridge of Dun
Angus Local Plan Review

0 20 40 80 Metres

N W E S

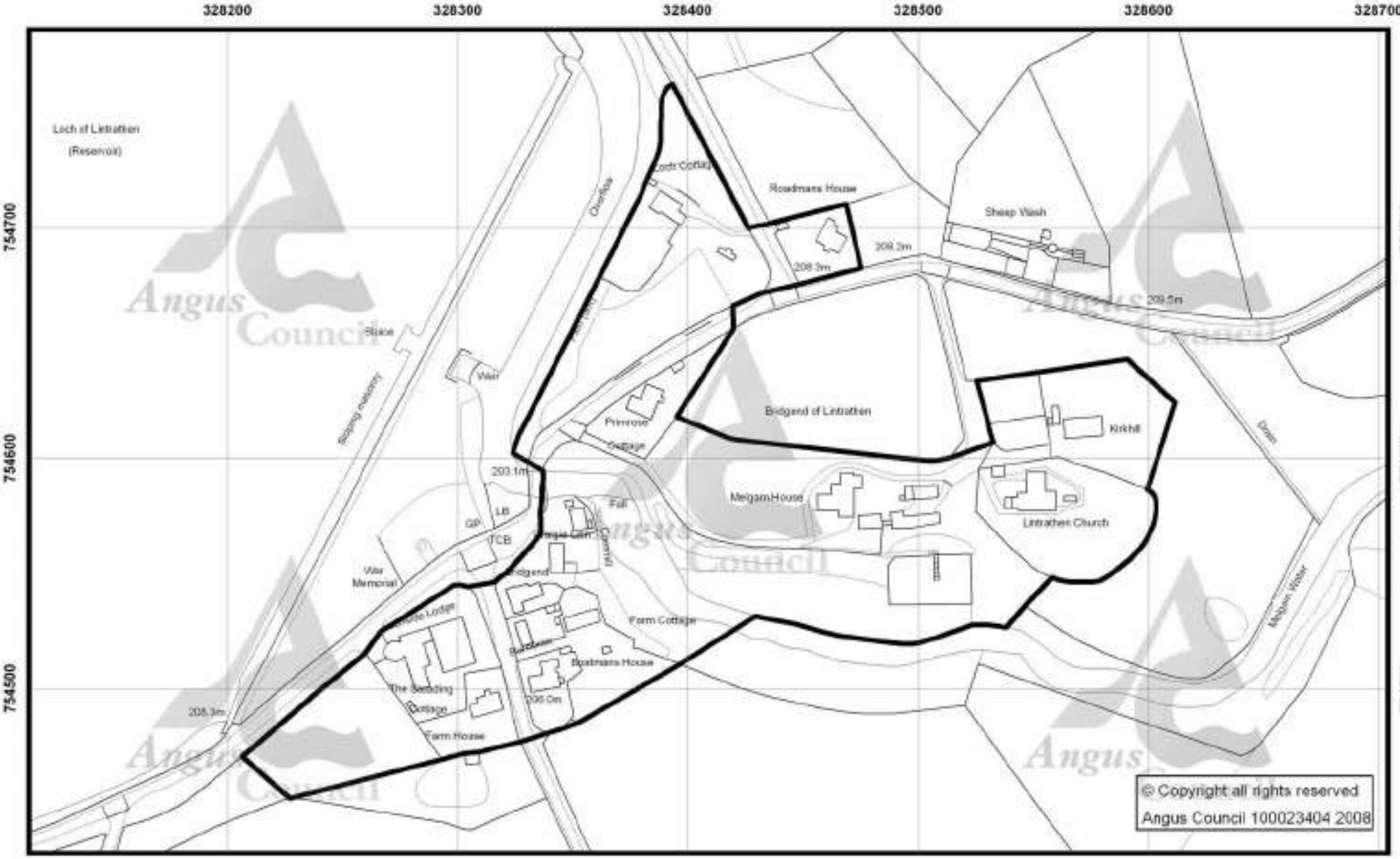


Bridgend of Lethnot

Angus Local Plan Review

0 5 10 20 Metres

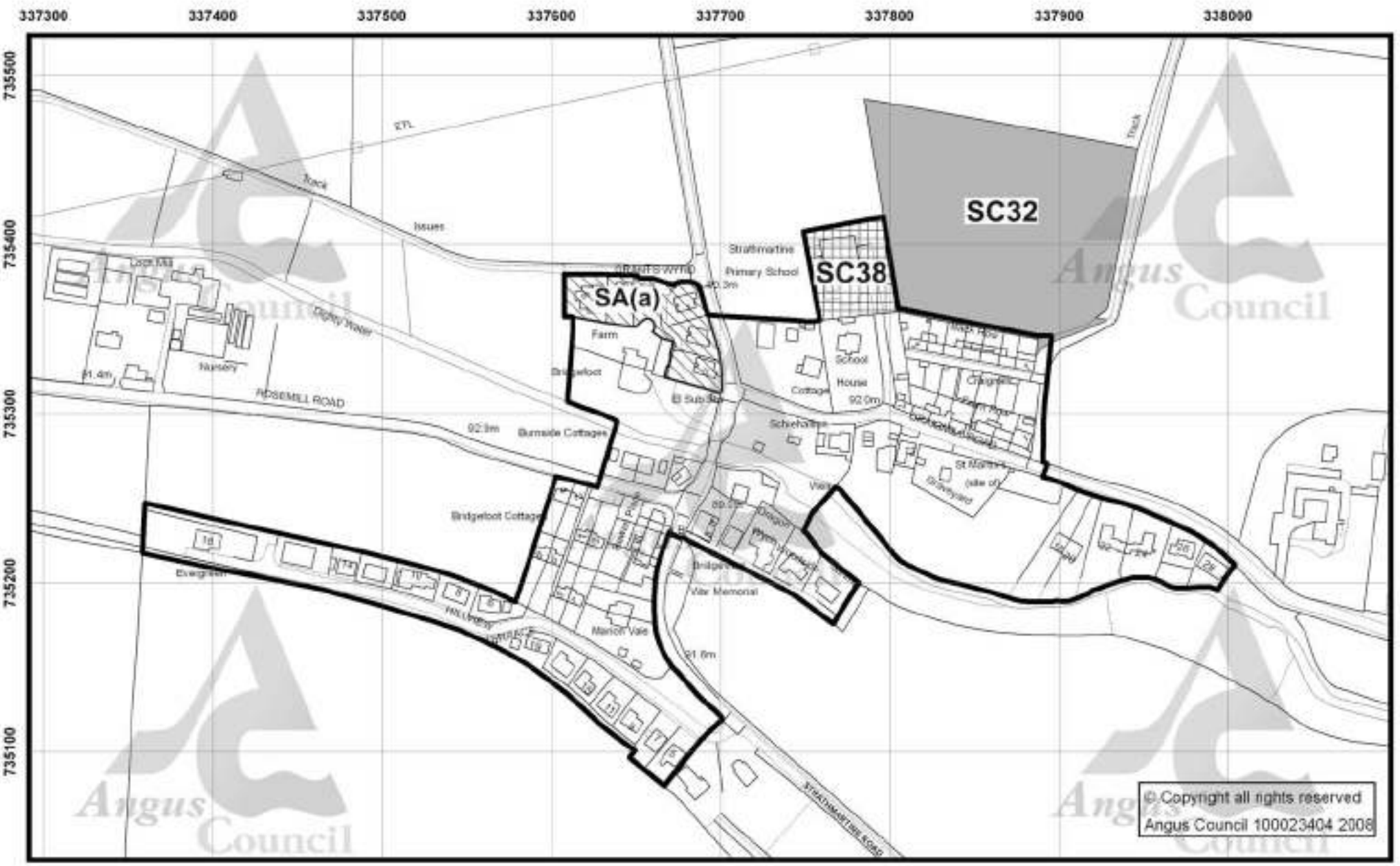
N W E S



Bridgend of Lintrathen
Angus Local Plan Review

0 37.5 75 150 Metres

N W E S

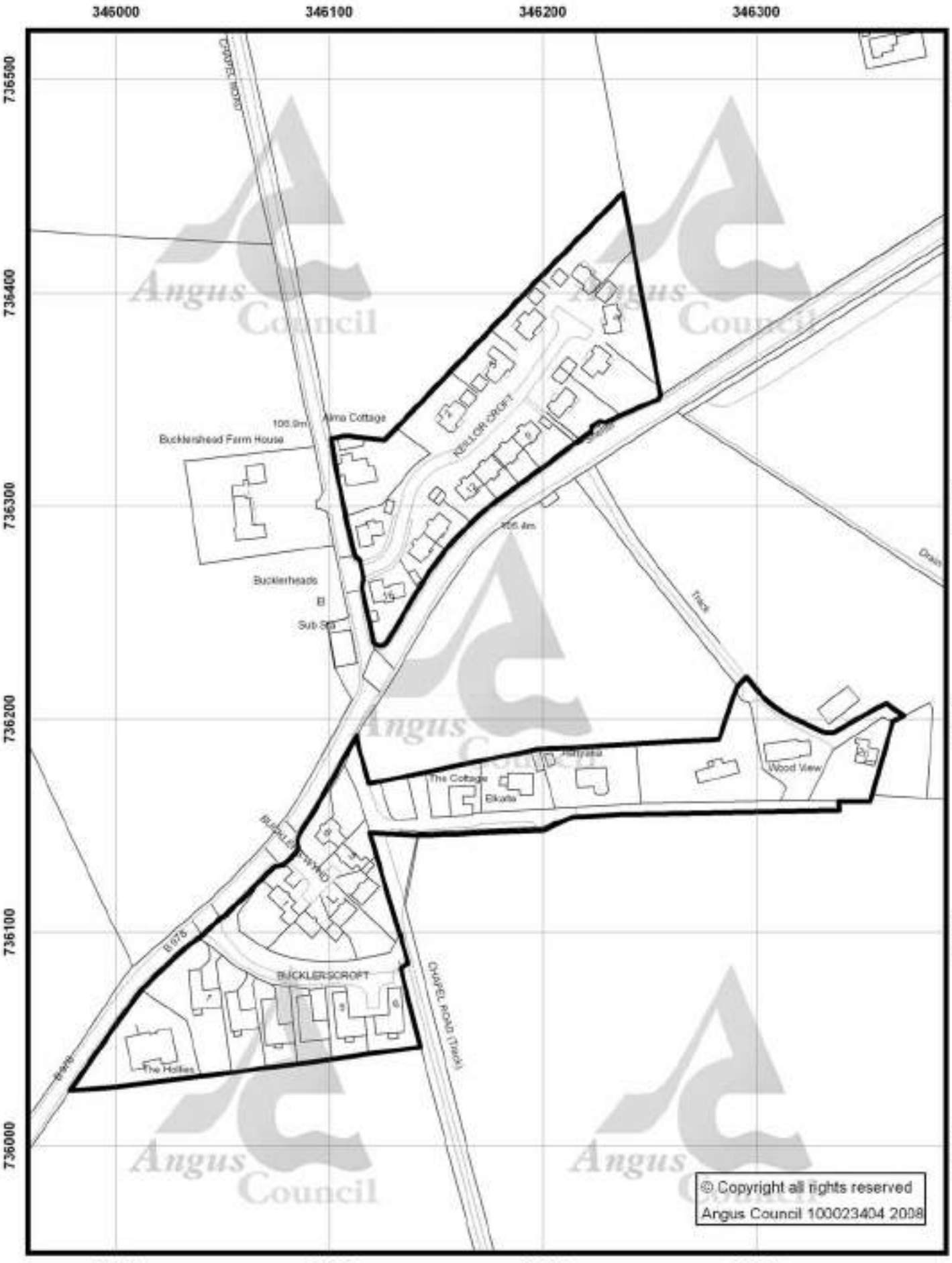


Bridgefoot and Strathmartine

Angus Local Plan Review

0 50 100 200 Metres

N W E S

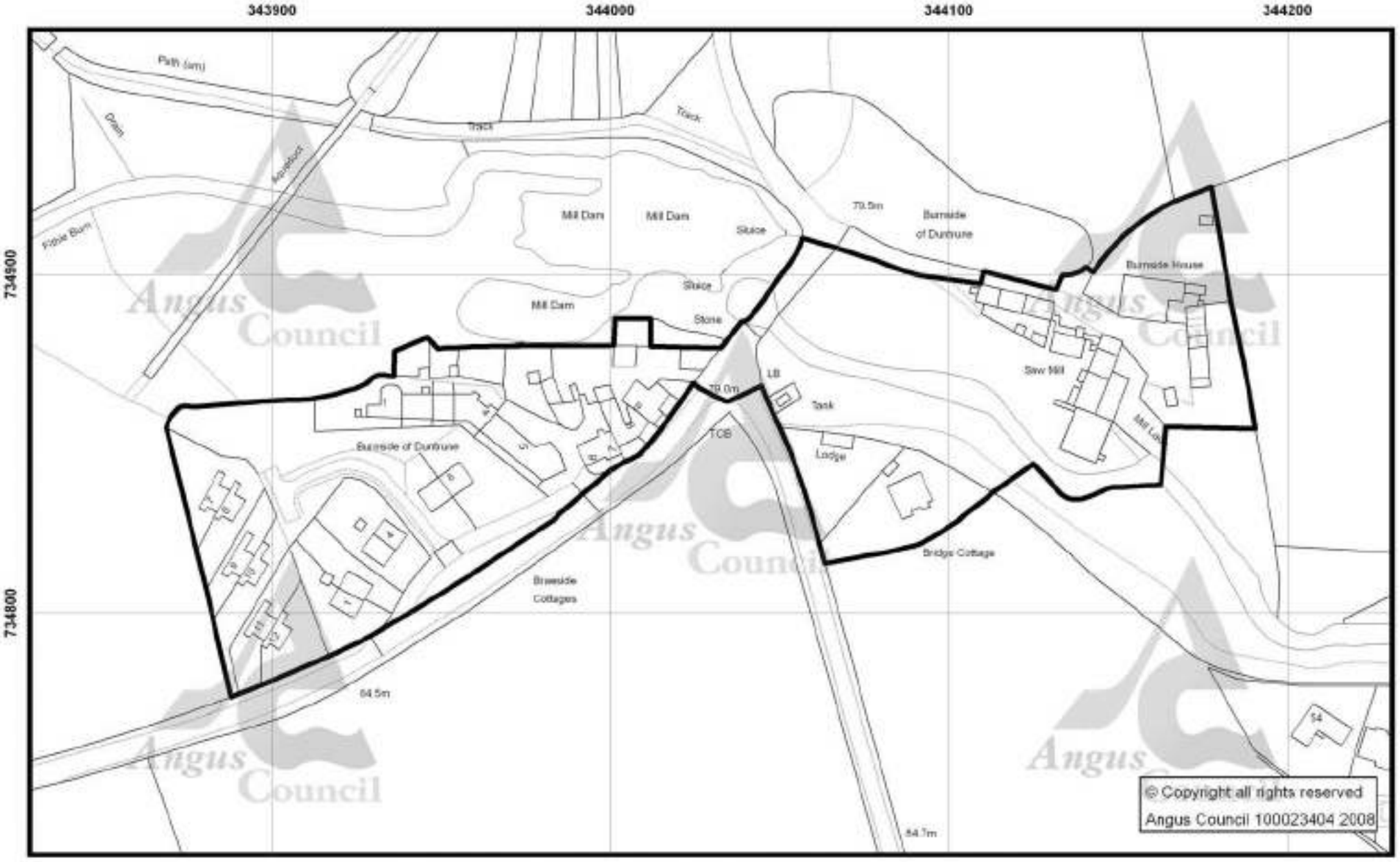


Bucklerheads

Angus Local Plan Review

0 15 30 60 Metres

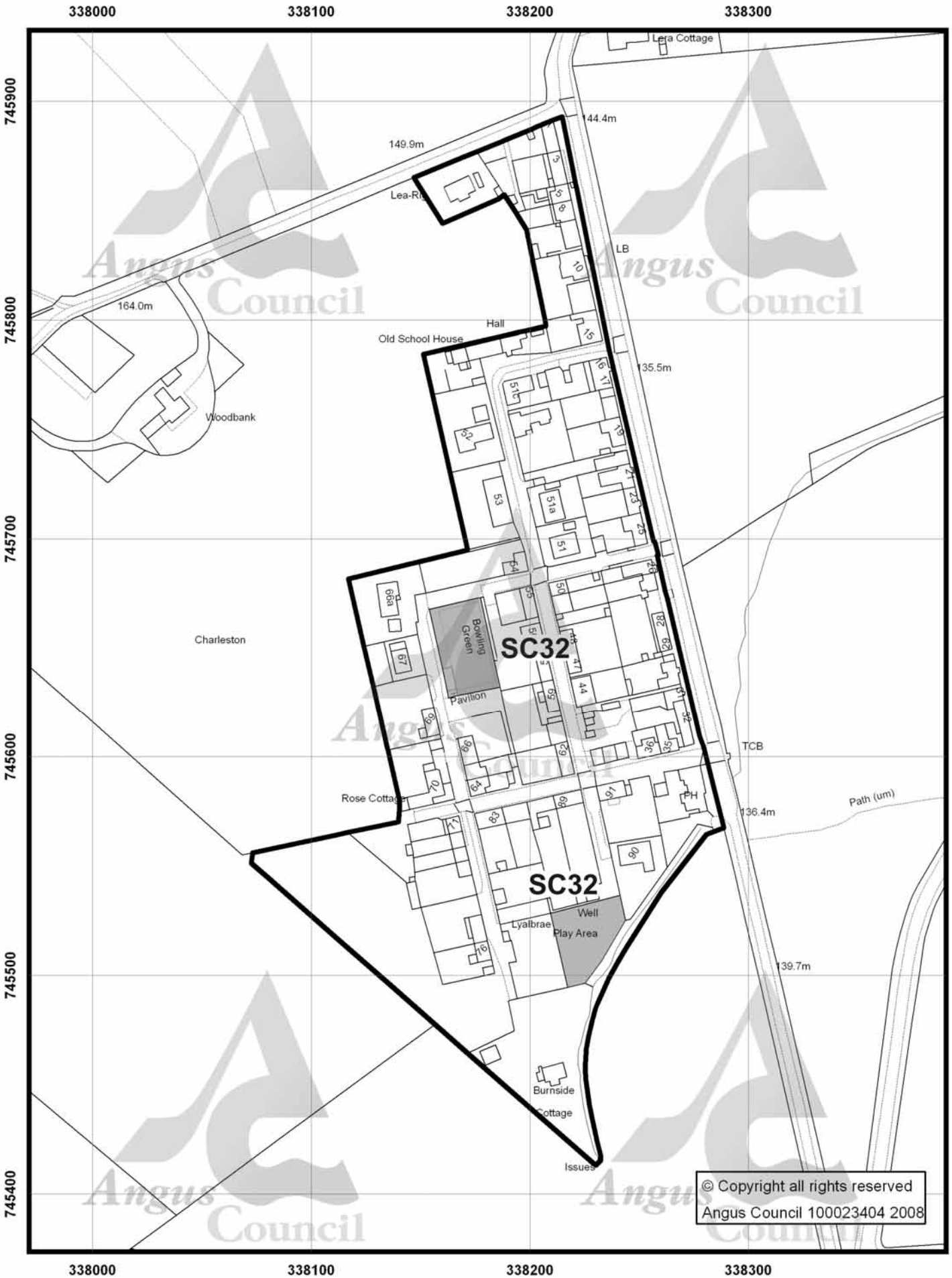
N W E S



Burnside of Duntrune
Angus Local Plan Review

0 25 50 100 Metres

N W E S

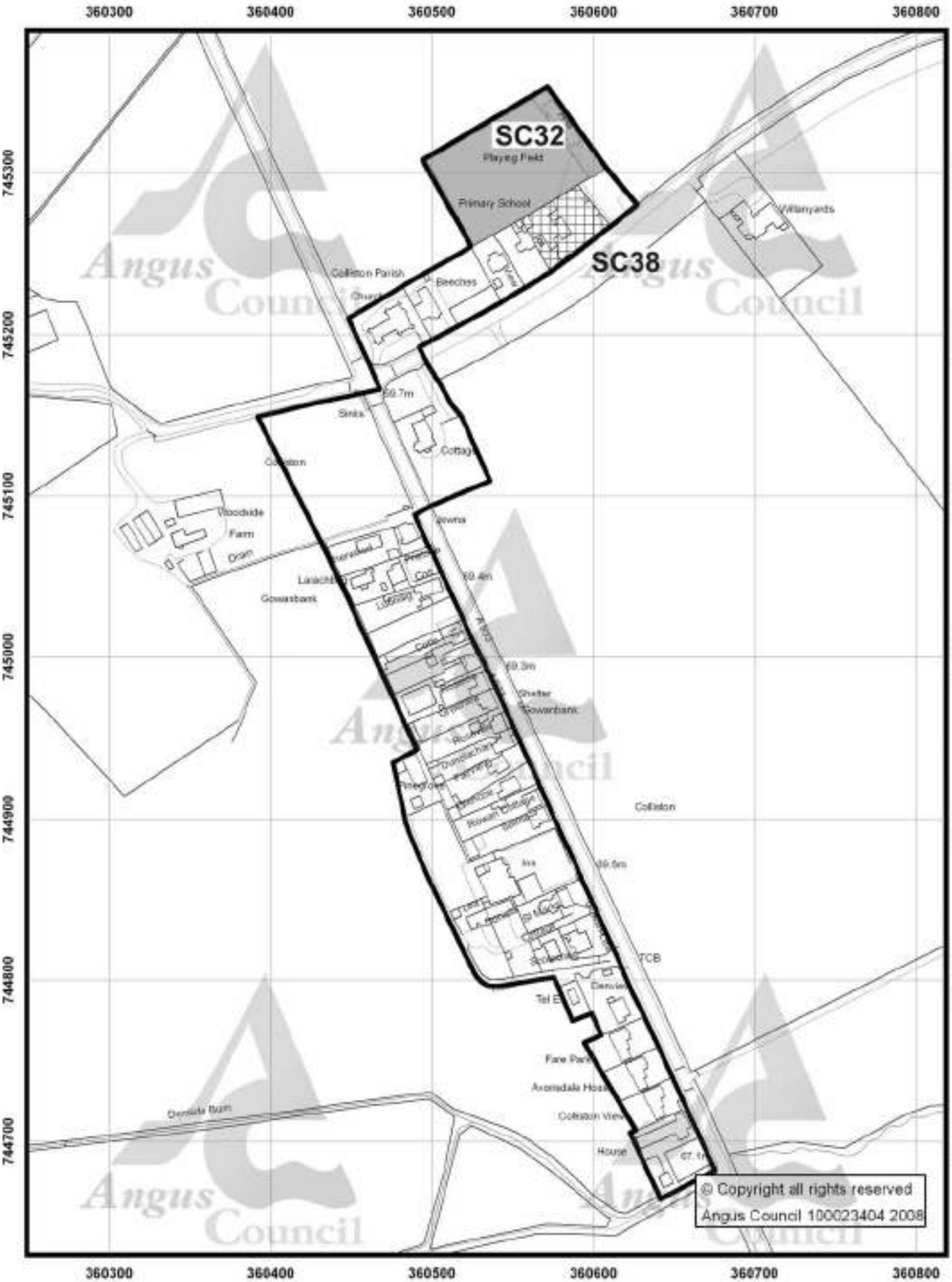


Charleston

Angus Local Plan Review

0 12.5 25 50 Metres

N W E S

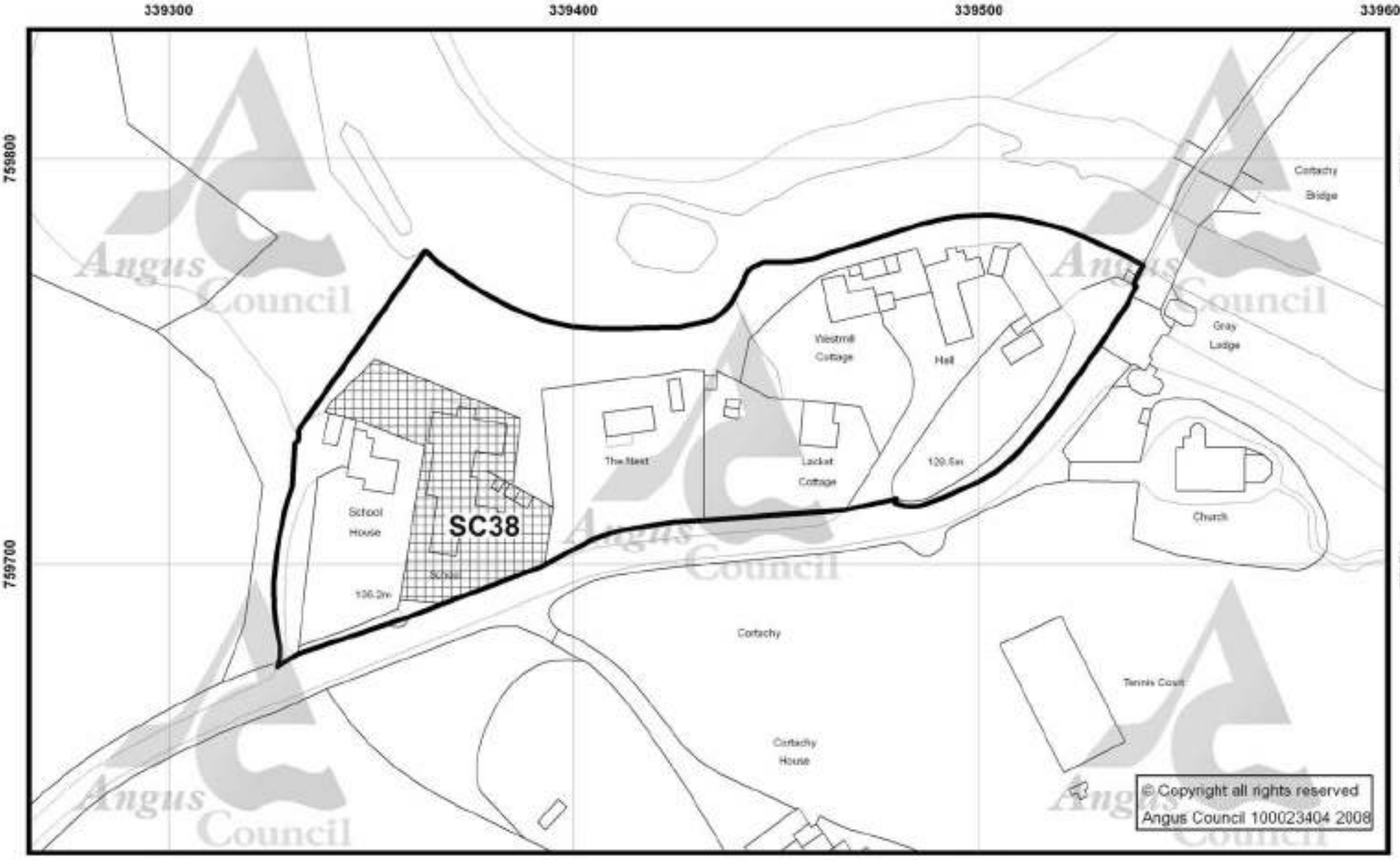


Colliston

Angus Local Plan Review

0 25 50 100 Metres

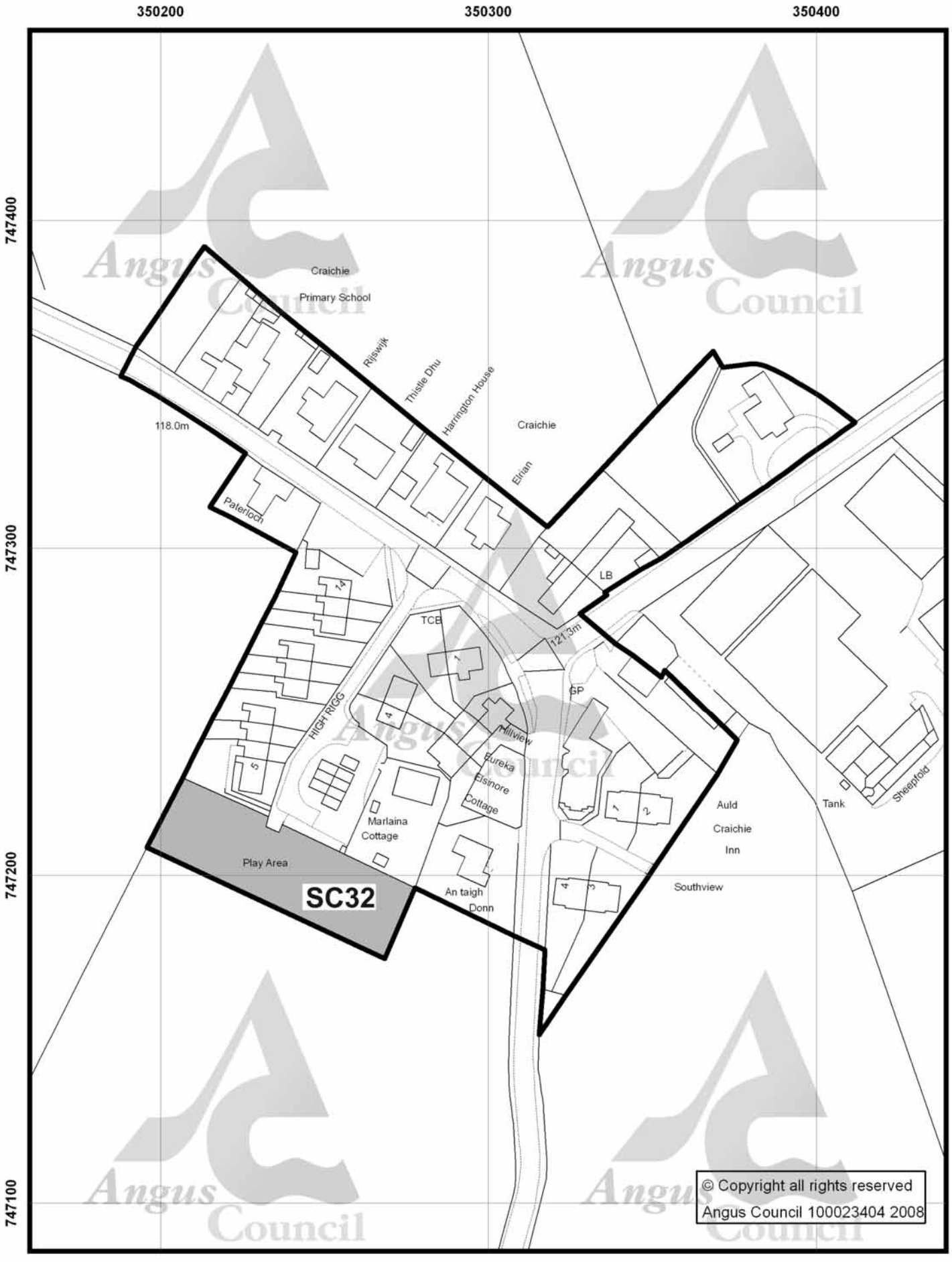
N W E S



Cortachy
Angus Local Plan Review

0 20 40 80 Metres

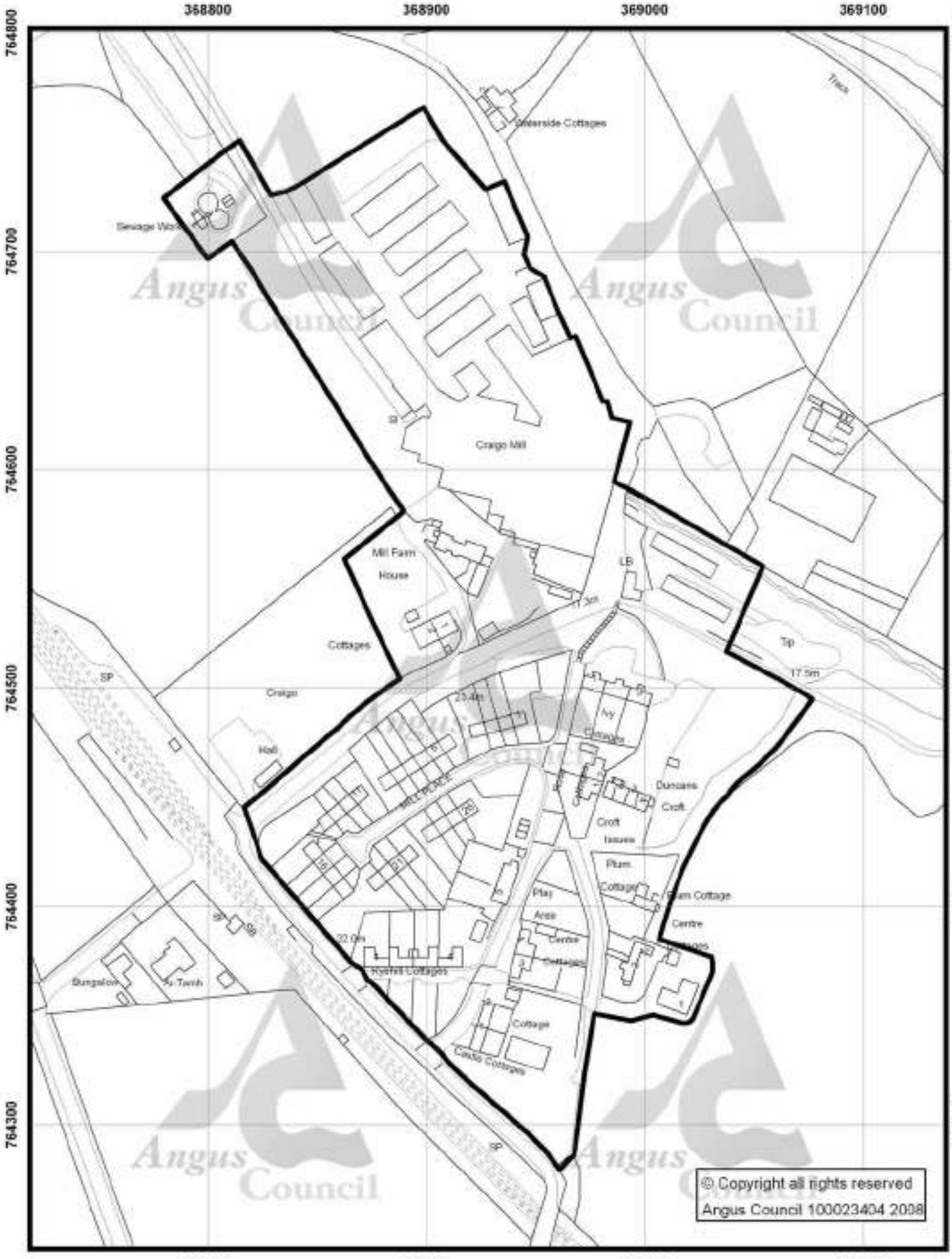
N W E S



Craichie
Angus Local Plan Review

0 10 20 40 Metres

N W E S

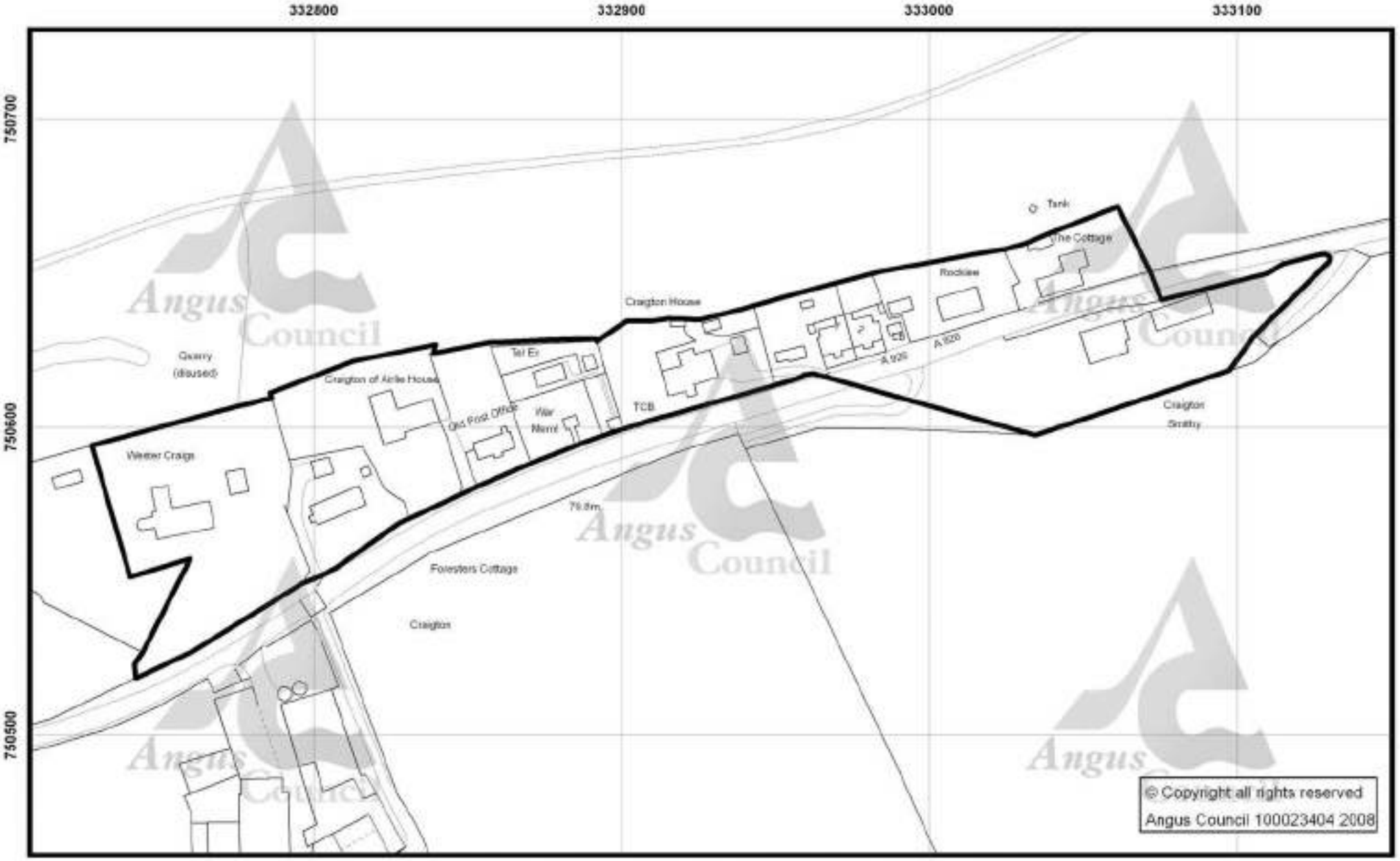


Craigo

Angus Local Plan Review

0 15 30 60 Metres

N W E S

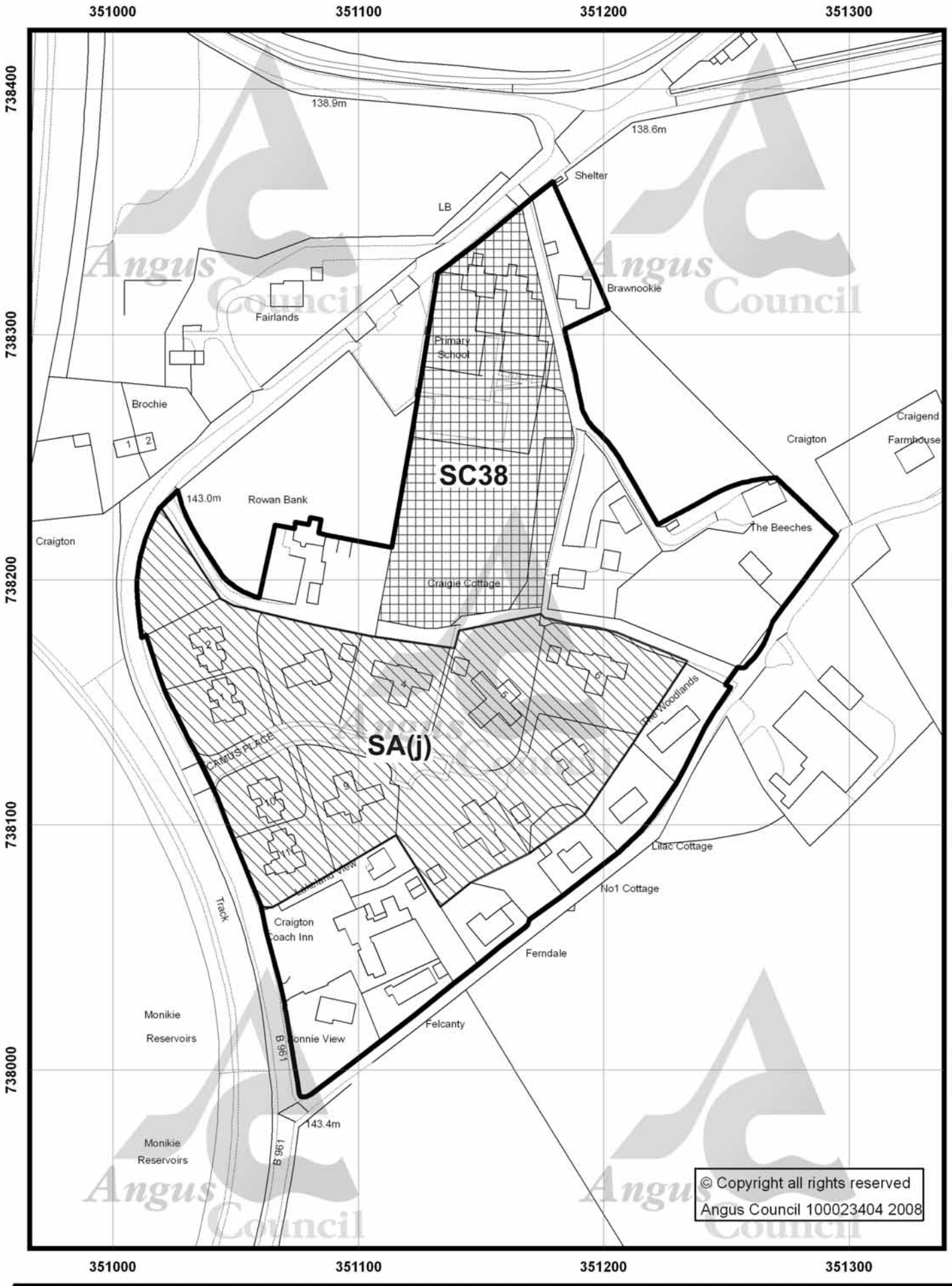


Craigton of Airlie

Angus Local Plan Review

0 25 50 100 Metres

N W E S

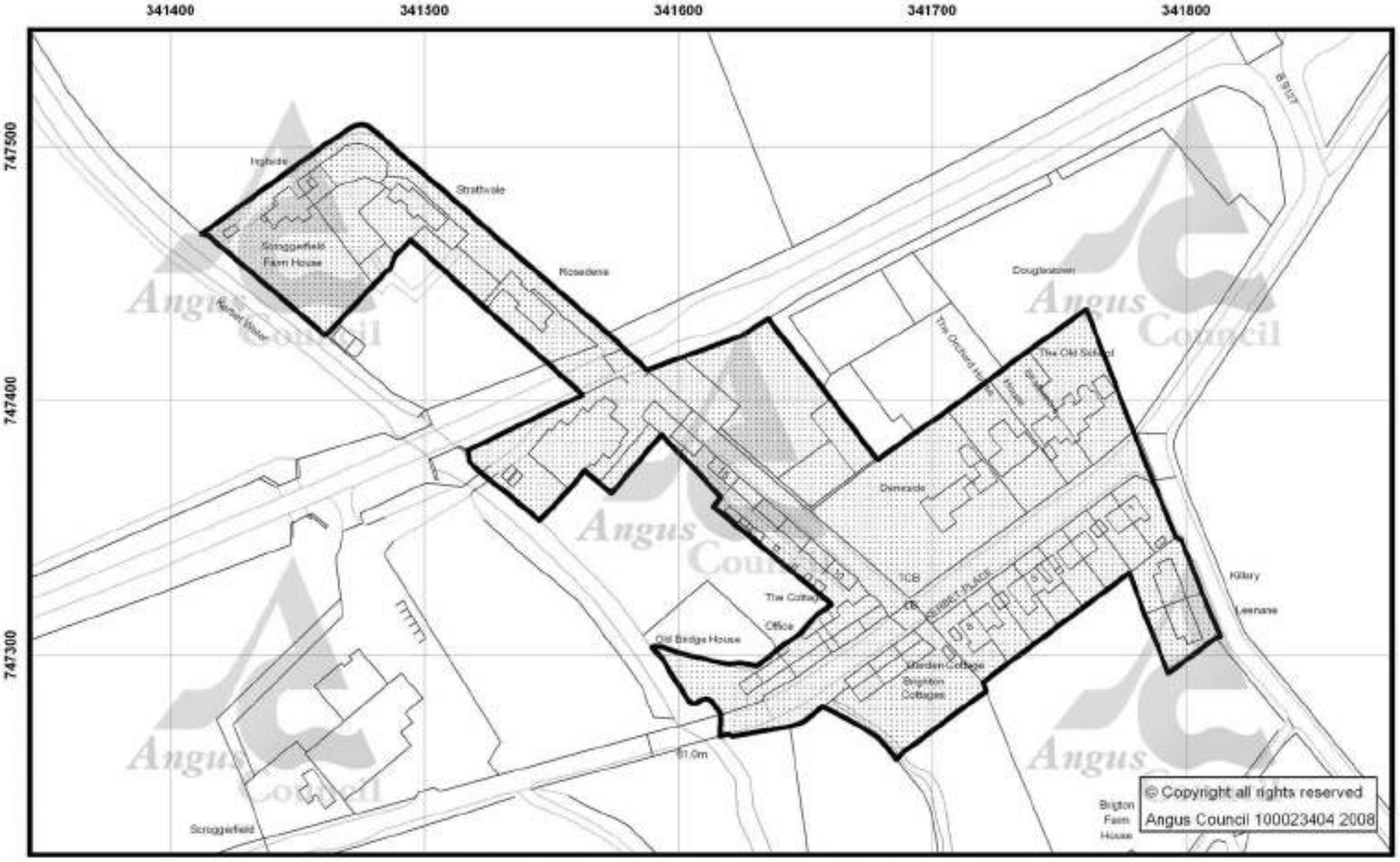


Craigton of Monikie

Angus Local Plan Review

0 20 40 80 Metres

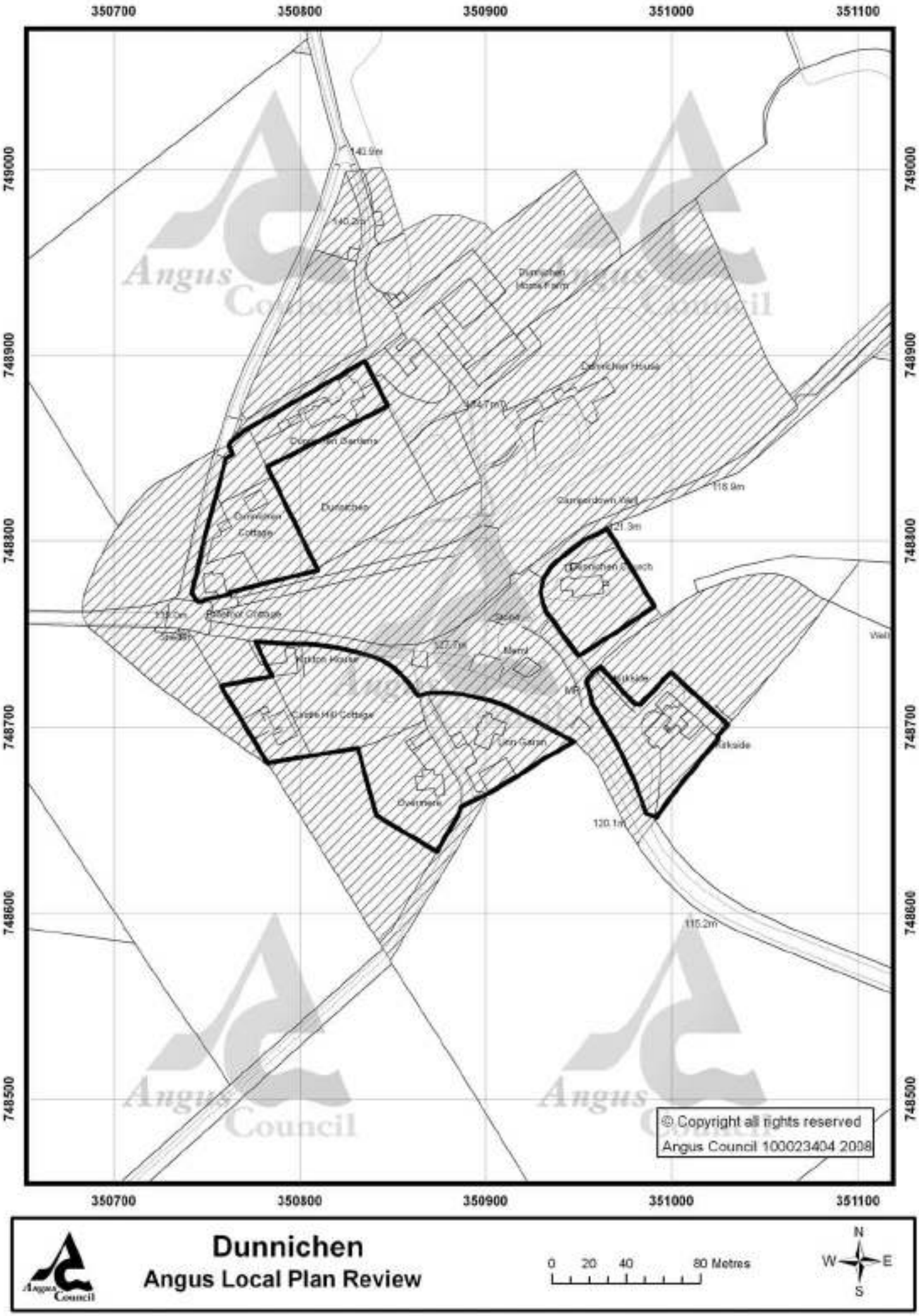
N W E S



Douglastown
Angus Local Plan Review

0 30 60 120 Metres

N W E S

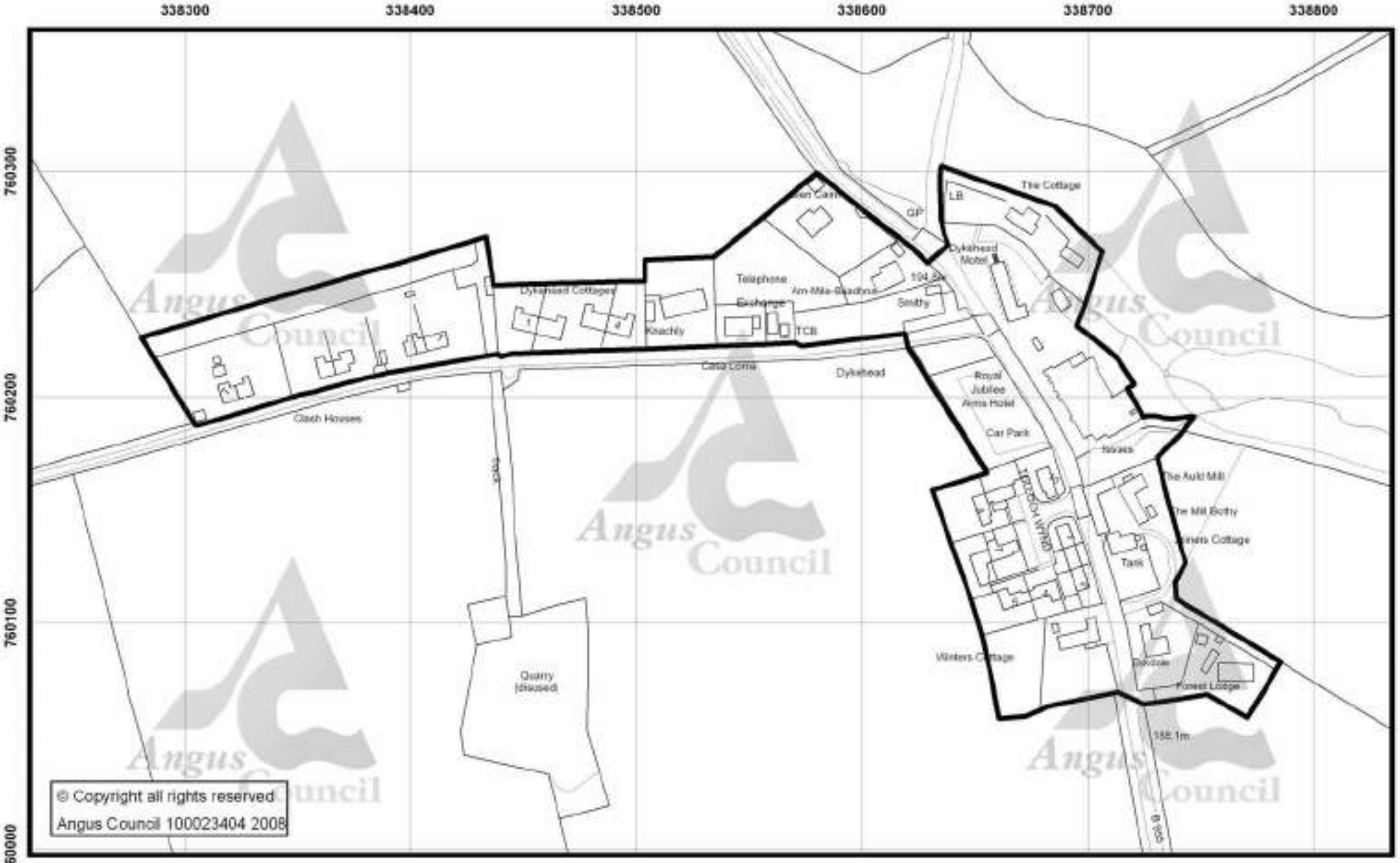


Dunnichen

Angus Local Plan Review

0 20 40 80 Metres

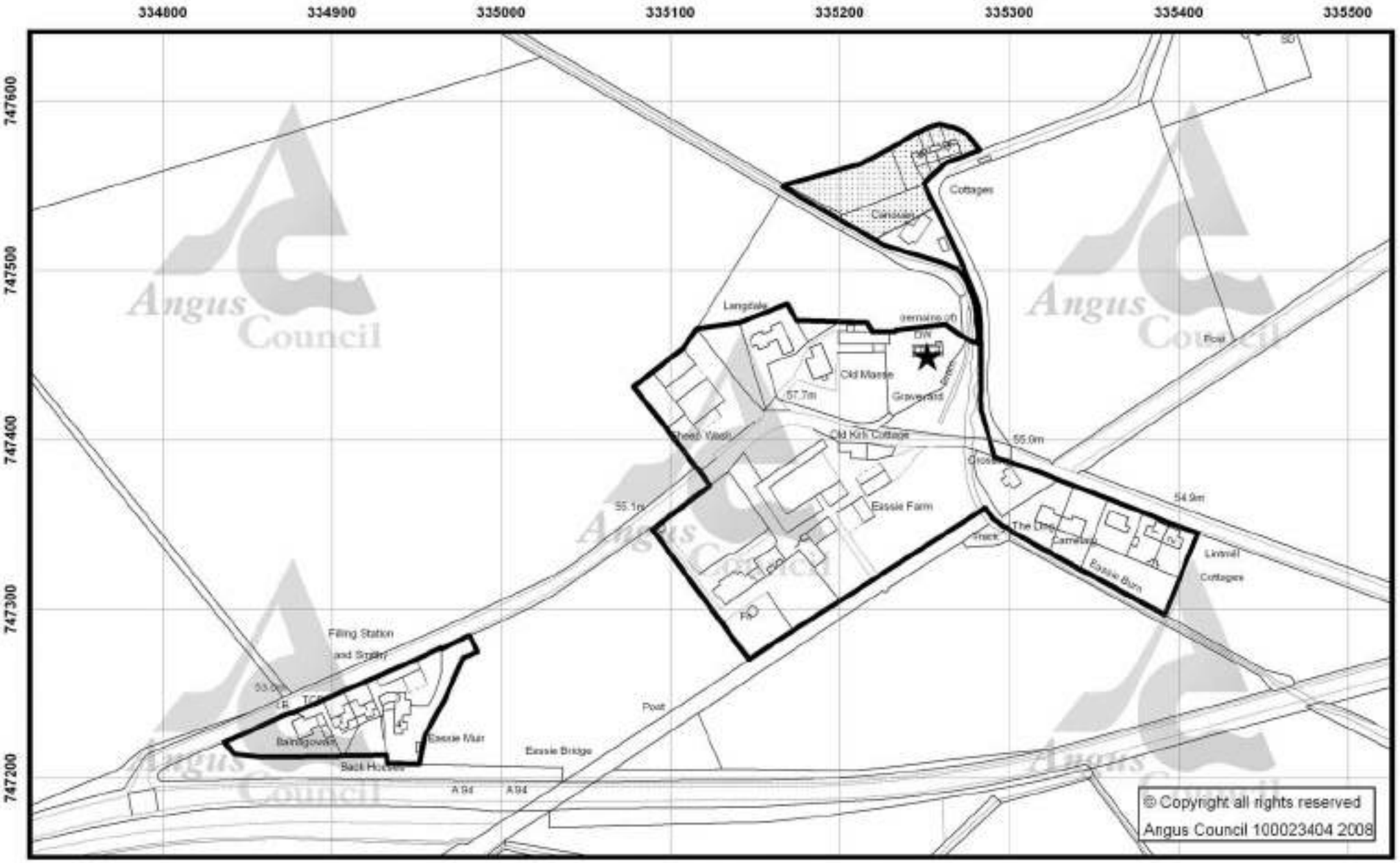
N W E S



Dykehead
Angus Local Plan Review

0 35 70 140 Metres

N W E S

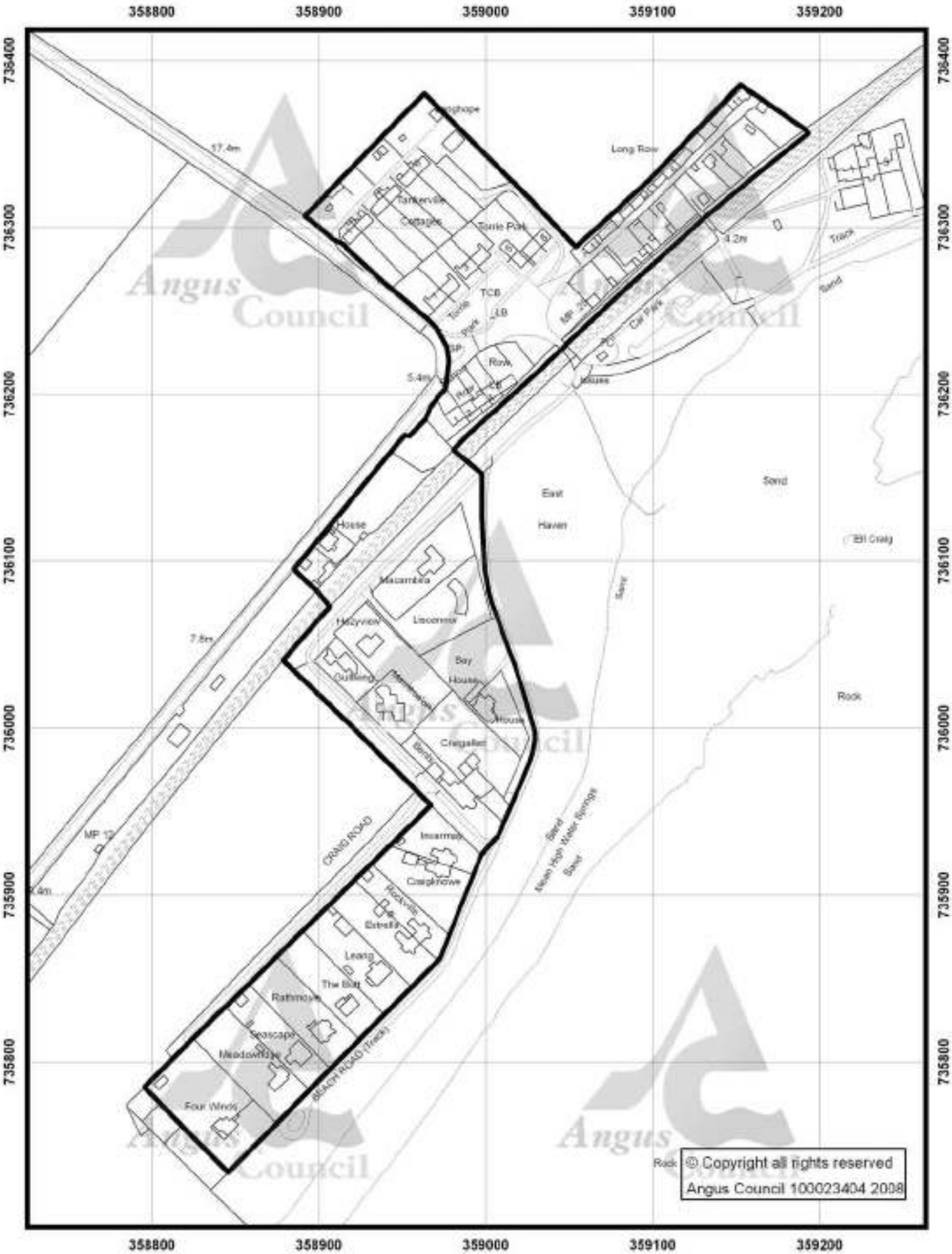


Eassie Muir

Angus Local Plan Review

0 45 90 180 Metres

N W E S

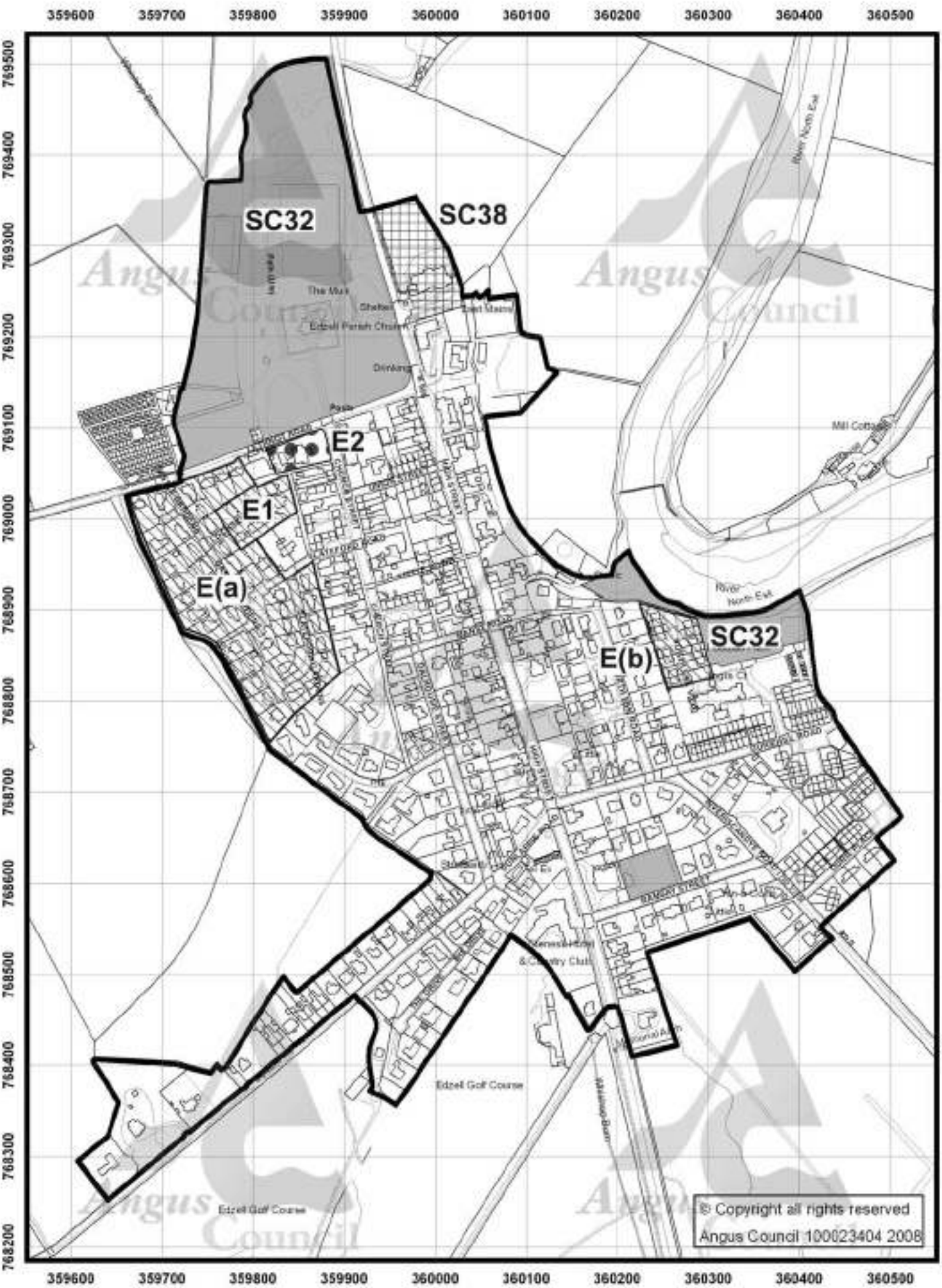


East Haven

Angus Local Plan Review

0 25 50 100 Metres

N W E S



Edzell

Angus Local Plan Review

0 65 130 260 Metres

N W E S

EDZELL

PROFILE

Role:
Attractive residential village approximately 9.5 km north of Brechin supporting a range of services.

Population:
Census: 2001 - 783;
1991 – 747
% Change 91/01 : +4.82

Housing Land Supply June 2004:
existing - 32

Drainage:
No constraints

1. Edzell is an attractive village situated in the north east of Angus approximately 9.5 km north of Brechin and close to the Aberdeenshire boundary. The village supports a wide range of community services and facilities and acts as a social, service and commercial centre for a considerable rural area, including, Glen Lethnot and Glen Esk.

2. The character of Edzell derives from its wide High Street, the grid iron street pattern, the continuity of design in many of the older buildings and large open areas which include the Muir and woodland to the north, the wooded banks of the river North Esk to the east and Edzell woods and Golf Course to the south. These natural and manmade features have influenced the urban form of the village and continue to contribute to its character. The basic form of development, particularly the grid iron pattern has generally been maintained as the village has grown with no residential development north of Lethnot Road.

3. Planning permission has been granted for housing at Lethnot Road/Slateford Road and Lindsay Place, which will meet local housing needs within the plan period. A new primary school has been built in the north of the village to replace the school at Church Street. This provides an opportunity for the existing school building and associated land to be reused and redeveloped for alternative uses.

4. The former mart site located north of Lethnot Road has not come forward for employment use despite being allocated for a number of years but has been subject to pressure for residential development. Lethnot Road provides a marked division between the built up area of Edzell and its landscape setting, which is one of the most striking and attractive features of the village. Whilst it is considered that residential development north of Lethnot Road would not be appropriate the Local Plan provides opportunities for the redevelopment of the former mart for employment uses of an appropriate scale and nature through Policy SC16 : Rural Employment set out in the chapter on Working.

KEY ISSUES/DEVELOPMENT STRATEGY

5. Given the physical boundaries to the village, careful consideration of the scale, future direction, design and layout of new development will be required to ensure that it respects the form and setting of the village and integrates with the surrounding rural landscape. In the light of recent permissions for residential development outlined above the strategy for Edzell is to allow for a period of consolidation and to limit additional residential development within the plan period to the redevelopment of brownfield and infill sites within the village boundary.

HOUSING

EXISTING SITES

6. The existing housing land supply, comprising sites with planning permission or under construction as identified in the Housing Land Audit June 2004, is shown in Table 1.

Table 1 : Existing Sites

(a) Lethnot Rd/ Slateford Rd	18
(b) Lindsay Place	14
Total	**32**

NEW ALLOCATIONS

7. Table 2 summarises new allocations of housing land which will contribute towards meeting the Structure Plan allowances to 2011.

Table 2 : New Allocations

E1: Edzell School Annexe	6
Total	**6**

E1 : Housing - Edzell School Annexe

0.4 ha of land comprising temporary school buildings and land to the rear of the school building is allocated for six houses. Vehicular access is available by way of an extension of the internal road layout serving the housing development to the west.

OPPORTUNITY SITES

***Opportunity Sites**: Sites available for redevelopment for housing and/or other uses. Given uncertainties related to the timing of release of such sites for development and the range of potentially suitable uses, they are not counted towards meeting the Structure Plan housing allowances until planning permission is granted.*

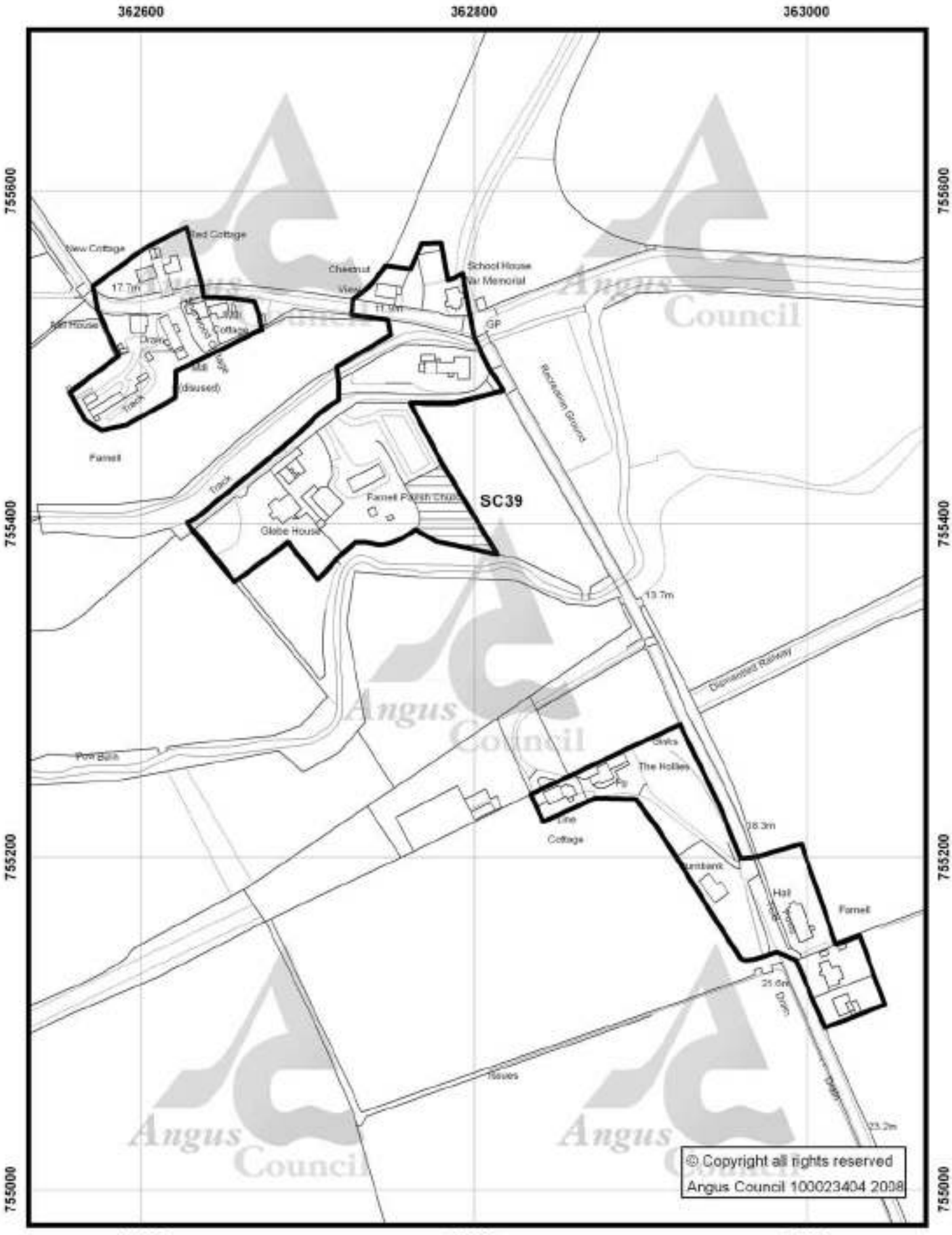
Opportunity Sites:

E2 : Edzell School, Church Street

E2 : Opportunity Site - Edzell School, Church Street

0.2 ha of land at Edzell Primary School comprising the original school building, playground, gym hall and toilet block provide an opportunity for alternative uses including residential, Business Use (Class 4*) or community facilities. Whilst the gym hall and toilet block to the rear of the site can be removed and redeveloped the original school building fronting onto Church Street is an attractive property of local architectural interest and is enclosed by a stone boundary wall. Angus Council would prefer to see the school building and surrounding wall retained as part of any development proposals.

** As defined in the Town and Country Planning (Use Classes) (Scotland) Order 1997*

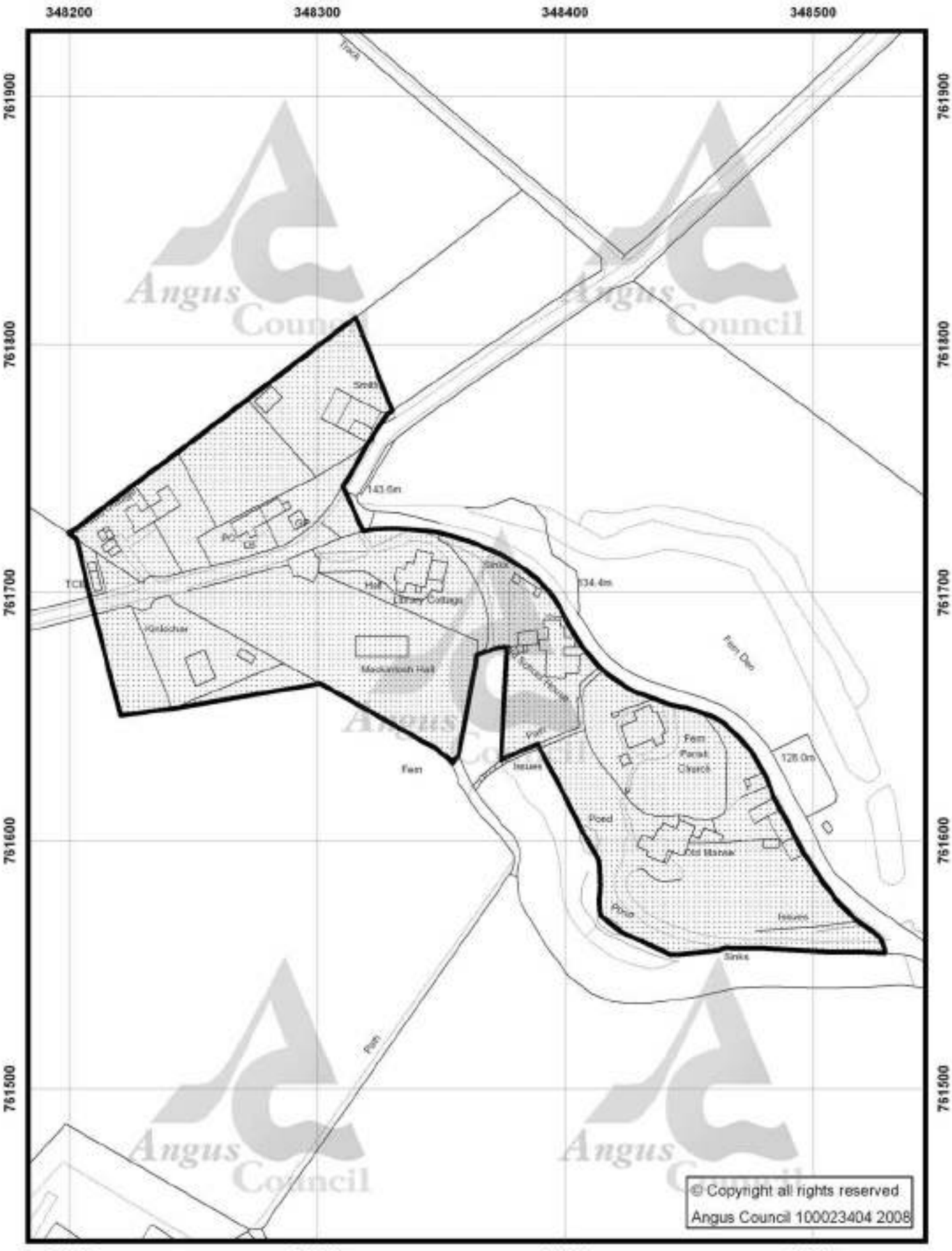


Farnell

Angus Local Plan Review

0 25 50 100 Metres

N W E S

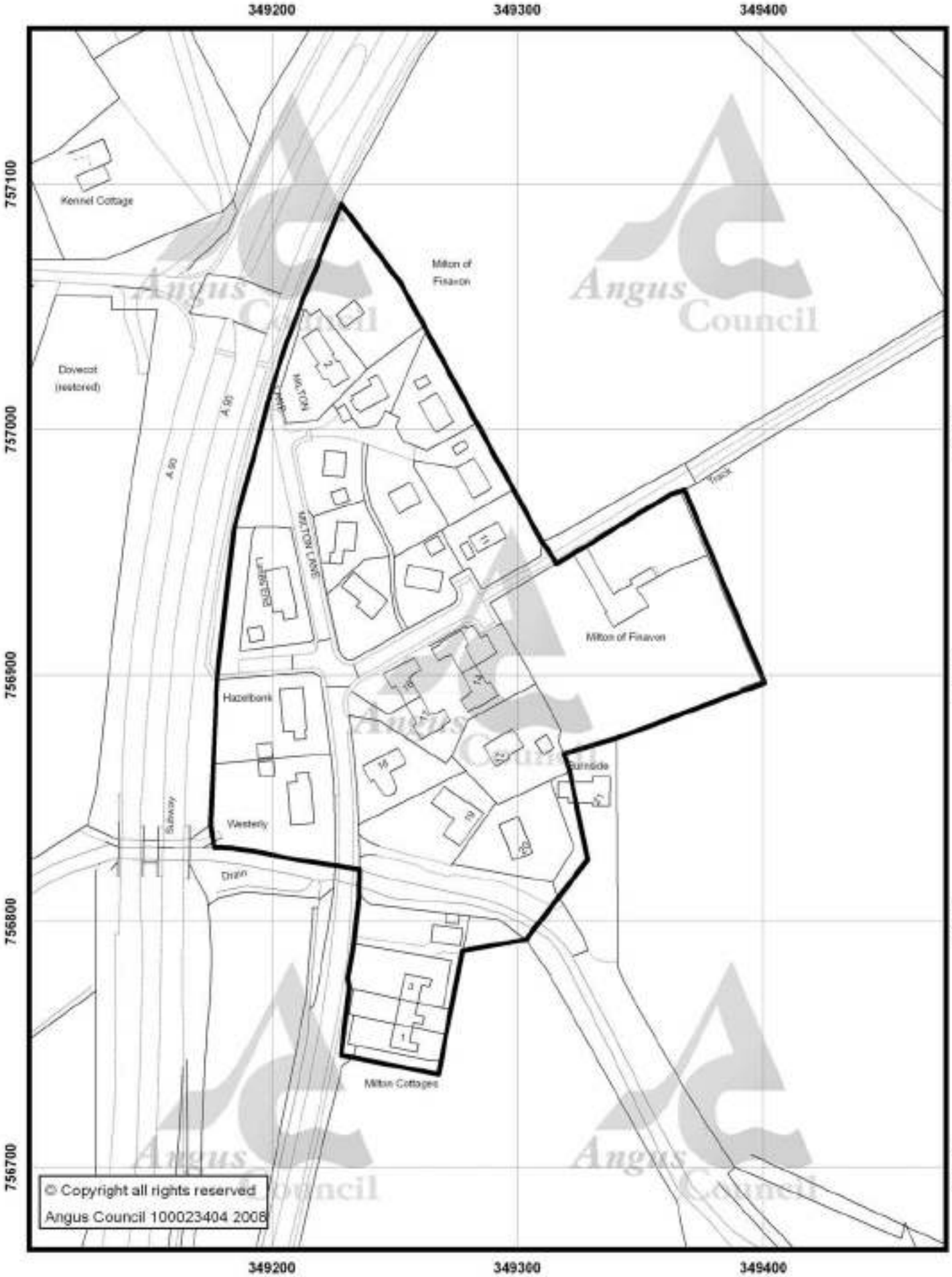


Fern

Angus Local Plan Review

0 25 50 100 Metres

N W E S

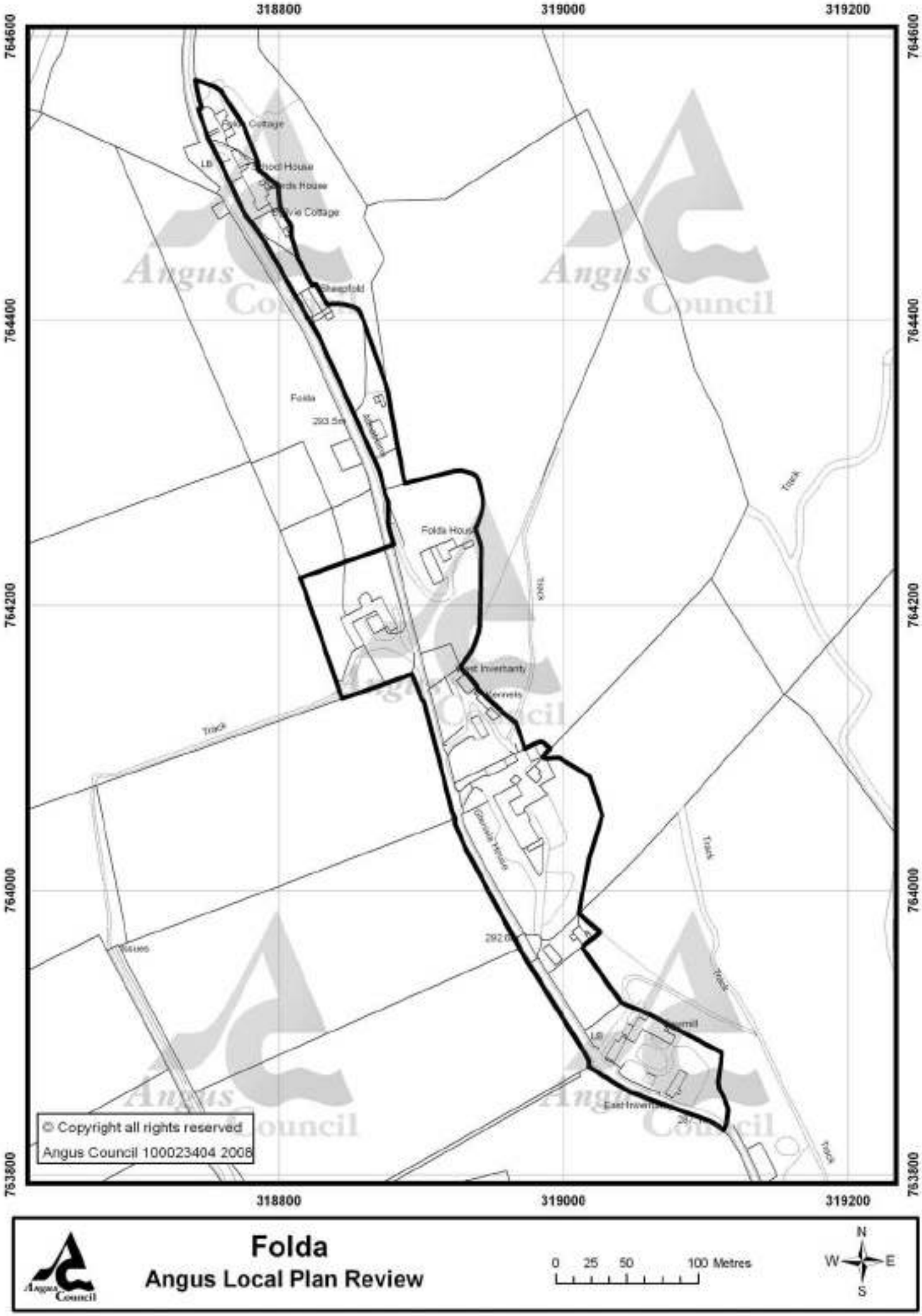


Finavon

Angus Local Plan Review

0 15 30 60 Metres

N W E S

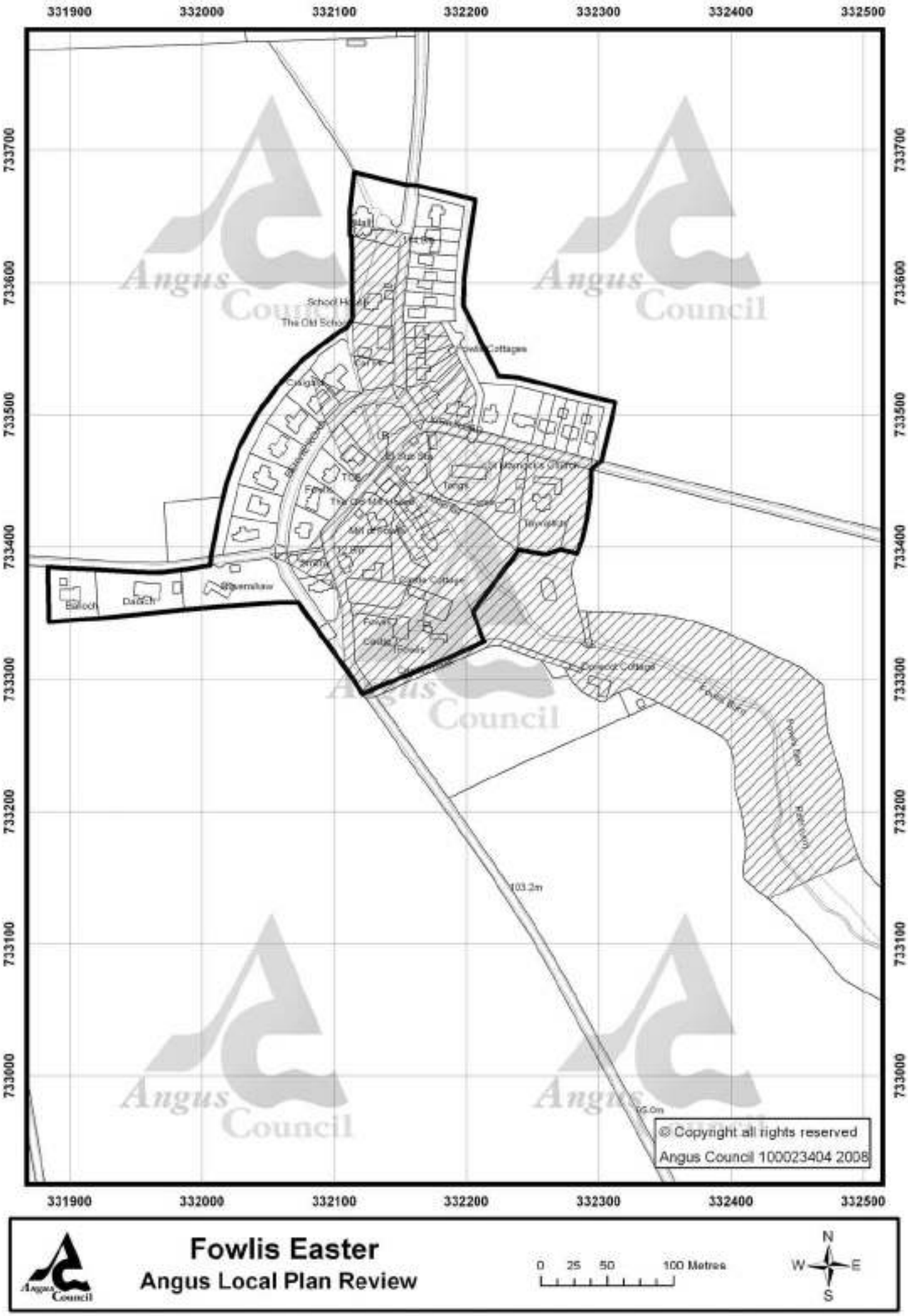


Folda

Angus Local Plan Review

0 25 50 100 Metres

N W E S

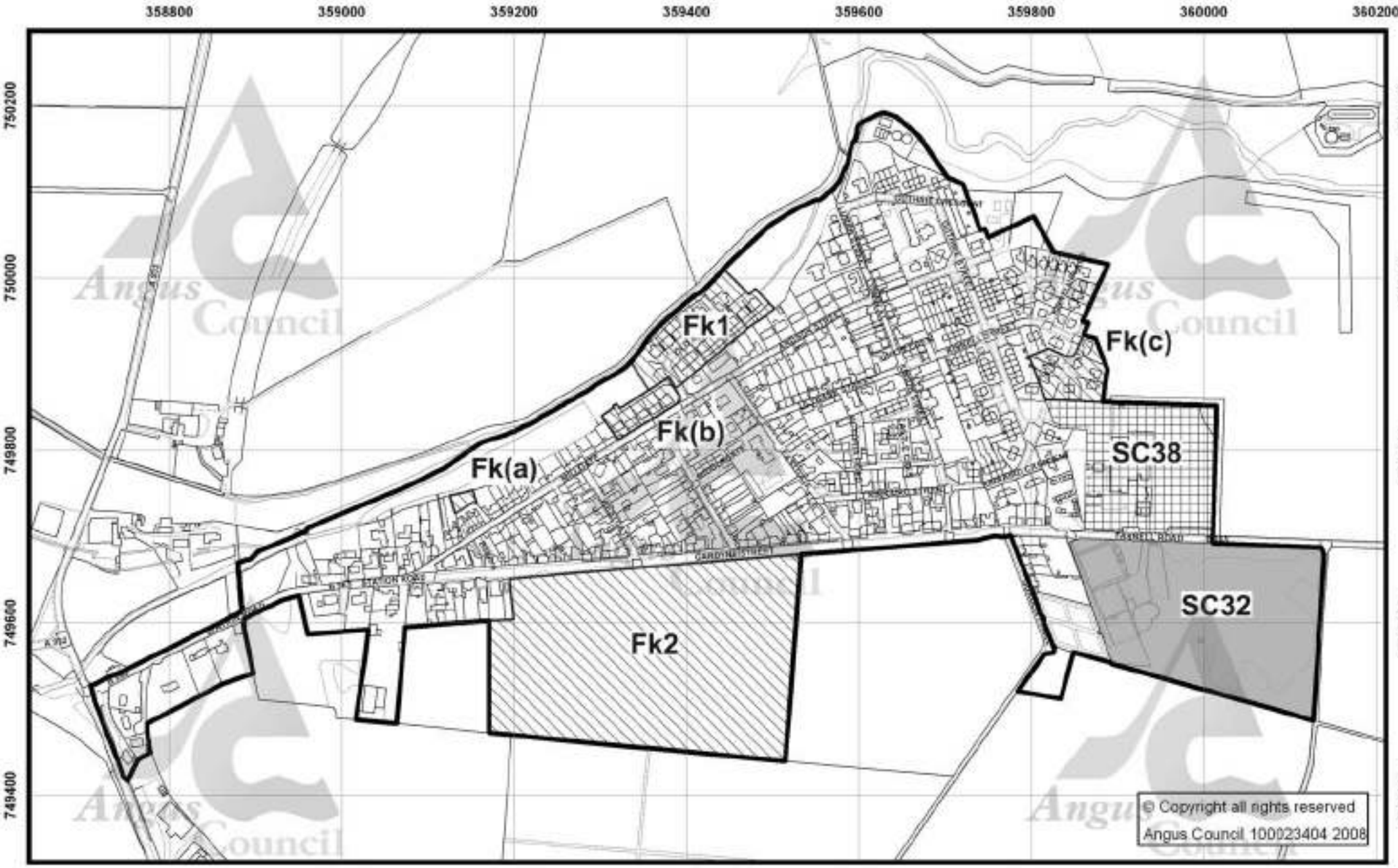


Fowlis Easter

Angus Local Plan Review

0 25 50 100 Metres

N W E S



Friockheim

Angus Local Plan Review

0 65 130 260 Metres

N W E S

FRIOCKHEIM

1. As one of the larger villages within Angus, Friockheim is an important service centre providing a range of local services and employment. Being geographically central in Angus the village also has a commuter role with many residents living in the village and working in other larger employment centres. Although small-scale infill and renewal projects have come forward within the village, recent new housing development has focused mostly at the eastern end of Friockheim.

PROFILE

Role:

A large village with a good range of facilities serving a wide rural area.

Population:
Census 2001 – 820;
1991 - 896
% change 91/01 : -8.5.

Housing Land Supply June 2004:
existing - 13

Drainage:
constrained

Water Supply:
available

KEY ISSUES/DEVELOPMENT STRATEGY

2. The housing land allocations in the first Angus Local Plan have been largely developed. Only the site at Guthrie Street remains, and planning permission for nine houses was granted in September 2003. There is a limit on the level of new development which can come forward due to capacity constraints at the Friockheim wastewater treatment plant (WWTP). This Local Plan allows for further housing development of a scale that can be serviced and in a location in keeping with the character of the village, which will assist in meeting housing requirements to 2011 and supporting local services in Friockheim.

HOUSING

3. While there has been a slow but steady development of housing in Friockheim in recent years, there is currently an increasing interest in house building in the village. Recent development has focused on greenfield land to the east/north-east of the village but the existing road network serving this part of the village has now reached capacity.

EXISTING SITES

4. Sites with planning permission or under construction as identified in the Housing Land Audit June 2004, are shown in Table 1.

Table 1 : Existing Sites

(a) Millgate 1	3
(b) Millgate 2	1
(c) Kinnell Gardens	9
Total	**13**

NEW ALLOCATIONS

5. Table 2 summarises new allocations of housing land which will contribute towards meeting the Structure Plan allowances to 2011.

Table 2 : New Allocations

Fk1 : Millgate 3	16
Fk2 : South of Gardyne Street	40
Total	**56**

6. The site at Millgate is subject to three separate but related planning applications. An outline planning application for most of the site was approved in January 2004, subject to a Section 75 Agreement and the resolution of outstanding layout/housing number details in any subsequent planning application for reserved matters. Full planning applications for two individual houses within site Fk1 : Millgate 3 were approved in December 2004.

Fk1 : Housing – Millgate 3

Approximately 1.4 ha at the former mill site is reserved for 16 houses. *(Planning permissions for this development were granted in November 2004 and July 2005)*

Fk2 : Housing – South of Gardyne Street

7.4 ha of land south of Gardyne Street is allocated for a development of 40 houses (including 8 affordable), a site for a health centre, open space, and servicing and car parking for the Co-op store.

Proposals should be in accordance with the development brief which will be prepared for this site which will include details of the following requirements:-

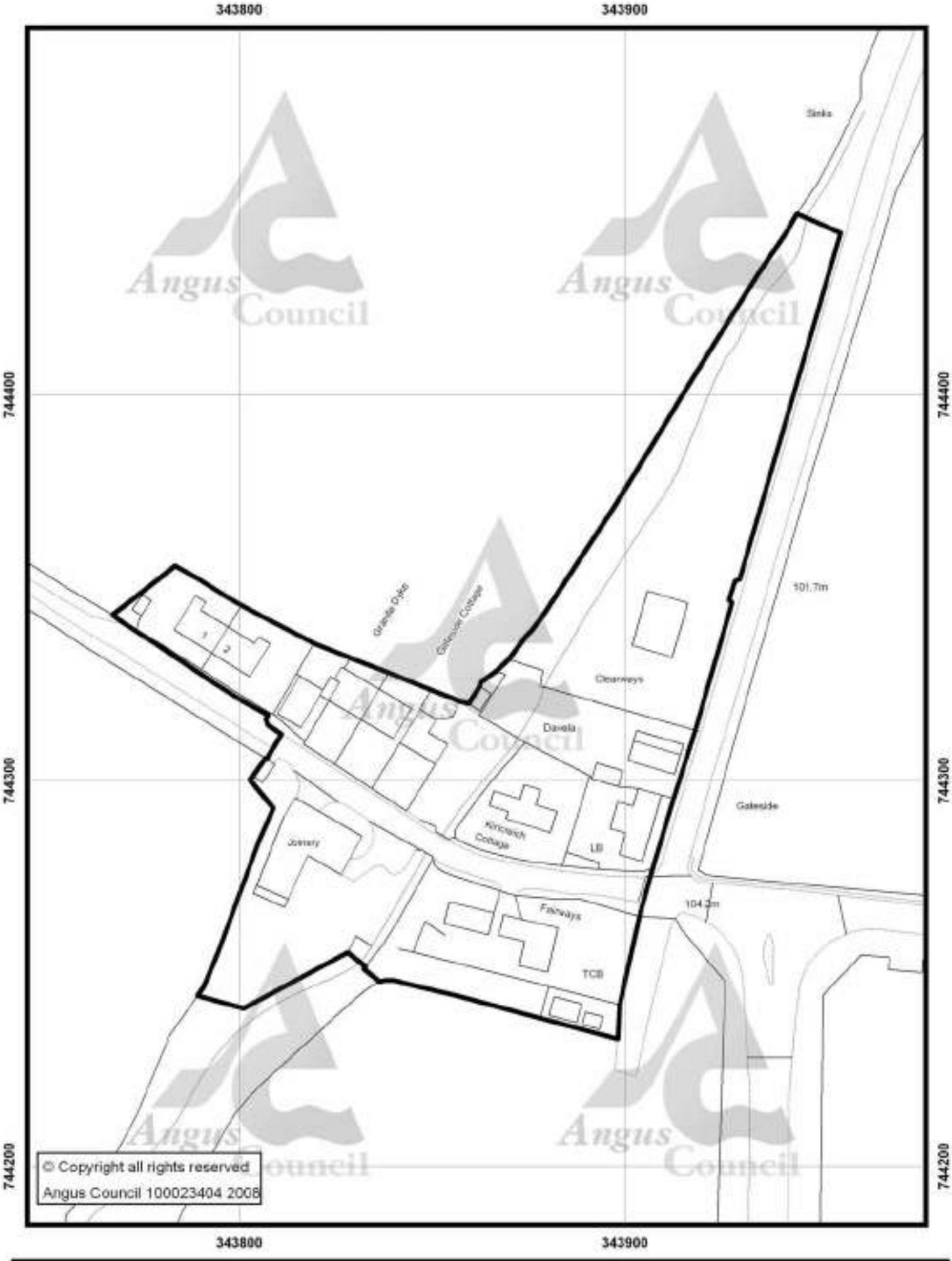
- **provision of a site for a health centre, dedicated car parking and land, to be retained as open space until required, for a future extension to the health centre;**
- **provision of rear servicing access and dedicated customer parking for the Co-op store;**
- **two point access from the B965, improvements to Gardyne Street including roundabout, realignment of parking bays, traffic islands and traffic calming to the specification of the Director of Infrastructure Services;**
- **provision of foul and surface water drainage;**
- **open space provision including amenity open space, play space and tree belt along Gardyne Street;**
- **landscape, footpaths and buffer zones around the site; and**
- **cycle and pedestrian linkages.**

ENVIRONMENT

7. The area of the former millpond and the Vinny/Lunan Water are attractive features within the village. The redevelopment site for housing at Millgate provides an opportunity to reinstate the millpond and could enhance public access along the Lunan.

Fk4 : Lunan Water

Angus Council in conjunction with local organisations, developers and landowners will continue to promote the environmental enhancement of, and access to, the Lunan Water for recreational use.

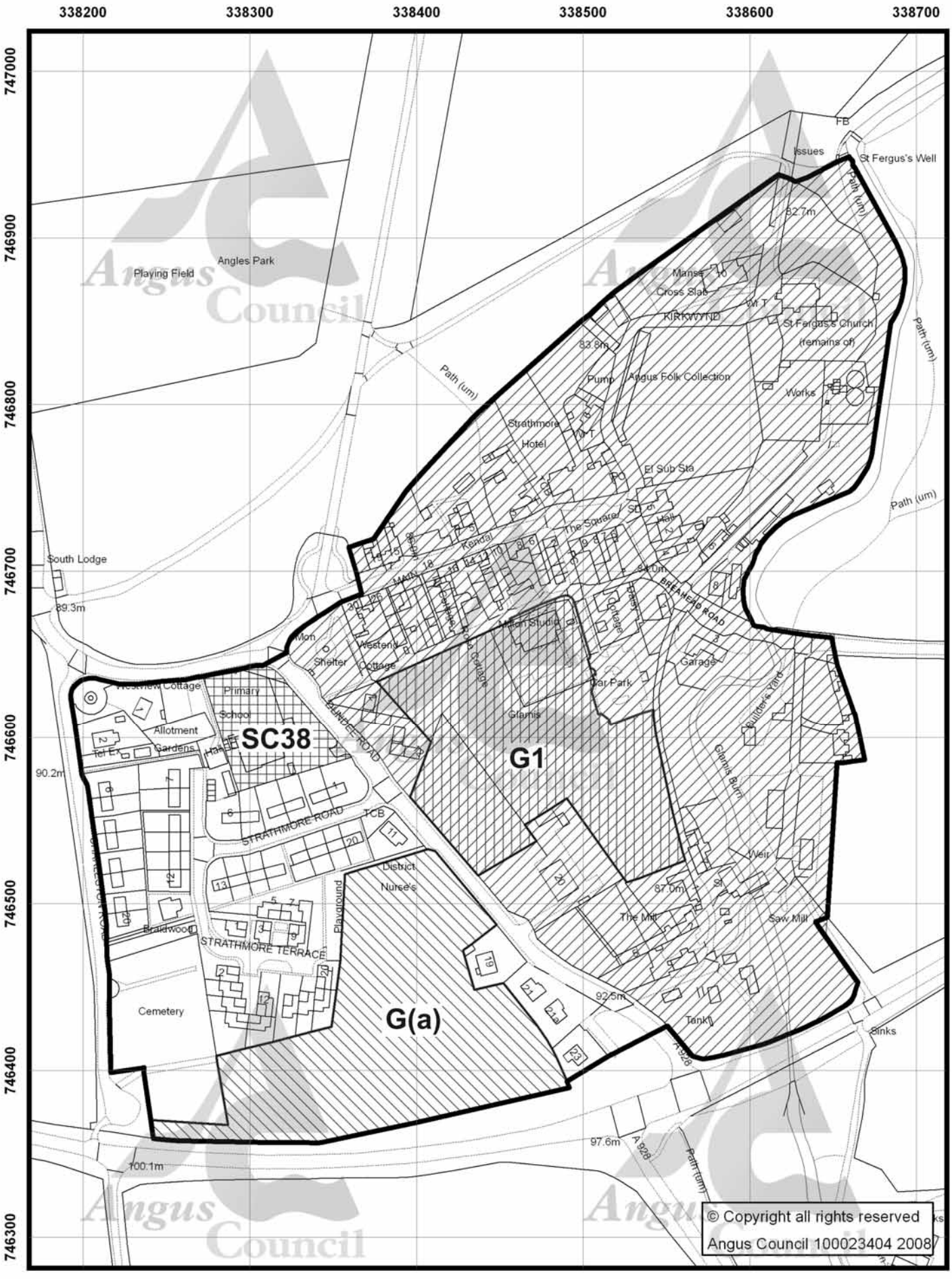


Gateside

Angus Local Plan Review

0 12.5 25 50 Metres

N W E S



Glamis

Angus Local Plan Review

0 37.5 75 150 Metres

N W E S

GLAMIS

1. Glamis is valuable to the tourism economy of Angus. The village sits at the gates of Glamis Castle, home of the Earl of Strathmore. Any future development should be of a high quality which respects the historical character and setting of the village and does not detract from its role as a focus for tourism. There is scope for limited areas of new development within the village which if sensitively designed will complement the existing village. Modest new housing development and the potential to accommodate local business or tourism uses are provided for.

PROFILE

Role:
Glamis is the focus of the Glamis Estate, located 8km to the west of Forfar. The village has a small population but is a popular tourist destination and therefore supports a range of valuable services for local people and visitors.

Population:
Census: 2001 – 233;
1991 - 259;
% Change 91/01 : -10.04.

Housing Land Supply June 2004:
existing - 24.

Drainage:
Capacity for additional development may be limited.

KEY ISSUES

2. The issues for Glamis are:

- To allow for limited new development which does not compromise the role of the village as a significant tourist location;
- To promote high quality development which complements the conservation area and wider heritage value of the village.
- The limited capacity of the Waste Water Treatment Plant that is a constraint to further development in Glamis

DEVELOPMENT STRATEGY

3. The strategy for Glamis seeks to:-

- Support the development of new housing at Dundee Road;
- Safeguard an area suitable to accommodate new local business and/or tourism uses;
- Encourage ongoing environmental improvements within the village having regard to its status as an outstanding conservation area;
- Continue to support the valuable tourism role of the village by making provision for additional facilities or services in support of that function.

GENERAL

4. The Waste Water Treatment Plant (WWTP) serving Glamis has capacity issues. The site at Dundee Road West was allocated in the first Angus Local Plan as a housing allocation, but limited to 24 houses. Planning permission has now been granted for this project, and consequently the drainage threshold for Glamis has now been reached. Further development will depend on investment in the WWTP although there is no project in Scottish Water's Investment Plan to resolve this issue. Angus Council will press Scottish Water for resolution of this drainage problem to enable appropriate future development and the attraction of new investment to Glamis.

HOUSING

EXISTING SITES

5. Sites with planning permission or under construction as identified in the Housing Land Audit June 2004, are shown in Table 1.

Table 1 : Existing Sites

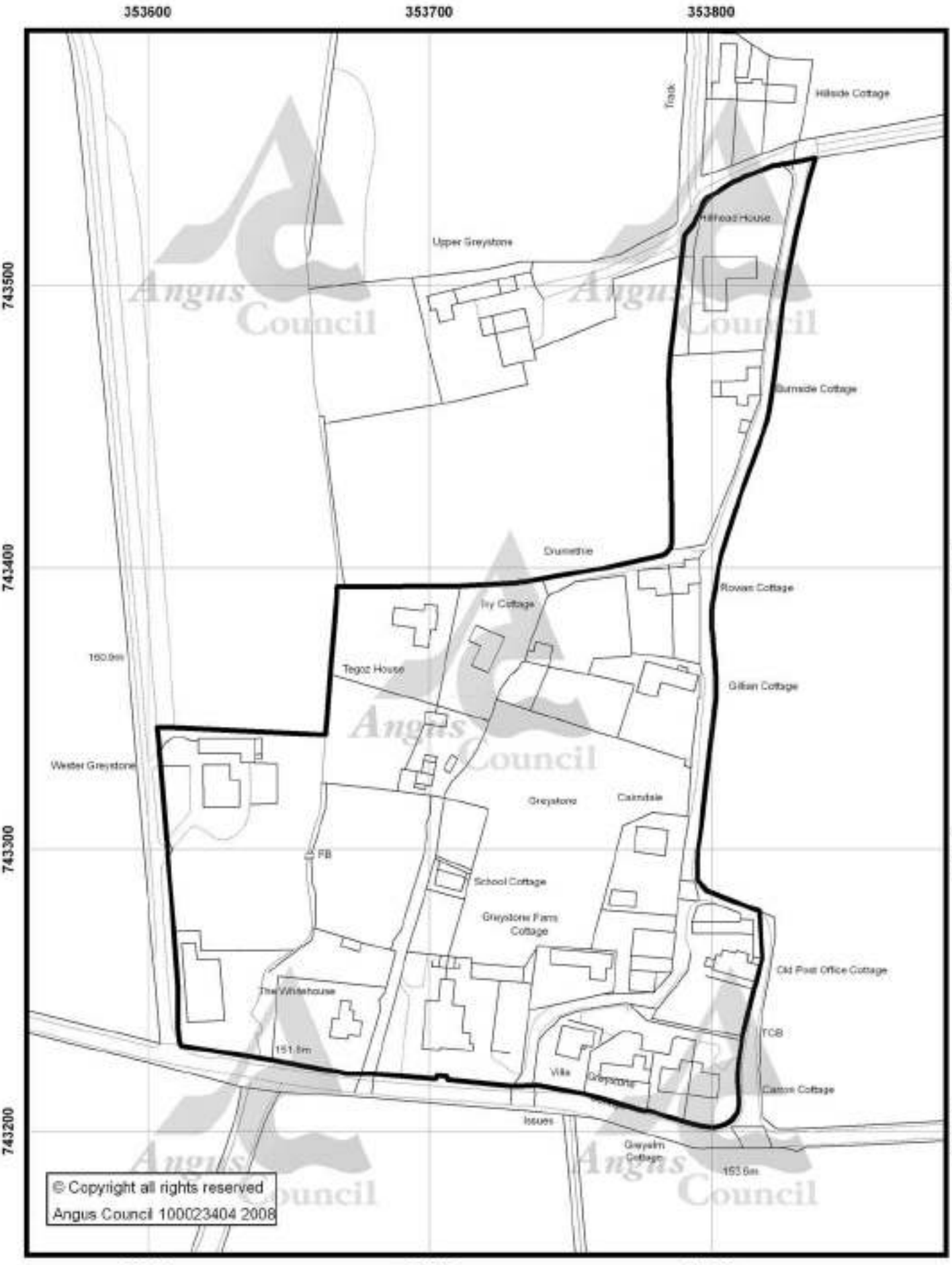
(a) : Dundee Road West	24
Total	**24**

WORKING/TOURISM

6. An area of land in the heart of Glamis may be appropriate for local employment/tourism related development in support of the village. Notwithstanding the potential benefits to the village, this proposal will be dependant on the availability of a connection to the drainage system.

G1 : Dundee Road East

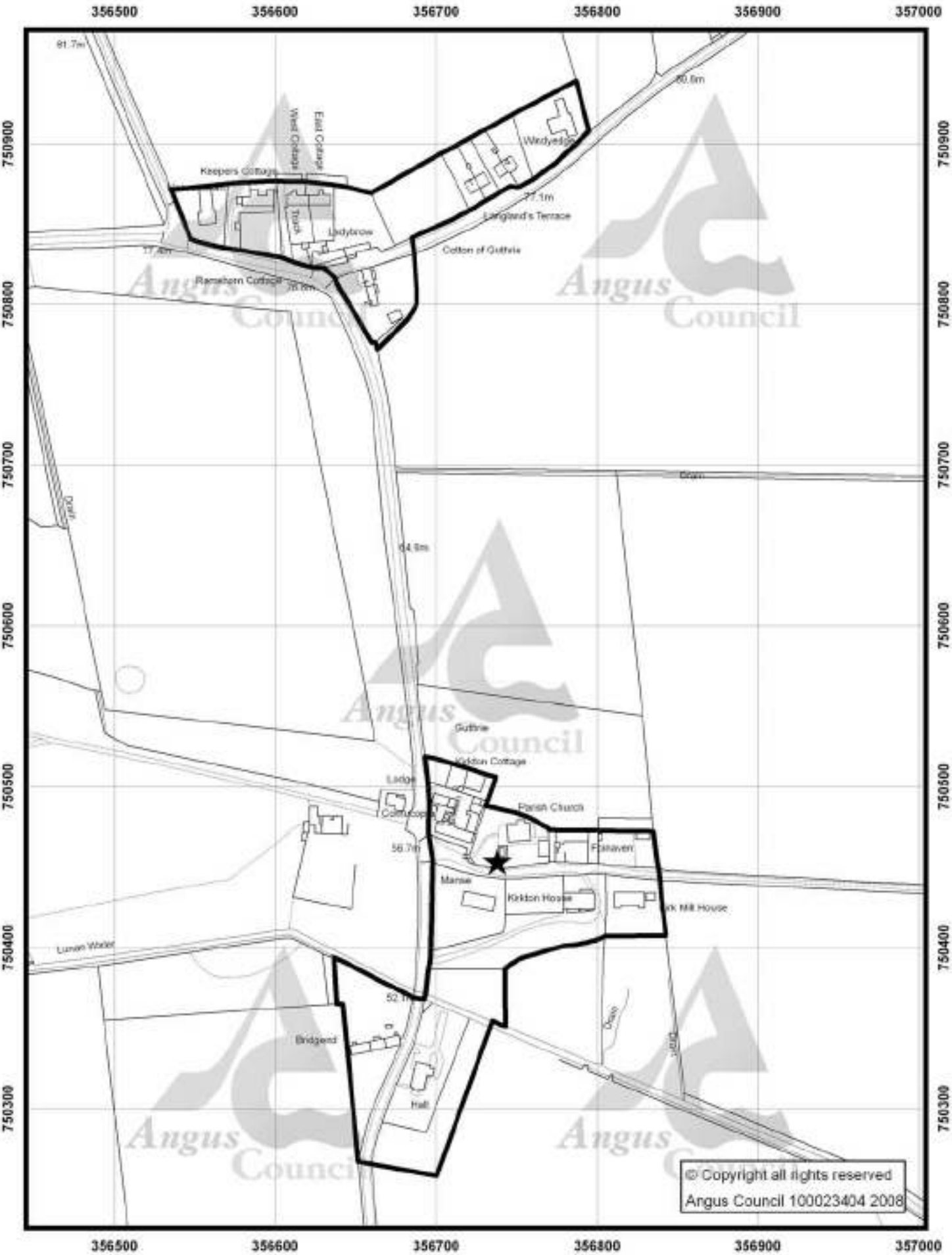
1.8 ha of land in the core of the village provides the opportunity for local business or tourist related development. There may also be scope to achieve a mixed development incorporating a limited number of houses as part of the overall scheme. Given the location within the conservation area, development proposals should incorporate the use of high quality design and materials, and have regard to the amenity of surrounding properties.



Greystone
Angus Local Plan Review

0 15 30 60 Metres

N W E S

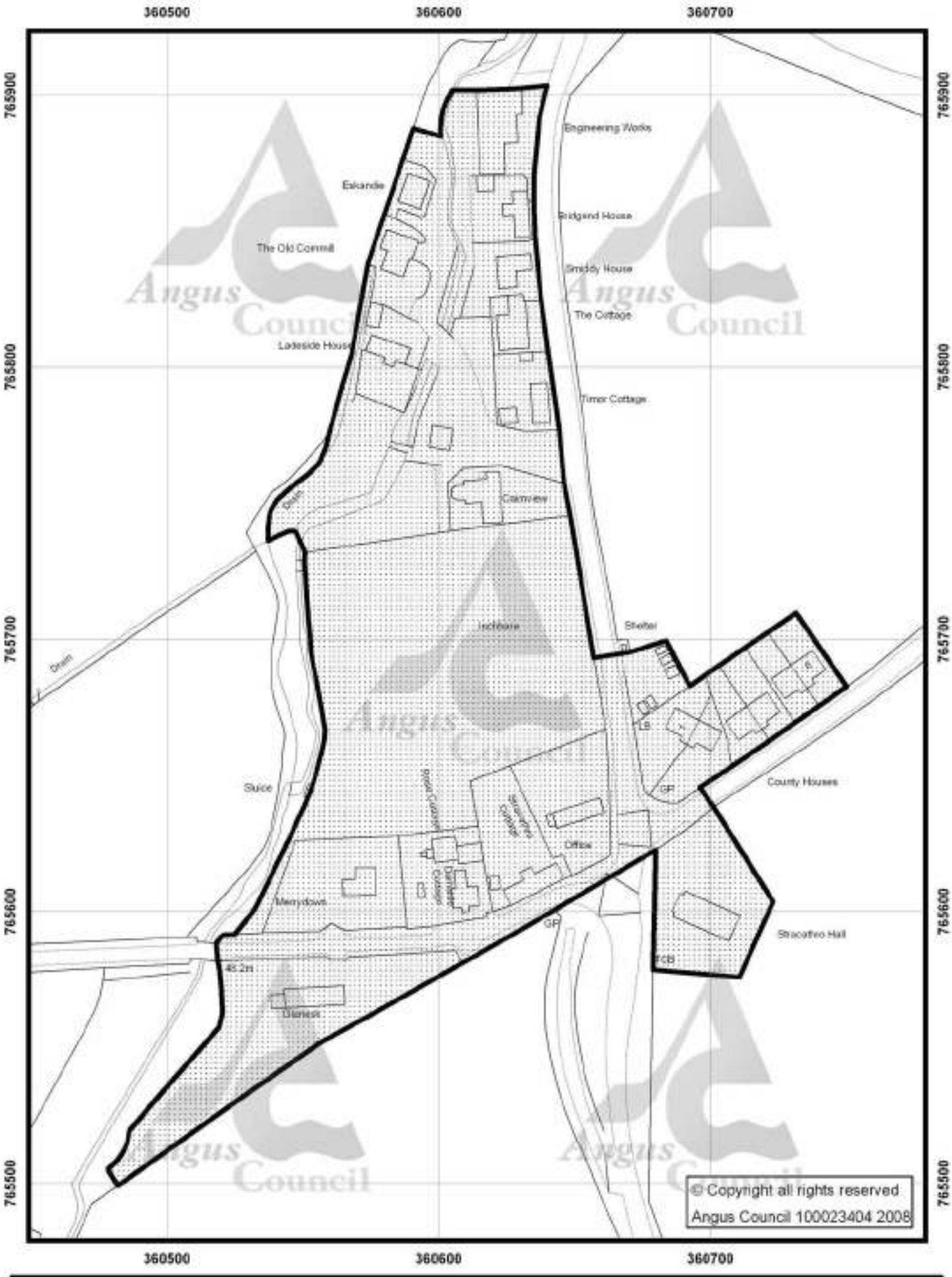


Guthrie, Cotton of Guthrie

Angus Local Plan Review

0 25 50 100 Metres

N W E S

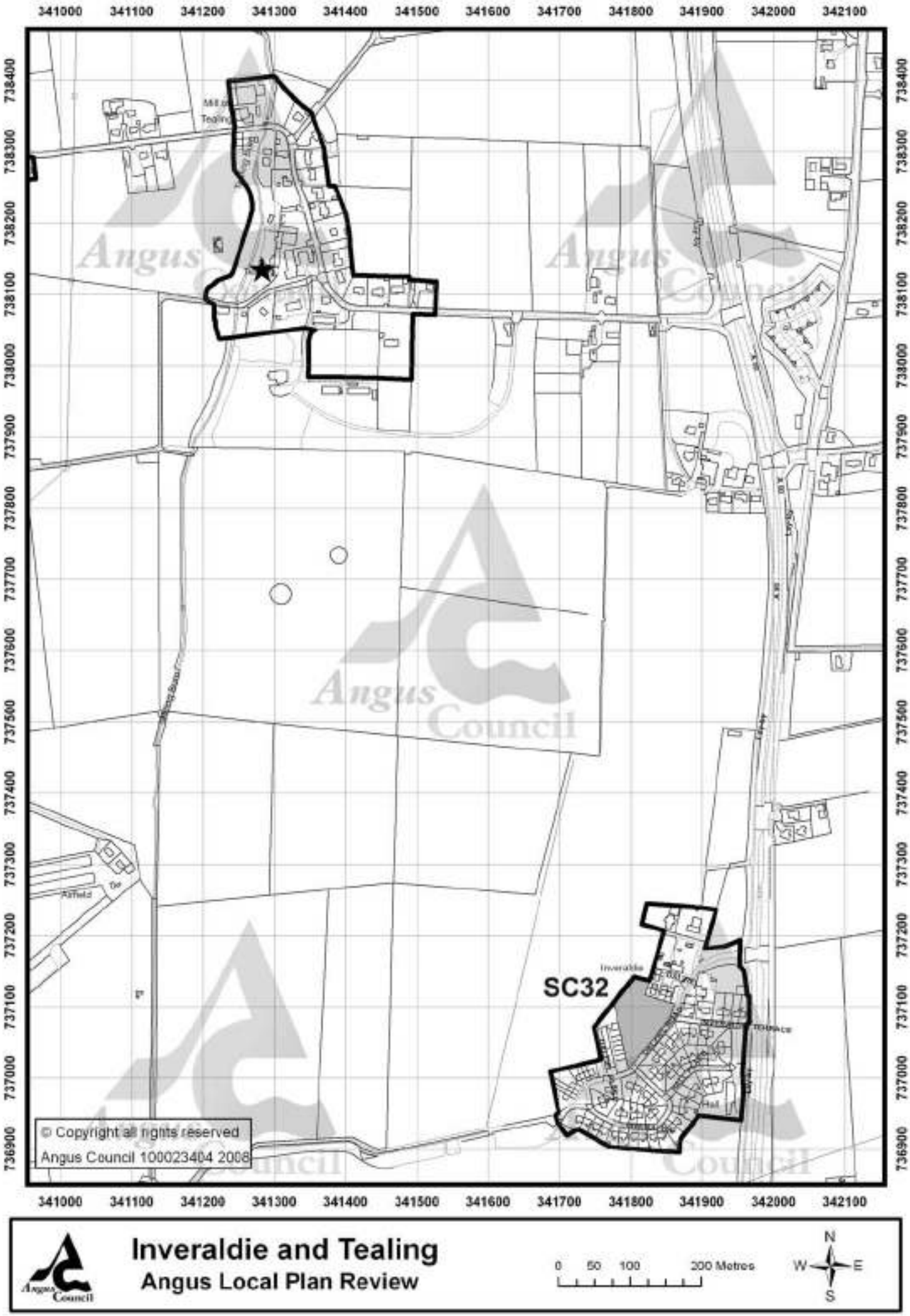


Inchbare

Angus Local Plan Review

0 20 40 80 Metres

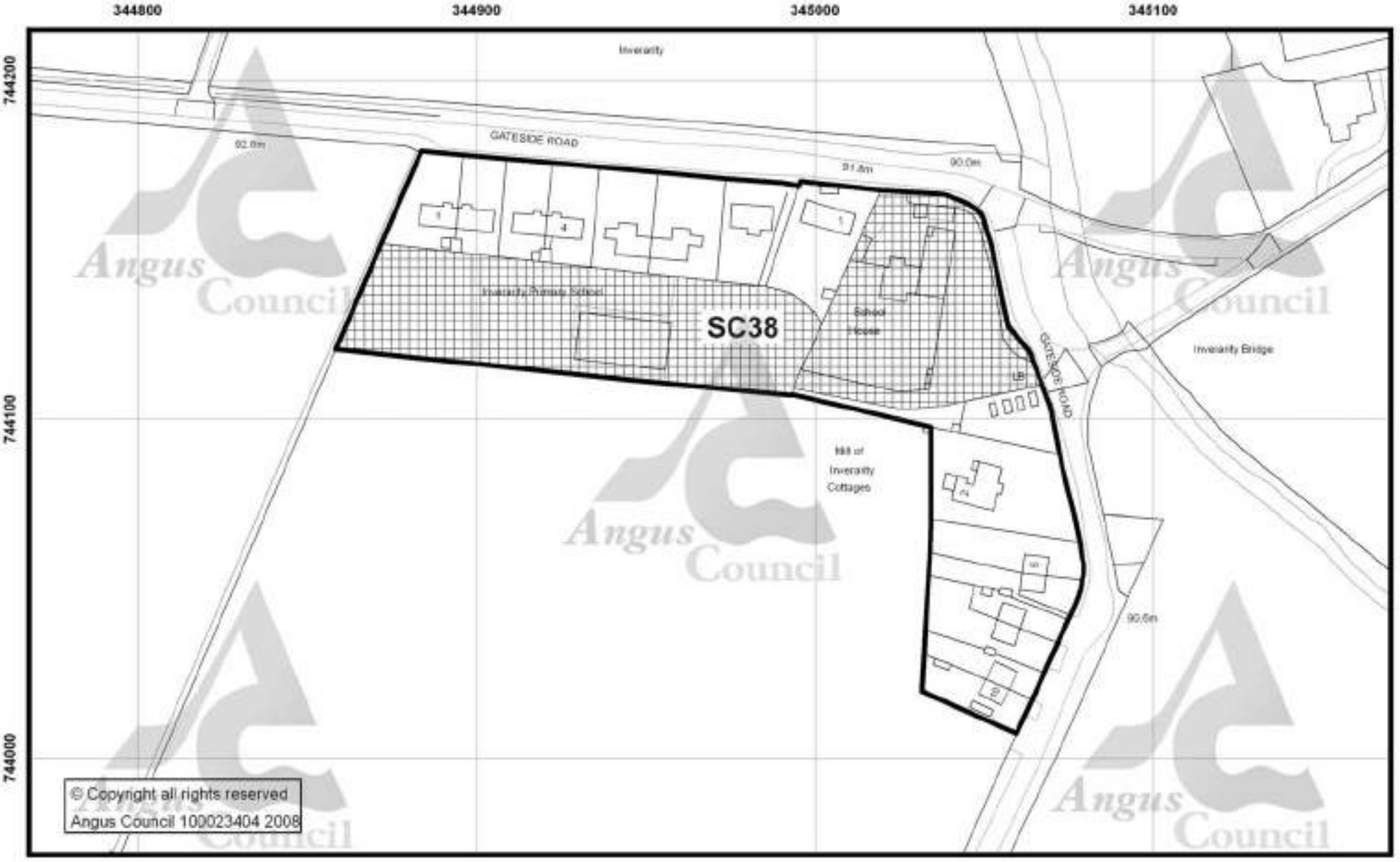
N W E S



Inveraldie and Tealing
Angus Local Plan Review

0 50 100 200 Metres

N W E S



Inverarity
Angus Local Plan Review

0 20 40 80 Metres

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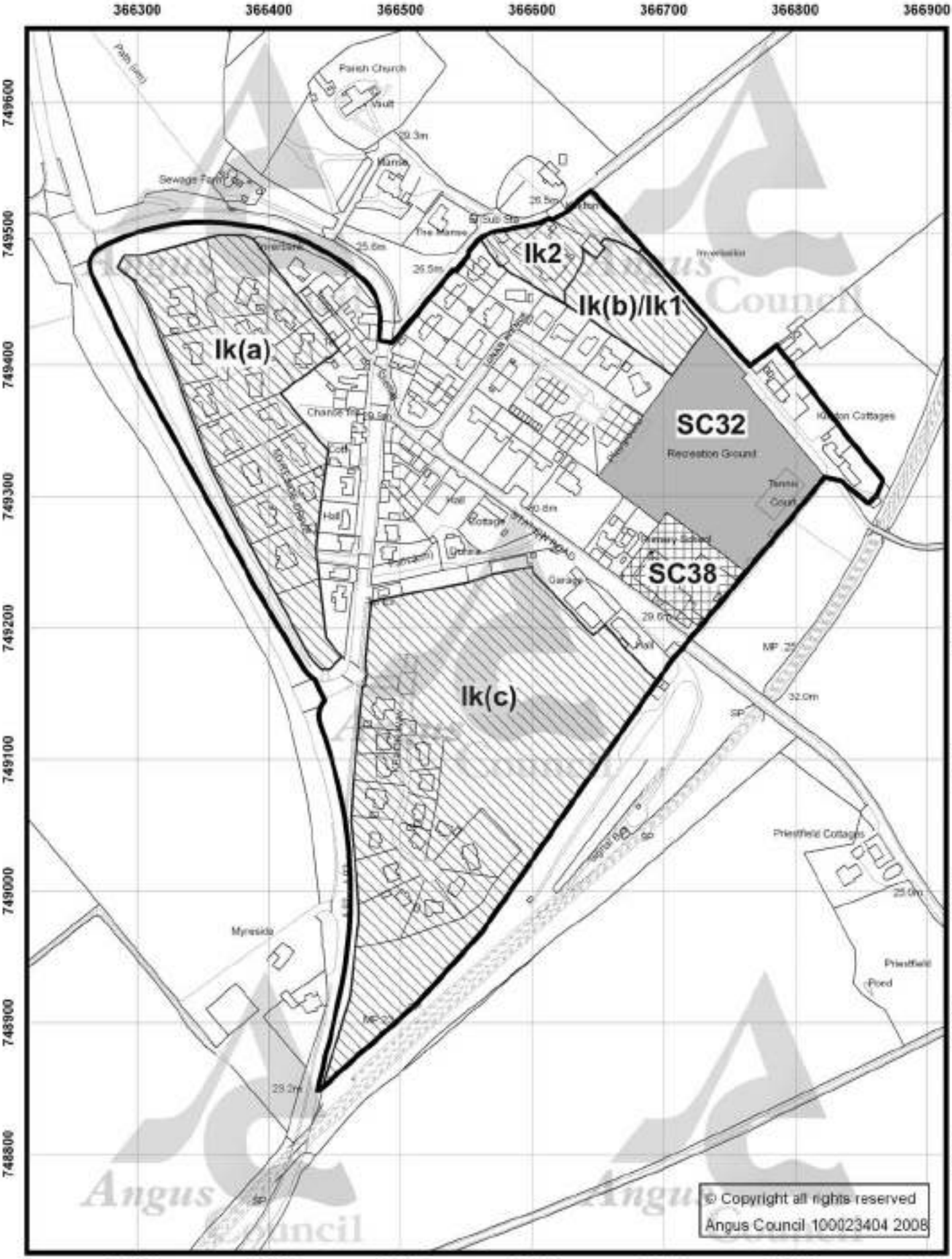
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Parish Church
Vault
Sewage Farm
The Manse
Sub Sta
Inverkeilor
lk2
lk(b)/lk1
lk(a)
lk(c)
SC32
Recreation Ground
Tennis Court
SC38
Primary School
Garage
Hall
Cottage
Priestfield Cottages
Priestfield
Pond
Myreside
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Angus Council 100023404 2008
Inverkeilor
Angus Local Plan Review
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INVERKEILOR

1. The village of Inverkeilor lies immediately to the east of the A92 almost midway between Arbroath and Montrose. While there is little employment locally other than agriculture, the village provides local services.

2. Development has been constrained in recent years by lack of drainage capacity. However the first Angus Local Plan secured infrastructure improvements that allowed new housing to come forward. Development of the Village Field has commenced and planning approval has been granted for the construction of 45 houses (including ten general needs housing association houses) at Railway Field. Although no new greenfield housing land allocations are being promoted, there may be opportunity for small sites within the village to be developed where drainage capacity is available.

KEY ISSUE / DEVELOPMENT STRATEGY

3. The key issue for Inverkeilor is the maintenance of existing village services. The Local Plan seeks to provide for a level of development that will sustain support for local services and enhance the village.

HOUSING

4. The first Angus Local Plan, in support of community opinion, allocated two sites for housing development that would enable the drainage constraint affecting the village to be removed and support existing village services. Work has now commenced at Village Field (15 houses), the smaller of the two sites allocated. The reservation of land at Railway Field is continued and Kirkton Farm steading and the adjacent paddock are allocated for development.

EXISTING SITES

5. Sites with planning permission or under construction as identified in the Housing Land Audit June 2004, are shown in Table 1.

NEW ALLOCATIONS

6. Table 2 summarises new allocations of housing land which will contribute towards meeting the Structure Plan allowances to 2011.

PROFILE

Role:
Inverkeilor acts as a local centre for a large rural area. Its proximity to the A92 gives the village easy access to Arbroath

Population:
Census: 2001 - 409;
1991 - 357;
% change 91/01 : +15.

Housing Land Supply June 2004 :
existing - 51

Drainage:
constraint being removed by developer contributions

Water Supply: available

Table 1 : Existing Sites

(a) Village Field	4
(b) Lunan Avenue/ Kirkton Farm (*see Ik1 below)	2*
(c) Railway Field	45
Total	**51**

Table 2 : New Allocations

Ik1 :Lunan Avenue	4*
Ik2: Kirkton Farm Steading	3
Total	**7**

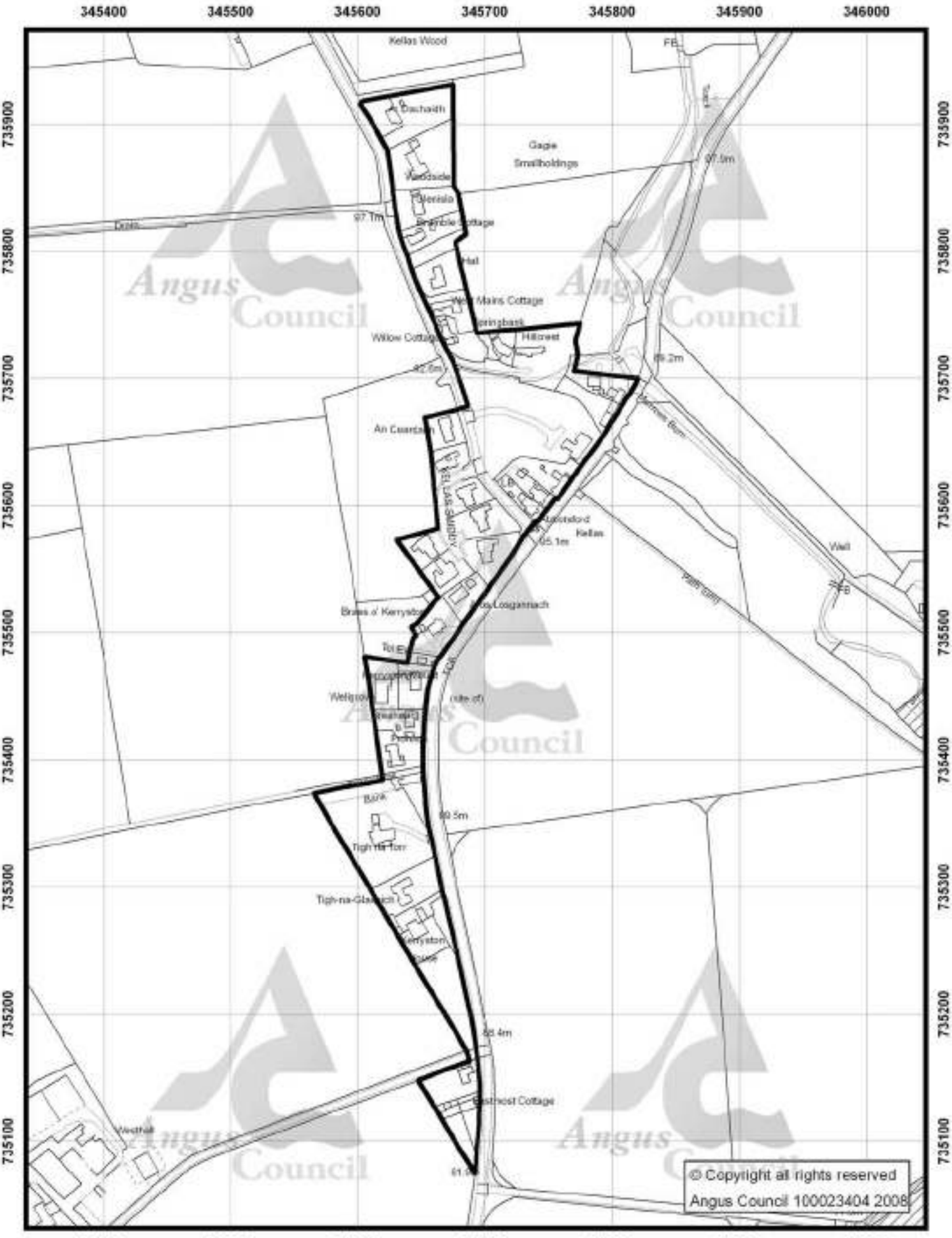
(*see Existing Sites above)

lk1 : Housing - Land to rear of Lunan Avenue

Approximately 0.5ha of land to the rear of Lunan Avenue is allocated for around 4 houses in addition to the existing planning permission for 2 houses indicated above under Existing Sites (Lunan Avenue/Kirkton Farm*), subject to available drainage and improved road access. This site could be developed together with the conversion of the adjacent disused farm steading (lk2) to form an attractive housing group.

lk2 : Housing - Kirkton Farm Steading

Opportunity exists to convert the Kirkton Farm steading to provide up to 3 houses, subject to available drainage and improved road access. No individual access will be allowed to Kirkton Road and the pavement on the east side of the road will require to be made up. This site could be developed together with the adjacent paddock (lk1) to form an attractive housing group.

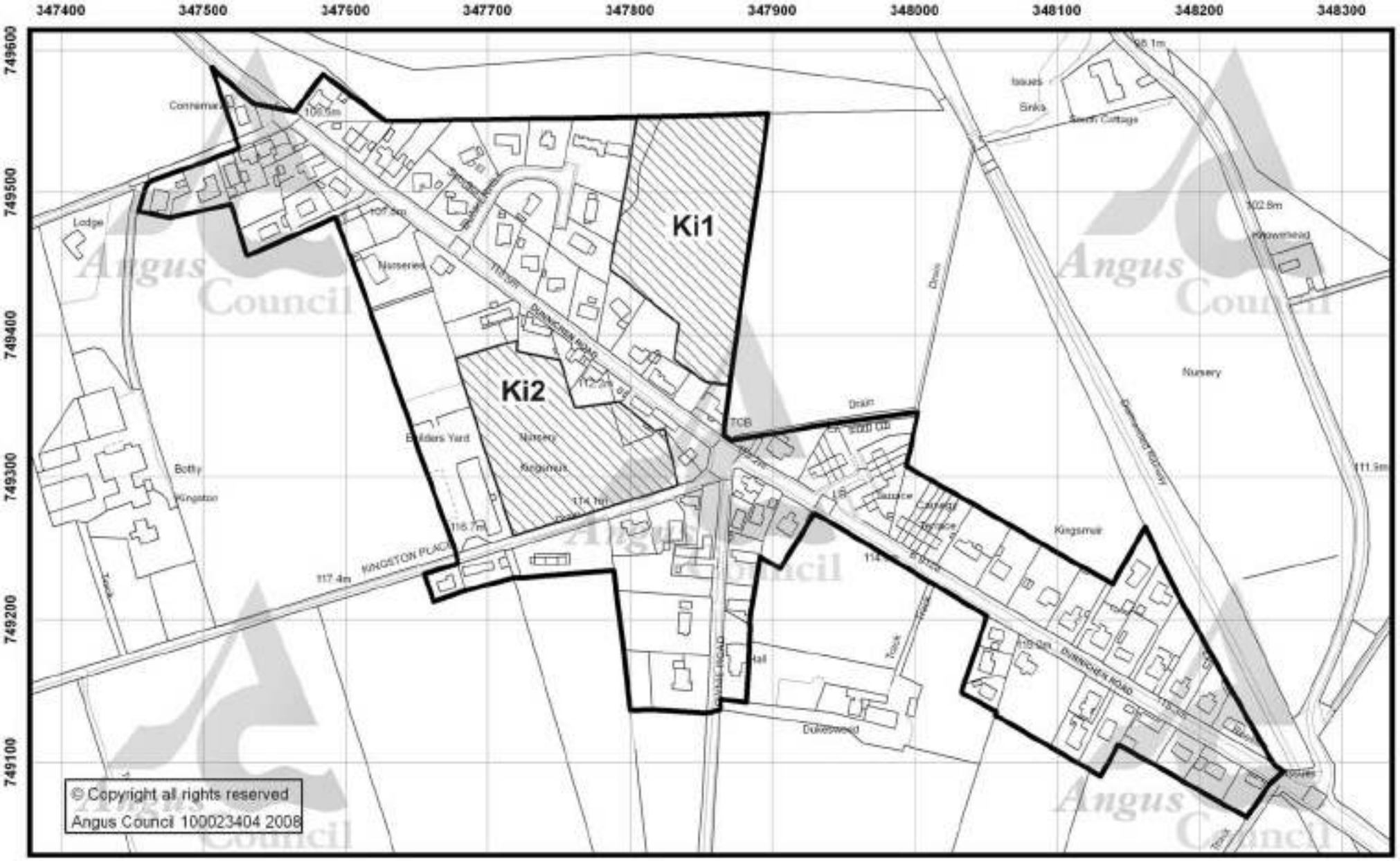


Kellas

Angus Local Plan Review

0 30 60 120 Metres

N W E S



Kingsmuir
Angus Local Plan Review

0 50 100 200 Metres

N W E S

KINGSMUIR

PROFILE

Role:
Kingsmuir is a popular residential village very close to Forfar.

Housing Land Supply June 2004:
allocated first ALP – 25.

Drainage:
Drainage constraint affecting village requires the completion of Phase 3 of the Forfar Sewers Renewal Scheme, programmed for completion in 2005.

1. Kingsmuir is a small dormitory settlement only 2.5km from Forfar. It has no basic services or facilities other than a village hall, and relies on the full range of services found in Forfar. There are small-scale employment uses in and around the village and there are regular daily bus services.

KEY ISSUES/DEVELOPMENT STRATEGY

2. There has been limited development in Kingsmuir in recent years. The village is connected to the public drainage system in Forfar and is affected by the drainage constraint which is in place in the south east of the town. Kingsmuir is a popular place to live and there has been some interest in sites for housing development. The strategy for Kingsmuir is to allow for limited new housing in the village, recognising there are no local services or facilities.

3. Given the location of Kingsmuir very close to Forfar, it is desirable to limit the amount of new housing development in support of the strategy of the Plan which directs the majority of new development to larger settlements. Following the Public Local Inquiry, the first Angus Local Plan allocated land at Bunkerhill for 25 houses. This Local Plan continues the allocation of this land, and includes a further housing site at Kingston Place, but shares the housing numbers for Kingsmuir between the two sites recognising the type of development which is likely to come forward.

4. Development of all sites in Kingsmuir is dependant on the satisfactory completion of Phase 3 of the Forfar Sewers Renewal Scheme which is indicated by Scottish Water for completion in 2005.

HOUSING

SITES PREVIOUSLY IDENTIFIED BY THE FIRST ANGUS LOCAL PLAN

5. The site in Table 1 was previously identified in the first Angus Local Plan. This Plan continues the allocation of this site for housing development, and where appropriate the wording of the proposal and/or the indicative yield from the site may have changed.

Table 1 : Sites from first ALP

Ki1: Bunkerhill	12
Total	**12**

Ki1 : Housing - Bunkerhill

1.5 ha of land at Bunkerhill is allocated for around 12 dwellings with a requirement for 15% of the capacity of the site to provide LCHO affordable housing. Development of this site should have regard to its location on the edge of the village and incorporate appropriate landscaping and boundary treatment. Vehicular access will be taken directly from the B9128 – Forfar/Carnoustie Road, and not from Bunkerhill Crescent.

NEW ALLOCATIONS

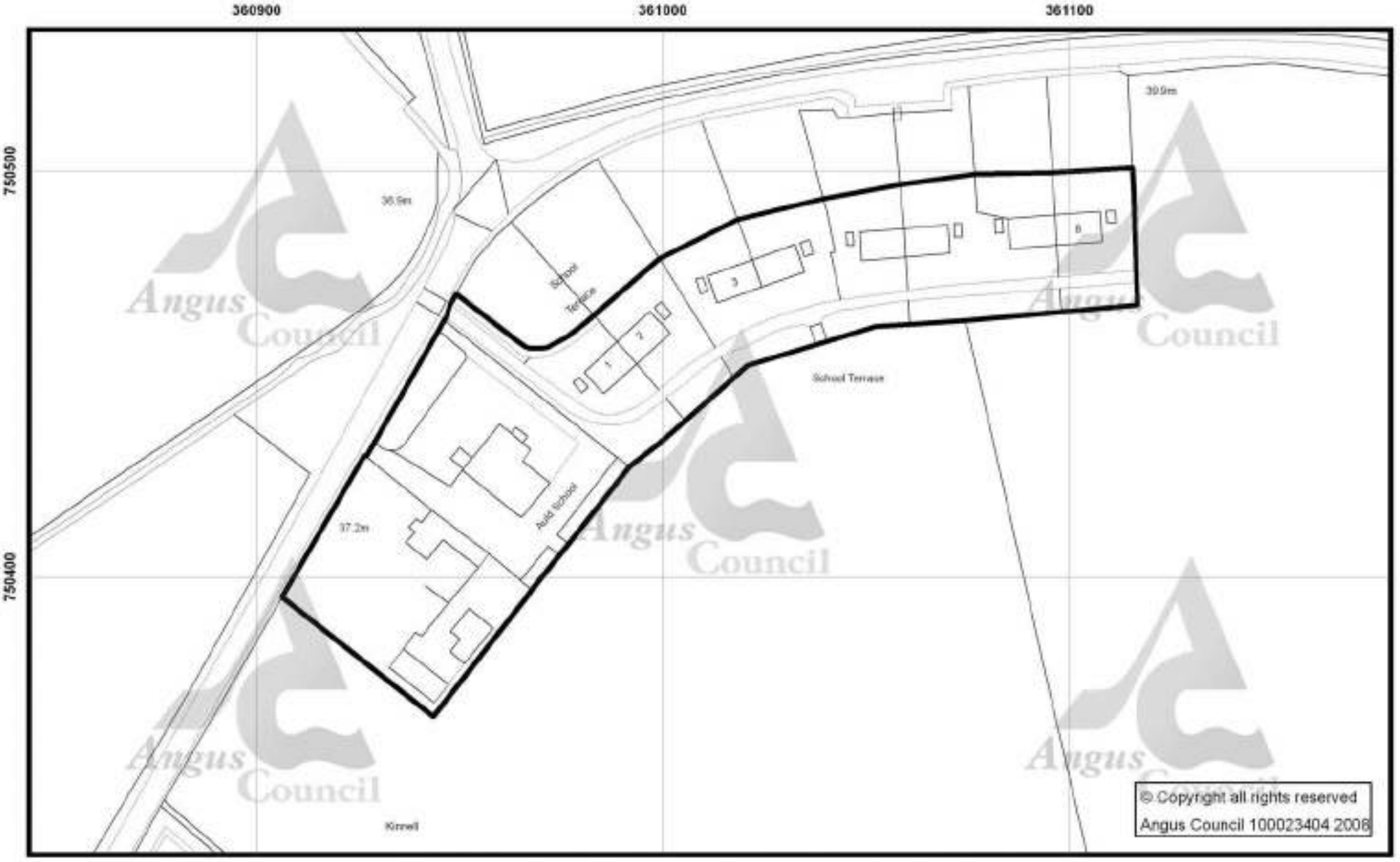
6. Table 2 summarises new allocations of housing land which will contribute towards meeting the Structure Plan allowances to 2011.

Table 2 : New Allocations

Ki2: Kingston Place	12
Total	**12**

Ki2 : Housing – Kingston Place

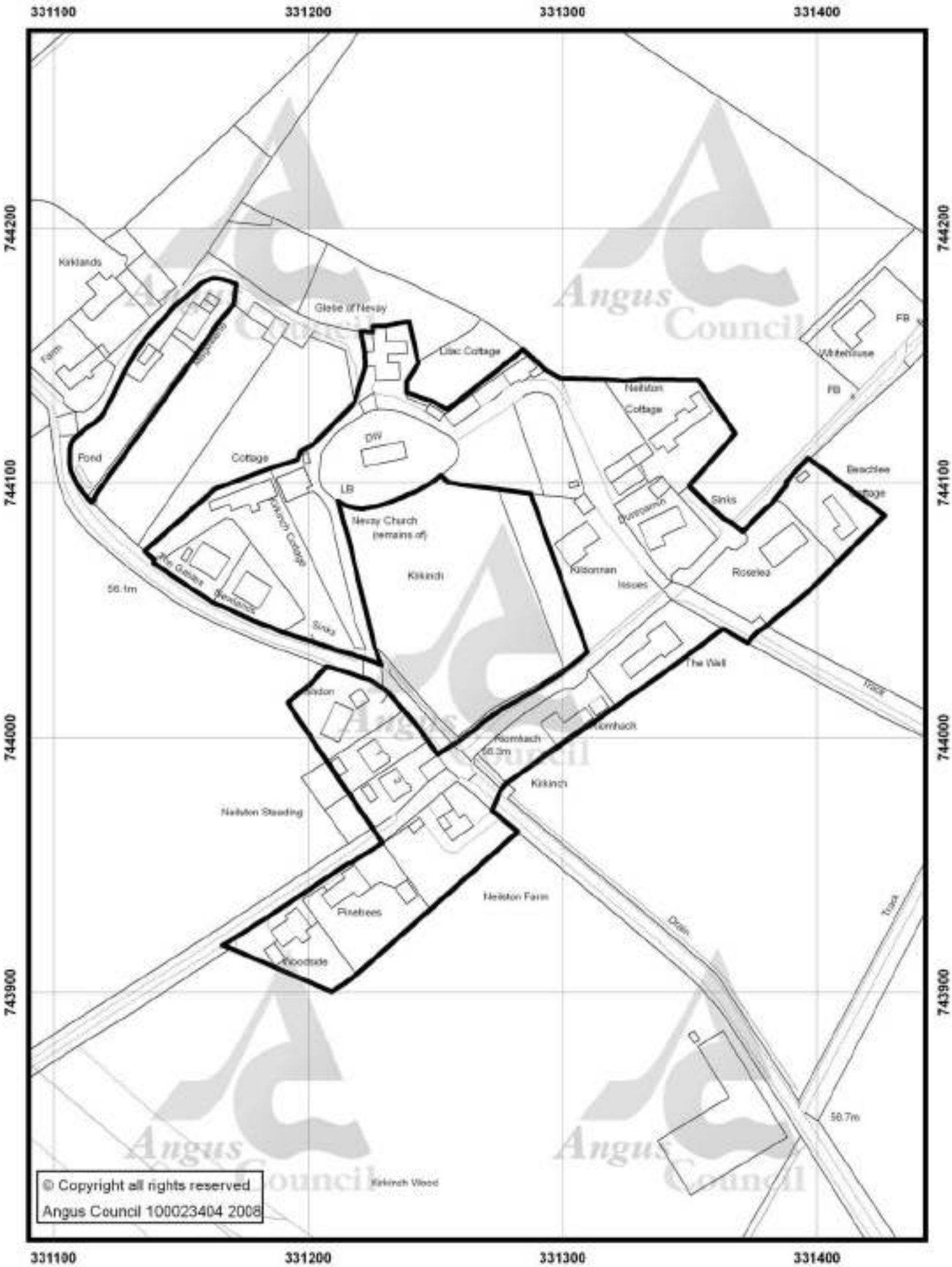
1.3 ha of land at Kingston Place is allocated for around 12 dwellings with a requirement for 15% of the capacity of the site to provide LCHO affordable housing. Kingston Place will require to be upgraded to Roads Authority standards to provide a suitable access to the site and the overhead electricity lines running along the Kingston Place boundary of the site will require to be rerouted.



Kinnell
Angus Local Plan Review

0 15 30 60 Metres

N W E S



Kirkinch

Angus Local Plan Review

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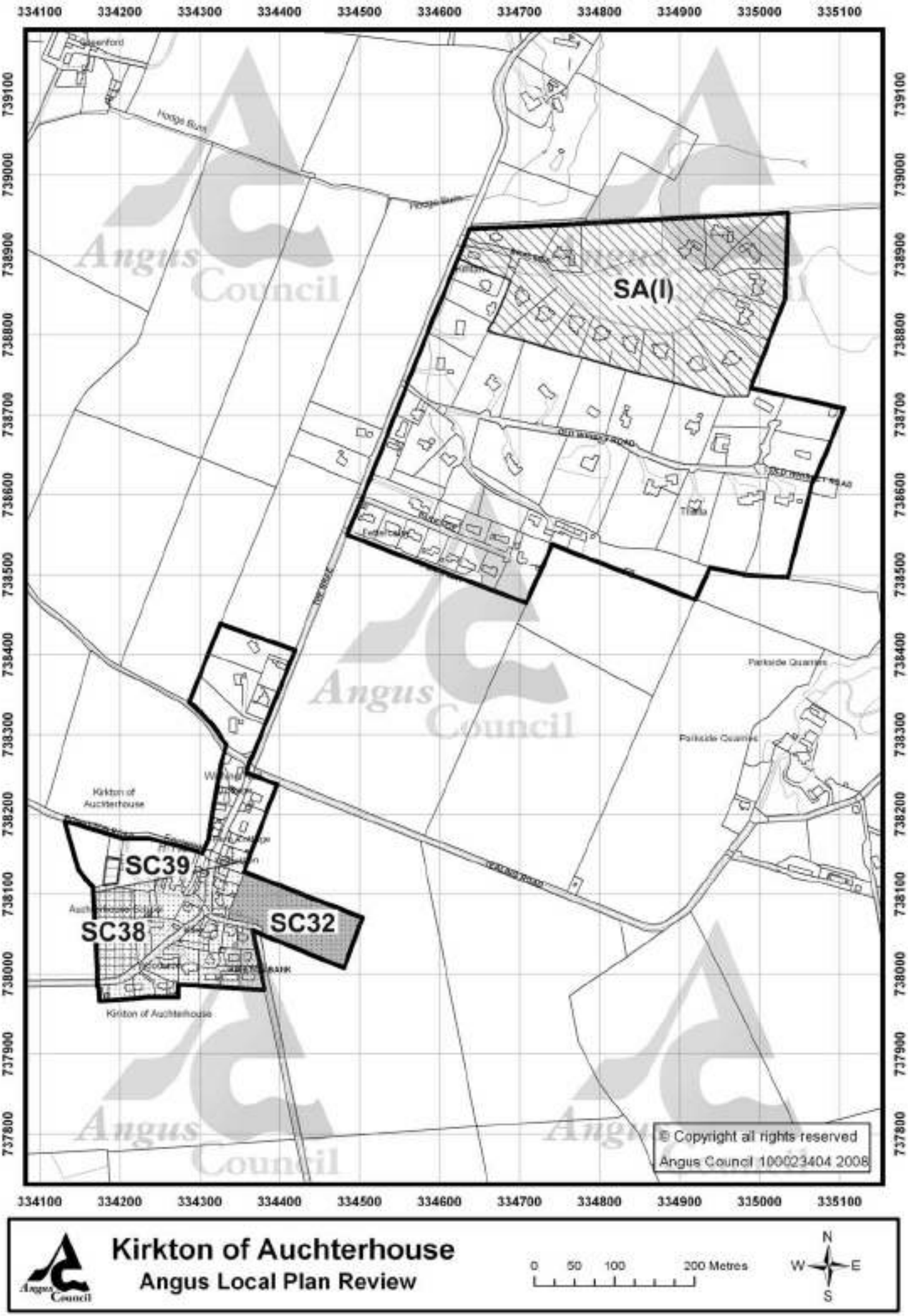

Kirkton of Auchterhouse

Angus Local Plan Review

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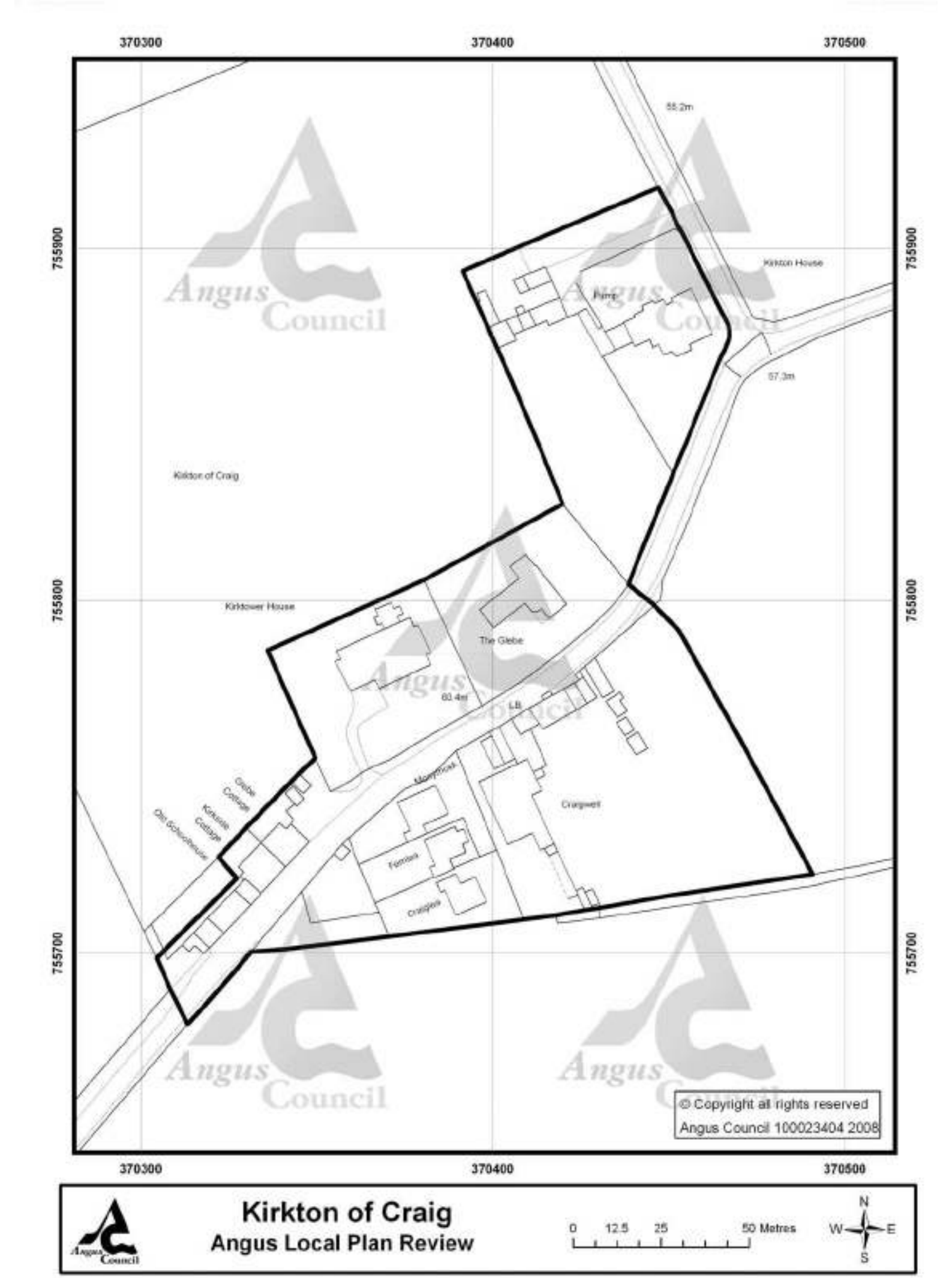
N W E S



Kirkton of Craig
Angus Local Plan Review

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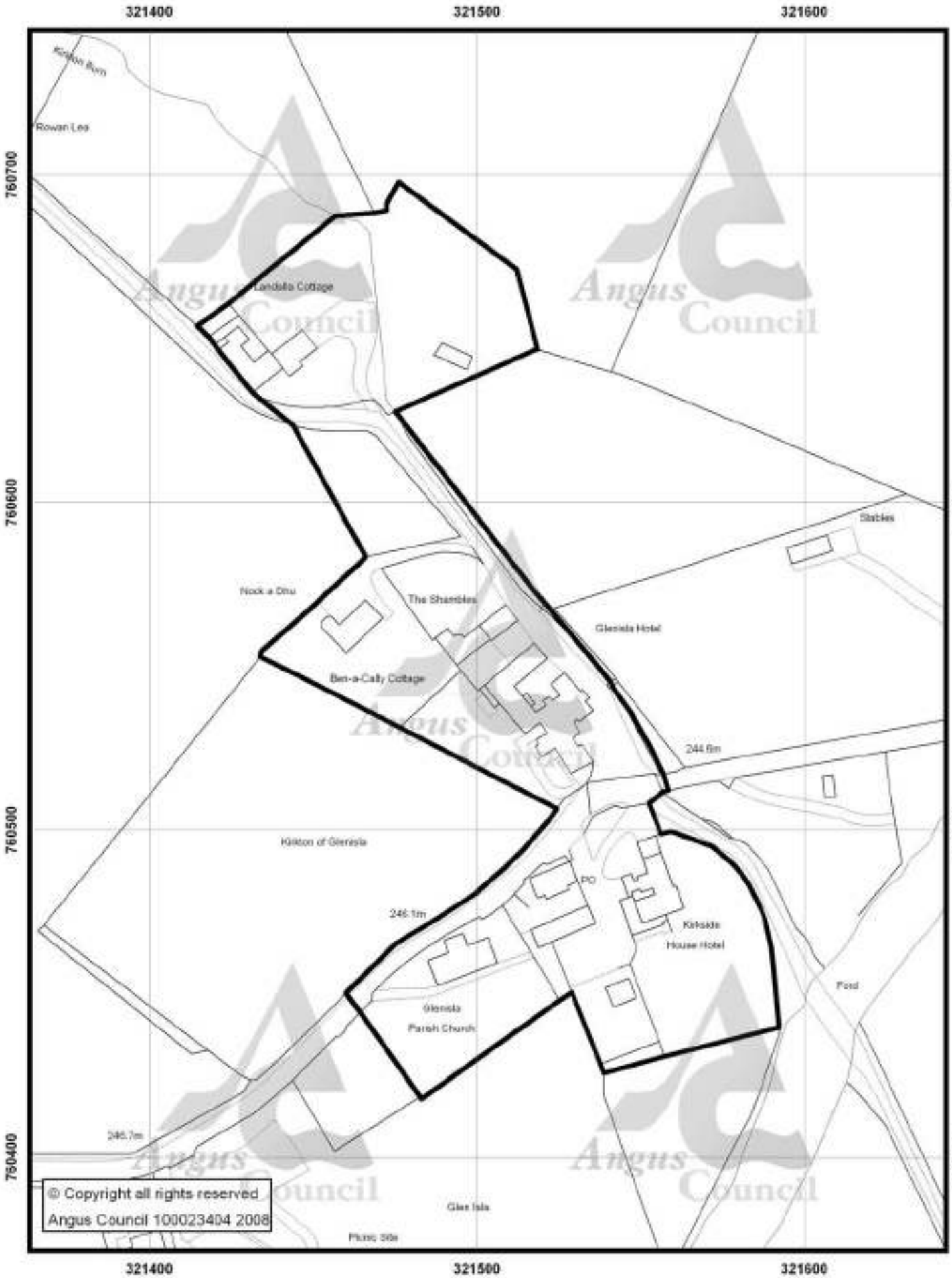

Kirkton of Glenisla

Angus Local Plan Review

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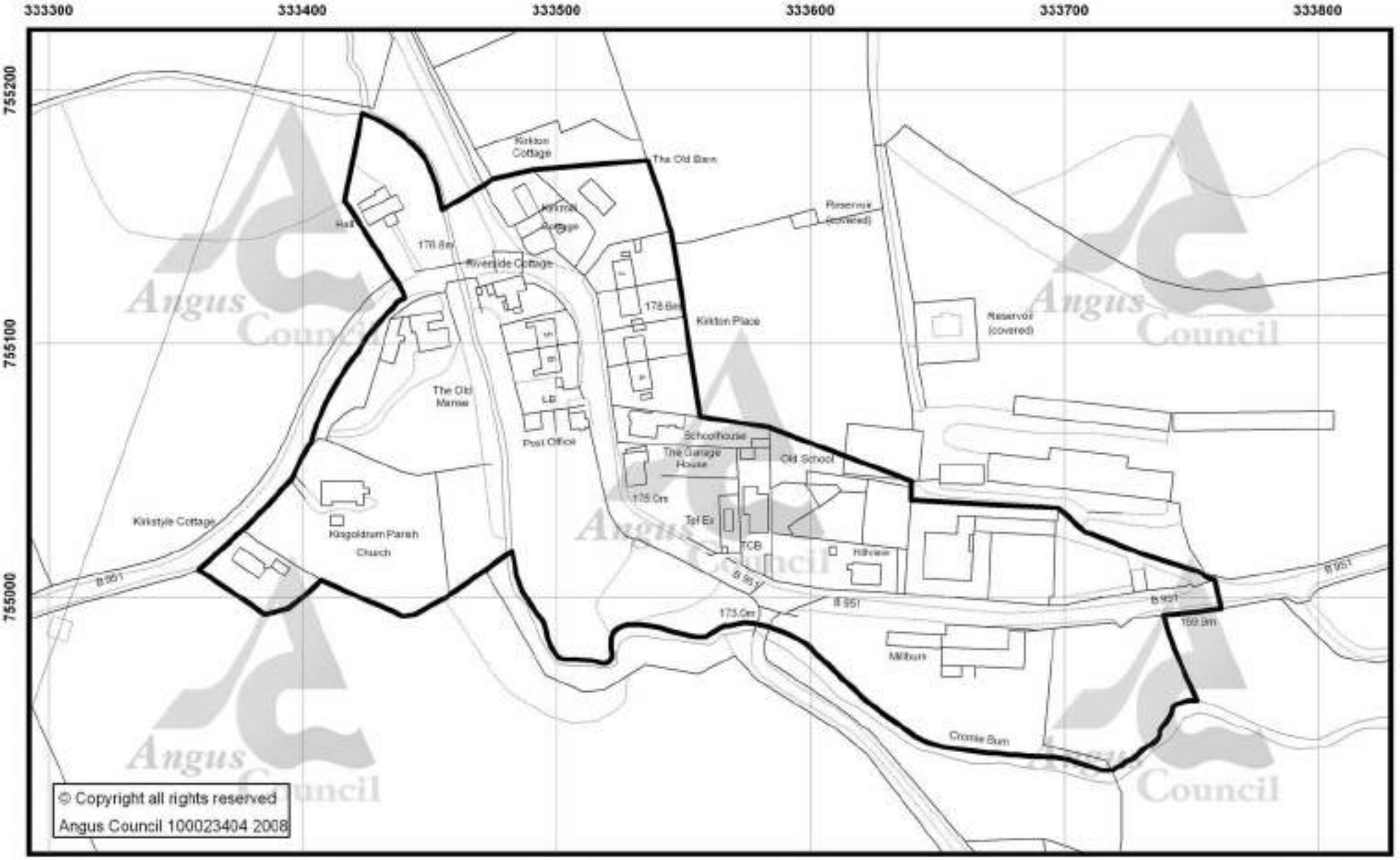
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The Old Manse
LB
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Schoolhouse
The Garage House
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Hillview
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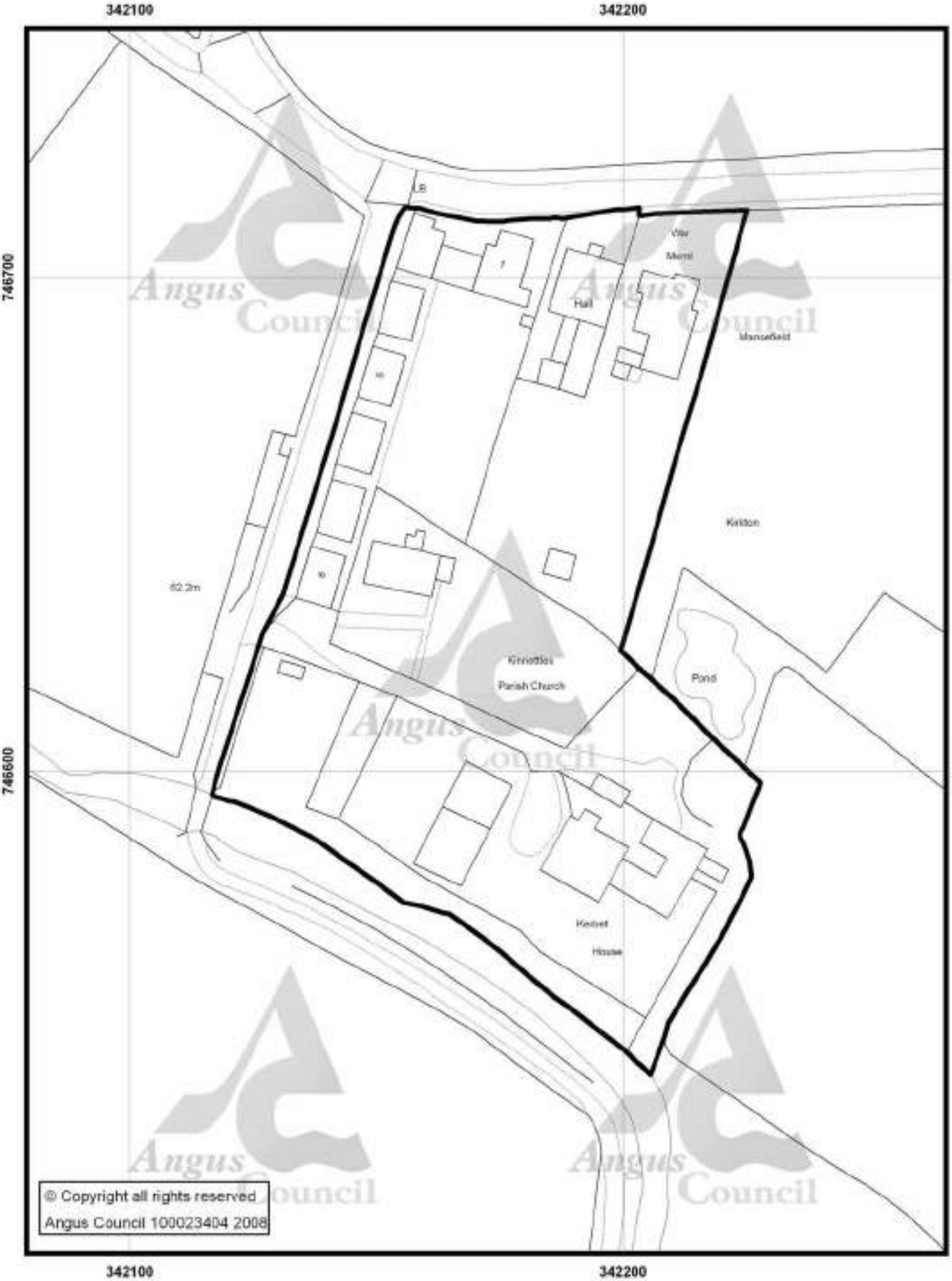
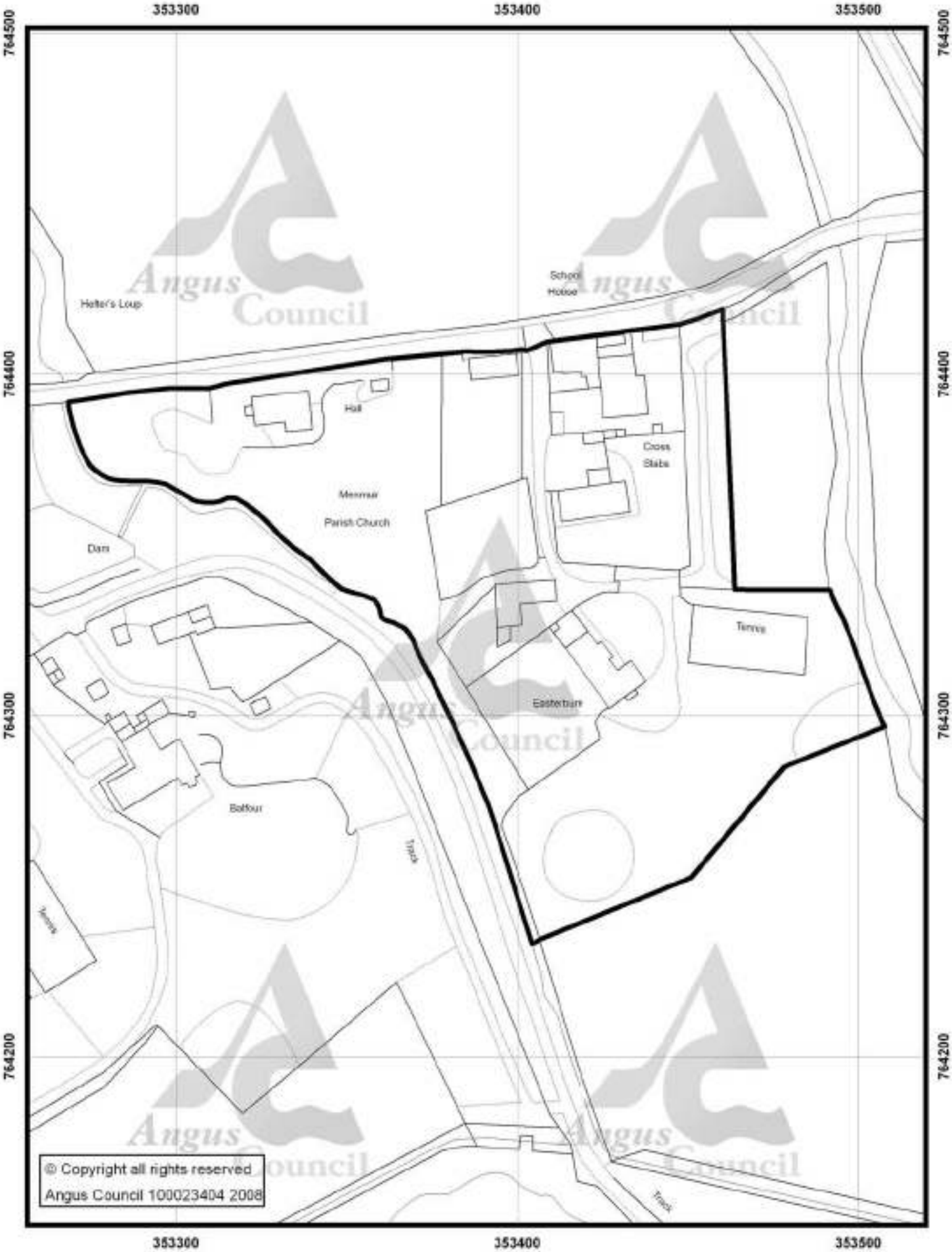


Kirkton of Kinnettles

Angus Local Plan Review

0 10 20 40 Metres

N W E S



Kirkton of Menmuir
Angus Local Plan Review

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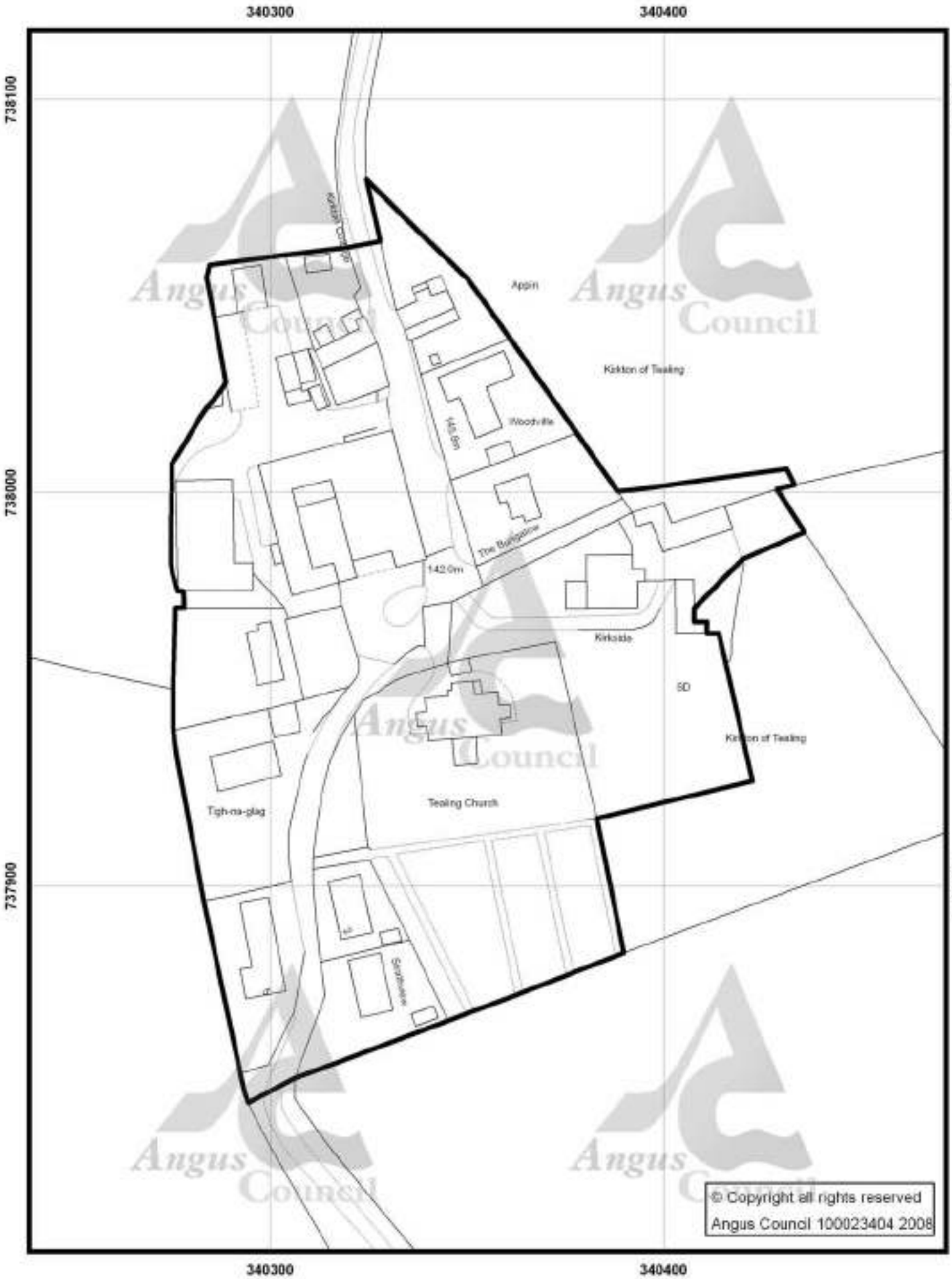
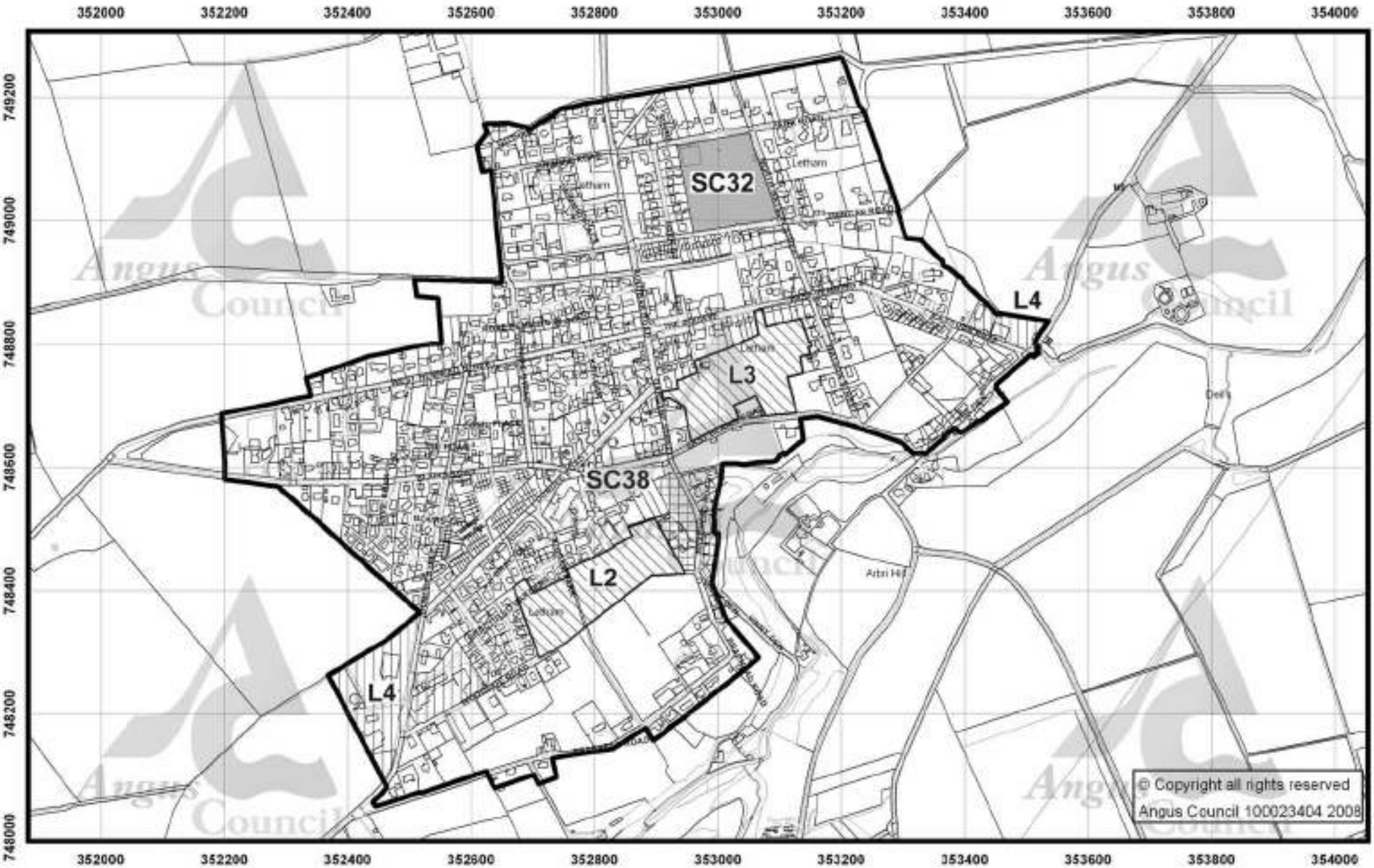
N W E S



Kirkton of Tealing
Angus Local Plan Review

0 12.5 25 50 Metres

N W E S



Letham

Angus Local Plan Review

0 100 200 400 Metres

N W E S

LETHAM

PROFILE

Role:
Large village in rural Angus, 8km south-east of Forfar, a popular place to live with local employment and services.

Population:
Census: 2001 – 1498;
1991 - 1247;
% Change 91/01: +20.13.

Drainage:
Capacity.

1. Letham is the largest village in the Forfar/Kirriemuir landward area. The settlement experienced significant growth since the early 1970's with various sites being developed for housing, but few additional facilities for existing and new residents. More recently planning policy in the first Angus Local Plan sought a period of consolidation. Recent improvements to the Waste Water Treatment facility and the primary school allow scope for modest additional housing development, which will assist in providing a range of housing sites throughout the market area. Additional housing development may assist the provision of new or augmented services and facilities. Suitable land for development requires to have regard to the unadopted roads policy which applies in Letham due to the rural character of many roads within the village. The policy seeks to guide development to suitable areas which are able to be served by the road network.

KEY ISSUES

2. The key issues facing Letham are:

- The significant restrictions on development in areas of the village where satisfactory road access is not available;
- The opportunity to allow for some new housing development in support of the range of services and facilities in the village;
- The need to continue to secure local employment opportunities.

DEVELOPMENT STRATEGY

3. The strategy for Letham seeks to:-

- Identify appropriate land to accommodate limited housing development in the village;
- Provide open space/playing fields for public and school use;
- Maintain the existing employment sites to provide jobs locally;
- Continue to have regard to the unadopted roads policy in considering new proposals for development

GENERAL

L1 : Unadopted Roads Policy

All proposals for new development in Letham will be considered against the Council's Unadopted Roads Policy set out in Appendix 3 which gives an assessment of the capacity of the local road network and seeks to direct development to areas where satisfactory road access can be achieved.

HOUSING

NEW ALLOCATIONS

4. Table 1 summarises new allocations of housing land which will contribute towards meeting the Structure Plan allowances to 2011.

Table 1 : New Allocations

L2 : Jubilee Park	30
L3 : East Hemming Street	30
Total	**60**

L2 : Housing - Jubilee Park

2.3 ha of land between Bractullo Gardens and Letham Primary School is allocated for around 30 houses. Proposals should be in accordance with the development brief which will be prepared for this site which will include details of the following requirements :

- **provision of 0.7 ha of open space/playing fields adjacent to the primary school which could incorporate a small car parking area accessed from Braehead Road;**
- **a footpath/cycleway along the southern boundary of the site linking Woodside Road with the primary school including possible connections to Dundee Road via Bractullo Gardens, Jubilee Park and Old Letham;**
- **vehicular access to serve the new housing from the existing development at Bractullo Gardens and/or Jubilee Park. Vehicular access to the new housing will not be permitted from Old Letham, Woodside Road or Braehead Road;**
- **15% of the capacity of the site to provide LCHO affordable housing.**

Opportunity to provide vehicular access for residents at Woodside Road through this area should also be investigated as part of this development.

L3 : Housing - East Hemming Street

2.9 ha of land at East Hemming Street/Gardyne Road is allocated for around 30 houses. Proposals should address the following requirements :

- **vehicular access from East Hemming Street;**
- **footpath connections should be provided through the site, in particular to give access to the primary school;**
- **an appropriate scheme to secure the retention and reuse of the listed building within the site;**
- **15% of the capacity of the site to provide LCHO affordable housing.**

WORKING

L4 : Safeguard of Employment Land

Existing employment areas at East Den Brae and Dundee Road will be safeguarded for employment uses in support of the economic base of the village.

LETHAM GRANGE

1. Letham Grange is a large country estate north of Arbroath which has developed over a number of years as a major recreational and residential area comprising an hotel, two golf courses and sites for 140 houses located in dispersed groups throughout the estate.

PROFILE

Role:
Major recreational and residential area incorporating an hotel and two golf courses.

Housing Land Supply June 2004:
Existing - 3

Drainage:
Constrained by capacity of existing network

Table1:**Existing Sites**

(a) Letham Grange	3
Total	**3**

KEY ISSUE/DEVELOPMENT STRATEGY

2. In recent years the commercial viability of the golf courses and hotel has become an issue. There are emerging proposals aimed at addressing the future viability and further developing the tourism provision on the site. The proposals are at an early stage and are not yet sufficiently detailed to be included as proposals in this Local Plan. The indications are that a package of measures may be brought forward which include timeshare, housing and the restoration of listed buildings on the site including the Letham Grange Hotel building. These indicative proposals would result in the reduction of the second golf course from 18 to 9 holes.

3. It is considered appropriate to support proposals which would provide for the long-term viability of the tourism and recreation facilities. At the same time it is necessary to protect the amenity of the existing residential areas. The acceptability of additional housing development will depend upon the requirement for cross subsidy of the tourism and recreation facilities, the quality of the tourism proposals and the compatibility of the overall package of measures with the amenity and environmental quality of the area. Proposals will require to be supported by a viable long-term business plan

HOUSING

EXISTING SITES

4. The existing housing land supply, comprising sites with planning permission or under construction as identified in the Housing Land Audit June 2004, is shown in Table 1.

LG1 : Housing – Letham Grange

Proposals for strictly limited further housing development outwith the existing residential areas will only be acceptable where a clear case has been demonstrated that:

- **it is required to cross-subsidise the development of tourism facilities within the complex;**
- **it is compatible with the protection of the amenity of existing residential areas;**
- **it supports the restoration of Listed Buildings and their setting; and**
- **any reduction of the existing golf course provision is demonstrated to be necessary and that the remaining provision is viable.**

SPORT AND RECREATION

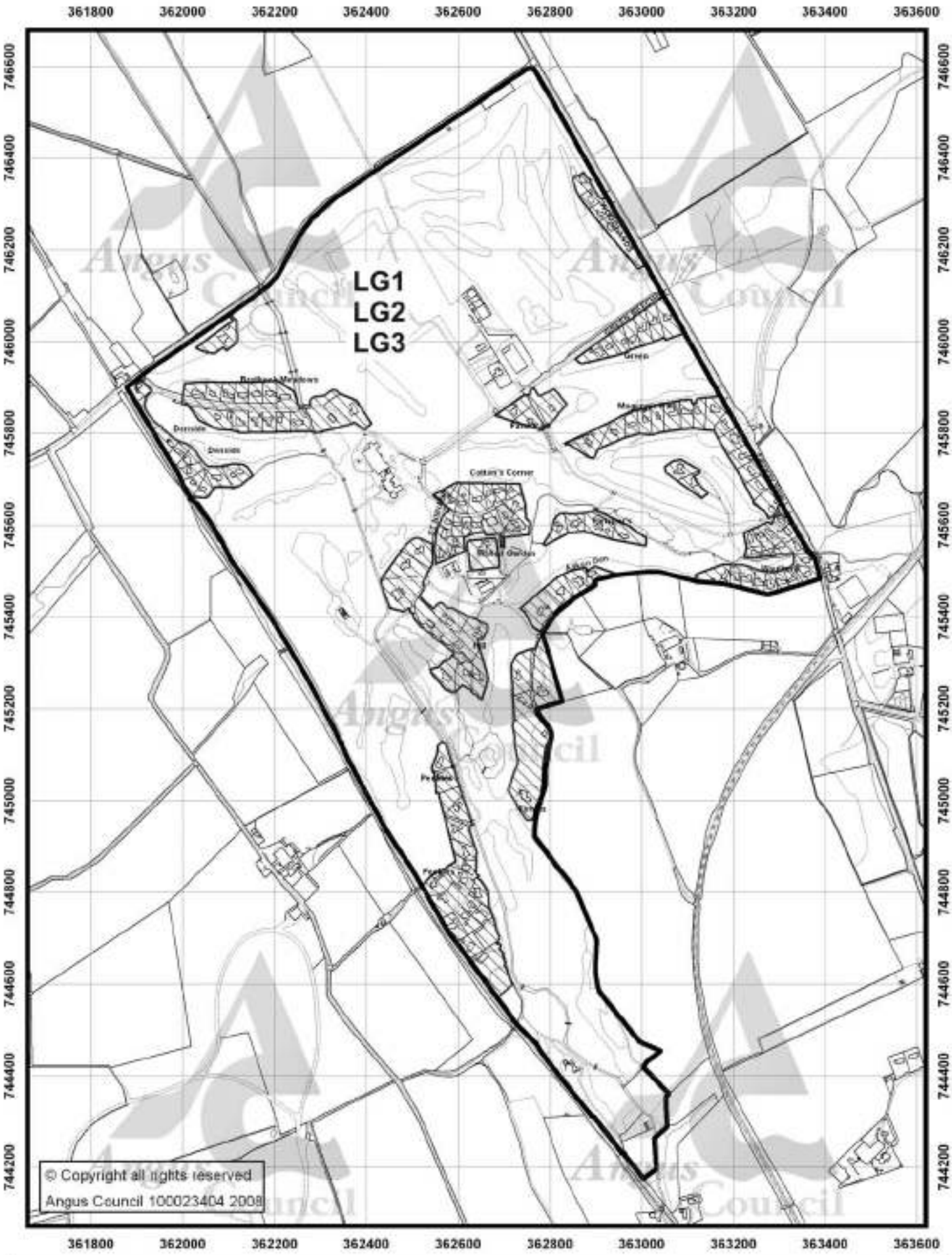
5. The existing recreational facilities at Letham Grange are regarded as a major contribution to the attractiveness of the area. Future proposals which consolidate and where appropriate expand the tourism potential of Letham Grange will be supported where these are compatible with the existing land uses and amenity. Development directly affecting Letham Grange Hotel (Category B listed building) or its setting must respect the architectural quality and character of the building.

LG2 : Tourism and Recreation Development

Proposals which enhance or expand the tourism and recreation potential of the Letham Grange complex will be supported where they are compatible with the existing land uses/activities and are not detrimental to the area's unique environment.

LG3 : Letham Grange Hotel

Development within the immediate vicinity of Letham Grange Hotel (Category 'B' Listed Building) must respect the architecture and character of the building.

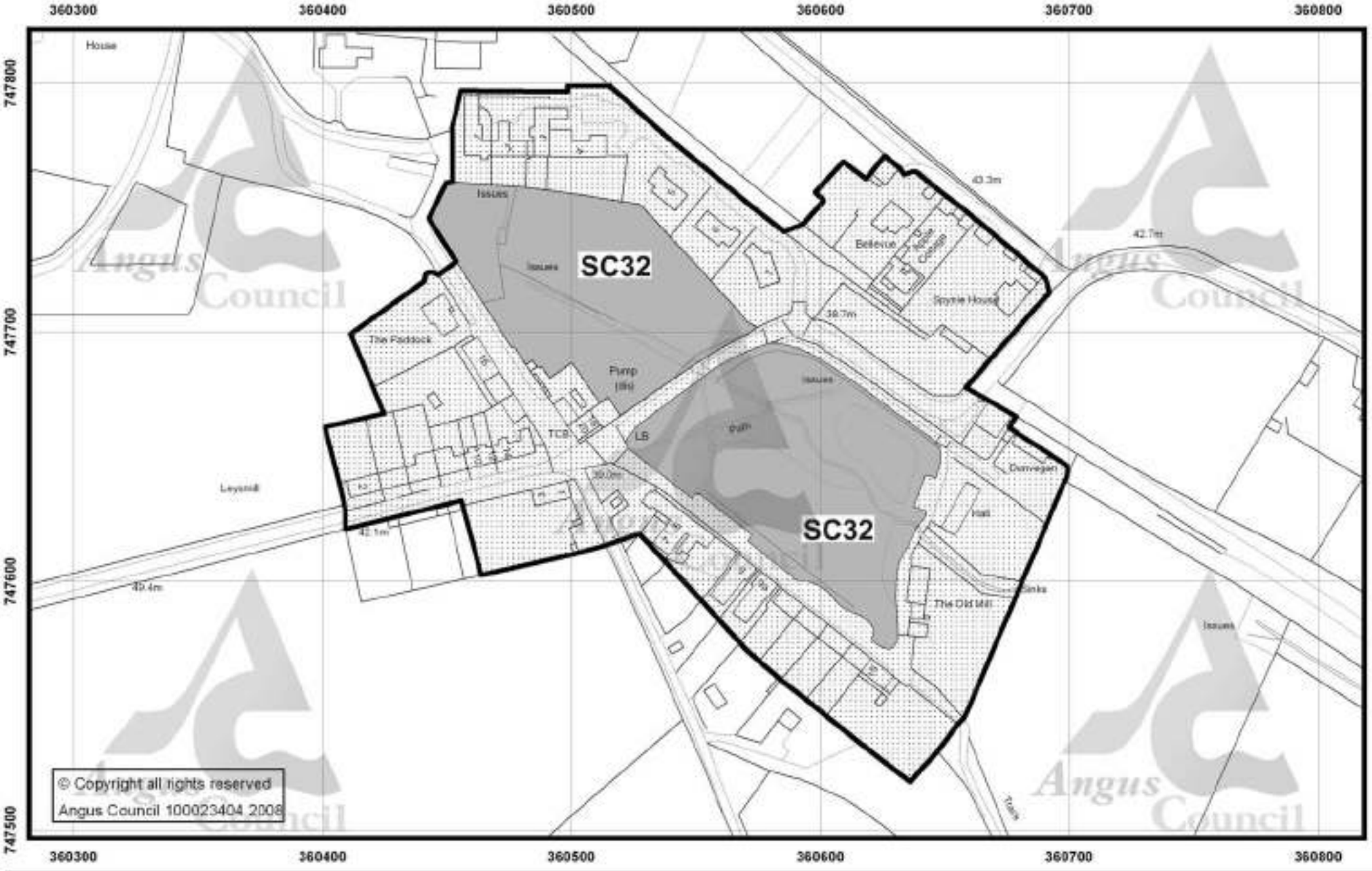


Letham Grange

Angus Local Plan Review

0 105 210 420 Metres

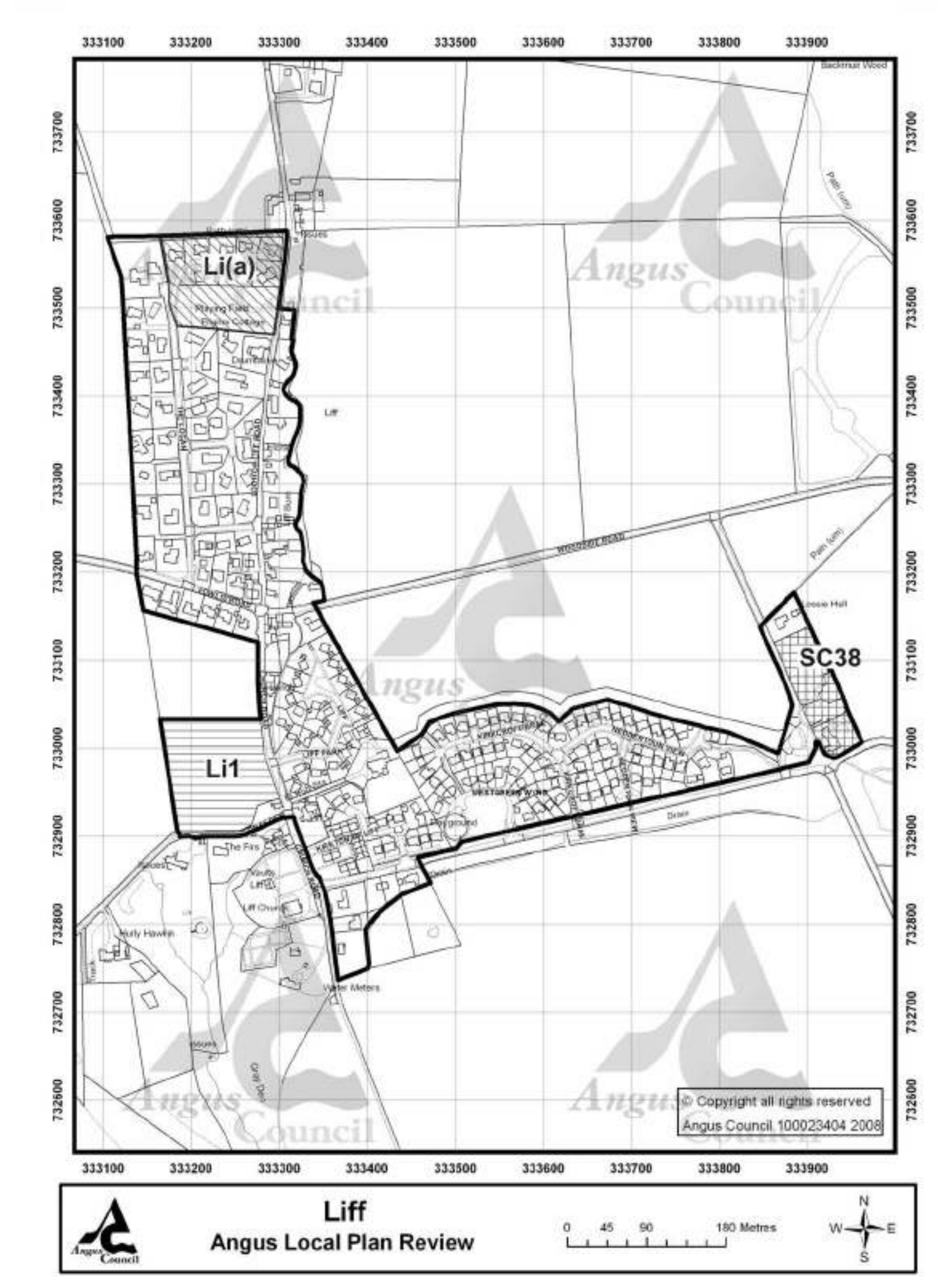
N W E S



Leysmill
Angus Local Plan Review

0 25 50 100 Metres

N W E S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732900
732800
732700
732600
Li(a)
Li1
SC38
Woodside Road
Liff
Liff Road
Backmuir Wood
Path (um)
Playing Field
Public Garden
Westerton Way
Westerton Road
Westerton Drive
Westerton Walk
Westerton Park
Burn
Drain
The Firs
Holly Hawkin
Water Meters
© Copyright all rights reserved
Angus Council 100023404 2008
Liff
Angus Local Plan Review
0 45 90 180 Metres
N
W
E
S

LIFF

1. Liff is a popular village located around 1.5 km to the west of Dundee. Recent housing development to the south and west of the village has brought forward the majority of sites identified in the first Angus Local Plan and has resulted in a significant increase in population.

PROFILE

Role:
Liff is a small village located to the west of Dundee with a limited range of local facilities.

Housing Land Supply June 2004:
existing – 8

Drainage:
Limited capacity available.

KEY ISSUE/DEVELOPMENT STRATEGY

2. The strategy of the Dundee and Angus Structure Plan seeks to direct additional housing in the South Angus Housing Market Area towards Monifieth and Carnoustie. Consequently the development approach for Liff will limit housing development in the Local Plan period to a small, previously identified site to the north of the village.

HOUSING

EXISTING SITES

3. Sites with planning permission or under construction as identified in the Housing Land Audit, June 2004, are shown in Table 1.

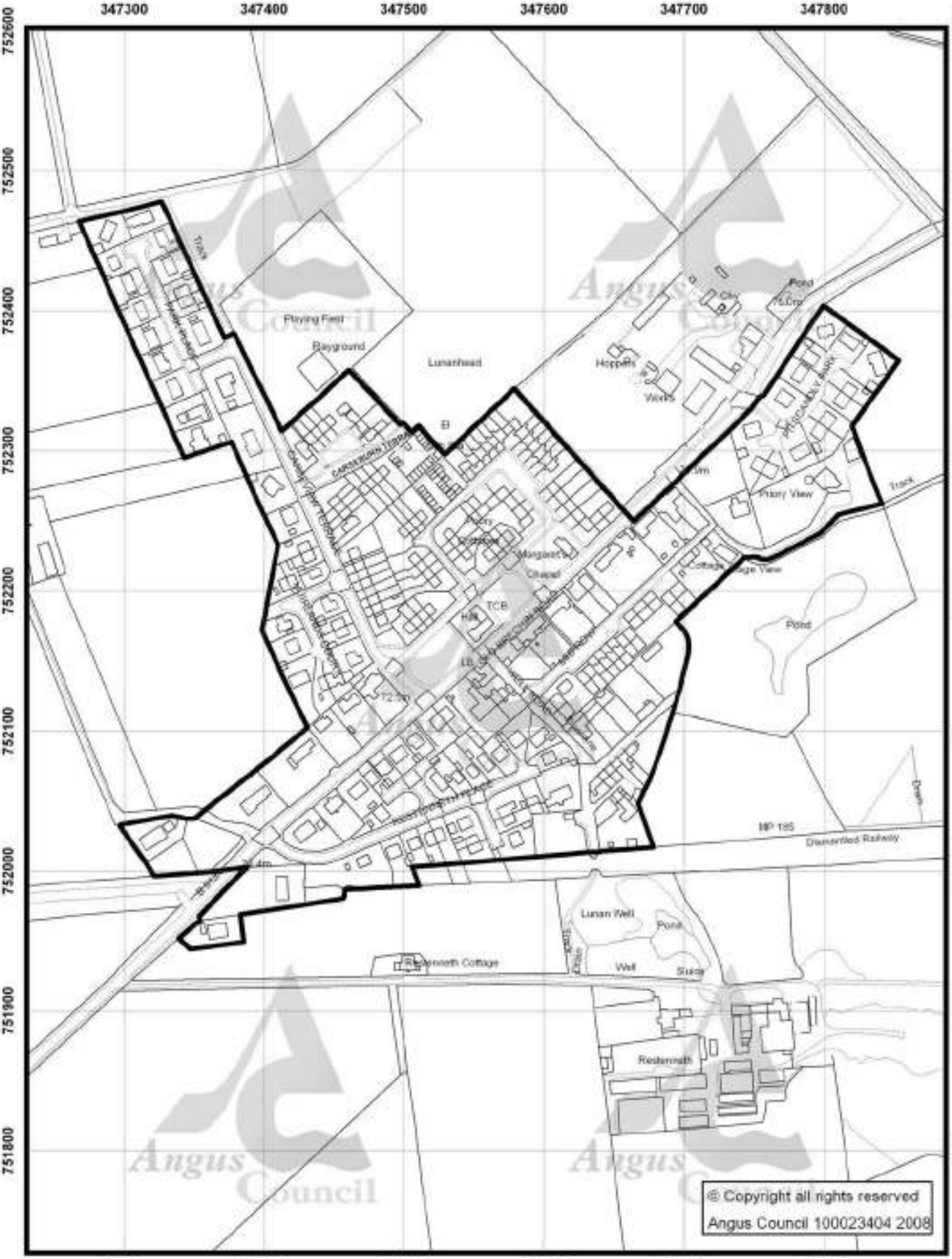
Table 1 : Existing sites

Li(a) Henderson Park	8
Total	**8**

COMMUNITY FACILITIES AND SERVICES

Li1 : Liff Cemetery Extension

1.5 ha of land on the west side of Church Road is reserved for a future cemetery extension. Details of access and off-street parking arrangements, landscaping and boundary treatment will be dealt with as part of any future planning application.

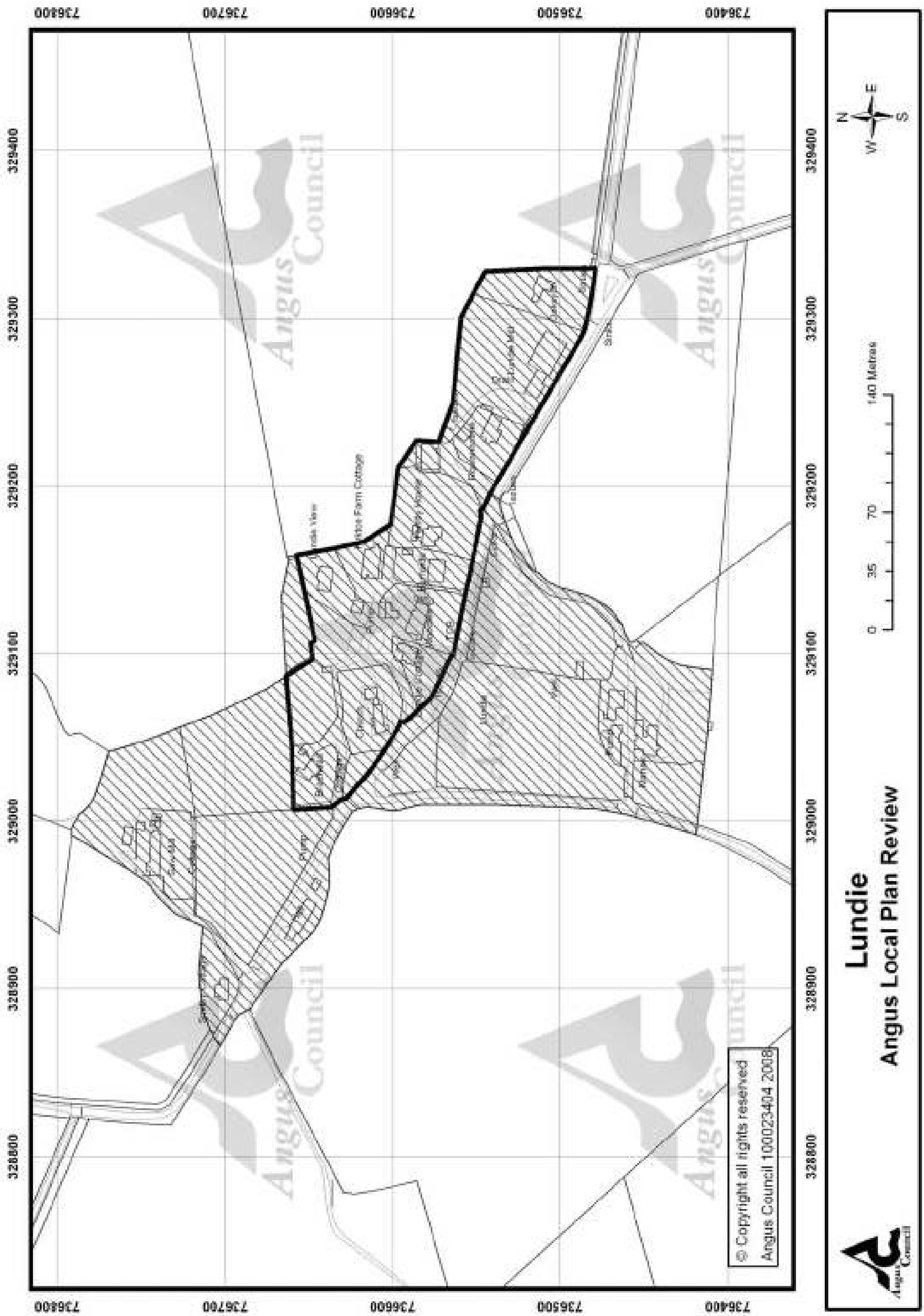


Lunanhead

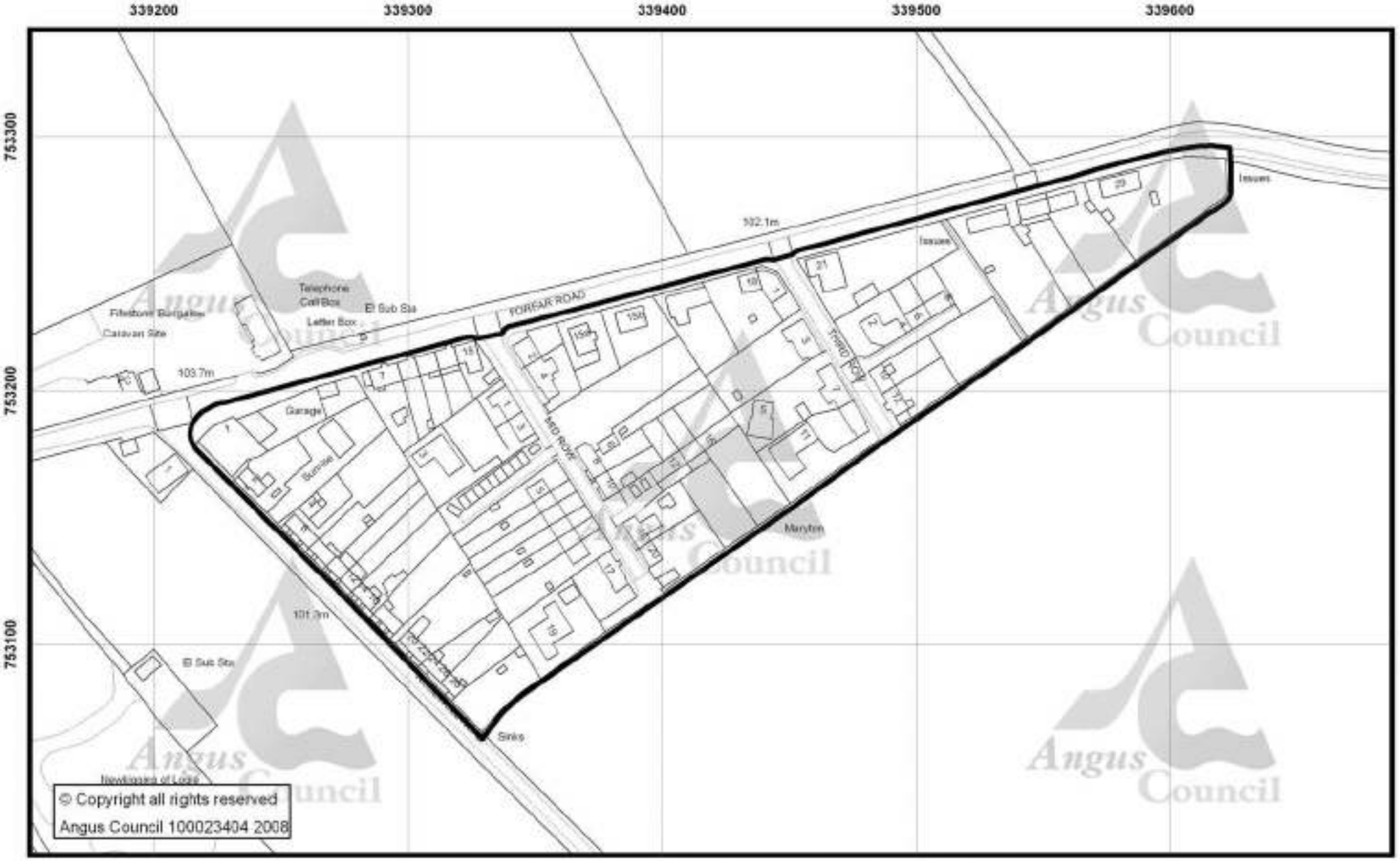
Angus Local Plan Review

0 30 60 120 Metres

N W E S



Lundie
Angus Local Plan Review

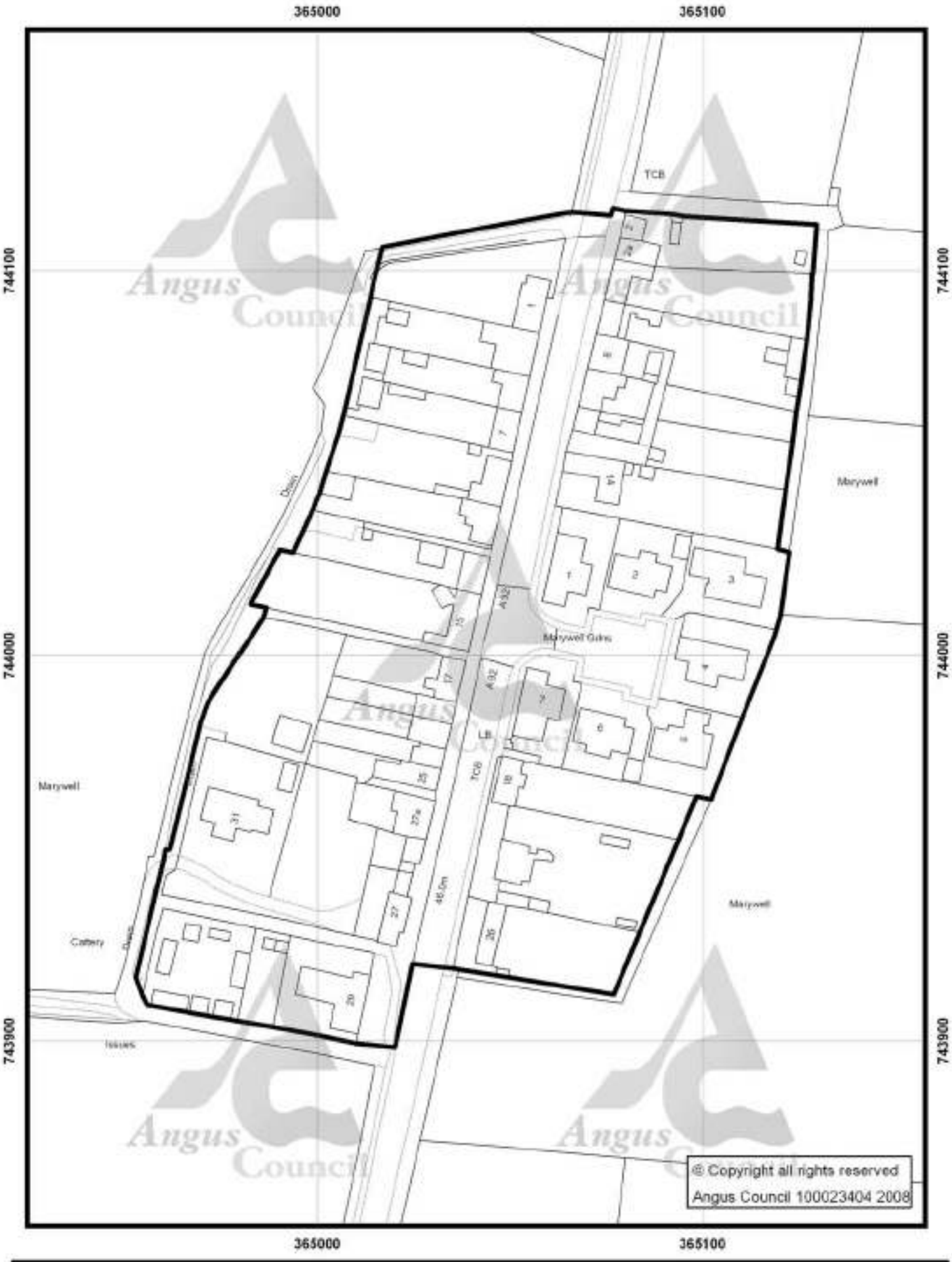


Maryton

Angus Local Plan Review

0 25 50 100 Metres

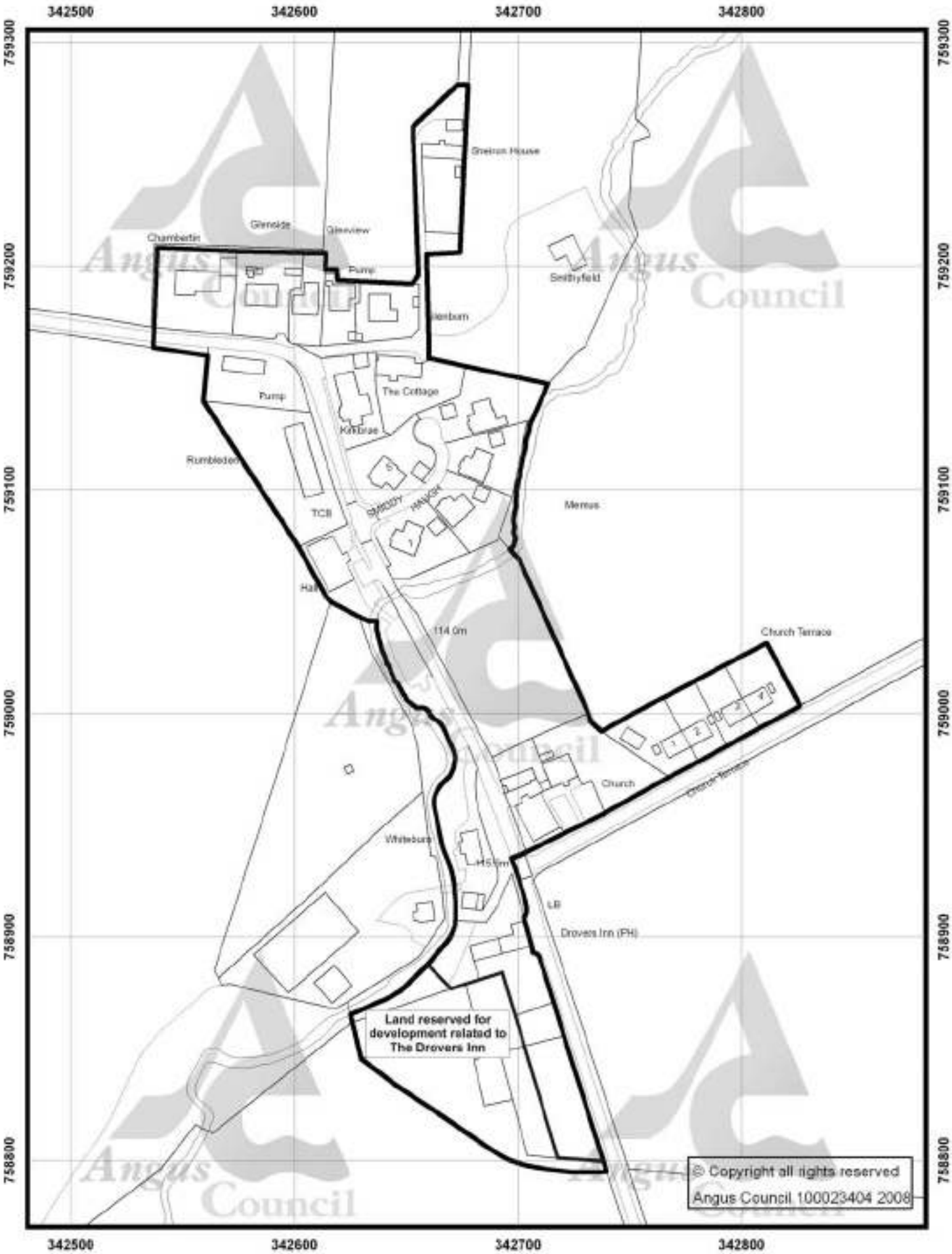
N W E S



Marywell
Angus Local Plan Review

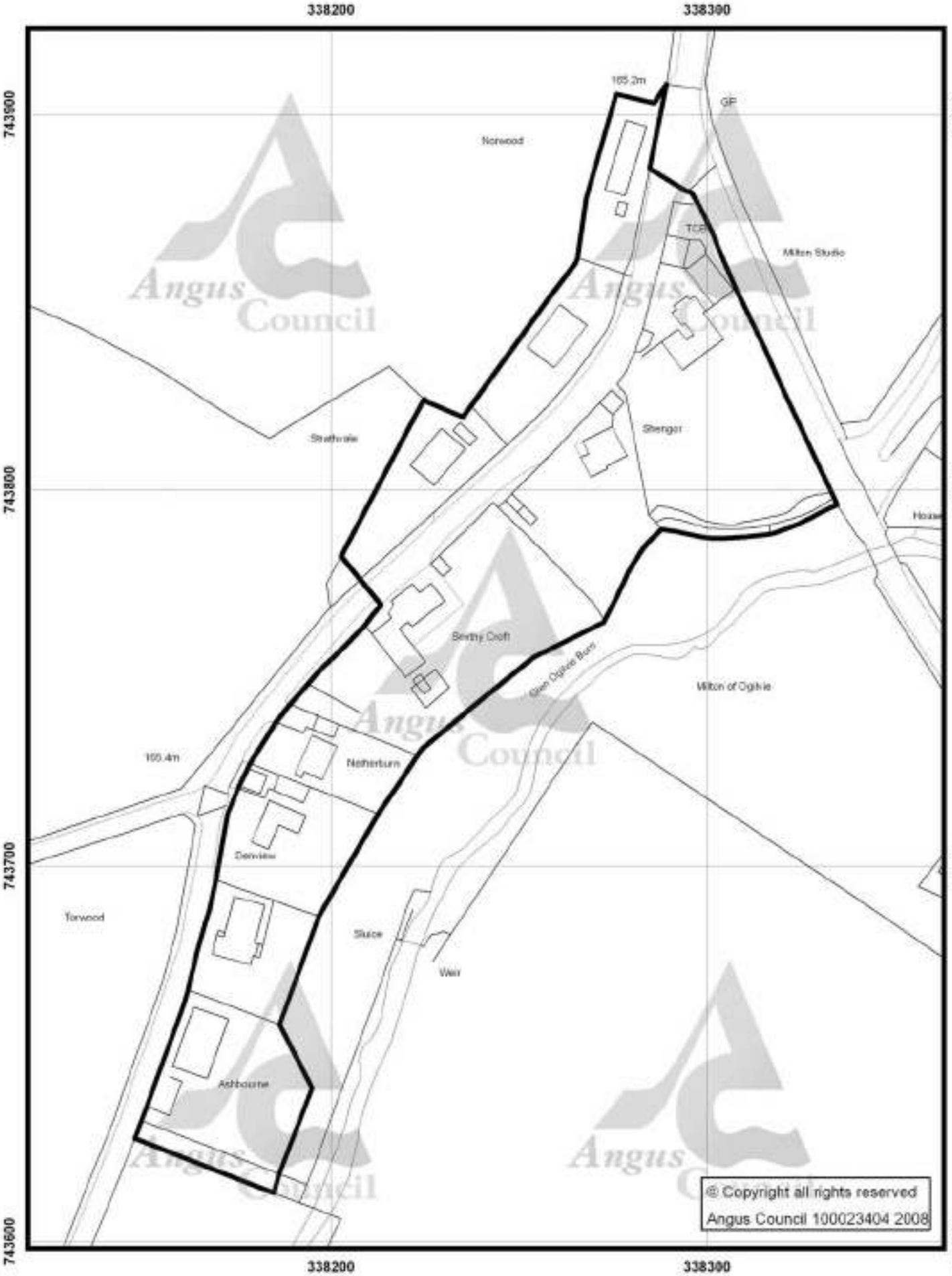
0 12.5 25 50 Metres

N W E S



Memus

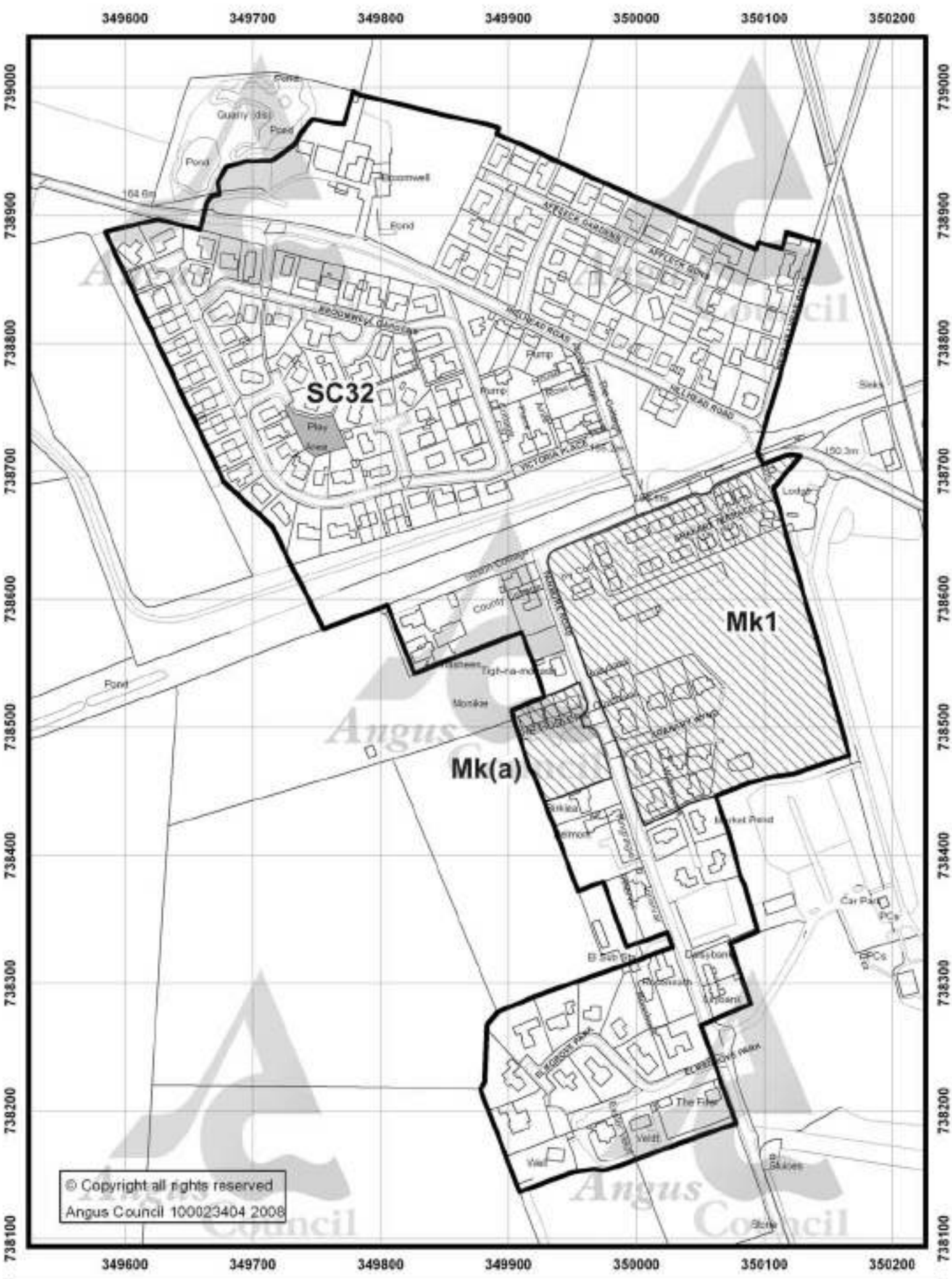
Angus Local Plan Review



Milton of Ogilvie
Angus Local Plan Review

0 12.5 25 50 Metres

N W E S



Monikie

Angus Local Plan Review

0 37.5 75 150 Metres

N W E S

MONIKIE

1. The village of Monikie is surrounded by agricultural land and is close to the towns of Carnoustie and Monifieth. The village expanded considerably during the 1970s but development opportunity has been affected in recent years by infrastructure constraints.

KEY ISSUE/DEVELOPMENT STRATEGY

2. A key issue in the village, before further development can take place, is the resolution of drainage and water supply constraints. The strategy for Monikie seeks to promote the redevelopment of a brownfield site that would resolve these constraints, provide for a range of local housing needs and significantly improve the village environment.

HOUSING

EXISTING SITES

3. Sites with planning permission or under construction as identified in the Housing Land Audit, June 2004, are shown in Table 1.

SITE PREVIOUSLY IDENTIFIED BY THE FIRST ANGUS LOCAL PLAN

4. The site at Monikie Granary was previously allocated in the first Angus Local Plan. Planning permission has been recently granted for housing and the reservation of the site is continued in this Local Plan.

Mk1 : Housing – Monikie Granary

4 ha of land and buildings comprising the former granary is allocated for redevelopment for around 60 mixed tenure houses. Development is dependent on necessary investment in water supply and foul and surface water drainage infrastructure. Proposals will require to provide details of vehicular access from Panmure Road, landscaping and open space provision, and pedestrian and cyclist linkages. Developers will also be required to contribute to the extension of Monikie Primary School and the erection of a new Scout Hut. *(Outline planning permission for 22 social rented and 37 private houses was granted on 11 March 2004).*

PROFILE

Role:
Large rural village with a limited range of services.

Population:
Census 2001 - 416;
1991 - 479;
% Change 91/01: -13.15.

Housing Land Supply June 2004:
existing - 7
constrained - 60

Drainage:
Development currently constrained by lack of available local foul drainage capacity. Private sector investment required to resolve constraint.

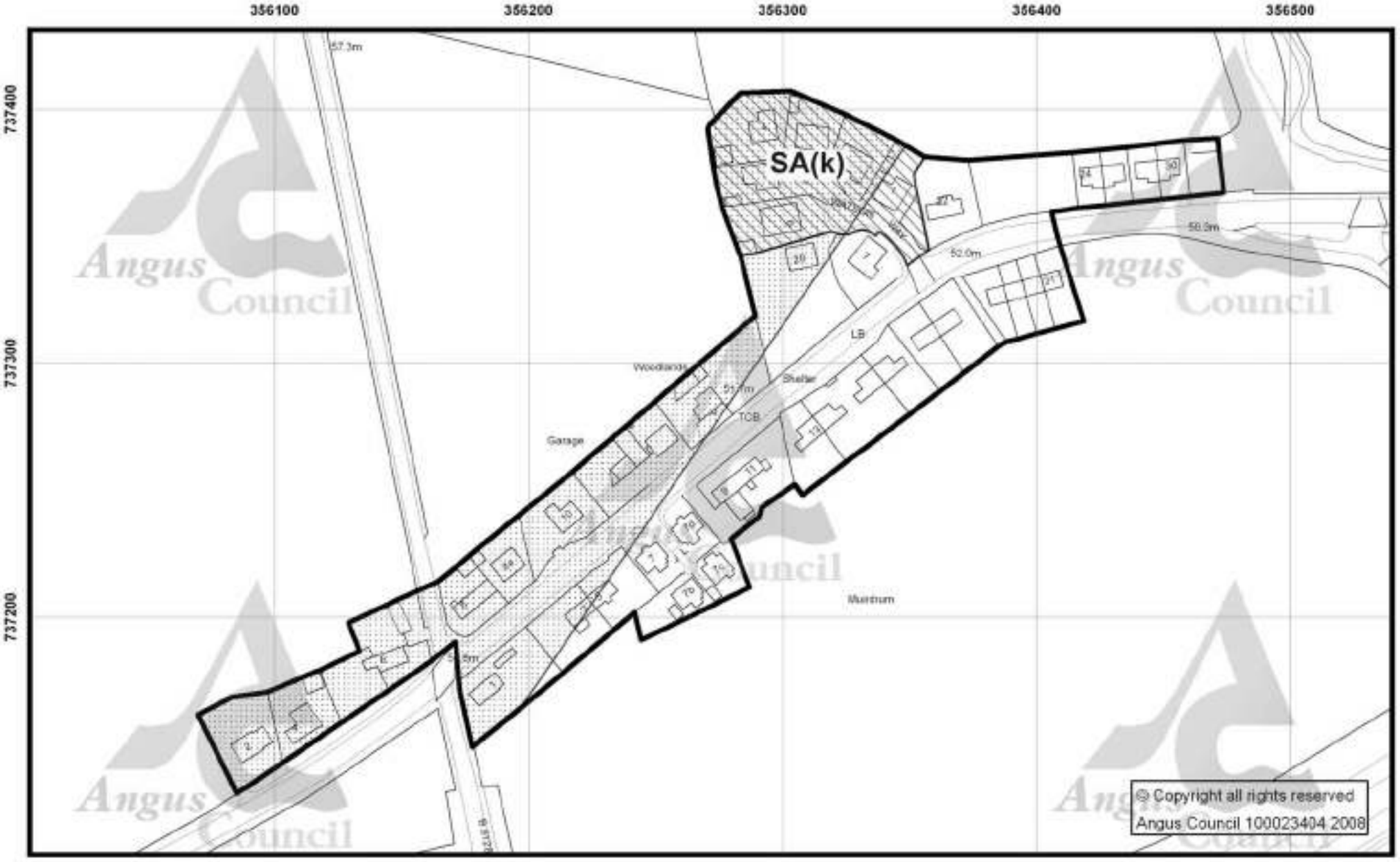
Water Supply:
Development of the Granary site can be accommodated. Further development will be constrained by water supply issues that will require augmentation and increased service reservoir capacity.

Table 1 : Existing Sites

(a) Panmure Road	7
Total	**7**

Table 2 : Site from first ALP

Mk1 : Granary Site	60
Total	**60**

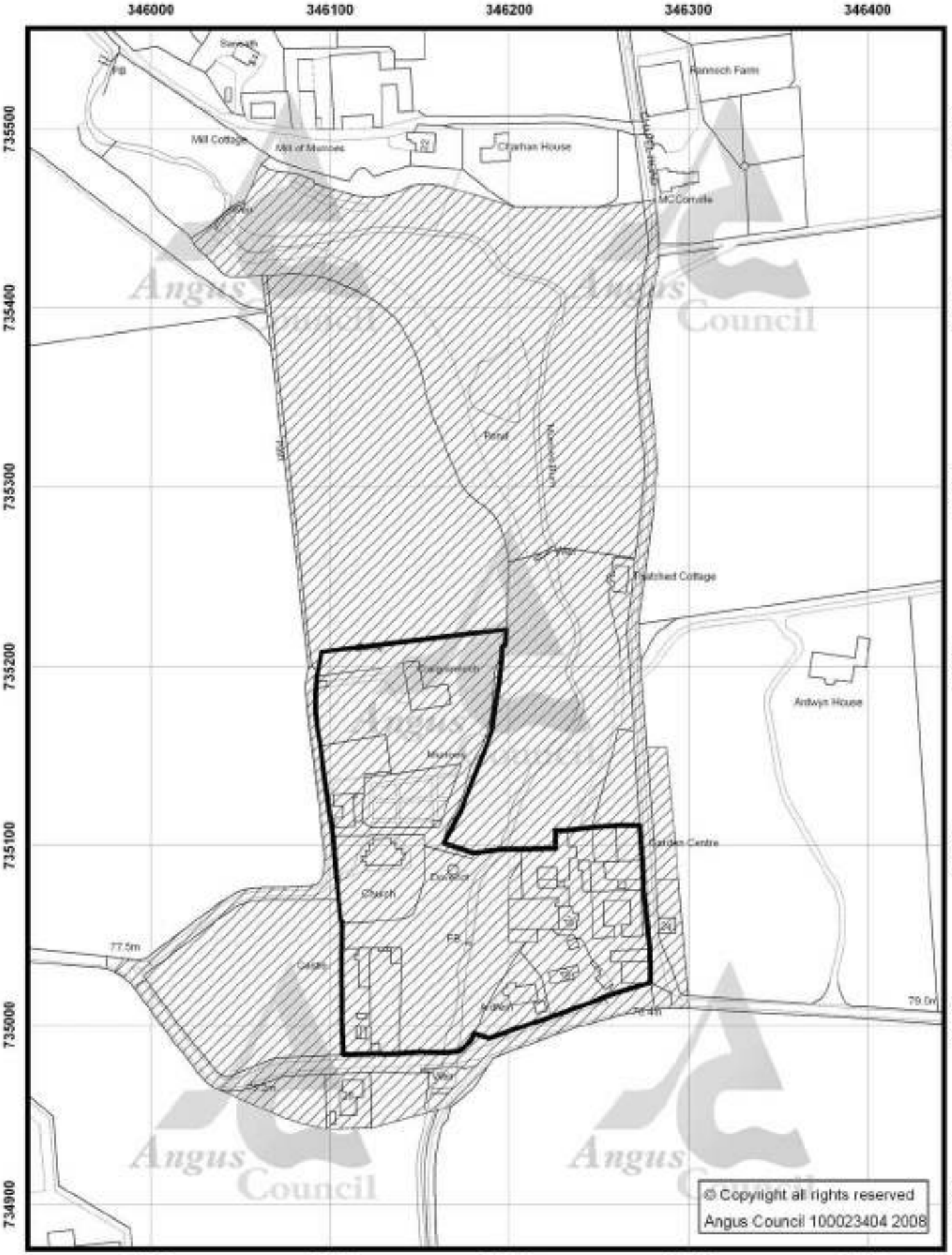


Muirdrum

Angus Local Plan Review

0 25 50 100 Metres

N W E S



Murroes
Angus Local Plan Review

0 20 40 80 Metres

N W E S

NEWBIGGING
by Carnoustie

PROFILE

Role:
Small rural village with a limited range of local facilities serving a wide local catchment area.

Housing Land Supply June 2004:
Constrained - 20

Drainage: Development constrained by lack of capacity at WWTP and in local sewerage network. Condition of receiving watercourse not certain.

1. Newbigging is a small agricultural village close to the towns of Carnoustie and Monifieth which experienced a period of growth in the early and mid 1980's. The drainage network, which is now at capacity, will require significant investment to accommodate any new development.

2. The village has a limited range of facilities (shop/post office, primary school and petrol station/garage) serving both Newbigging and a wider local catchment area.

KEY ISSUE/DEVELOPMENT STRATEGY

3. Previous development in the village has resulted in the current drainage constraint which will require resolution before any further new building can take place. In addition, there is also the question of what level of development would be appropriate for the village over the next 10 years. The Local Plan strategy for Newbigging makes allowance for limited greenfield land release which will provide for local housing needs, contribute to the distribution of housing opportunities across the wider Dundee and South Angus Housing Market Area and assist in supporting local services and facilities (including the local primary school).

HOUSING

SITE PREVIOUSLY IDENTIFIED BY THE FIRST ANGUS LOCAL PLAN

4. The site at Pitairlie Road was previously allocated in the first Angus Local Plan. Development of the site is dependent on private sector investment at the wastewater treatment plant and in the local sewerage network.

5. A requirement for the provision of LCHO and Social Rented affordable housing has been established for the South Angus Housing Market Area. In accordance with Policy SC9 : Affordable Housing, proposals to develop the site at Pitairlie Road, Newbigging will require to make a contribution towards the need for affordable housing.

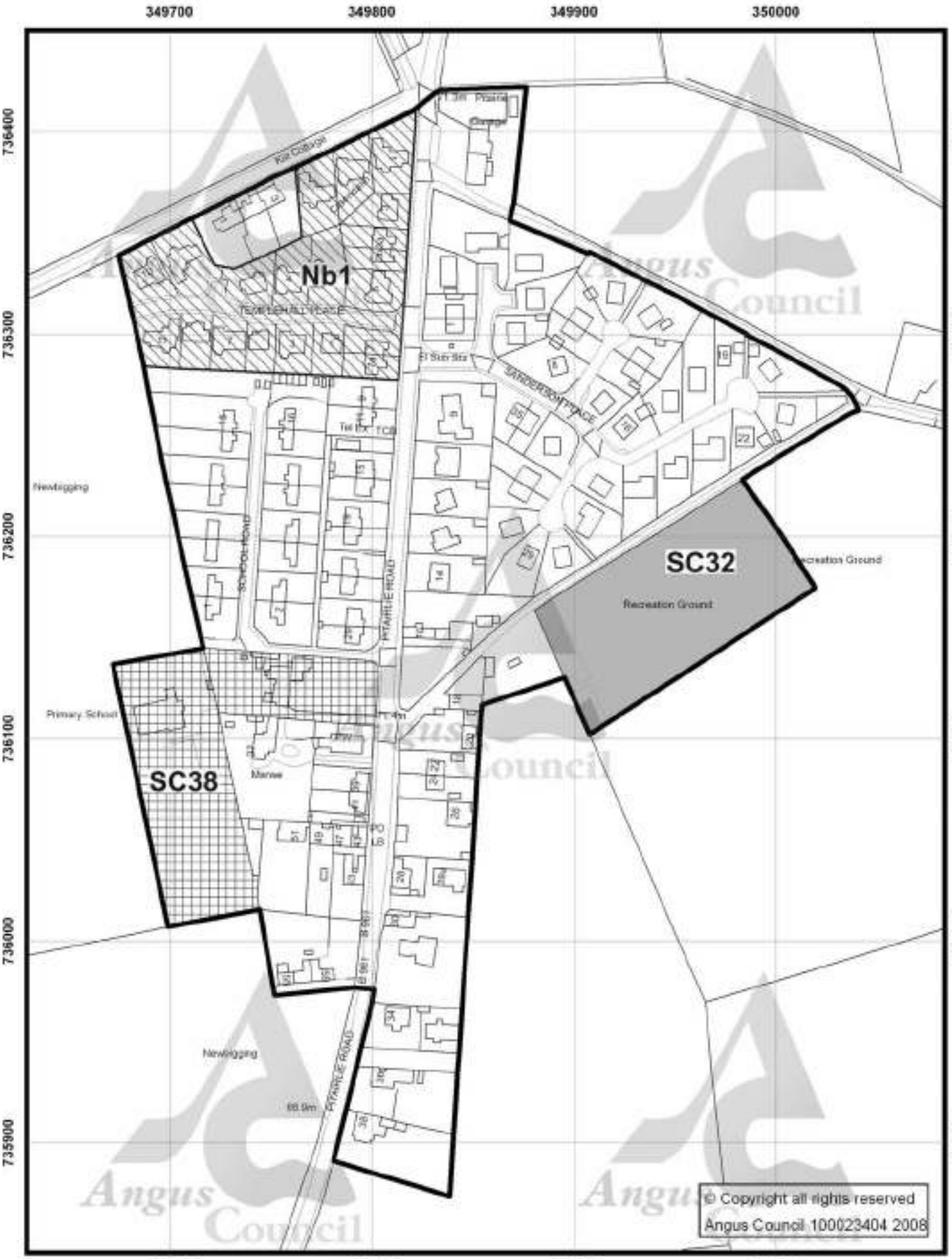
Table 1 : Sites from First ALP

Nb1 : Pitairlie Road	20
Total	**20**

Nb1 : Housing - Pitairlie Road/Newbigging North

1.1ha of land to the north-west of the village is identified for the development of around 20 houses subject to the following requirements:

- **40% of the capacity of the site to provide for LCHO and/or Social Rented affordable housing;**
- **a single vehicular access should be taken from Pitairlie Road (B961);**
- **improvements to the existing wastewater treatment plant and trunk sewerage within the village to be wholly funded by the developer.**

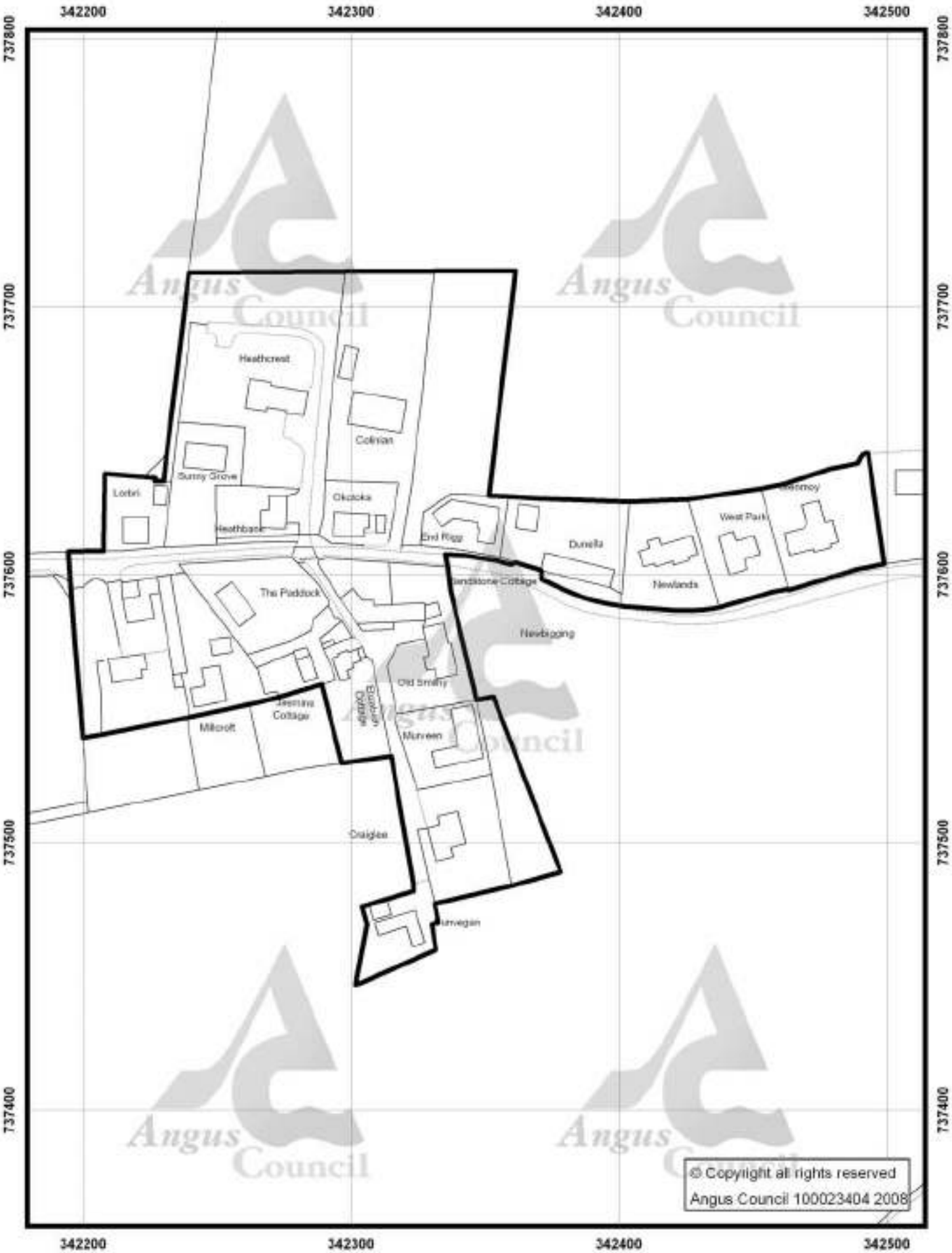


Newbigging (by Carnoustie)

Angus Local Plan Review

0 20 40 80 Metres

N W E S

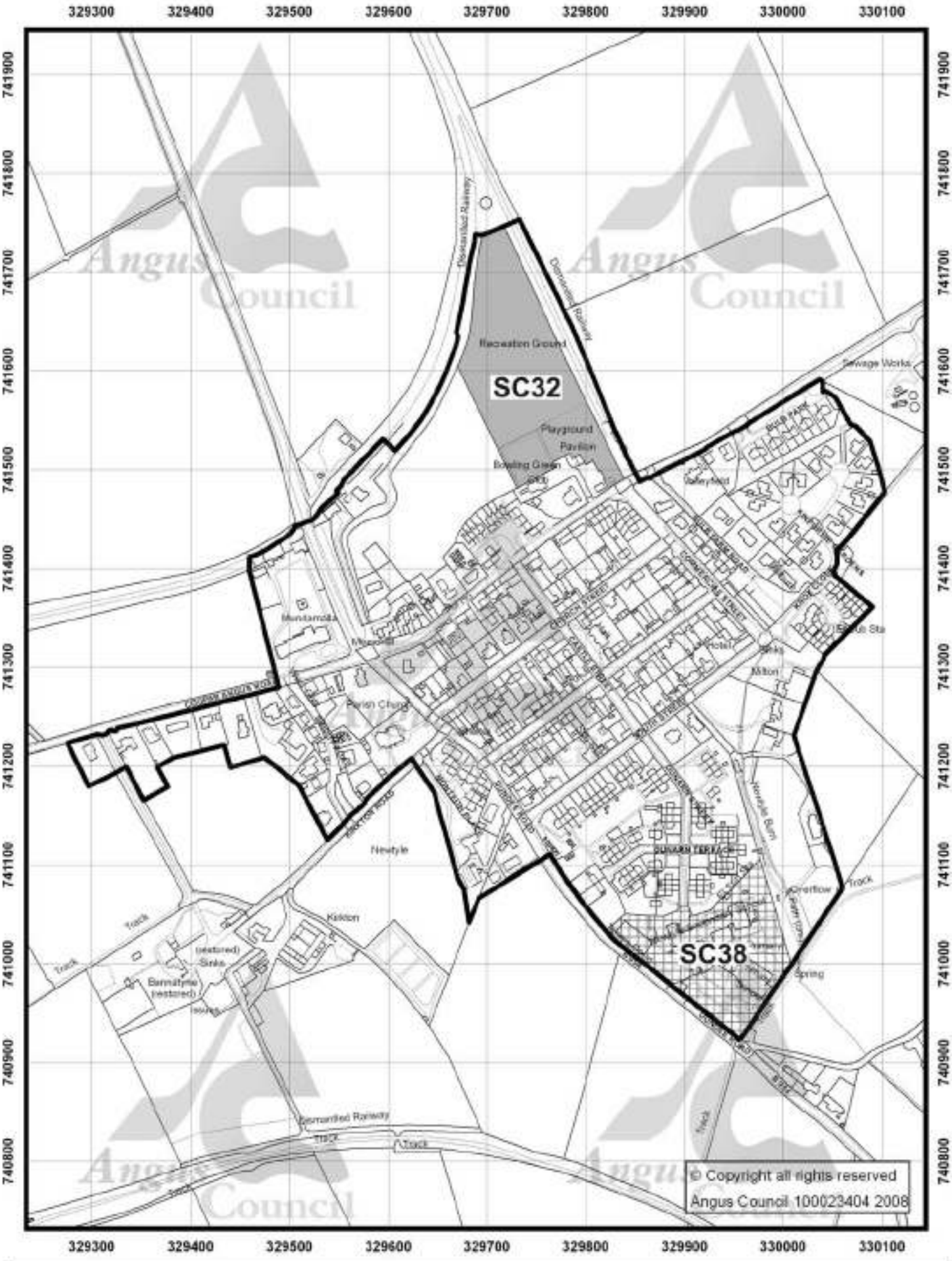


Newbigging (by Tealing)

Angus Local Plan Review

0 15 30 60 Metres

N W E S

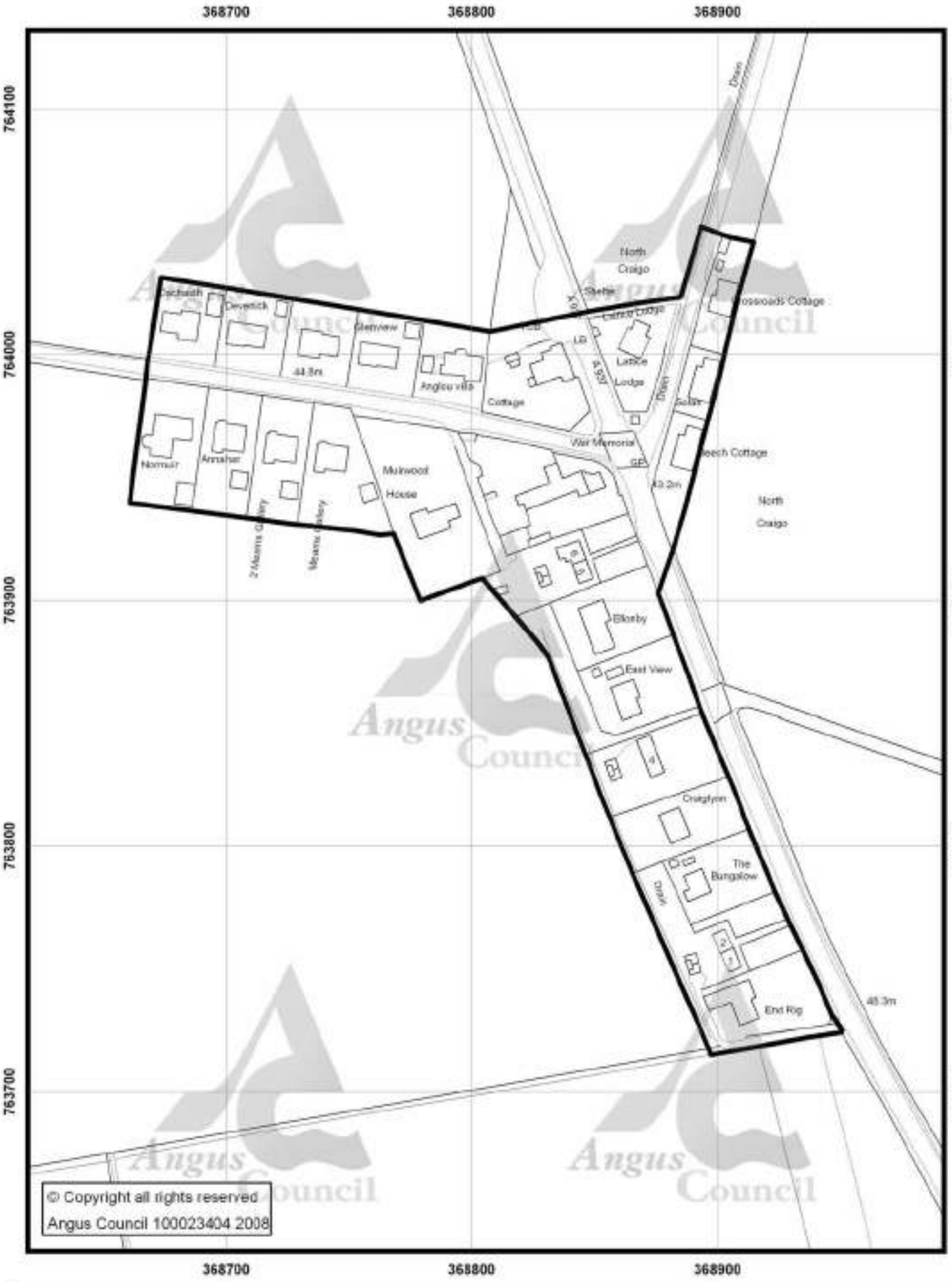


Newtyle

Angus Local Plan Review

0 45 90 180 Metres

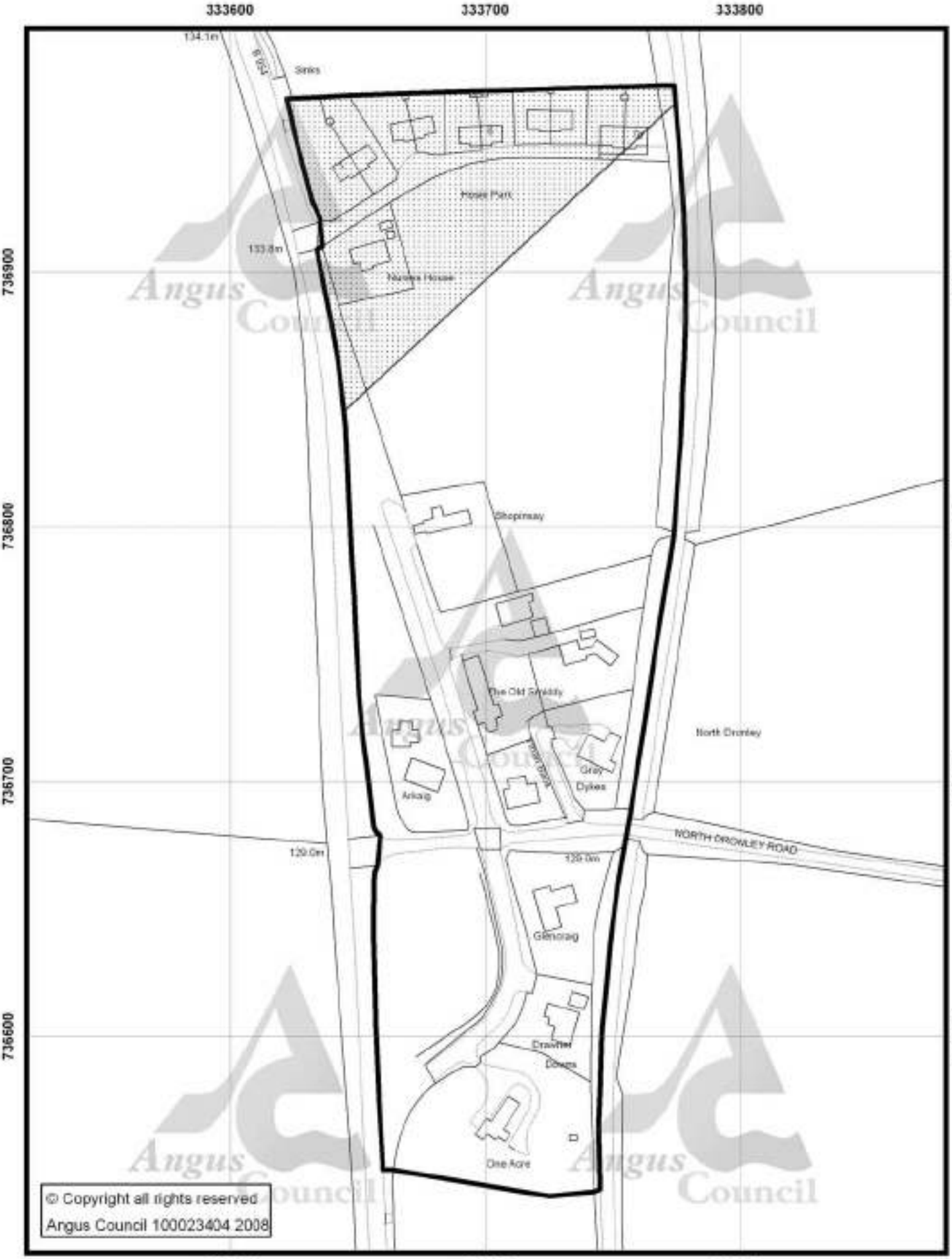
N W E S



North Craigo
Angus Local Plan Review

0 15 30 60 Metres

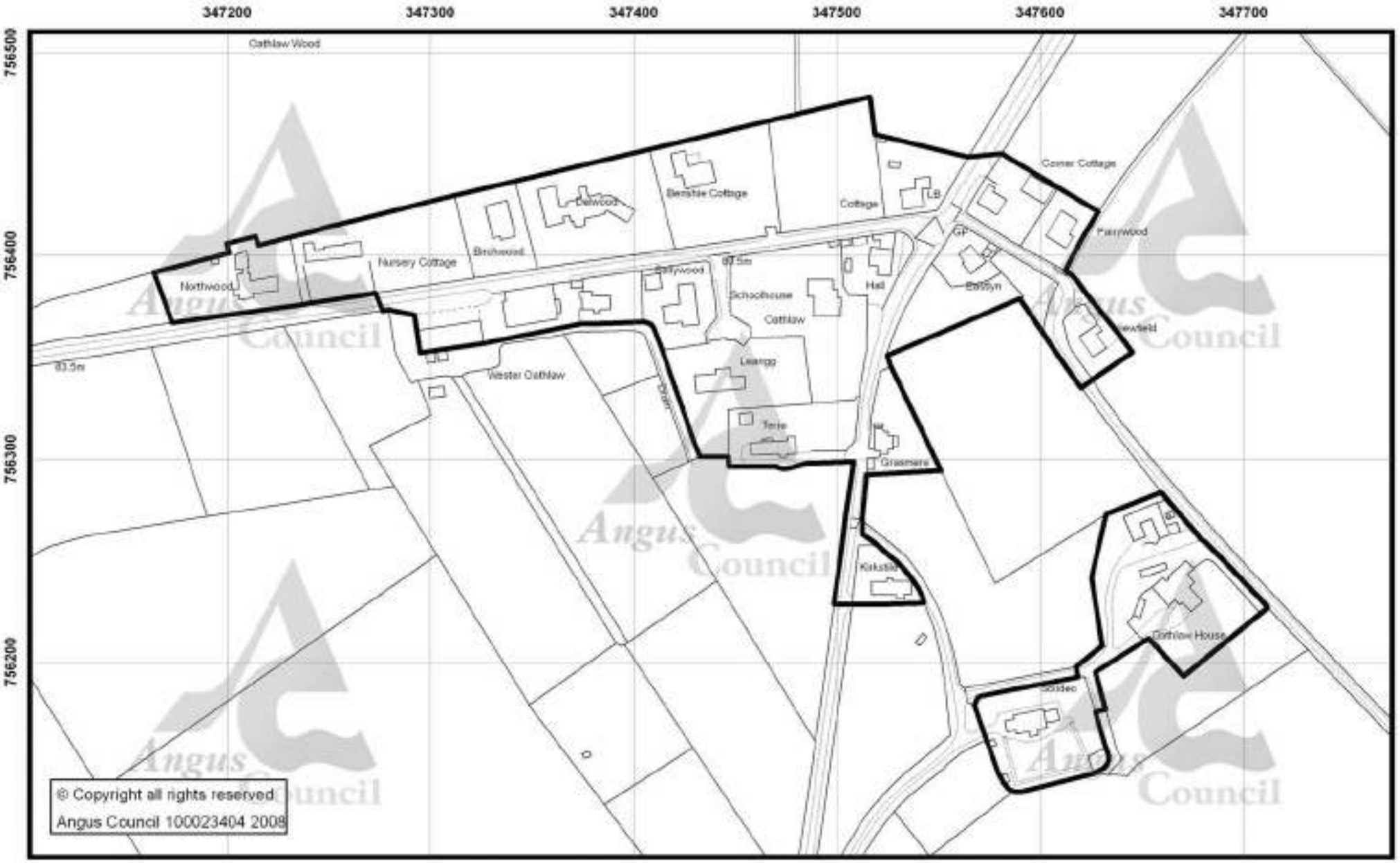
N W E S



North Dronley
Angus Local Plan Review

0 15 30 60 Metres

N W E S

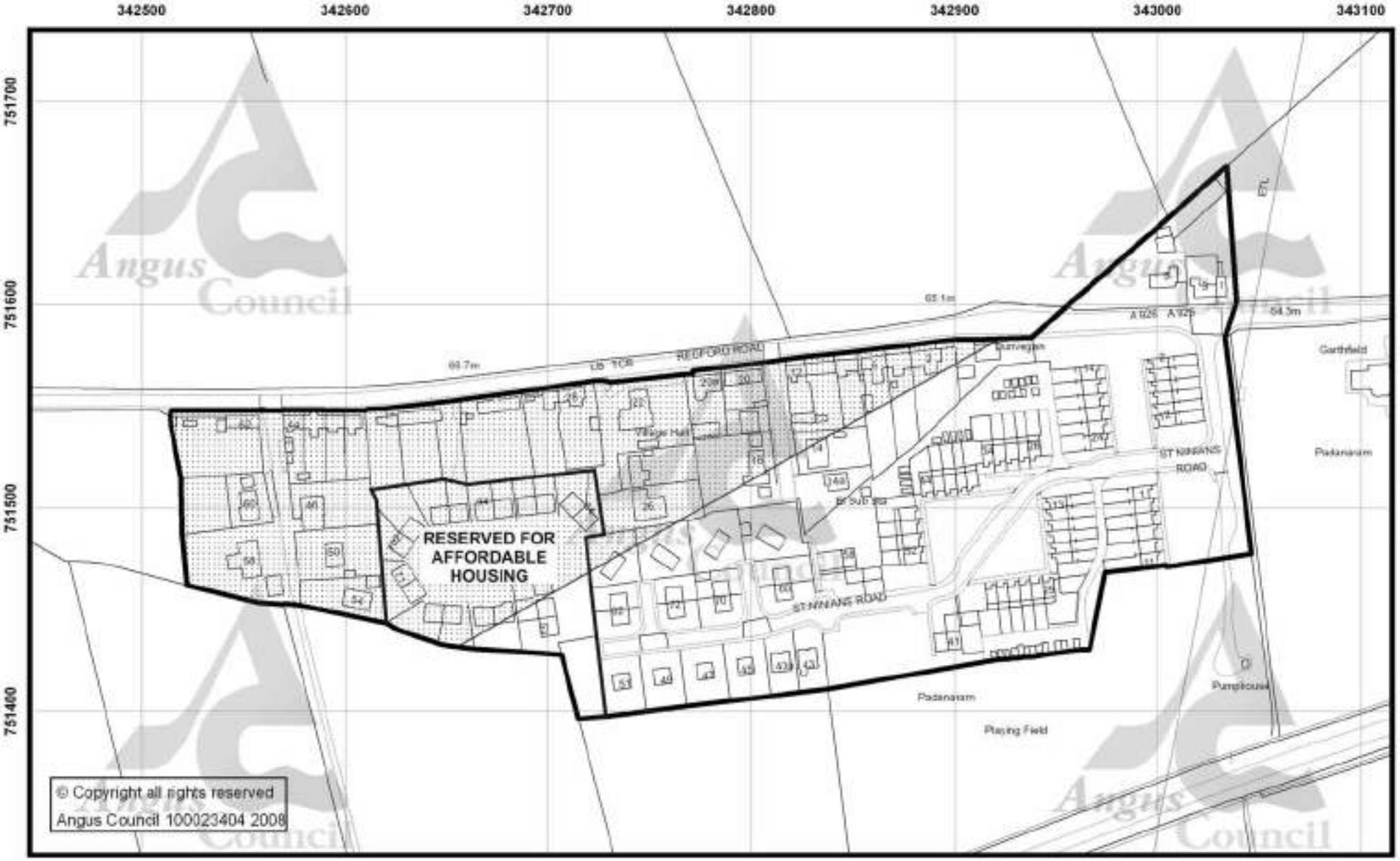


Oathlaw

Angus Local Plan Review

0 35 70 140 Metres

N W E S

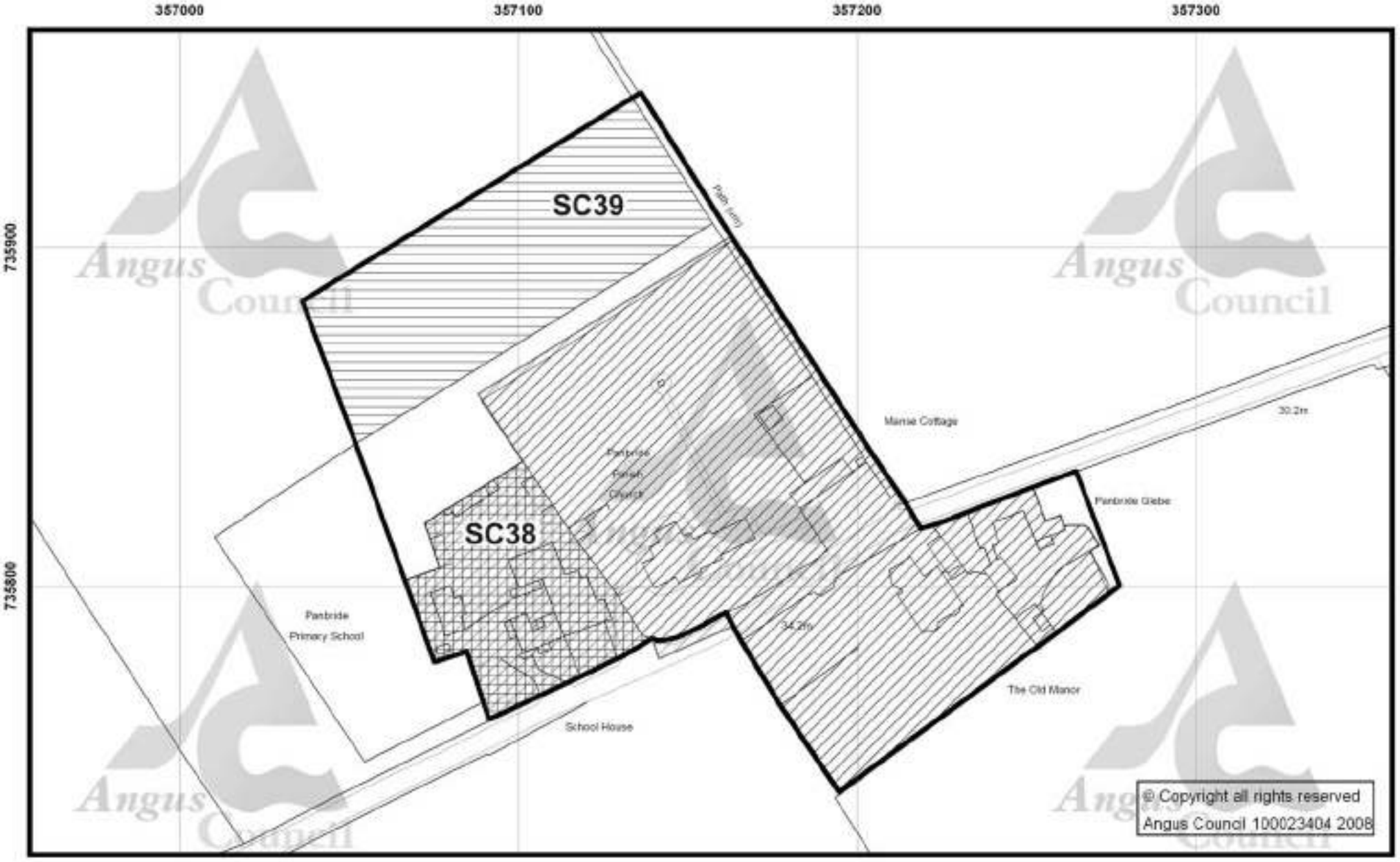


Padanaram

Angus Local Plan Review

0 35 70 140 Metres

N W E S



Panbride
Angus Local Plan Review

0 20 40 80 Metres

N W E S

PIPERDAM

1. Located to the west of Muirhead on the south side of the A923, Piperdam comprises a golf course, designed around a loch and woodland setting, associated driving range and other facilities including restaurant/centre, swimming pool/spa, loch fishings and a separate area for the development of up to 40 chalets and 30 timeshare properties. Planning permission, subject to a Section 75 Agreement, has been granted for the development of a maximum of 123 houses in three phases.

PROFILE

Role:
Mixed recreational and housing development incorporating golf course, restaurant, fishery and recreational facilities.

Housing Land Supply June 2004:
existing - 45

Drainage:
Capacity available.

KEY ISSUE/DEVELOPMENT STRATEGY

2. In line with the strategy of the Dundee and Angus Structure Plan that seeks to direct additional housing in the South Angus area towards Monifieth and Carnoustie, the development approach for Piperdam seeks to limit residential development to the existing approved number and distribution of house sites and support appropriate proposals which extend the area's recreation and tourism potential. To comply with the Structure Plan and Local Plan strategies further housing development would not be appropriate.

HOUSING

EXISTING SITES

3. The existing housing land supply, comprising sites with planning permission or under construction as identified in the Housing Land Audit June 2004, are shown in Table 1.

Table 1: Existing Site

(a) Piperdam	45
Total	**45**

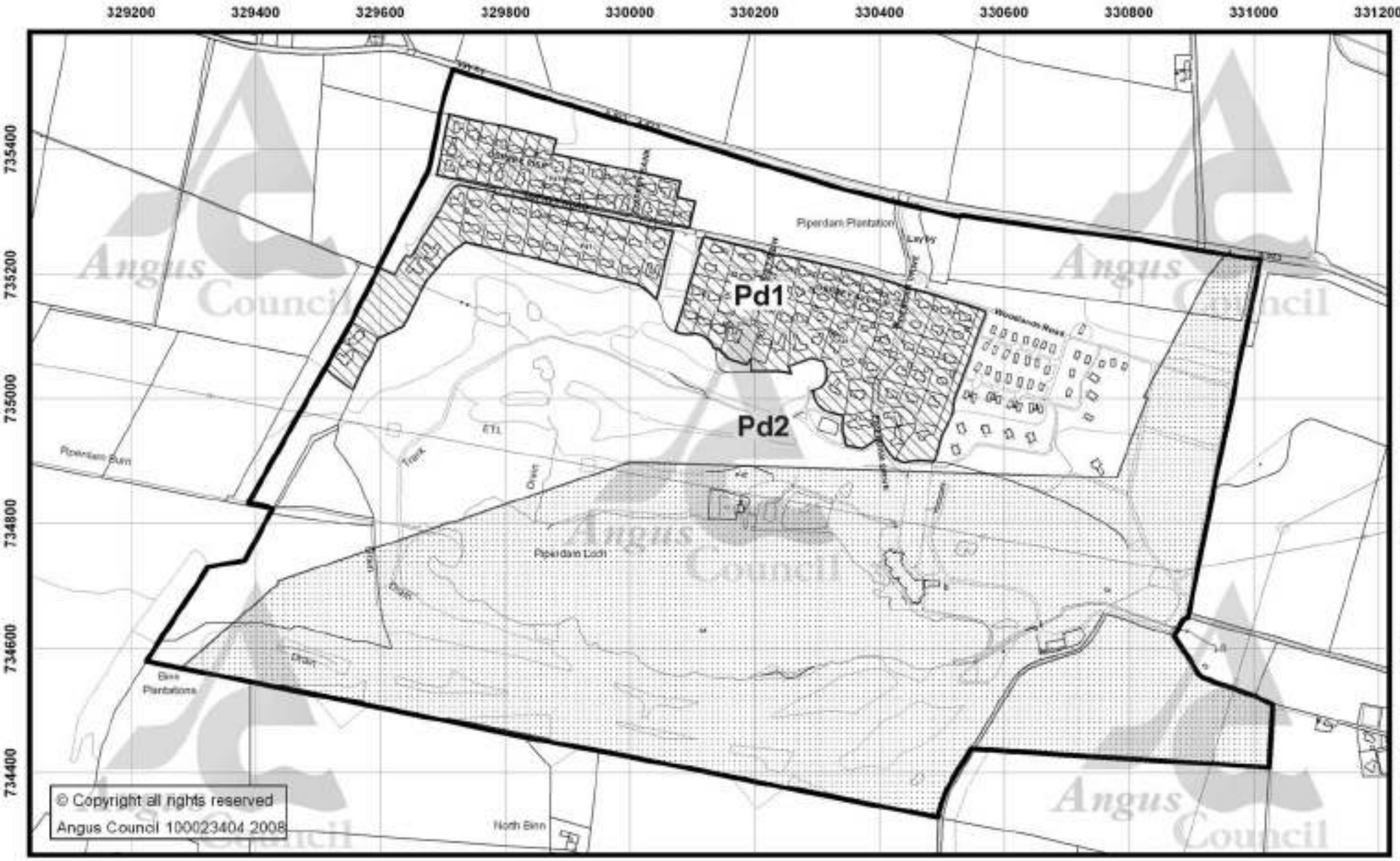
4. The sites at Piperdam include a third and final phase of housing development which was approved to support the provision of additional recreational facilities. The three phases of residential development will allow for a total of 123 dwellings to be constructed on the site. Further residential development beyond this number will be resisted.

Pd1 : Residential Development

Private residential development at Piperdam will be limited to a maximum of 123 dwellings in accordance with approved plans.

SPORT AND RECREATION

5. The existing facilities at Piperdam and the proposed development of chalets, timeshare properties and other facilities including nine hole golf course, woodland walk, tennis courts and children's play area will contribute to the tourism and recreation resource of Angus. Future proposals which consolidate and where appropriate expand the tourism potential of Piperdam will be supported where these are compatible with the Local Plan Strategy for the South Angus Housing Market Area. This strategy does not support further residential development at Piperdam.



Piperdam

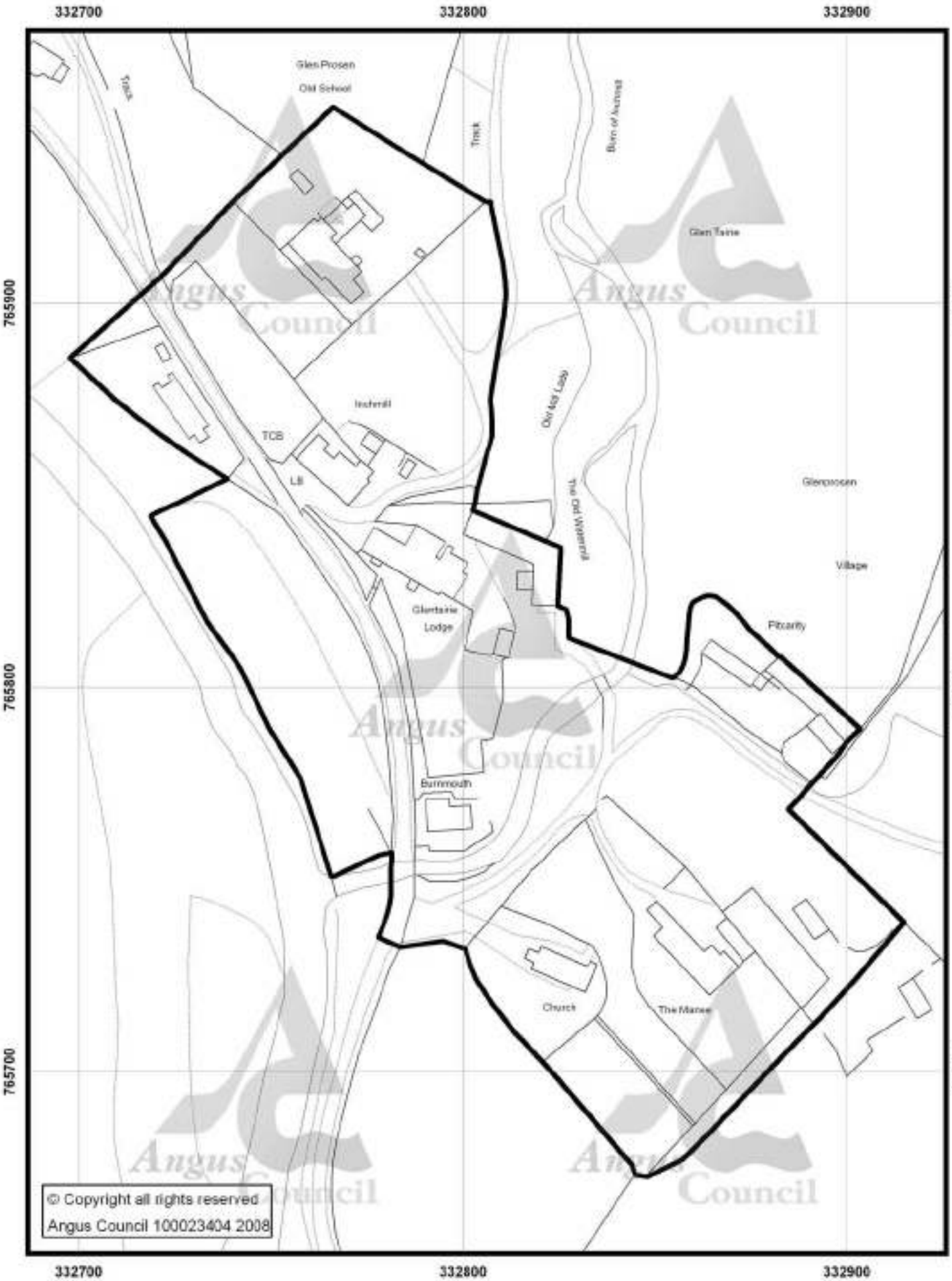
Angus Local Plan Review

0 110 220 440 Metres

N W E S

Pd2 : Recreation Development

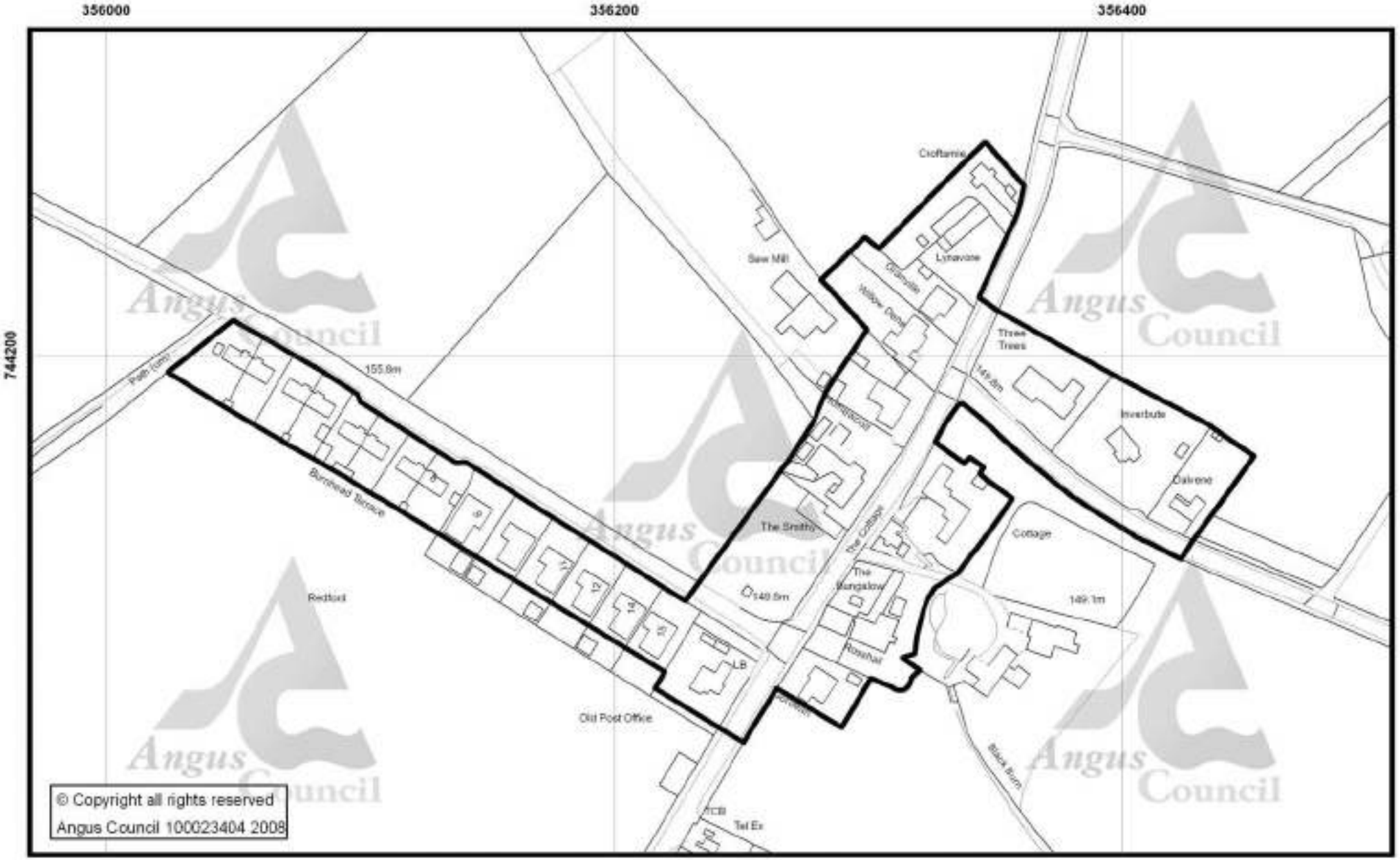
Proposals which extend the tourism and recreational potential of Piperdam, will be supported where they are compatible with existing land uses/activities, are not detrimental to the area's setting and environment and comply with the Structure Plan and Local Plan strategy.



Prosen Village
Angus Local Plan Review

0 10 20 40 Metres

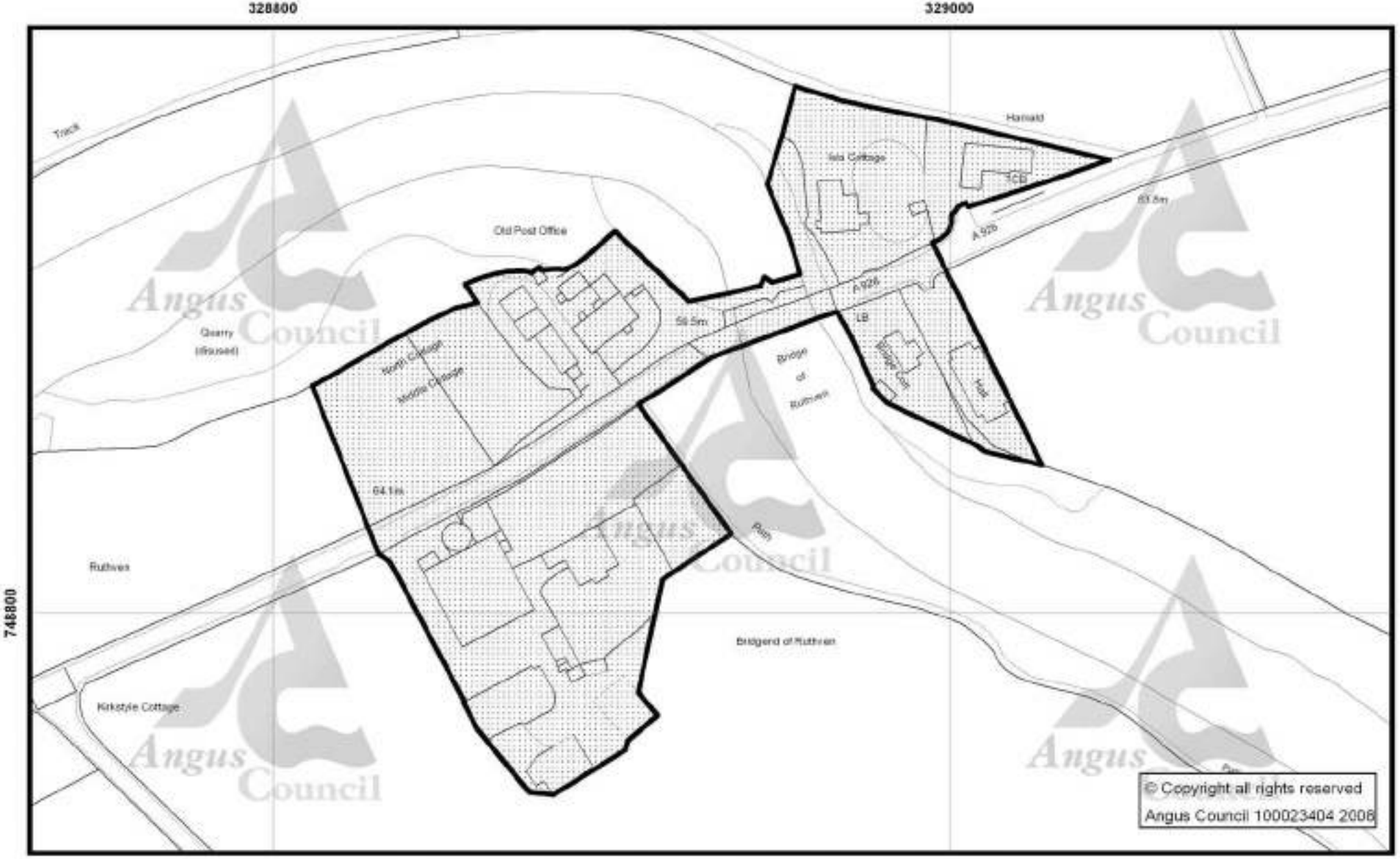
N W E S



Redford
Angus Local Plan Review

0 30 60 120 Metres

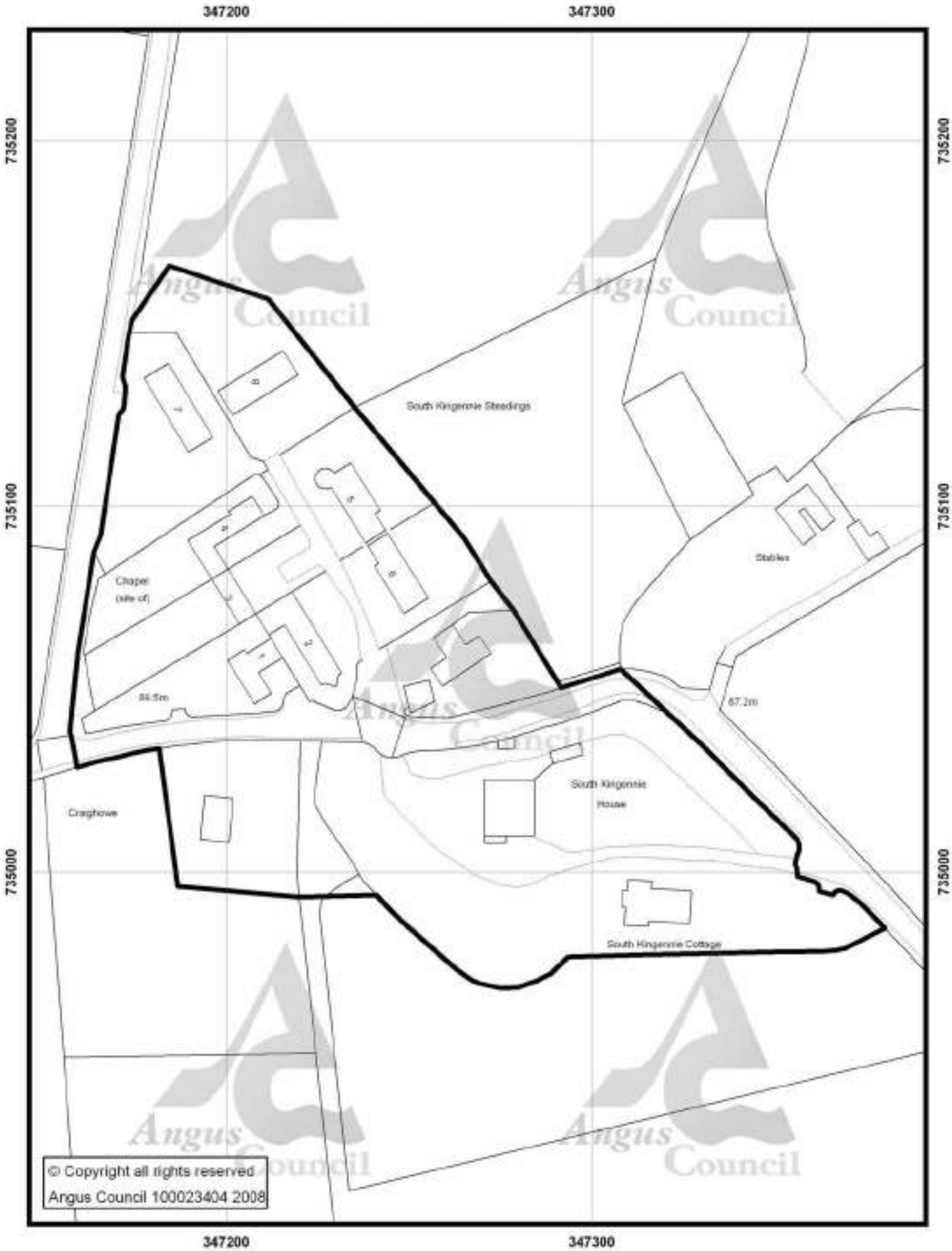
N W E S



Ruthven
Angus Local Plan Review

0 20 40 80 Metres

N W E S



South Kingennie
Angus Local Plan Review

0 10 20 40 Metres

N W E S

STRATHMARTINE HOSPITAL

1. The Strathmartine Hospital Estate lies to the northwest of Dundee. Although a small part of the estate has been retained in health care use the remainder of the site (17.5 ha) has been declared surplus to the requirements of the NHS Trust. The surplus buildings and landscaped grounds offer an opportunity for reuse and redevelopment for a range of uses, in the context of the strategy for the South Angus Housing Market Area.

PROFILE

Role:
Surplus former hospital site on the northern fringe of Dundee.

Drainage:
Existing hospital drainage system.
Surface water disposal to the Dighty Water.

KEY ISSUE/DEVELOPMENT STRATEGY

2. The development approach for the Strathmartine Hospital Estate during the life of this Local Plan will be to support proposals for the appropriate reuse and redevelopment of the site for a mix of uses in the context of the strategy for the South Angus Housing Market Area. Housing development will be limited to a maximum of 40 residential units from the conversion of the important category B listed building and any additional new housing.

3. The feasibility of other compatible land uses and activities such as business uses, non-mainstream housing (nursing home, sheltered housing, etc), leisure and recreational uses should be investigated. A comprehensive strategy or master plan to guide the development of this important urban fringe site will be required and should address issues such as primary and secondary school capacity, timing and phasing of development, landscape setting and existing tree cover, and public safety and security related to existing redundant structures.

OPPORTUNITY SITES

4. The following site provides an opportunity for redevelopment. Where proposals involve new housing development they will require to contribute towards meeting the provisions of Policy SC9 : Affordable Housing (see page 33).

***Opportunity Sites**: Sites available for redevelopment for housing and/or other uses. Given uncertainties related to the timing of release of such sites for development and the range of potentially suitable uses, they are not counted towards meeting the Structure Plan housing allowances until planning permission is granted.*

Opportunity Site

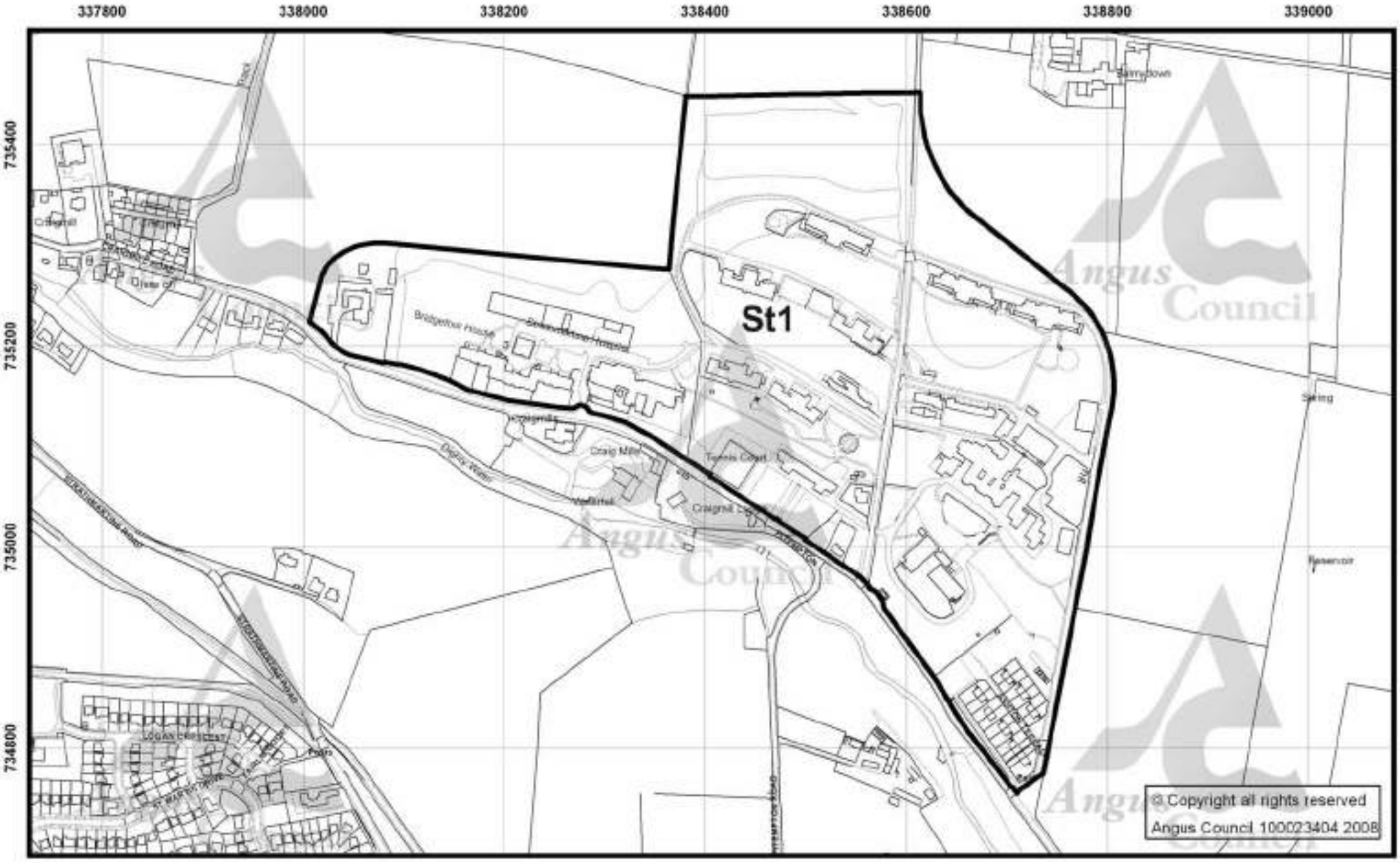
St1: Strathmartine Hospital Estate

St1: Opportunity Site - Strathmartine Hospital Estate

The Strathmartine Hospital Estate provides an opportunity for reuse and redevelopment for a range of uses. Proposals for reuse of the site must be in accordance with a comprehensive strategy or master plan which will be prepared for this site and include details of the following requirements:

- **retention of the existing listed building;**
- **the timing, phasing and location of development;**
- **public safety and security related to existing structures;**
- **the retention of existing tree cover and hedgerows, enhancement of the landscape setting and biodiversity of the site;**
- **provision for public access to the landscaped grounds for informal recreational purposes.**

Housing development will be limited to a maximum of 40 residential units comprising the conversion of the existing listed building and any limited new housing development.

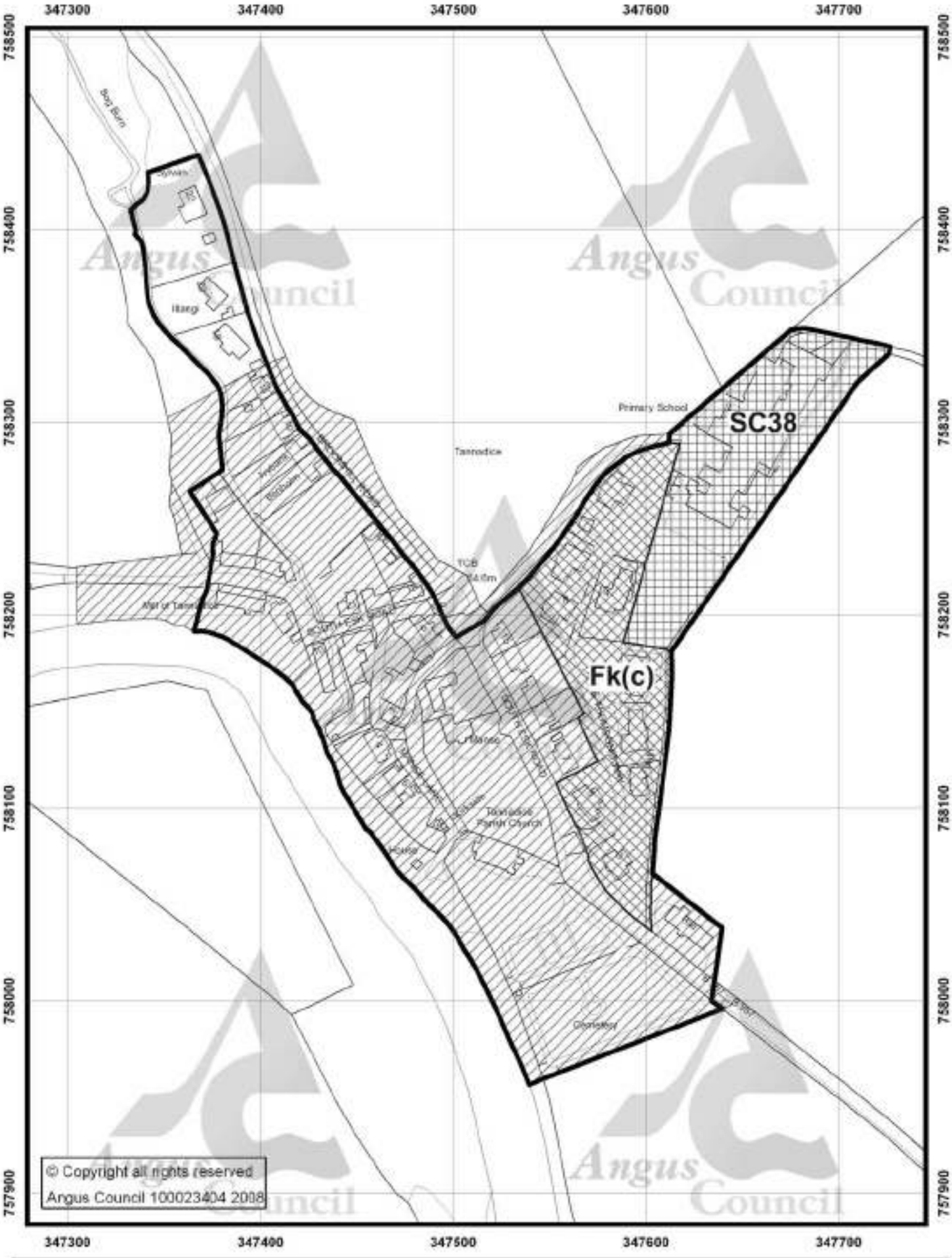


Strathmartine Hospital

Angus Local Plan Review

0 65 130 260 Metres

N W E S

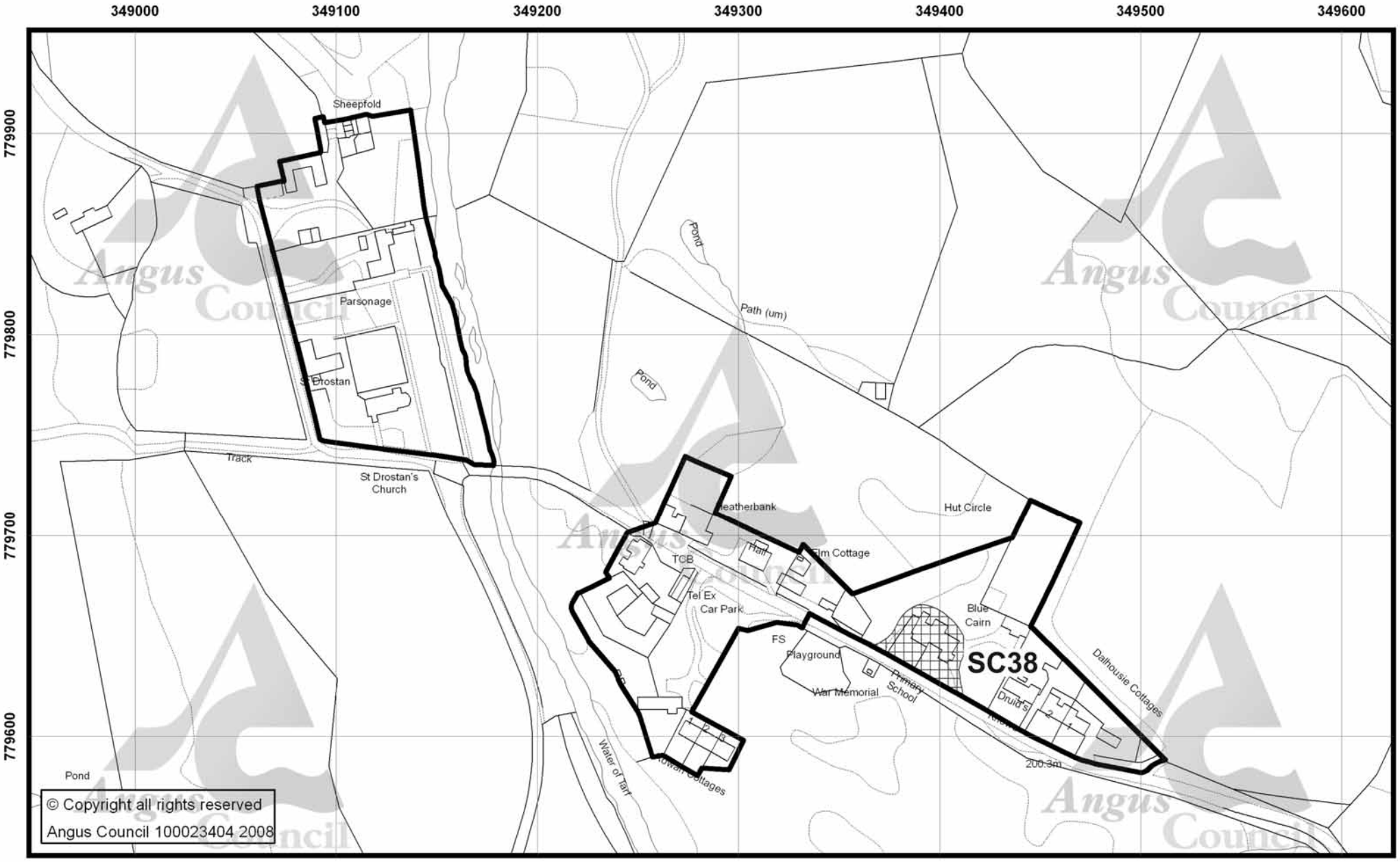


Tannadice

Angus Local Plan Review

0 20 40 80 Metros

N W E S

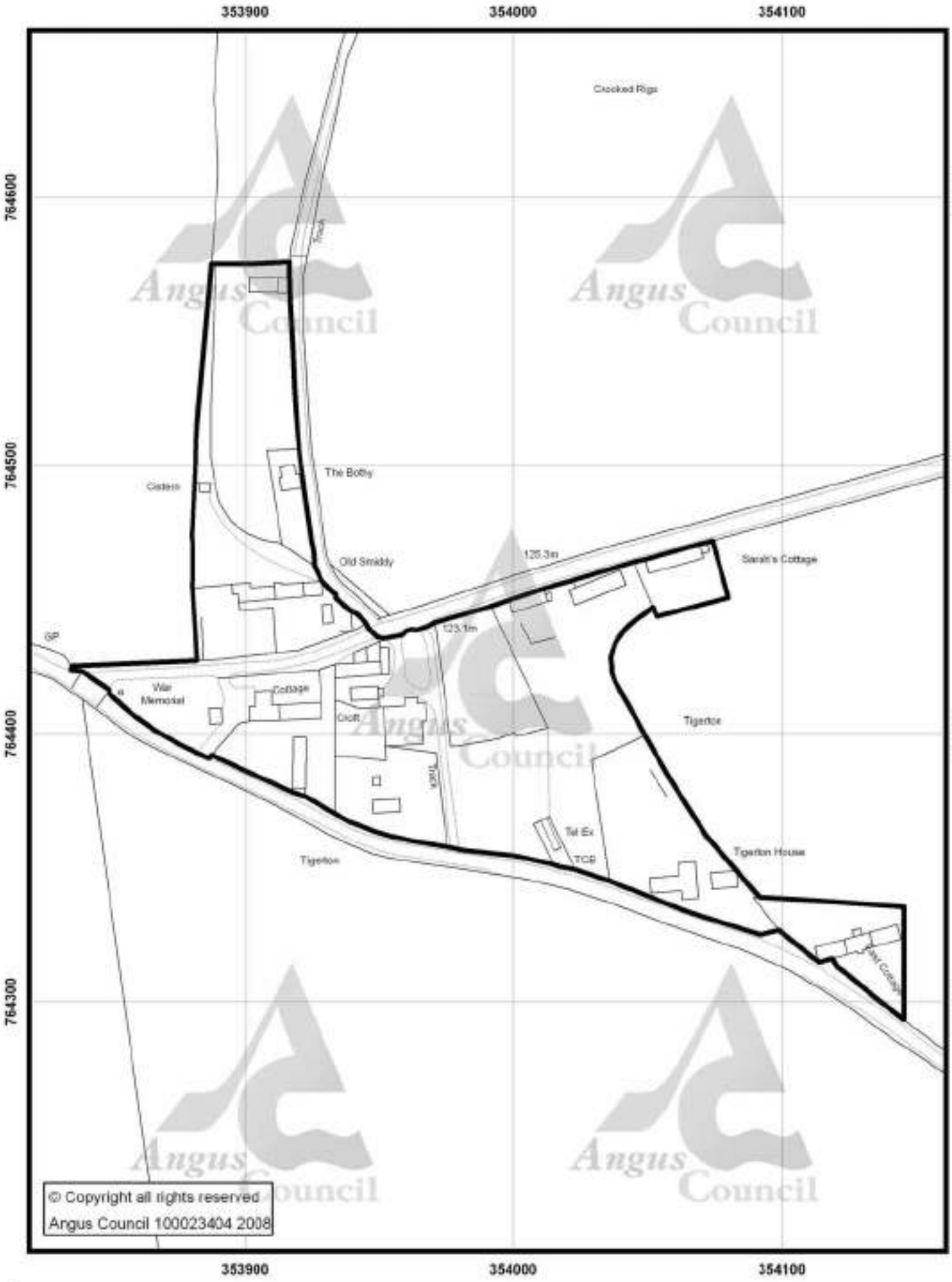


Tarfside

Angus Local Plan Review

0 30 60 120 Metres

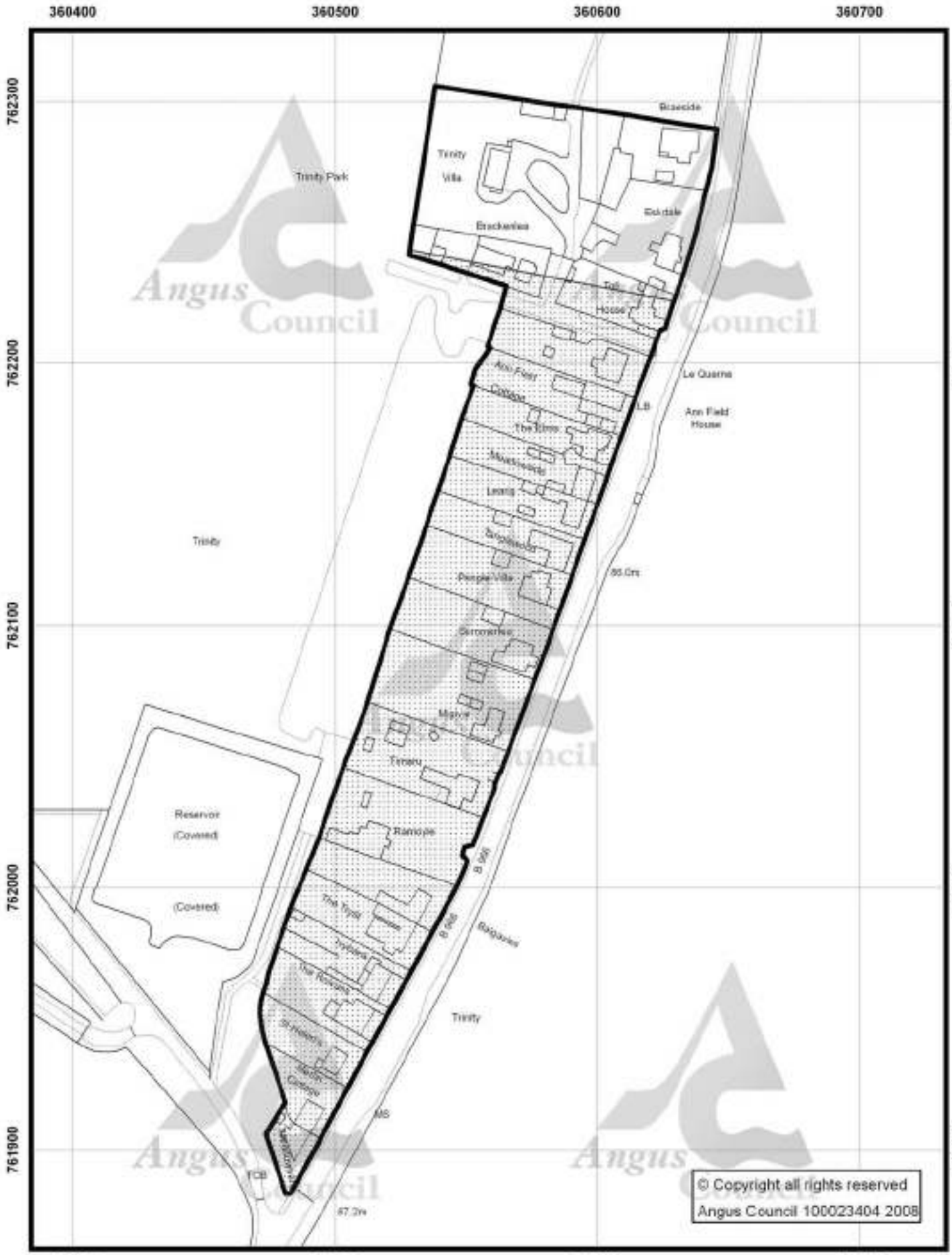
N W E S



Tigerton
Angus Local Plan Review

0 15 30 60 Metres

N W E S



Trinity
Angus Local Plan Review

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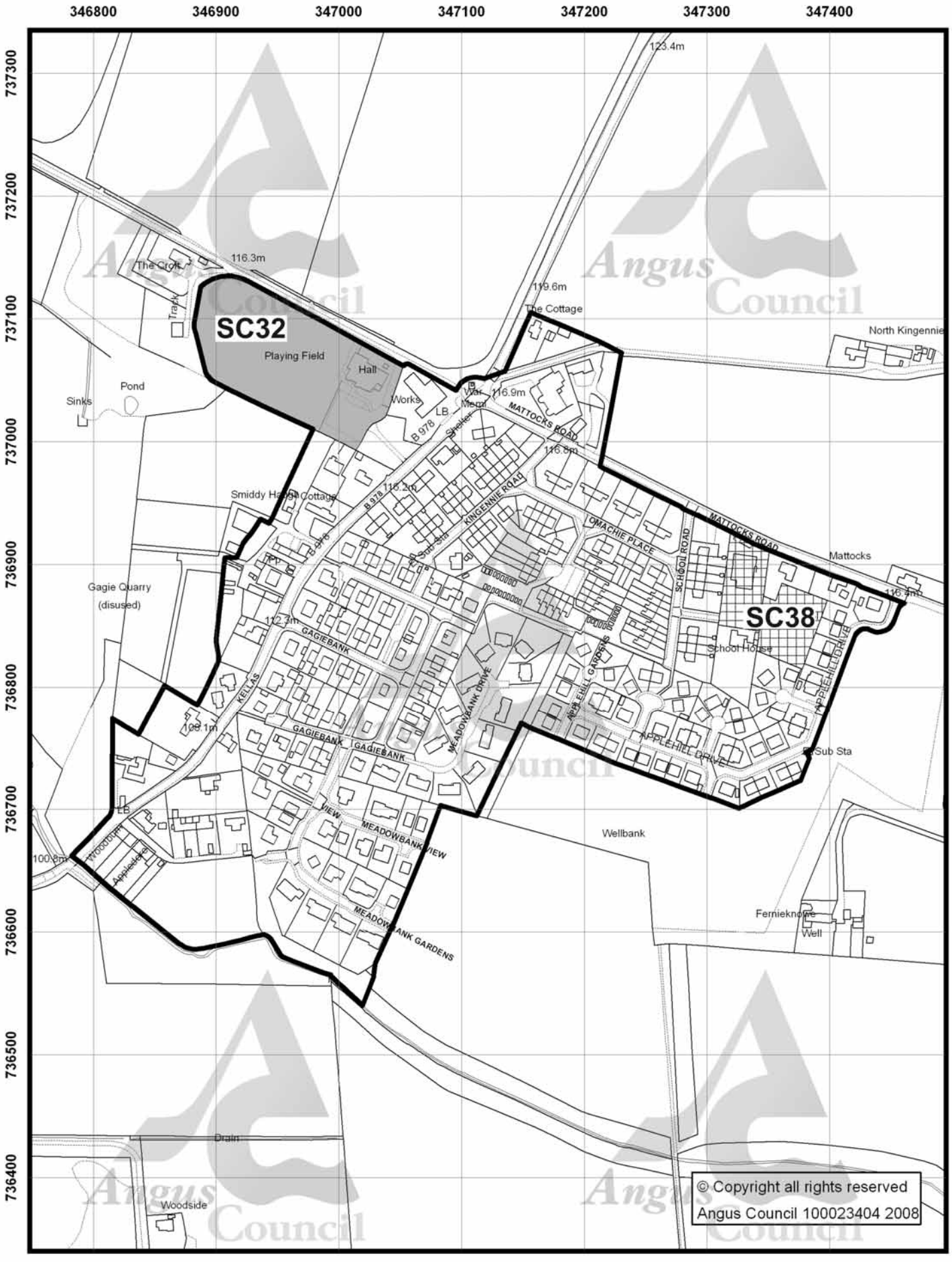
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736400
SC32
Playing Field
SC38
Hall
Works
Pond
Sinks
The Croft
Track
116.3m
123.4m
119.6m
The Cottage
North Kingennie
116.9m
MATTOCKS ROAD
116.8m
B 978
Shelter
Smiddy Hall Cottage
115.2m
KINGENNIE ROAD
OMACHIE PLACE
SCHOOL ROAD
Mattocks
116.4m
Gagie Quarry
(disused)
112.3m
GAGIEBANK
KELLAS
109.1m
MEADOWBANK DRIVE
APPLEHILL GARDENS
APPLEHILL DRIVE
School House
Sub Sta
LB
Woodburn
Applefield
100.8m
VIEW
MEADOWBANK VIEW
MEADOWBANK GARDENS
Wellbank
Fernieknowe
Well
Drain
Woodside
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Angus Council 100023404 2008
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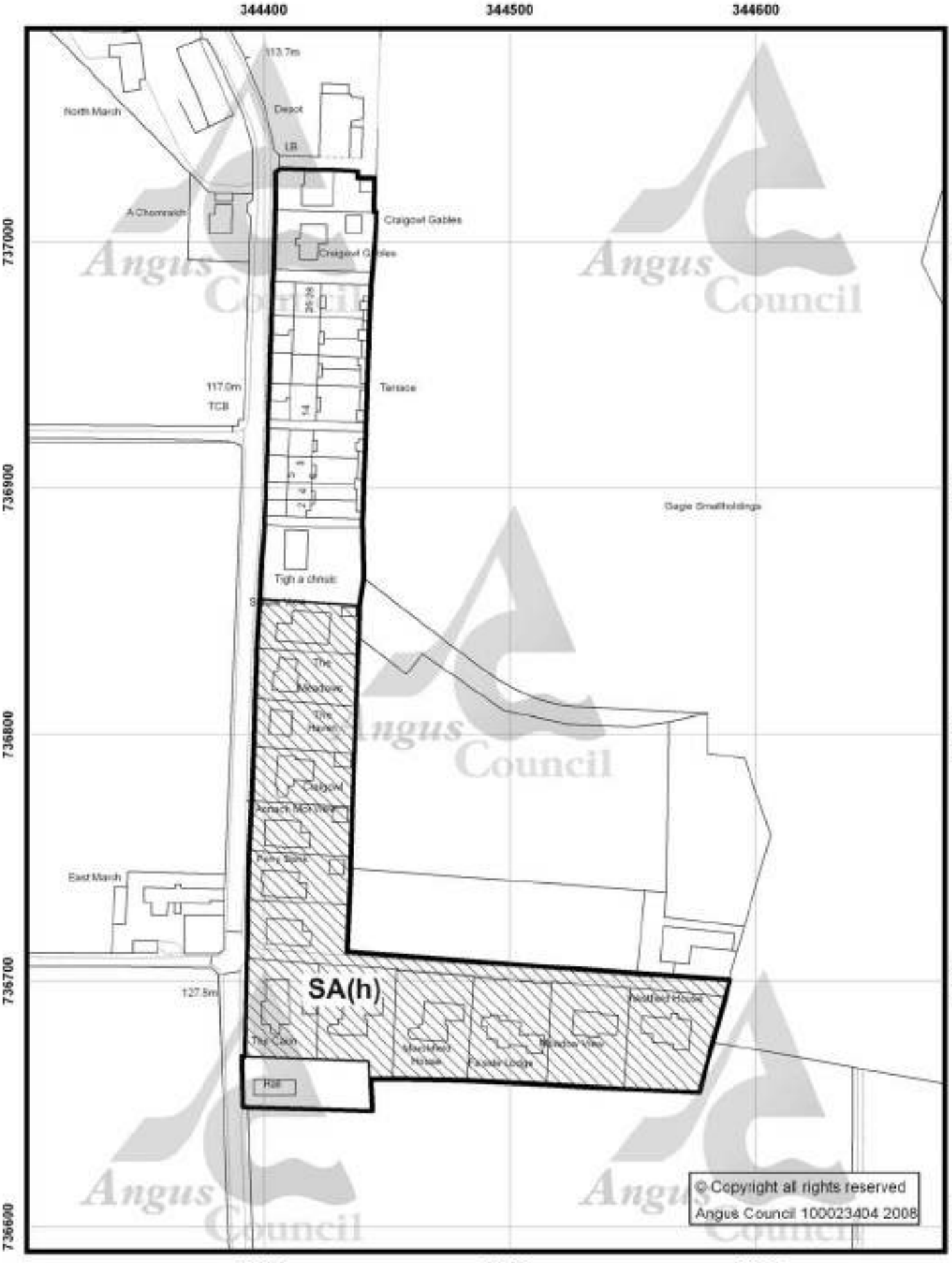

Westhall Terrace
Angus Local Plan Review

0 15 30 60 Metres

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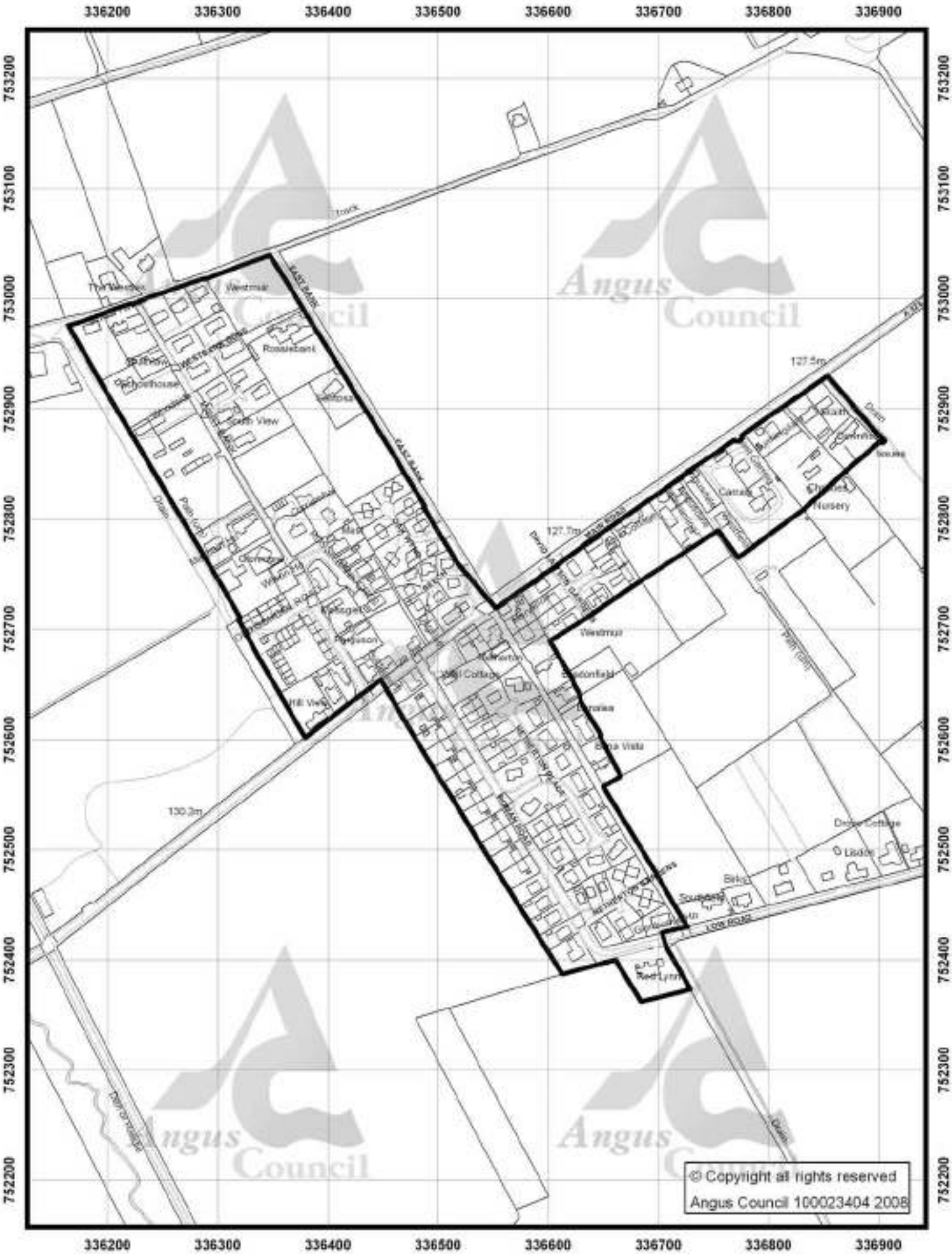
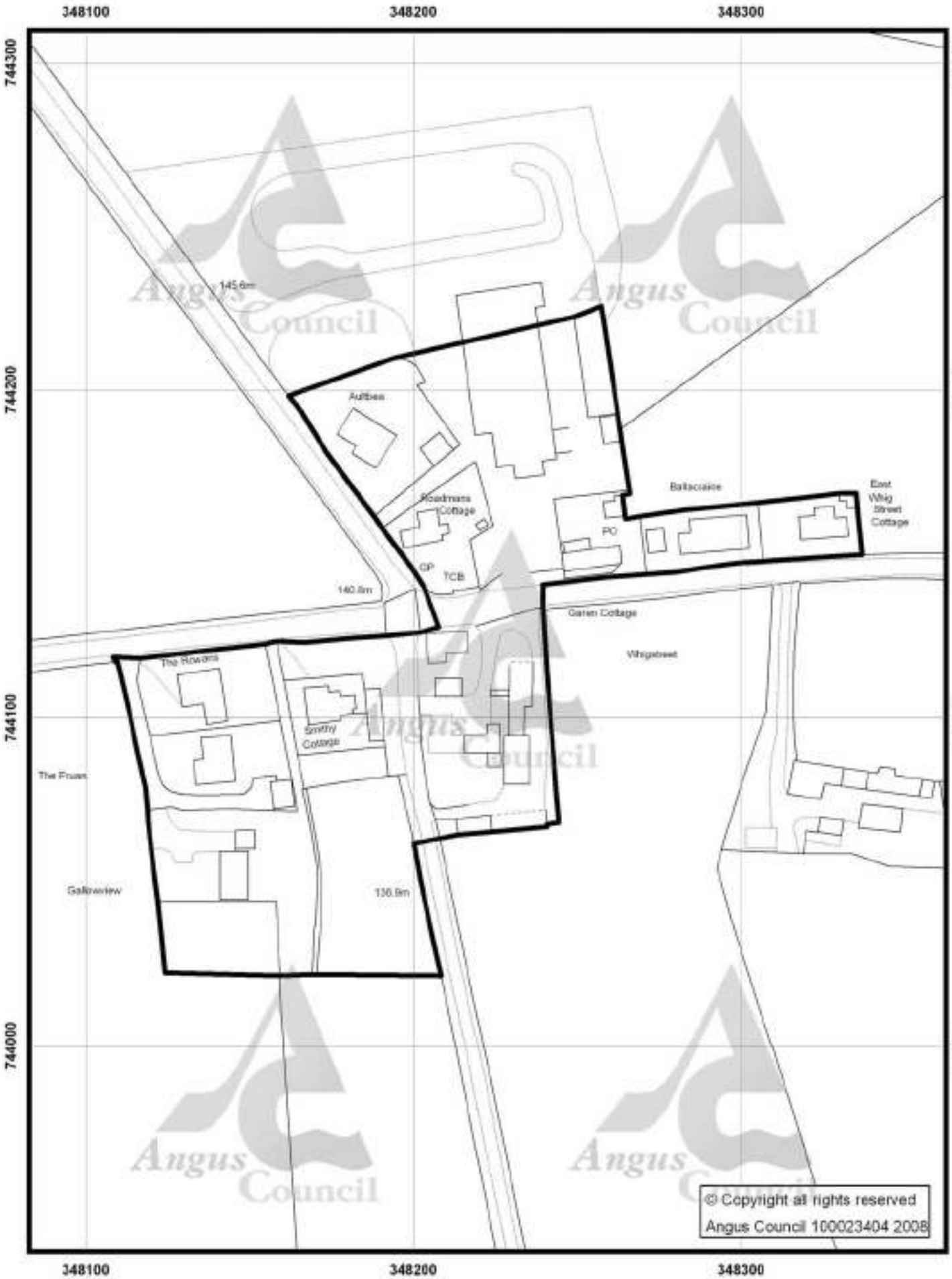


Westmuir

Angus Local Plan Review

0 35 70 140 Metres

N W E S

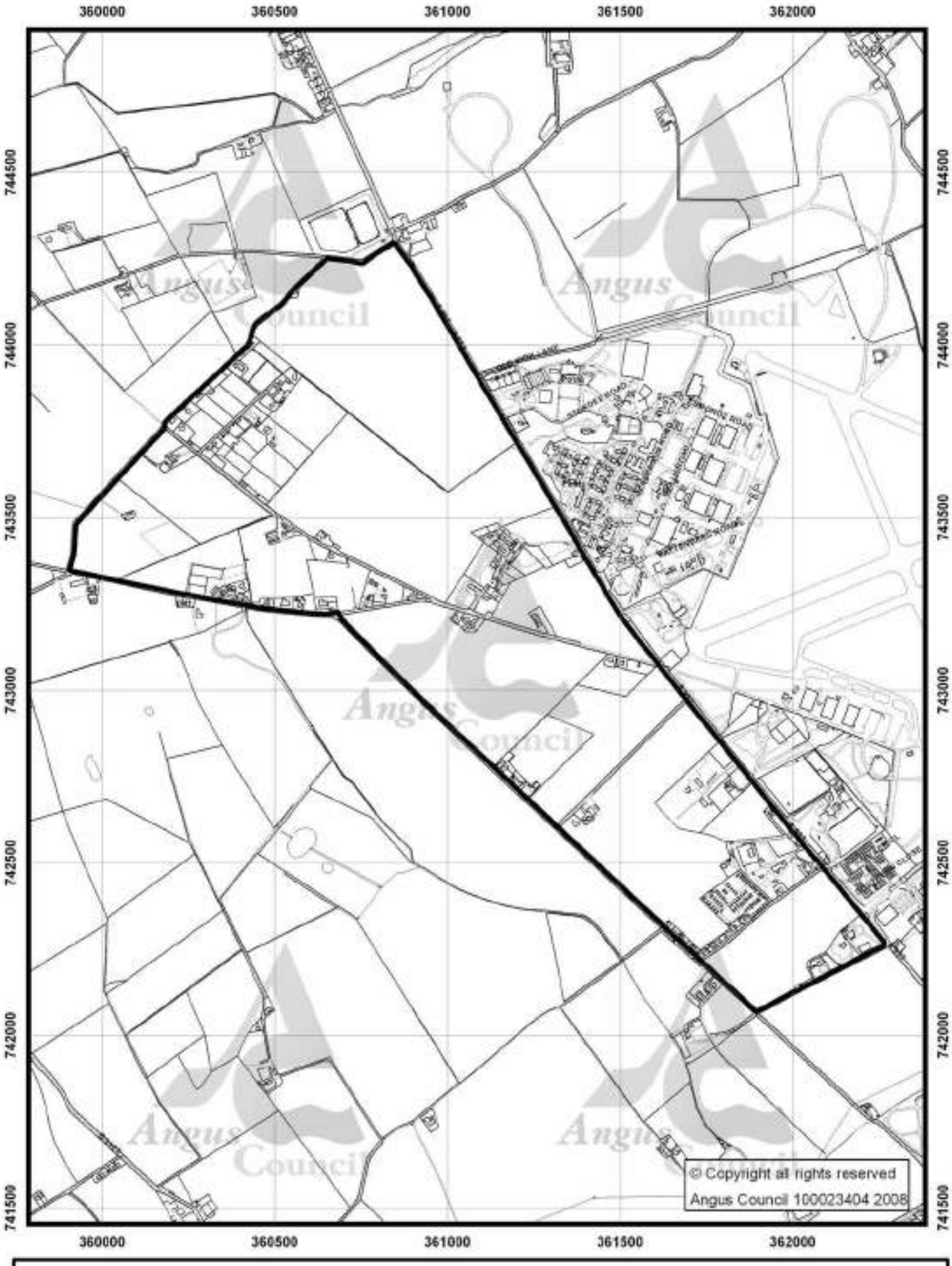


Whigstreet

Angus Local Plan Review

0 15 30 60 Metres

N W E S



Woodville

Angus Local Plan Review

0 137.5 275 550 Metres

N W E S

WOODVILLE

1. Woodville, located north of Arbroath to the west of the A933, is an area where urban uses are encroaching into the countryside on the fringe of the town and incrementally changing its character from countryside to suburban. The area is characterised by loose groupings of individual houses, smallholdings, a hotel, two caravan sites and scattered commercial and industrial premises (some of which are agriculturally based).

KEY ISSUE/DEVELOPMENT STRATEGY

2. The Woodville area continues to experience pressure for the development of housing and other urban uses to the detriment of its countryside character. The Local Plan approach is to restrict urban sprawl and resist the increasing urbanisation of Woodville. Development will generally only be considered acceptable for essential worker housing or where the use is directly associated with agriculture or horticulture.

Wv1: Woodville Development Approach

Within the development boundary identified for the wider Woodville area, only proposals directly associated with agriculture or horticulture will be permitted. New housing will only be supported where it provides essential worker housing for established businesses.

PROFILE

Role:
The Woodville area is a loose grouping of houses, smallholdings, an hotel, caravan site and scattered commercial and industrial premises situated on the outskirts of Arbroath

Housing Land Supply June 2003:
existing - 0

Drainage:
The area is not served by public sewers. Development is dependent on private drainage arrangements with discharge to ground soakaway or local watercourse.

PART 5: Implementation, Monitoring and Review

Contents

IMPLEMENTATION

Introduction

5.1 This local plan provides a framework for managing land-use change and development, and as such must be capable of implementation. The status of the Development Plan in the decision making process provides for a greater degree of consistency and certainty in how the Plan will be implemented and underpins the overall approach of putting the Plan into action.

***Section 25** states:-*

Where, in making any determination under the Planning Acts, regard is to be had to the development plan, the determination shall be made in accordance with the plan unless material considerations indicate otherwise.

Town and Country Planning (Scotland) Act 1997

Partnerships and Related Strategies

5.2 Developing partnerships is one of the key themes guiding the work and priorities of Angus Council. This includes partnerships with the community; with statutory bodies and other public, private and voluntary agencies and organisations; and with private interests. In helping to translate these partnerships into action the local plan forms part of an important two-way process which is informed by and in turn seeks to inform various other plans, strategies and initiatives developed both by the Council and its partners. The Local Plan therefore has an important role in providing a land use framework and land management overview. A broad indication of some of the links to other strategies, plans and initiatives is summarised in Appendix 4 which identifies a matrix of associated documents.

Proposals

5.3 Proposals are intended actions of significance to the Plan area to be undertaken by Angus Council, or by other public or private bodies or individuals that will be implemented within about five years of the adoption of the Plan. The specific proposals applying to individual settlements identified in Part 4 of this Written Statement concern the allocation of land for development together with various actions in support of the Development Strategy for each settlement. These proposals and actions will be implemented by various measures including via the development control process in respect of applications to develop specific sites.

Development Briefs have been prepared for:

- *Sunnyside Royal Hospital, Hillside*
- *Orchardbank , Forfar*
- *Bearehill/Rosehill, Brechin*
- *Brechin Business Park*
- *Inverkeilor*
- *Ashludie Hospital, Monifieth*
- *Newton Road, Carnoustie*
- *Brechin Road, Montrose*

Development Briefs will be prepared for:

- *Montrose Road, Arbroath*
- *Dubton Farm, Brechin*
- *Hillhead, Kirriemuir*
- *Montrose Airfield*
- *South of Gardyne Street, Friockheim*
- *Jubilee Park, Letham*
- *Strathmartine Hospital*

5.4 Further guidance on the development of various sites allocated in the local plan will be published in the form of more detailed development briefs. These briefs will set out the development phasing, mix of uses, infrastructure requirements and guidance on site layout and design matters. They will also indicate requirements for vehicular, pedestrian and cyclist access; landscape and open space provision; and the need for related community facilities and developer contributions.

Resources and Developer Contributions

5.5 While Angus Council has published this Finalised Local Plan other agencies and developers will fund many of the development proposals and opportunities. This includes various aspects of infrastructure necessary to implement the Development Strategy. The Council will prepare supplementary guidance to provide an indication of the nature of

public services, community facilities and infrastructure for which developer contributions may be anticipated on a settlement-by-settlement basis. The guidance will be revised as and when circumstances dictate.

5.6 A key consideration will be to secure sufficient resources from both the public and private sectors to ensure service and infrastructure provision. This includes encouraging the private sector to contribute towards the removal of infrastructure constraints in accordance with the Development Strategy through appropriate planning agreements taking account of opportunities for delivering planning gain.

5.7 New development has an important role in funding measures to mitigate any adverse impacts in a way that is consistent with the delivery of wider planning and environmental objectives. Indeed, in Angus, as elsewhere in Scotland, the bulk of the funding for infrastructure and facilities arising from major new greenfield housing developments will probably have to come from contributions by developers.

5.8 Circular 12/1996 advises that development plans should give guidance on the particular circumstances in which planning authorities will seek to use Section 75 Planning Agreements. Developer contributions will be sought where the impacts of a scheme warrant them. Such contributions should be designed to avoid a significant negative impact as a result of the development, and to ensure a high quality and properly serviced development. Contributions may be appropriate both on-site and off-site, depending on the nature of the prospective impact. In appropriate cases, Angus Council may take the joint impact of several related schemes into account. The provision of contributions will not make a fundamentally inappropriate scheme acceptable in planning terms. They are designed to apply to cases where there is a significant impact that is capable of mitigation to produce an acceptable scheme.

Circular 12/1996: The Town and Country Planning (Scotland) Act 1972

Policy Imp1 : Developer Contributions

Developer contributions will be required in appropriate circumstances towards the cost of public services, community facilities and infrastructure and the mitigation of adverse environmental impacts that would not have been necessary but for the development. Such contributions will be consistent with the scale and effect of the development and may relate to both on-site and off-site items that are required to produce an acceptable development in the public interest.

Enforcement of Planning Control

5.9 In order to assist a structured and proactive approach and provide the general public, developers and applicants for planning permission with further information, advice and guidance Angus Council have prepared a Code of Practice for Enforcement of Planning Control. Effective enforcement is an essential element underpinning the planning system, complementing and supporting the development planning process. Under the Town and Country Planning (Scotland) legislation a range of planning enforcement powers are available to ensure that

development is not carried out in breach of planning control or against the public interest. In assessing the need for planning enforcement action, one of the key issues to be determined by Angus Council is whether the breach of control would unacceptably affect public amenity or any existing use of land and/or buildings. The policies and proposals of the Local Plan provide broad guidance on what may or may not be acceptable and will form one of the main considerations taken into account by the Council.

5.10 The level and nature of enforcement action will be in scale with the breach of planning control to which it relates. As outlined in the Enforcement Charter the initial approach of Angus Council will generally be to seek a voluntary solution to the situation through negotiation with the owner or occupier of the site or through the submission of a planning application. However, where negotiation fails and the circumstances warrant, a more proactive enforcement response may be needed. The weight of enforcement action will be dependent on the severity of the breach and whether public safety and/or health are endangered. Areas of particular sensitivity include town centres, heritage designations particularly conservation areas and listed buildings, residential property and areas of landscape importance.

5.11 Where enforcement action is instigated, a right of appeal may exist to Scottish Ministers, which would be determined by an independent assessor from the Scottish Office Inquiry Reporters' Unit. It should however be noted there is no right of appeal for third parties and in this respect Angus Council are charged with looking after their interests and those of the wider community.

Policy Imp2 : Enforcement of Planning Control

Where there has been a breach of planning control, Angus Council will take enforcement action where it is considered necessary to remedy the breach including where it will secure compliance with the policies of this Local Plan.

MONITORING AND REVIEW

Introduction

5.12 Monitoring of the local plan is a statutory responsibility placed on Angus Council to assess the continuing relevance of the plan and identify the need for and timing of alterations or a full review. By regularly undertaking systematic monitoring of the plan, the Council can ensure the policies and proposals contained in the plan continue to be relevant and provide a firm basis for investment guidance and development control over the plan period.

Planning Advice Note 49 "Local Planning" para 14

Planning authorities should ensure that statutory plans maintain their relevance by addressing current and emerging land use and environmental issues and that they contain robust policies for the promotion and control of development.

Monitoring requirements and data tracking

5.13 Effective monitoring involves an assessment of a variety of factors including the following:-

- the implications arising from monitoring the approved Dundee and Angus Structure Plan;
- changes in national planning legislation or guidance;
- changes in local priorities;
- emergence of new issues or development pressures the local plan has not catered for;
- changes in spending programmes of the local authority or other agencies;
- performance of local plan policies and proposals in dealing with issues and proposals for development;
- the extent to which local plan policies and proposals have been fully implemented or overtaken;

5.14 Existing informal/formal data sources and mechanisms which will be used and further developed to gather information include:

- annual housing land audit;
- annual employment land assessment;
- annual survey of derelict and vacant land and premises;
- audit of community facilities;
- analysis of development control decisions to ensure consistency;
- assessment of appeal decisions;
- monitoring of proposals granted which are departures from the Structure or Local Plan;
- research into emerging policy issues;
- relevant biodiversity indicator.

Review

5.15 The Finalised Angus Local Plan Review has been prepared with an element of flexibility (e.g. in relation to housing land allocations) in order to be sufficiently robust to accommodate some changes arising from the inevitable uncertainty associated with longer term forecasting and planning. The need to adjust, amend and update parts of the plan as part of the monitoring and review process is, however, also recognised. The Plan has been prepared in a form and following a format that will allow for selective updating of specific parts of the Plan without compromising its overall integrity. Clearly major shifts in overall strategy would require a comprehensive review and full replacement of the Plan. However it is expected that this will not be needed on a frequent basis.

PART 6: Appendices

APPENDIX 1 – DEVELOPMENTS REQUIRING A TRANSPORT ASSESSMENT

A Transport Assessment will require to be submitted for all development proposals which fall at or above the size thresholds set out below.

USE	SCALE
Retail	1,000 sq.m Gross Floor Area
Cinemas and Conference Facilities	1,000 sq.m Gross Floor Area
Leisure Facilities	1,000 sq.m Gross Floor Area
Business/Office	2,500 sq.m Gross Floor Area
Industry	5,000 sq.m Gross Floor Area
Distribution and Warehousing	10,000 sq.m Gross Floor Area
Hospitals/Health Care Facilities	2,500 sq.m Gross Floor Area
Education Facilities	2,500 sq.m Gross Floor Area
Stadia	1,500 seats
Housing	100 dwellings

Appendix 2 : Housing Land Supply in each Housing Market Area by Site

	Sites with Planning Permission at June 2004	No. of Units	Sites Previously Identified by first Angus Local Plan	No. of Units	Allocated Sites	No. of Units
ARBROATH HMA						
Arbroath	A(a) The Elms/ Cairnie Road	6	A1 : Montrose Road	200	A5 : Cliffburn	125
	A(b) McGregors Walk	15	A2 : James Street Hall	17		
	A(c) Lochlands Drive/ Cairnie Street	10	A3 : Millgate Loan/ East Mary Street	20		
	A(d) East Newgate 2	13	A4 : Benedict Road	20		
	A(e) Cliffburn Road	7				
	A(f) Millgate/ Alma Works	8				
	A(g) Abbeybank House	9				
	A(h) Seagate	14				
	A(i) Elliot	31				
	A(j) Edradour Gardens	12				
Sub total		**125**		**257**		**125**
Landward						
Auchmithie					Am1 : Kirkbank	15
Friockheim	Fk(a) Millgate 1	3			Fk1 : Millgate 3	16
	Fk(b) Millgate 2	1			Fk2 : South of Gardyne Street	40
	Fk(c) Kinnell Gardens	9				
Inverkeilor	Ik(a) Village Field	4			Ik1 : Lunan Avenue	4
	Ik(b) Lunan Avenue/ Kirkton Farm	2			Ik2 : Kirkton Farm Steading	3
	Ik(c) Railway Field	45				
Letham Grange	LG(a) Letham Grange	3				
Other	ARB(a) Tarriebank House, Marywell	5				
	ARB(b) Legaston Farm, Friockheim	3				
	ARB(c) Rosecroft Court, Mosston, Carmyllie	1				
	ARB(d) Cotton of Colliston	6				
Sub total		**82**		**0**		**78**
Arbroath Area Total		**207**		**257**		**203**

	Sites with Planning Permission at June 2004	No. of Units	Sites Previously Identified by first Angus Local Plan	No. of Units	Allocated Sites	No. of Units
BRECHIN/MONTROSE HMA						
Brechin	B(a) River Street	8			B1 : Dubton Farm	100
	B(b) Bearhill/ Rosehill	93			B2 : Andover School	20
	B(c) Witchden Road	8				
	B(d) Guthrie Park	10				
Sub total		**119**		**0**		**120**
Montrose	M(a) Waldron Road	8	M1 : Brechin Road	200		
	M(b) Charleton Road	2	M2 : Dungmans Tack	18		
	M(c) Chapel Works	8	M3 : Lochside Distillery Tower	40		
	M(d) Western Road/ High Street	10				
	M(e) Brechin Road/ Tayock	9				
	M(f) Hill Place	12				
	M(g) New Wynd	15				
	M(h) Provost Johnstone Avenue	20				
	M(i) Bridge Street	22				
	M(j) Rosemount Road	7				
	M(k) Lower Balmain Street	8				
Sub total		**121**		**258**		**0**
Landward						
Edzell	E(a) Lethnot Road/ Slateford Road	18			E1 : Edzell School Annex	6
	E(b) Lindsay Place	14				
Other	BM(a) North Craigo	5				
	BM(b) Mains of Farnell	5				
	BM(c) Barns of Craig Farm	9				
Sub total		**51**		**0**		**6**
Brechin/Montrose Total		**291**		**258**		**126**

	Sites with Planning Permission at June 2004	No. of Units	Sites Previously Identified by first Angus Local Plan	No. of Units	Allocated Sites	No. of Units
FORFAR, KIRRIEMUIR AND THE GLENS HMA						
Forfar	F(a) Montrose Road	25	F2 : Beechill Nursery	5	F4 : Wester Restenneth	150
	F(b) Slatefield Farm	12	F3 : Green Street	20	F5 : Whitehills Nursery	100
	F(c) Dundee Road	6			F6 : Dundee Road	100
	F(d) Turfbeg Farm	21			F7 : Gowanbank	60
	F(e) Victoria Street	6			F8 : Slatefield	5
	F(f) Roberts Street/ Prior Road	25				
	F(g) Service Road	2				
	F(h) Prior Road 1	5				
	F(i) Prior Road 2	3				
	F(j) North Street	6				
	F(k) Manor Rise	7				
Sub total		**118**		**25**		**415**
Kirriemuir	K(a) Glengate	8	K1 : Shielhill Road	10	K2 : Hillhead	80
	K(b) Westfield/Lindsay St	39			K3 : Sunnyside	40
Sub total		**47**		**10**		**120**
Landward						
Glamis	G(a) Dundee Road West	24				
Kingsmuir			Ki1 : Bunkerhill	12	Ki2 : Kingston Place	12
Letham					L2 : Jubillee Park	30
					L3 : East Hemming Street	30
Other	FK(a) Damside, Netherton	6				
	FK(b) South Leckaway	6				
	FK(c) Tannadice Glebe	10				
	FK(d) Blackhall Farm, Menmuir	2				
Sub total		**48**		**12**		**72**
Forfar, Kirriemuir and the Angus Glens Total		**213**		**47**		**607**

	Sites with Planning Permission at June 2004	No. of Units	Sites Previously Identified by first Angus Local Plan	No. of Units	Allocated Sites	No. of Units
SOUTH ANGUS HMA						
Carnoustie	C(a) Westhaven Farm	12	C1 : Newton Road 2	158	C2 : Former Maltings	130
	C(b) Lochend Road	10				
	C(c) Newton Road 1	31				
	C(d) Ravensby Road	10				
	C(e) Taymouth Terrace	81				
Sub total		**144**		**158**		**130**
Monifieth	Mf(a) South Grange	25	Mf1 : Ashludie Hospital Phase 2	25		
	Mf(b) Ashludie Terrace	1				
	Mf(c) West Grange Road	3				
Sub total		**29**		**25**		**0**
Landward						
Ballumbie House	Ba(a) Ballumbie House	184				
Liff	Li(a) Henderson Park	8				
Monkie	Mk(a) Panmure Road	7	Mk1 : Granary Site	60		
Newbigging			Nb1 : Pitairlie Road	20		
Piperdam	Pd(a) Piperdam	45				
Other	SA(a) Bridgefoot Farm Steading, Bridgefoot	4				
	SA(b) Balruddery	2				
	SA(c) Flocklones Farm, Invergowrie	7				
	SA(d) Berryhill Farm, Invergowrie	9				
	SA(e) Dronley Road, Muirhead	69				
	SA(f) Balmuir Farm	2				
	SA(g) Templeton Farm, Dronley	5				
	SA(h) Quarry Site, Westhall Terrace	1				
	SA(i) Kingennie Fishings	14				
	SA(j) Craigton Poultry Farm, Monikie	1				
	SA(k) Old Dairy Farm, Muirdrum	5				
	SA(l) Hospital Road, Auchterhouse	16				
Sub total		**379**		**80**		**0**
South Angus HMA Total		**552**		**263**		**130**
Angus Total		**1263**		**825**		**1066**

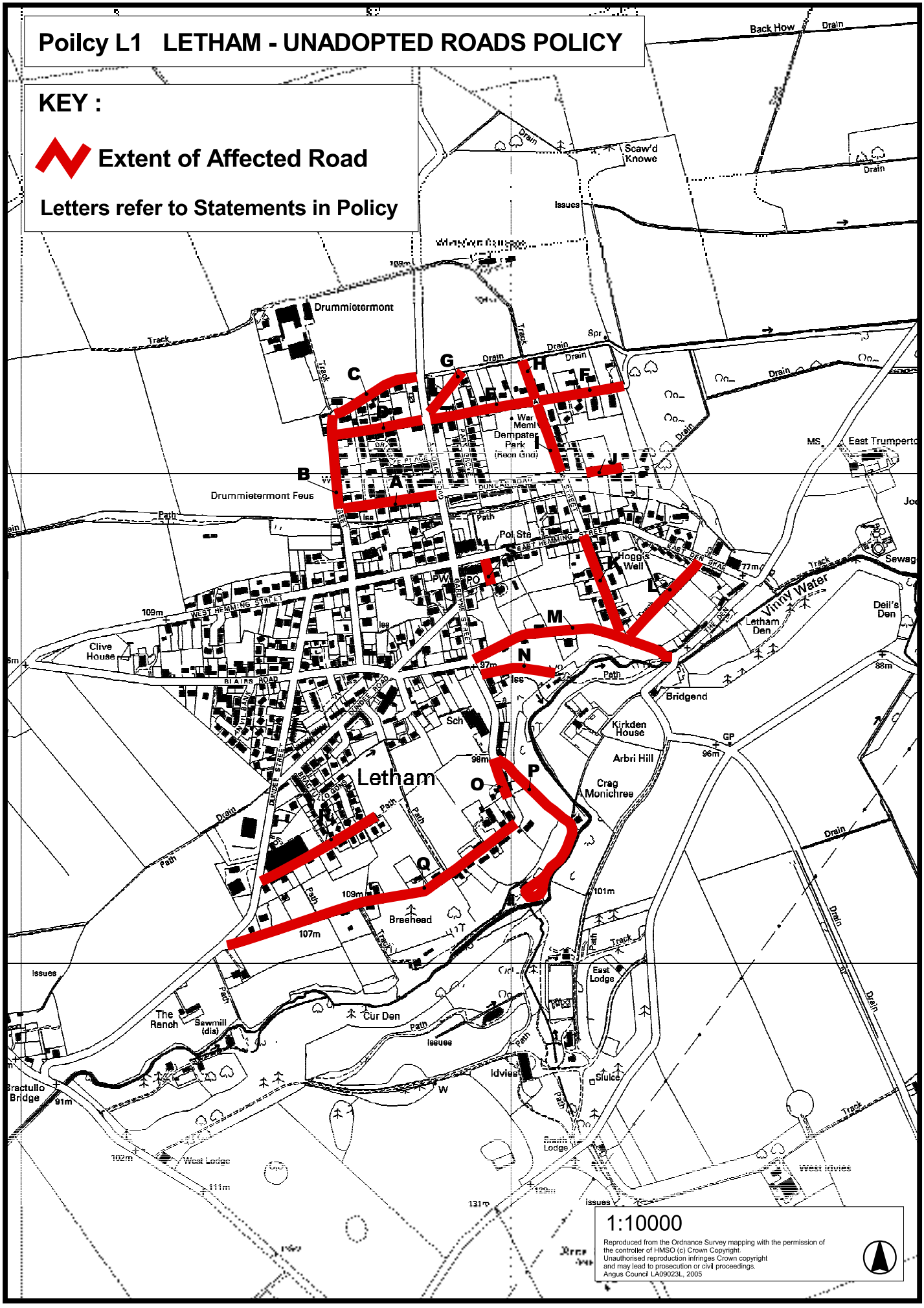
Appendix 3

L1 : Letham Unadopted Roads policy

Letham has a unique problem which serves to constrain development, that is the number of unmade and unadopted roads. The roads in Letham have been inspected by the Roads Department and the following comments set out the position regarding the possibility of development being accessed from these roads. In general, roads would be required to be brought up to full adoptable standard before development of adjacent land would be possible.

Road (Referenced on Plan)	Comments
A) Burnside Road	Generally fair to good condition. 3 metres wide with system of street lighting. Potential for single plot development only otherwise no further new development permitted.
B) Guthrie Street (west)	Deteriorating, poor to fair condition. 3.5 metres wide and lit. Significant development potential in field on west side. No new development permitted in current condition. Limited development may be permitted if road brought up to adoptable standards
C) Guthrie Street (north)	Fair condition but deteriorating. 3.5 – 4.0 metres wide and unlit. Significant development potential in field to north. No new development permitted unless road brought up to adoptable standards.
D) Drimmie Road	Fair to good condition. 2.5 – 3.0 metres wide and unlit. Potential for single plot development otherwise no further new development.
E) Park Road (west)	Fair condition. Width varies but lit. No further development permitted.
F) Park Road (east)	Very narrow, 2.5 metres wide but in good condition with wide verges and is lit. Possibility of single plot development and some potential in field to south side via access track. No new development permitted.
G) Auldbar Road track	Unlit, unmade track with poor visibility at junction with Auldbar Road. Possible backland development. No new development permitted.
H) North Watson Street (north)	Unmade, unlit track in poor condition leading to two houses. Potential backland development beyond. No new development permitted.
I) North Watson Street (central/mid)	Fair condition but very narrow (2.0 – 2.5 metres wide). Lit. No further development permitted.
J) Duncan Road (extension)	Generally poor to fair condition. 4.5 metres wide. Potential development on north side and in stables. No development permitted unless road brought up to adoptable standards.

Road (Referenced on Plan)	Comments
K) Watson Street	Wide carriageway in good condition with street lighting. Road narrows at south end. No footways but generous flat verges with kerblines. Limited potential for permitted infill development. Recently approved two house proposal if developed will block off possible access for major development from Watson Street.
L) Greenhills	Good bitumen surface from East Den Brae westwards to last cottage but then deteriorates to unmade farm track. Well formed junction with East Den Brae but unlit. Potential for development on both sides. No new development permitted unless road brought up to adoptable standards.
M) East Blairs Road	East leg – narrow, but good surfaced condition. Poor junction with The Den. Limited development potential in adjacent fields. No new development permitted. West leg – 3.5 metres wide, good condition, part lit at west end. Extensive potential for development on both sides. Poor junction with Gardyne Street. No new development permitted unless road brought up to adoptable standards.
N) Lane off Gardyne Street	Very narrow track in poor condition. Extensive areas for potential development on both sides. No new development permitted unless road brought up to adoptable standards.
O) Braehead Road (east)	Good condition and width over the majority of its length. Lit. Area for potential development on west side. Limited development permitted if road brought up to adoptable standards.
P) Vinney Den	Unmade and unlit track in poor condition. Limited development potential due to ground levels. No development permitted.
Q) Braehead Road (west)	Good surfaced condition. 4 metres wide along east section narrows to 3 metres wide at west. East section is lit. Extensive potential for development on both sides. No new development permitted unless road brought up to adoptable standards.
R) Woodside Road	Fair surfaced condition adjacent to poultry factory with well formed junction with Dundee Street. Becomes green lane beyond factory. Potential development of field on north side although this should be accessed from existing residential development at Jubilee Park/Bractullo Gardens. Otherwise no new development permitted.
S) Lane from The Square	Very narrow unmade track in poor condition. Serves four existing houses and joinery workshop. Potential backland development. No new development permitted.


Poilcy L1 LETHAM - UNADOPTED ROADS POLICY
KEY :
Extent of Affected Road
Letters refer to Statements in Policy
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B
C
D
E
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Q
Drummietermont
Drummietermont Feus
Letham
Braehead
Bridgend
Letham Den
Vinny Water
Deil's Den
Hoggis Well
Kirkden House
Arbri Hill
Crag Monichree
Clive House
The Ranch
Sewmill (dis)
Cur Den
Idvies
East Lodge
West Lodge
West Idvies
Smith Lodge
Sluice
Bractullo Bridge
Scaw'd Knowe
Back How
East Trumpertor
Dempster Park
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Angus Council LA09023L, 2005

APPENDIX 4 - MATRIX OF ASSOCIATED DOCUMENTS

			Finalised Angus Local Plan Review Section		
			(1)	(2)	(3)
		(1) NATIONAL GUIDANCE AND ADVICE	INTRODUCTION AND STRATEGY	BUILDING SUSTAINABLE COMMUNITIES	ENVIRONMENT AND RESOURCES
SPP	1	The Planning System (2002)	●		
	2	Economic Development (2002)	●	●	
	3	Planning for Housing (2003)	●	●	
	7	Planning and Flooding (2004)	●	●	●
	17	Transport and Planning Maximum Parking Standards (2003)	●	●	
NPPG	4	Land for Mineral Working (1994)			●
	5	Archaeology and Planning (1994)			●
	6	Renewable Energy Developments (Revised 2000)	●		●
	8	Town Centres and Retailing (Revised 1998)		●	
	9	The Provision of Roadside Facilities on Motorways and Other Trunk Roads in Scotland (1996)		●	
	10	Planning and Waste Management (1996)		●	
	11	Sport, Physical Recreation and Open Space (1996)		●	
	12	Skiing Developments (1997)		●	
	13	Coastal Planning (1997)	●	●	
	14	Natural Heritage (1999)	●	●	●
	15	Rural Development (1999)	●	●	●
	17	Transport and Planning (1999)	●	●	
	18	Planning and the Historic Environment (1999)	●	●	●
	19	Radio Telecommunications (2001)		●	
PAN	33	Development of Contaminated Land (Revised 2000)			●
	36	Siting and Design of New Housing in the Countryside (1991)		●	●
	38	Housing Land (Revised 2003)		●	
	39	Farm and Forestry Buildings (1993)			●
	42	Archaeology (1994)		●	
	43	Golf Courses and Associated Developments (1994)		●	
	44	Fitting New Housing Development into the Landscape (1994)	●	●	●
	45	Renewable Energy Technologies (Revised 2002)			●
	46	Planning for Crime Prevention (1994)		●	●
	47	Community Councils and Planning (1996)	●		
	49	Local Planning (1996)	●		
	50	Controlling the Environmental Effects of Surface Mineral Workings (1996)			●
	51	Planning and Environmental Protection (1997)			●
	52	Planning and Small Towns (1997)	●	●	●
	53	Classifying the Coast for Planning Purposes (1998)			●
	57	Transport and Planning (1999)	●	●	●
	59	Improving Town Centres (1999)		●	
	60	Planning for Natural Heritage (2000)			●
	61	Planning and Sustainable Urban Drainage Systems (2001)		●	●
	62	Radio Telecommunications (2001)		●	
	63	Waste Management Planning (2002)			●
	64	Reclamation of Surface Mineral Workings (2002)			●
	65	Planning and Open Space (2003)		●	
	67	Housing Quality (2003)	●	●	
	68	Design Statements (2003)	●	●	●
	69	Planning and Building Standards Advice on Flooding (2004)		●	●

			Finalised Angus Local Plan Review Section		
			(1)	(2)	(3)
(2) STRATEGIC, CORPORATE AND GENERAL GUIDANCE			INTRODUCTION AND STRATEGY	BUILDING SUSTAINABLE COMMUNITIES	ENVIRONMENT AND RESOURCES
		Approved Dundee and Angus Structure Plan (October 2002)	●	●	●
		Angus Council Strategic Statement	●	●	●
		Angus Council Corporate Plan	●	●	●
		Angus Council Economic Development Strategy		●	
		Angus Countryside Access Strategy (2004)		●	
		Angus Local Housing Needs Assessment (2003)		●	
		Angus Local Housing Strategy (2004)		●	
		Angus Local Transport Strategy	●	●	
		Angus Council Public Transport Policy Statement	●	●	
		Rural Shops and Community Post Office Grant Scheme		●	
		Angus Rural Strategy	●	●	●
		Angus Environmental Strategy			●
		Angus Shoreline Management Plan (2004)			●
		Sustainable Angus - LA21 Strategy for Angus	●	●	●
		Tayside Local Biodiversity Action Plan			●
		Cairngorms Local Biodiversity Action Plan (Cairngorms Partnership)			●
		Angus Council Contaminated Land Strategy			●
		Dundee and Angus Tourism Strategy (Dundee and Angus Tourist Board)		●	
		Angus Tourism Signing Policy			●
		Tayside Indicative Forestry Strategy			●
		National Waste Strategy (SEPA)			●
		Tayside Area Waste Plan			●
		Angus Waste Implementation Plan		●	●
		Managing the Cairngorms - The Cairngorms Partnership Management Strategy (SNH)		●	●
		Tayside Landscape Character Assessment (SNH)			●
		An Inventory of Gardens and Designed Landscapes in Scotland (SNH)			●
		Memorandum of Guidance on Listed Buildings and Conservation Areas (1998)			●
		Scottish Water Indicative Needs Profile 2001 - 2010		●	●
		Ground Water Protection Strategy for Scotland			●
		A Guide to Surface Water Best Management Practices			●
		The Six Acre Standard, Minimum Standards for Outdoor Playing Space (NPFA) (2001)		●	
		Guide to Transport Assessment in Scotland - Consultation Paper from Scottish Executive January 2003		●	

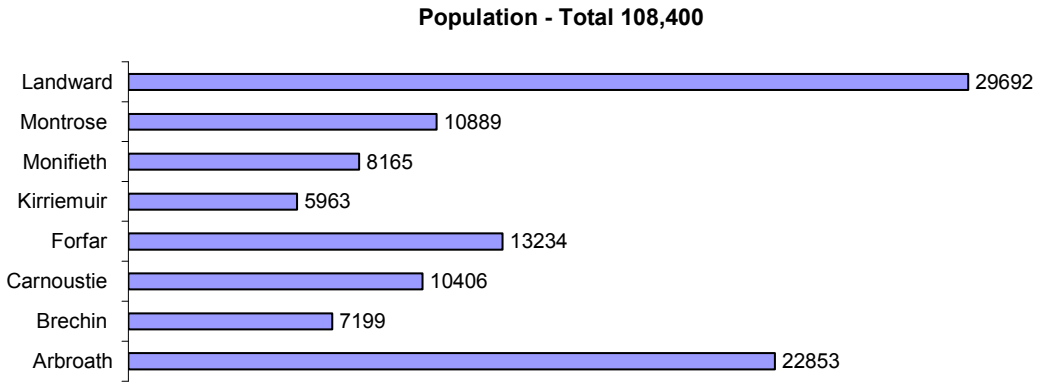
			Finalised Angus Local Plan Review Section		
			(1)	(2)	(3)
(3) ANGUS COUNCIL PLANNING ADVICE NOTES			INTRODUCTION AND STRATEGY	BUILDING SUSTAINABLE COMMUNITIES	ENVIRONMENT AND RESOURCES
	1	Farm Buildings		●	●
	2	Shopfronts and Signs in Conservation Areas			●
	3	Roof Space Extensions		●	
	4	Car Parking in Front Gardens		●	
	5	Houses in the Open Countryside		●	●
	6	Backland Housing Development		●	
	7	Advertising in the Countryside			●
	8	Dutch Canopies/Sun blinds			●
	9	Window Alterations			●
	10	Shop Window Security			●
	11	Residential Homes		●	
	12	Satellite Antennae		●	
	13	Residential Caravan Sites		●	
	14	Small House Sites		●	
	15	Front Extensions		●	
	16	Garages Off/Within Communal Parking Areas		●	
	17	Miscellaneous Planning Policies		●	●
	18	Hot Food Takeaways			●
	19	House Extensions		●	
	20	Listed Buildings and Conservation Areas			●
	21	The Siting and Landscaping of Built Development in the Countryside			●
	22	The Survey of Trees on Development Sites			●
	23	The Specification of Landscaping Proposals for Development Sites			●
	24	Residential Boundary Treatment		●	
	25	Agricultural Land to Garden Ground		●	●
	26	Telecommunications Developments		●	
	27	Planning and Contaminated Land			●
	28	Public Rights of Way		●	

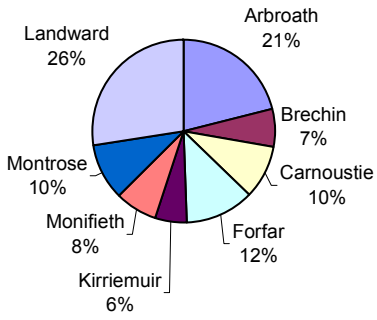
APPENDIX 5

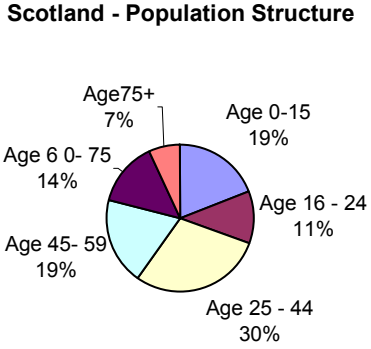
Profile of Angus

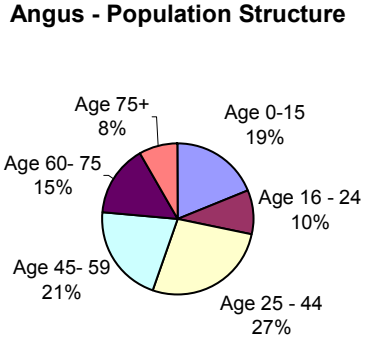
AREA (ha)	POPULATION	
218,248	2001	108400
190,878[a] (87%)	1991	108670
4,150 (2%) - built up	% change 1991-2001	-0.3%

Population Statistics (2001 Census)



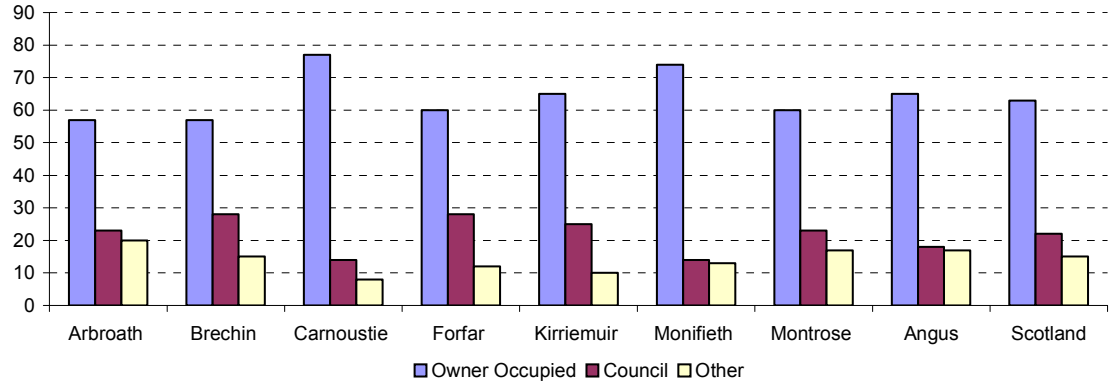




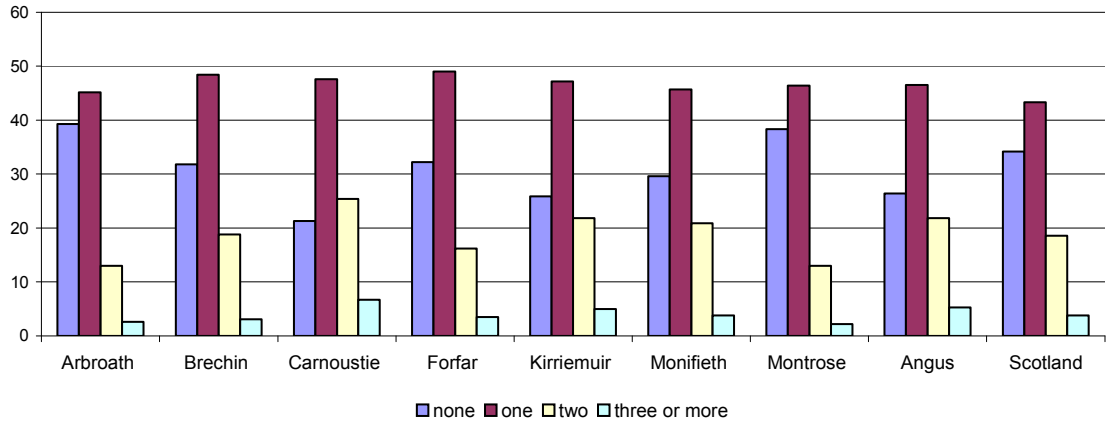


Social Characteristics (2001 Census)

Housing Tenure

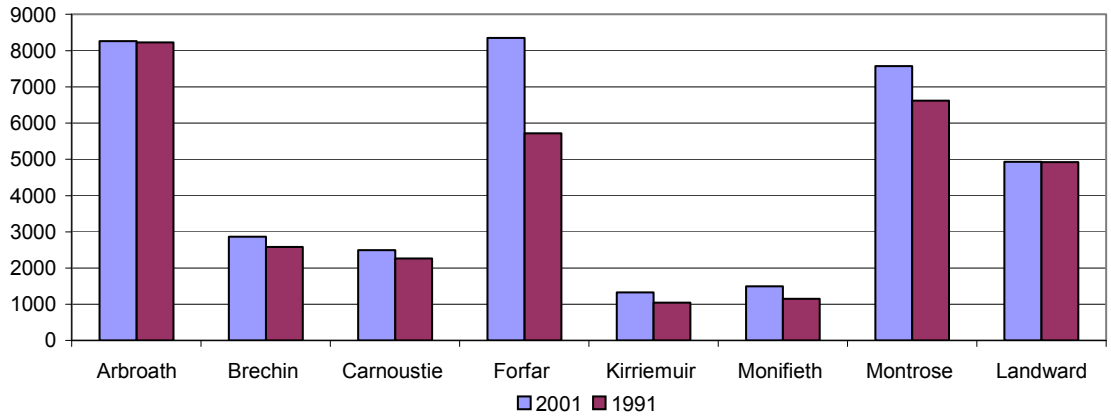


Car Ownership (by Household)

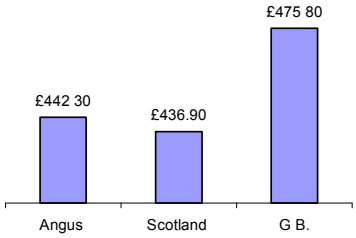


Economic Characteristics

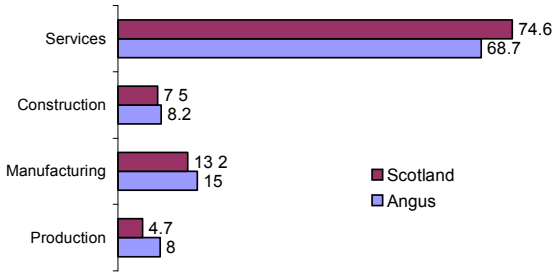
Employees in Employment
(Annual Employers Survey)



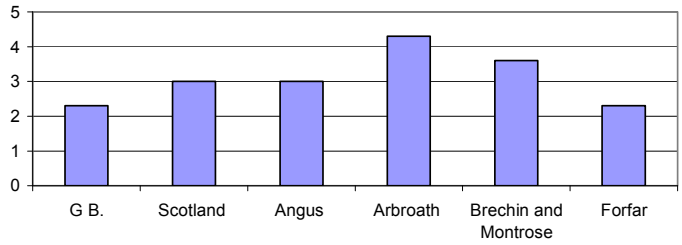
Gross Earnings 2003
(New Earnings Survey)



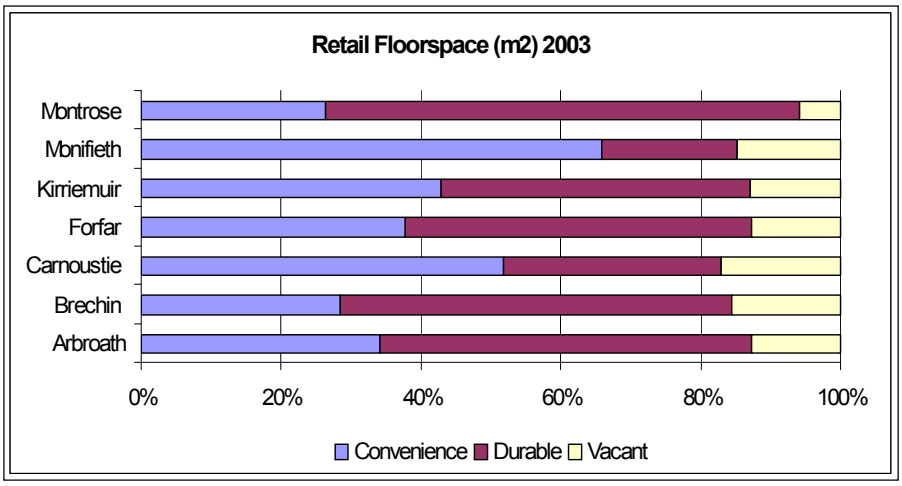
Employment Stucture 2001
(Annual Employers Survey)



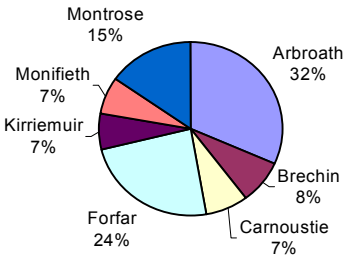
Unemployment Rate(%) - June 2004
(Office of National Statistics)



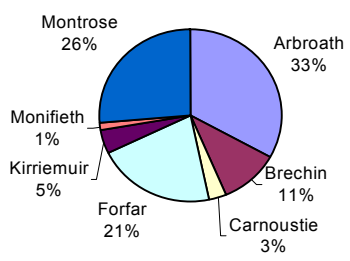
Retail Floorspace Angus Council Survey 2003



Convenience Retail Floorspace - % by town



Durable Retail Floorspace - % by town



VILLAGE INSET MAP KEY

	SETTLEMENTS	TOPIC CHAPTERS
Development boundary		Policy S1
Safeguard areas		Policy S5
Housing & Associated Uses		
Existing sites Allocated sites	See Part 4 of Written Statement and Appendix 2	
Working		
Employment land supply	G1, I 4	Policy SC16
Sport & Recreation		
Open space protection		Policy SC32
Community Facilities & Services		
School facilities - community use		Policy SC38
Safeguard of land for cemetery use		Policy SC39
Opportunity Site	E2	
Environment		
Conservation Area		Policies ER 12 - 14, 21
Ancient Monument (in care of the Scottish Ministers)		Policy ER18

Scottish Planning Policy

The Scottish Government
Riaghaltas na h-Alba

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Scottish Planning Policy

The Scottish Government, Edinburgh 2014

Contents

Planning Series

The Scottish Government series of Planning and Architecture documents are material considerations in the planning system.

Planning and Architecture Policy

Circulars	Scottish Planning Policy	National Planning Framework	Creating Places	Designing Streets
SG policy on implementing legislation	SG policy on nationally important land use planning matters	SG strategy for Scotland's long-term spatial development	SG policy statement on architecture and place	SG policy and technical guidance on street design

Planning and Design Advice and Guidance

Planning Advice	Design Advice	Web Advice
Technical planning matters	Design matters including practical projects and roles	Best practice and technical planning matters

Further information is available at: www.scotland.gov.uk/planning

This SPP replaces SPP (2010) and Designing Places (2001)

statutory

non-statutory

Scottish Planning Policy (SPP)

Purpose

i. The purpose of the SPP is to set out national planning policies which reflect Scottish Ministers' priorities for operation of the planning system and for the development[1] and use of land. The SPP promotes consistency in the application of policy across Scotland whilst allowing sufficient flexibility to reflect local circumstances. It directly relates to:

- the preparation of development plans;
- the design of development, from initial concept through to delivery; and
- the determination of planning applications and appeals.

Status

ii. The SPP is a statement of Scottish Government policy on how nationally important land use planning matters should be addressed across the country. It is non-statutory. However, Section 3D of the Town and Country Planning (Scotland) 1997 Act requires that functions relating to the preparation of the National Planning Framework by Scottish Ministers and development plans by planning authorities must be exercised with the objective of contributing to sustainable development. Under the Act, Scottish Ministers are able to issue guidance on this requirement to which planning authorities must have regard. The Principal Policy on Sustainability is guidance under section 3E of the Act.

iii. The 1997 Act requires planning applications to be determined in accordance with the development plan unless material considerations indicate otherwise. As a statement of Ministers' priorities the content of the SPP is a material consideration that carries significant weight, though it is for the decision-maker to determine the appropriate weight in each case. Where development plans and proposals accord with this SPP, their progress through the planning system should be smoother.

1 The Planning (Scotland) Act 2006 extends the definition of development to include marine fish farms out to 12 nautical miles.

iv. The SPP sits alongside the following Scottish Government planning policy documents:

- the National Planning Framework (NPF)[2], which provides a statutory framework for Scotland's long-term spatial development. The NPF sets out the Scottish Government's spatial development priorities for the next 20 to 30 years. The SPP sets out policy that will help to deliver the objectives of the NPF;
- Creating Places[3], the policy statement on architecture and place, which contains policies and guidance on the importance of architecture and design;
- Designing Streets[4], which is a policy statement putting street design at the centre of placemaking. It contains policies and guidance on the design of new or existing streets and their construction, adoption and maintenance; and
- Circulars[5], which contain policy on the implementation of legislation or procedures.

v. The SPP should be read and applied as a whole. Where 'must' is used it reflects a legislative requirement to take action. Where 'should' is used it reflects Scottish Ministers' expectations of an efficient and effective planning system. The Principal Policies on Sustainability and Placemaking are overarching and should be applied to all development. The key documents referred to provide contextual background or more detailed advice and guidance. Unless otherwise stated, reference to Strategic Development Plans (SDP) covers Local Development Plans outwith SDP areas. The SPP does not restate policy and guidance set out elsewhere. A glossary of terms is included at the end of this document.

2 www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Framework

3 www.scotland.gov.uk/Publications/2013/06/9811/0

4 www.scotland.gov.uk/Publications/2010/03/22120652/0

5 www.scotland.gov.uk/Topics/Built-Environment/planning/publications/circulars

Introduction

The Planning System

1. The planning system has a vital role to play in delivering high-quality places for Scotland. Scottish Planning Policy (SPP) focuses plan making, planning decisions and development design on the Scottish Government's Purpose of creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth.

2. Planning should take a positive approach to enabling high-quality development and making efficient use of land to deliver long-term benefits for the public while protecting and enhancing natural and cultural resources.

3. Further information and guidance on planning in Scotland is available at www.scotland.gov.uk/planning[6]. An explanation of the planning system can be found in A Guide to the Planning System in Scotland[7].

Core Values of the Planning Service

4. Scottish Ministers expect the planning service to perform to a high standard and to pursue continuous improvement. The service should:

- focus on outcomes, maximising benefits and balancing competing interests;
- play a key role in facilitating sustainable economic growth, particularly the creation of new jobs and the strengthening of economic capacity and resilience within communities;
- be plan-led, with plans being up-to-date and relevant;
- make decisions in a timely, transparent and fair way to provide a supportive business environment and engender public confidence in the system;
- be inclusive, engaging all interests as early and effectively as possible;
- be proportionate, only imposing conditions and obligations where necessary; and
- uphold the law and enforce the terms of decisions made.

People Make the System Work

5. The primary responsibility for the operation of the planning system lies with strategic development planning authorities, and local and national park authorities. However, all those involved with the system have a responsibility to engage and work together constructively and proportionately to achieve quality places for Scotland. This includes the Scottish Government and its agencies, public bodies, statutory consultees, elected members, communities, the general public, developers, applicants, agents, interest groups and representative organisations.

6 www.scotland.gov.uk/Topics/built-environment/planning

7 www.scotland.gov.uk/Publications/2009/08/11133705/0

6. Throughout the planning system, opportunities are available for everyone to engage in the development decisions which affect them. Such engagement between stakeholders should be early, meaningful and proportionate. Innovative approaches, tailored to the unique circumstances are encouraged, for example charrettes or mediation initiatives. Support or concern expressed on matters material to planning should be given careful consideration in developing plans and proposals and in determining planning applications. Effective engagement can lead to better plans, better decisions and more satisfactory outcomes and can help to avoid delays in the planning process.

7. Planning authorities and developers should ensure that appropriate and proportionate steps are taken to engage with communities during the preparation of development plans, when development proposals are being formed and when applications for planning permission are made. Individuals and community groups should ensure that they focus on planning issues and use available opportunities for engaging constructively with developers and planning authorities.

8. Further information can be found in the following:

- Town and Country Planning (Scotland) Act 1997[8] as amended, plus associated legislation: sets out minimum requirements for consultation and engagement
- Circular 6/2013: Development Planning[9]
- Circular 3/2013: Development Management Procedures[10]
- The Standards Commission for Scotland: Guidance on the Councillors' Code of Conduct[11]
- Planning Advice Note 3/2010: Community Engagement[12]
- A Guide to the Use of Mediation in the Planning System in Scotland (2009)[13]

Outcomes: How Planning Makes a Difference

9. The Scottish Government's Purpose of creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth is set out in the Government Economic Strategy. The aim is to ensure that the entire public sector is fully aligned to deliver the Purpose. The relationship of planning to the Purpose is shown on page 8.

10. The Scottish Government's 16 national outcomes[14] articulate in more detail how the Purpose is to be achieved. Planning is broad in scope and cross cutting in nature and therefore contributes to the achievement of all of the national outcomes. The pursuit of these outcomes provides the impetus for other national plans, policies and strategies and many of the principles and policies set out in them are reflected in both the SPP and NPF3.

8 www.legislation.gov.uk/ukpga/1997/8/contents
9 www.scotland.gov.uk/Publications/2013/12/9924/0
10 www.scotland.gov.uk/Publications/2013/12/9882/0
11 www.standardscommissionscotland.org.uk/webfm_send/279
12 www.scotland.gov.uk/Publications/2010/08/30094454/0
13 www.scotland.gov.uk/Publications/2009/03/10154116/0
14 www.scotland.gov.uk/About/Performance/scotPerforms/outcome

11. NPF3 and this SPP share a single vision for the planning system in Scotland:

> We live in a Scotland with a growing, low-carbon economy with progressively narrowing disparities in well-being and opportunity. It is growth that can be achieved whilst reducing emissions and which respects the quality of environment, place and life which makes our country so special. It is growth which increases solidarity – reducing inequalities between our regions. We live in sustainable, well-designed places and homes which meet our needs. We enjoy excellent transport and digital connections, internally and with the rest of the world.

12. At the strategic and local level, planning can make a very important contribution to the delivery of Single Outcome Agreements[15], through their shared focus on 'place'. Effective integration between land use planning and community planning is crucial and development plans should reflect close working with Community Planning Partnerships[16].

13. The following four planning outcomes explain how planning should support the vision. The outcomes are consistent across the NPF and SPP and focus on creating a successful sustainable place, a low carbon place, a natural, resilient place and a more connected place. For planning to make a positive difference, development plans and new development need to contribute to achieving these outcomes.

Outcome 1: A successful, sustainable place – supporting sustainable economic growth and regeneration, and the creation of well-designed, sustainable places.

14. NPF3 aims to strengthen the role of our city regions and towns, create more vibrant rural places, and realise the opportunities for sustainable growth and innovation in our coastal and island areas.

15. The SPP sets out how this should be delivered on the ground. By locating the right development in the right place, planning can provide opportunities for people to make sustainable choices and improve their quality of life. Well-planned places promote well-being, a sense of identity and pride, and greater opportunities for social interaction. Planning therefore has an important role in promoting strong, resilient and inclusive communities. Delivering high-quality buildings, infrastructure and spaces in the right locations helps provide choice over where to live and style of home, choice as to how to access amenities and services and choice to live more active, engaged, independent and healthy lifestyles.

16. Good planning creates opportunities for people to contribute to a growing, adaptable and productive economy. By allocating sites and creating places that are attractive to growing economic sectors, and enabling the delivery of necessary infrastructure, planning can help provide the confidence required to secure private sector investment, thus supporting innovation, creating employment and benefiting related businesses.

Outcome 2: A low carbon place – reducing our carbon emissions and adapting to climate change.

15 www.scotland.gov.uk/Topics/Government/PublicServiceReform/CP/SOA2012

16 www.scotland.gov.uk/Topics/Government/PublicServiceReform/CP

17. NPF3 will facilitate the transition to a low carbon economy, particularly by supporting diversification of the energy sector. The spatial strategy as a whole aims to reduce greenhouse gas emissions and facilitate adaptation to climate change.

18. The Climate Change (Scotland) Act 2009 sets a target of reducing greenhouse gas emissions by at least 80% by 2050, with an interim target of reducing emissions by at least 42% by 2020. Annual greenhouse gas emission targets are set in secondary legislation. Section 44 of the Act places a duty on every public body to act:

- in the way best calculated to contribute to the delivery of emissions targets in the Act;
- in the way best calculated to help deliver the Scottish Government's climate change adaptation programme; and
- in a way that it considers is most sustainable.

19. The SPP sets out how this should be delivered on the ground. By seizing opportunities to encourage mitigation and adaptation measures, planning can support the transformational change required to meet emission reduction targets and influence climate change. Planning can also influence people's choices to reduce the environmental impacts of consumption and production, particularly through energy efficiency and the reduction of waste.

Outcome 3: A natural, resilient place – helping to protect and enhance our natural and cultural assets, and facilitating their sustainable use.

20. NPF3 emphasises the importance of our environment as part of our cultural identity, an essential contributor to well-being and an economic opportunity. Our spatial strategy aims to build resilience and promotes protection and sustainable use of our world-class environmental assets.

21. The SPP sets out how this should be delivered on the ground. By protecting and making efficient use of Scotland's existing resources and environmental assets, planning can help us to live within our environmental limits and to pass on healthy ecosystems to future generations. Planning can help to manage and improve the condition of our assets, supporting communities in realising their aspirations for their environment and facilitating their access to enjoyment of it. By enhancing our surroundings, planning can help make Scotland a uniquely attractive place to work, visit and invest and therefore support the generation of jobs, income and wider economic benefits.

Outcome 4: A more connected place – supporting better transport and digital connectivity.

22. NPF3 reflects our continuing investment in infrastructure, to strengthen transport links within Scotland and to the rest of the world. Improved digital connections will also play a key role in helping to deliver our spatial strategy for sustainable growth.

23. The SPP sets out how this should be delivered on the ground. By aligning development more closely with transport and digital infrastructure, planning can improve sustainability and connectivity. Improved connections facilitate accessibility within and between places – within Scotland and beyond – and support economic growth and an inclusive society.

SG Purpose	To focus government and public services on creating a more successful country, with opportunities for all to flourish, through increasing sustainable economic growth.										
SG National Outcomes	The planning system and service contribute to all 16 National Outcomes										
SG National Plans, Policies & Strategies	**Government Economic Strategy**										
	Infrastructure Investment Plan										
	Scotland's Digital Future	Electricity & Heat Generation Policy Statements	2020 Challenge for Scotland's Biodiversity	Scottish Historic Environment Strategy and Policy	Housing Strategy	National Planning Framework & Scottish Planning Policy	Land Use Strategy	Low Carbon Scotland: Report of Proposals and Policies	National Marine Plan	Regeneration Strategy	National Transport Strategy
Planning Vision	We live in a Scotland with a growing, low carbon economy with progressively narrowing disparities in well-being and opportunity. It is growth that can be achieved whilst reducing emissions and which respects the quality of environment, place and life which makes our country so special. It is growth which increases solidarity – reducing inequalities between our regions. We live in sustainable, well-designed places and homes which meet our needs. We enjoy excellent transport and digital connections, internally and with the rest of the world.										
Planning Outcomes	Planning makes Scotland **a successful, sustainable place** – supporting sustainable economic growth and regeneration, and the creation of well-designed places.			Planning makes Scotland **a low carbon place** – reducing our carbon emissions and adapting to climate change.			Planning makes Scotland **a natural, resilient place** – helping to protect and enhance our natural and cultural assets, and facilitating their sustainable use.			Planning makes Scotland **a connected place** – supporting better transport and digital connectivity.	
National Planning	**Scottish Planning Policy (SPP)**						**National Planning Framework (NPF)**				
	Principal Policies										
	Sustainability			Placemaking							
	Subject Policies										
	Town Centres	Heat and Electricity		Natural Environment	Travel			*Cities and Towns*			
	Rural Development			Green Infrastructure				*Rural Areas*			
	Homes							*Coast and Islands*			
	Business & Employment	Zero Waste		Aquacultural	Digital Connectivity			*National Developments*			
	Historic Environment			Minerals							
				Flooding & Drainage							
	COMMUNITY PLANNING										
Strategic	Strategic Development Plans										
Local	Local Development Plans										
Site	Master Plans										

Principal Policies

Sustainability

NPF and wider policy context

24. The Scottish Government's central purpose is to focus government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth.

25. The Scottish Government's commitment to the concept of sustainable development is reflected in its Purpose. It is also reflected in the continued support for the five guiding principles set out in the UK's shared framework for sustainable development. Achieving a sustainable economy, promoting good governance and using sound science responsibly are essential to the creation and maintenance of a strong, healthy and just society capable of living within environmental limits.

26. The NPF is the spatial expression of the Government Economic Strategy (2011) and sustainable economic growth forms the foundations of its strategy. The NPF sits at the top of the development plan hierarchy and must be taken into account in the preparation of strategic and local development plans.

27. The Government Economic Strategy indicates that sustainable economic growth is the key to unlocking Scotland's potential and outlines the multiple benefits of delivering the Government's purpose, including creating a supportive business environment, achieving a low carbon economy, tackling health and social problems, maintaining a high-quality environment and passing on a sustainable legacy for future generations.

Policy Principles

This SPP introduces a presumption in favour of development that contributes to sustainable development.

28. The planning system should support economically, environmentally and socially sustainable places by enabling development that balances the costs and benefits of a proposal over the longer term. The aim is to achieve the right development in the right place; it is not to allow development at any cost.

29. This means that policies and decisions should be guided by the following principles:

- giving due weight to net economic benefit;
- responding to economic issues, challenges and opportunities, as outlined in local economic strategies;
- supporting good design and the six qualities of successful places;
- making efficient use of existing capacities of land, buildings and infrastructure including supporting town centre and regeneration priorities;
- supporting delivery of accessible housing, business, retailing and leisure development;

- supporting delivery of infrastructure, for example transport, education, energy, digital and water;
- supporting climate change mitigation and adaptation including taking account of flood risk;
- improving health and well-being by offering opportunities for social interaction and physical activity, including sport and recreation;
- having regard to the principles for sustainable land use set out in the Land Use Strategy;
- protecting, enhancing and promoting access to cultural heritage, including the historic environment;
- protecting, enhancing and promoting access to natural heritage, including green infrastructure, landscape and the wider environment;
- reducing waste, facilitating its management and promoting resource recovery; and
- avoiding over-development, protecting the amenity of new and existing development and considering the implications of development for water, air and soil quality.

Key Documents

- National Planning Framework[17]
- Government Economic Strategy[18]
- Planning Reform: Next Steps[19]
- Getting the Best from Our Land – A Land Use Strategy for Scotland[20]
- UK's Shared Framework for Sustainable Development[21]

Delivery

Development Planning

30. Development plans should:

- be consistent with the policies set out in this SPP, including the presumption in favour of development that contributes to sustainable development;
- positively seek opportunities to meet the development needs of the plan area in a way which is flexible enough to adapt to changing circumstances over time;
- support existing business sectors, taking account of whether they are expanding or contracting and, where possible, identify and plan for new or emerging sectors likely to locate in their area;
- be up-to-date, place-based and enabling with a spatial strategy that is implemented through policies and proposals; and
- set out a spatial strategy which is both sustainable and deliverable, providing confidence to stakeholders that the outcomes can be achieved.

17 www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Framework
18 www.scotland.gov.uk/Publications/2011/09/13091128/0
19 www.scotland.gov.uk/Publications/2012/03/3467
20 www.scotland.gov.uk/Publications/2011/03/17091927/0
21 http://archive.defra.gov.uk/sustainable/government/documents/SDFramework.pdf

31. Action programmes should be actively used to drive delivery of planned developments: to align stakeholders, phasing, financing and infrastructure investment over the long term.

Development Management

32. The presumption in favour of sustainable development does not change the statutory status of the development plan as the starting point for decision-making. Proposals that accord with up-to-date plans should be considered acceptable in principle and consideration should focus on the detailed matters arising. For proposals that do not accord with up-to-date development plans, the primacy of the plan is maintained and this SPP and the presumption in favour of development that contributes to sustainable development will be material considerations.

33. Where relevant policies in a development plan are out-of-date[22] or the plan does not contain policies relevant to the proposal, then the presumption in favour of development that contributes to sustainable development will be a significant material consideration. Decision-makers should also take into account any adverse impacts which would significantly and demonstrably outweigh the benefits when assessed against the wider policies in this SPP. The same principle should be applied where a development plan is more than five years old.

34. Where a plan is under review, it may be appropriate in some circumstances to consider whether granting planning permission would prejudice the emerging plan. Such circumstances are only likely to apply where the development proposed is so substantial, or its cumulative effect would be so significant, that to grant permission would undermine the plan-making process by predetermining decisions about the scale, location or phasing of new developments that are central to the emerging plan. Prematurity will be more relevant as a consideration the closer the plan is to adoption or approval.

35. To support the efficient and transparent handling of planning applications by planning authorities and consultees, applicants should provide good quality and timely supporting information that describes the economic, environmental and social implications of the proposal. In the spirit of planning reform, this should be proportionate to the scale of the application and planning authorities should avoid asking for additional impact appraisals, unless necessary to enable a decision to be made. Clarity on the information needed and the timetable for determining proposals can be assisted by good communication and project management, for example, use of processing agreements setting out the information required and covering the whole process including planning obligations.

22 Development plans or their policies should not be considered out-of-date solely on the grounds that they were adopted prior to the publication of this SPP. However, the policies in the SPP will be a material consideration which should be taken into account when determining applications.

Placemaking

NPF and wider policy context

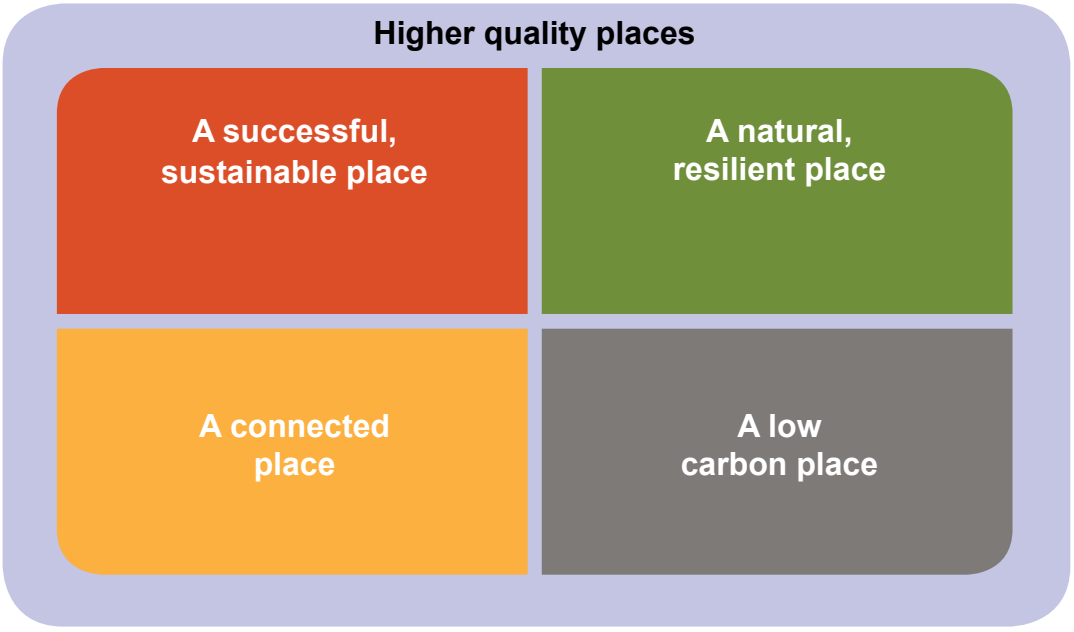
36. Planning's purpose is to create better places. Placemaking is a creative, collaborative process that includes design, development, renewal or regeneration of our urban or rural built environments. The outcome should be sustainable, well-designed places and homes which meet people's needs. The Government Economic Strategy supports an approach to place that recognises the unique contribution that every part of Scotland can make to achieving our shared outcomes. This means harnessing the distinct characteristics and strengths of each place to improve the overall quality of life for people. Reflecting this, NPF3 sets out an agenda for placemaking in our city regions, towns, rural areas, coast and islands.

37. The Government's policy statement on architecture and place for Scotland, Creating Places, emphasises that quality places are successful places. It sets out the value that high-quality design can deliver for Scotland's communities and the important role that good buildings and places play in promoting healthy, sustainable lifestyles; supporting the prevention agenda and efficiency in public services; promoting Scotland's distinctive identity all over the world; attracting visitors, talent and investment; delivering our environmental ambitions; and providing a sense of belonging, a sense of identity and a sense of community. It is clear that places which have enduring appeal and functionality are more likely to be valued by people and therefore retained for generations to come.

Policy Principles

Planning should take every opportunity to create high quality places by taking a design-led approach.

38. This means taking a holistic approach that responds to and enhances the existing place while balancing the costs and benefits of potential opportunities over the long term. This means considering the relationships between:



39. The design-led approach should be applied at all levels – at the national level in the NPF, at the regional level in strategic development plans, at the local level in local development plans and at site and individual building level within master plans that respond to how people use public spaces.

Planning should direct the right development to the right place.

40. This requires spatial strategies within development plans to promote a sustainable pattern of development appropriate to the area. To do this decisions should be guided by the following policy principles:

- optimising the use of existing resource capacities, particularly by co-ordinating housing and business development with infrastructure investment including transport, education facilities, water and drainage, energy, heat networks and digital infrastructure;
- using land within or adjacent to settlements for a mix of uses. This will also support the creation of more compact, higher density, accessible and more vibrant cores;
- considering the re-use or re-development of brownfield land before new development takes place on greenfield sites;
- considering whether the permanent, temporary or advanced greening of all or some of a site could make a valuable contribution to green and open space networks, particularly where it is unlikely to be developed for some time, or is unsuitable for development due to its location or viability issues; and
- locating development where investment in growth or improvement would have most benefit for the amenity of local people and the vitality of the local economy.

Planning should support development that is designed to a high-quality, which demonstrates the six qualities of successful place.

- ***Distinctive***

41. This is development that complements local features, for example landscapes, topography, ecology, skylines, spaces and scales, street and building forms, and materials to create places with a sense of identity.

- ***Safe and Pleasant***

42. This is development that is attractive to use because it provides a sense of security through encouraging activity. It does this by giving consideration to crime rates and providing a clear distinction between private and public space, by having doors that face onto the street creating active frontages, and by having windows that overlook well-lit streets, paths and open spaces to create natural surveillance. A pleasant, positive sense of place can be achieved by promoting visual quality, encouraging social and economic interaction and activity, and by considering the place before vehicle movement.

- ***Welcoming***

43. This is development that helps people to find their way around. This can be by providing or accentuating landmarks to create or improve views, it can be locating a distinctive work of art to mark places such as gateways, and it can include appropriate signage and distinctive lighting to improve safety and show off attractive buildings.

- ***Adaptable***

44. This is development that can accommodate future changes of use because there is a mix of building densities, tenures and typologies where diverse but compatible uses can be integrated. It takes into account how people use places differently, for example depending on age, gender and degree of personal mobility and providing versatile greenspace.

- ***Resource Efficient***

45. This is development that re-uses or shares existing resources, maximises efficiency of the use of resources through natural or technological means and prevents future resource depletion, for example by mitigating and adapting to climate change. This can mean denser development that shares infrastructure and amenity with adjacent sites. It could include siting development to take shelter from the prevailing wind; or orientating it to maximise solar gain. It could also include ensuring development can withstand more extreme weather, including prolonged wet or dry periods, by working with natural environmental processes such as using landscaping and natural shading to cool spaces in built areas during hotter periods and using sustainable drainage systems to conserve and enhance natural features whilst reducing the risk of flooding. It can include using durable materials for building and landscaping as well as low carbon technologies that manage heat and waste efficiently.

- ***Easy to Move Around and Beyond***

46. This is development that considers place and the needs of people before the movement of motor vehicles. It could include using higher densities and a mix of uses that enhance accessibility by reducing reliance on private cars and prioritising sustainable and active travel choices, such as walking, cycling and public transport. It would include paths and routes which connect places directly and which are well-connected with the wider environment beyond the site boundary. This may include providing facilities that link different means of travel.

Key Documents

- National Planning Framework[23]
- Getting the Best from Our Land – A Land Use Strategy for Scotland[24]
- Creating Places –A Policy Statement on Architecture and Place for Scotland[25]
- Designing Streets[26]
- Planning Advice Note 77: Designing Safer Places[27]
- Green Infrastructure: Design and Placemaking[28]

23 www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Framework
24 www.scotland.gov.uk/Publications/2011/03/17091927/0
25 www.scotland.gov.uk/Publications/2013/06/9811/0
26 www.scotland.gov.uk/Publications/2010/03/22120652/0
27 www.scotland.gov.uk/Publications/2006/03/08094923/0
28 www.scotland.gov.uk/Publications/2011/11/04140525/0

Delivery

47. Planning should adopt a consistent and relevant approach to the assessment of design and place quality such as that set out in the forthcoming Scottish Government Place Standard.

Development Planning

48. Strategic and local development plans should be based on spatial strategies that are deliverable, taking into account the scale and type of development pressure and the need for growth and regeneration. An urban capacity study, which assesses the scope for development within settlement boundaries, may usefully inform the spatial strategy, and local authorities should make use of land assembly, including the use of compulsory purchase powers[29] where appropriate. Early discussion should take place between local authorities, developers and relevant agencies to ensure that investment in necessary new infrastructure is addressed in a timely manner.

49. For most settlements, a green belt is not necessary as other policies can provide an appropriate basis for directing development to the right locations. However, where the planning authority considers it appropriate, the development plan may designate a green belt around a city or town to support the spatial strategy by:

- directing development to the most appropriate locations and supporting regeneration;
- protecting and enhancing the character, landscape setting and identity of the settlement; and
- protecting and providing access to open space.

50. In developing the spatial strategy, planning authorities should identify the most sustainable locations for longer-term development and, where necessary, review the boundaries of any green belt.

51. The spatial form of the green belt should be appropriate to the location. It may encircle a settlement or take the shape of a buffer, corridor, strip or wedge. Local development plans should show the detailed boundary of any green belt, giving consideration to:

- excluding existing settlements and major educational and research uses, major businesses and industrial operations, airports and Ministry of Defence establishments;
- the need for development in smaller settlements within the green belt, where appropriate leaving room for expansion;
- redirecting development pressure to more suitable locations; and
- establishing clearly identifiable visual boundary markers based on landscape features such as rivers, tree belts, railways or main roads[30]. Hedges and field enclosures will rarely provide a sufficiently robust boundary.

52. Local development plans should describe the types and scales of development which would be appropriate within a green belt. These may include:

- development associated with agriculture, including the reuse of historic agricultural buildings;
- development associated with woodland and forestry, including community woodlands;
- horticulture, including market gardening and directly connected retailing;

29 www.scotland.gov.uk/Topics/archive/National-Planning-Policy/themes/ComPur

30 Note: where a main road forms a green belt boundary, any proposed new accesses would still require to meet the usual criteria.

- recreational uses that are compatible with an agricultural or natural setting;
- essential infrastructure such as digital communications infrastructure and electricity grid connections;
- development meeting a national requirement or established need, if no other suitable site is available; and
- intensification of established uses subject to the new development being of a suitable scale and form.

53. The creation of a new settlement may occasionally be a necessary part of a spatial strategy, where it is justified either by the scale and nature of the housing land requirement and the existence of major constraints to the further growth of existing settlements, or by its essential role in promoting regeneration or rural development.

54. Where a development plan spatial strategy indicates that a new settlement is appropriate, it should specify its scale and location, and supporting infrastructure requirements, particularly where these are integral to the viability and deliverability of the proposed development. Supplementary guidance can address more detailed issues such as design and delivery.

55. Local development plans should contribute to high-quality places by setting out how they will embed a design-led approach. This should include:

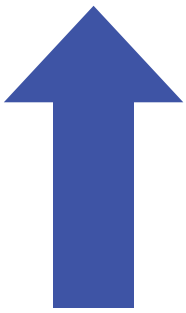
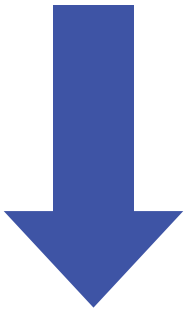
- reference to the six qualities of successful places which enable consideration of each place as distinctly different from other places and which should be evident in all development;
- using processes that harness and utilise the knowledge of communities and encourage active participation to deliver places with local integrity and relevance; and
- specifying when design tools, such as those at paragraph 57 should be used.

Development Management

56. Design is a material consideration in determining planning applications. Planning permission may be refused and the refusal defended at appeal or local review solely on design grounds.

Tools for Making Better Places

57. Design tools guide the quality of development in and across places to promote positive change. They can help to provide certainty for stakeholders as a contribution to sustainable economic growth. Whichever tools are appropriate to the task, they should focus on delivering the six qualities of successful places and could be adopted as supplementary guidance.

Scale	Tool
STRATEGIC	**Design Frameworks** For larger areas of significant change, so must include some flexibility. To address major issues in a co-ordinated and viable way. May include general principles as well as maps and diagrams to show the importance of connections around and within a place.
	**Development Briefs** For a place or site, to form the basis of dialogue between the local authority and developers. To advise how policies should be implemented. May include detail on function, layout, plot sizes, building heights and lines, and materials.
	Master Plans For a specific site that may be phased so able to adapt over time. To describe and illustrate how a proposal will meet the vision and how it will work on the ground. May include images showing the relationship of people and place. See Planning Advice Note 83: Masterplanning[31]
	**Design Guides** For a particular subject, e.g. shop fronts. To show how development can be put into practice in line with policy. Includes detail, e.g. images of examples.
SITE SPECIFIC	**Design Statements** Required to accompany some planning applications. To explain how the application meets policy and guidance, for example by close reference to key considerations of street design with Designing Streets. See Planning Advice Note 68: Design Statements[32]

31 www.scotland.gov.uk/Publications/2008/11/10114526/0

32 www.scotland.gov.uk/Publications/2003/08/18013/25389

Subject Policies

A Successful, Sustainable Place

Promoting Town Centres

NPF and wider context

58. NPF3 reflects the importance of town centres as a key element of the economic and social fabric of Scotland. Much of Scotland's population lives and works in towns, within city regions, in our rural areas and on our coasts and islands. Town centres are at the heart of their communities and can be hubs for a range of activities. It is important that planning supports the role of town centres to thrive and meet the needs of their residents, businesses and visitors for the 21st century.

59. The town centre first principle, stemming from the Town Centre Action Plan, promotes an approach to wider decision-making that considers the health and vibrancy of town centres.

Policy Principles

60. Planning for town centres should be flexible and proactive, enabling a wide range of uses which bring people into town centres. The planning system should:

- apply a town centre first policy[33] when planning for uses which attract significant numbers of people, including retail and commercial leisure, offices, community and cultural facilities;
- encourage a mix of uses in town centres to support their vibrancy, vitality and viability throughout the day and into the evening;
- ensure development plans, decision-making and monitoring support successful town centres; and
- consider opportunities for promoting residential use within town centres where this fits with local need and demand.

Key Documents

- National Review of Town Centres External Advisory Group Report: Community and Enterprise in Scotland's Town Centres[34]
- Town Centre Action Plan – the Scottish Government response[35]
- Planning Advice Note 59: Improving Town Centres[36]
- Planning Advice Note 52: Planning and Small Towns[37]

33 A town centre first policy is intended to support town centres, where these exist, or new centres which are supported by the development plan. Where there are no town centres in the vicinity, for example in more remote rural and island areas, the expectation is that local centres will be supported. The town centre first policy is not intended to divert essential services and developments away from such rural areas. See section on Rural Development.

34 www.scotland.gov.uk/Resource/0042/00426972.pdf

35 www.scotland.gov.uk/Publications/2013/11/6415

36 www.scotland.gov.uk/Publications/1999/10/pan59-root/pan59

37 www.scotland.gov.uk/Publications/1997/04/pan52

- Town Centres Masterplanning Toolkit[38]

Development Plans

61. Plans should identify a network of centres and explain how they can complement each other. The network is likely to include city centres, town centres, local centres and commercial centres and may be organised as a hierarchy. Emerging or new centres designated within key new developments or land releases should also be shown within the network of centres. In remoter rural and island areas, it may not be necessary to identify a network.

62. Plans should identify as town centres those centres which display:

- a diverse mix of uses, including shopping;
- a high level of accessibility;
- qualities of character and identity which create a sense of place and further the well-being of communities;
- wider economic and social activity during the day and in the evening; and
- integration with residential areas.

63. Plans should identify as commercial centres those centres which have a more specific focus on retailing and/or leisure uses, such as shopping centres, commercial leisure developments, mixed retail and leisure developments, retail parks and factory outlet centres. Where necessary to protect the role of town centres, plans should specify the function of commercial centres, for example where retail activity may be restricted to the sale of bulky goods.

64. Local authorities, working with community planning partners, businesses and community groups as appropriate, should prepare a town centre health check. Annex A sets out a range of indicators which may be relevant. The purpose of a health check is to assess a town centre's strengths, vitality and viability, weaknesses and resilience. It will be used to inform development plans and decisions on planning applications. Health checks should be regularly updated, to monitor town centre performance, preferably every two years.

65. Local authorities, working with partners, should use the findings of the health check to develop a strategy to deliver improvements to the town centre. Annex A contains guidance on key elements in their preparation.

66. The spatial elements of town centre strategies should be included in the development plan or supplementary guidance. Plans should address any significant changes in the roles and functions of centres over time, where change is supported by the results of a health check. Plans should assess how centres can accommodate development and identify opportunities.

67. There are concerns about the number and clustering of some non-retail uses, such as betting offices and high interest money lending premises, in some town and local centres. Plans should include policies to support an appropriate mix of uses in town centres, local centres and high streets. Where a town centre strategy indicates that further provision of particular activities would undermine the character and amenity of centres or the well-being of communities, plans should include policies to prevent such over-provision and clustering.

38 http://creatingplacesscotland.org/people-communities/policy/town-centre-masterplanning-toolkit#overlay-context=people-communities/policy

68. Development plans should adopt a sequential town centre first approach when planning for uses which generate significant footfall, including retail and commercial leisure uses, offices, community and cultural facilities and, where appropriate, other public buildings such as libraries, and education and healthcare facilities. This requires that locations are considered in the following order of preference:

- town centres (including city centres and local centres);
- edge of town centre;
- other commercial centres identified in the development plan; and
- out-of-centre locations that are, or can be, made easily accessible by a choice of transport modes.

69. Planning authorities, developers, owners and occupiers should be flexible and realistic in applying the sequential approach, to ensure that different uses are developed in the most appropriate locations. It is important that community, education and healthcare facilities are located where they are easily accessible to the communities that they are intended to serve.

Development Management

70. Decisions on development proposals should have regard to the context provided by the network of centres identified in the development plan and the sequential approach outlined above. New development in a town centre should contribute to providing a range of uses and should be of a scale which is appropriate to that centre. The impact of new development on the character and amenity of town centres, local centres and high streets will be a material consideration in decision-making. The aim is to recognise and prioritise the importance of town centres and encourage a mix of developments which support their vibrancy, vitality and viability. This aim should also be taken into account in decisions concerning proposals to expand or change the use of existing development.

71. Where development proposals in edge of town centre, commercial centre or out-of-town locations are contrary to the development plan, it is for applicants to demonstrate that more central options have been thoroughly assessed and that the impact on existing town centres is acceptable. Where a new public building or office with a gross floorspace over 2,500m^2 is proposed outwith a town centre, and is contrary to the development plan, an assessment of the impact on the town centre should be carried out. Where a retail and leisure development with a gross floorspace over 2,500m^2 is proposed outwith a town centre, contrary to the development plan, a retail impact analysis should be undertaken. For smaller retail and leisure proposals which may have a significant impact on vitality and viability, planning authorities should advise when retail impact analysis is necessary.

72. This analysis should consider the relationship of the proposed development with the network of centres identified in the development plan. Where possible, authorities and developers should agree the data required and present information on areas of dispute in a succinct and comparable form. Planning authorities should consider the potential economic impact of development and take into account any possible displacement effect.

73. Out-of-centre locations should only be considered for uses which generate significant footfall[39] where:

- all town centre, edge of town centre and other commercial centre options have been assessed and discounted as unsuitable or unavailable;

39 As noted at paragraph 69, a flexible approach is required for community, education and healthcare facilities.

- the scale of development proposed is appropriate, and it has been shown that the proposal cannot reasonably be altered or reduced in scale to allow it to be accommodated at a sequentially preferable location;
- the proposal will help to meet qualitative or quantitative deficiencies; and
- there will be no significant adverse effect on the vitality and viability of existing town centres.

Promoting Rural Development

NPF Context

74. NPF3 sets out a vision for vibrant rural, coastal and island areas, with growing, sustainable communities supported by new opportunities for employment and education. The character of rural and island areas and the challenges they face vary greatly across the country, from pressurised areas of countryside around towns and cities to more remote and sparsely populated areas. Between these extremes are extensive intermediate areas under varying degrees of pressure and with different kinds of environmental assets meriting protection. Scotland's long coastline is an important resource both for development and for its particular environmental quality, especially in the areas of the three island councils.

Policy Principles

75. The planning system should:

- in all rural and island areas promote a pattern of development that is appropriate to the character of the particular rural area and the challenges it faces;
- encourage rural development that supports prosperous and sustainable communities and businesses whilst protecting and enhancing environmental quality; and
- support an integrated approach to coastal planning.

Key documents

- Getting the Best from Our Land – A Land Use Strategy for Scotland[40]
- National Marine Plan

Delivery

76. In the pressurised areas easily accessible from Scotland's cities and main towns, where ongoing development pressures are likely to continue, it is important to protect against an unsustainable growth in car-based commuting and the suburbanisation of the countryside, particularly where there are environmental assets such as sensitive landscapes or good quality agricultural land. Plans should make provision for most new urban development to take place within, or in planned extensions to, existing settlements.

77. In remote and fragile areas and island areas outwith defined small towns, the emphasis should be on maintaining and growing communities by encouraging development that provides suitable sustainable economic activity, while preserving important environmental assets such as landscape and wildlife habitats that underpin continuing tourism visits and quality of place.

78. In the areas of intermediate accessibility and pressure for development, plans should be tailored to local circumstances, seeking to provide a sustainable network of settlements and a

40 www.scotland.gov.uk/Publications/2011/03/17091927/0

range of policies that provide for additional housing requirements, economic development, and the varying proposals that may come forward, while taking account of the overarching objectives and other elements of the plan.

79. Plans should set out a spatial strategy which:

- reflects the development pressures, environmental assets, and economic needs of the area, reflecting the overarching aim of supporting diversification and growth of the rural economy;
- promotes economic activity and diversification, including, where appropriate, sustainable development linked to tourism and leisure, forestry, farm and croft diversification and aquaculture, nature conservation, and renewable energy developments, while ensuring that the distinctive character of the area, the service function of small towns and natural and cultural heritage are protected and enhanced;
- makes provision for housing in rural areas in accordance with the spatial strategy, taking account of the different development needs of local communities;
- where appropriate, sets out policies and proposals for leisure accommodation, such as holiday units, caravans, and huts;
- addresses the resource implications of the proposed pattern of development, including facilitating access to local community services and support for public transport; and
- considers the services provided by the natural environment, safeguarding land which is highly suitable for particular uses such as food production or flood management.

80. Where it is necessary to use good quality land for development, the layout and design should minimise the amount of such land that is required. Development on prime agricultural land, or land of lesser quality that is locally important should not be permitted except where it is essential:

- as a component of the settlement strategy or necessary to meet an established need, for example for essential infrastructure, where no other suitable site is available; or
- for small-scale development directly linked to a rural business; or
- for the generation of energy from a renewable source or the extraction of minerals where this accords with other policy objectives and there is secure provision for restoration to return the land to its former status.

81. In accessible or pressured rural areas, where there is a danger of unsustainable growth in long-distance car-based commuting or suburbanisation of the countryside, a more restrictive approach to new housing development is appropriate, and plans and decision-making should generally:

- guide most new development to locations within or adjacent to settlements; and
- set out the circumstances in which new housing outwith settlements may be appropriate, avoiding use of occupancy restrictions.

82. In some most pressured areas, the designation of green belts may be appropriate.

83. In remote rural areas, where new development can often help to sustain fragile communities, plans and decision-making should generally:

- encourage sustainable development that will provide employment;
- support and sustain fragile and dispersed communities through provision for appropriate development, especially housing and community-owned energy;

- include provision for small-scale housing[41] and other development which supports sustainable economic growth in a range of locations, taking account of environmental protection policies and addressing issues of location, access, siting, design and environmental impact;
- where appropriate, allow the construction of single houses outwith settlements provided they are well sited and designed to fit with local landscape character, taking account of landscape protection and other plan policies;
- not impose occupancy restrictions on housing.

National Parks

84. National Parks are designated under the National Parks (Scotland) Act 2000 because they are areas of national importance for their natural and cultural heritage. The four aims of national parks are to:

- conserve and enhance the natural and cultural heritage of the area;
- promote sustainable use of the natural resources of the area;
- promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public; and
- promote sustainable economic and social development of the area's communities.

85. These aims are to be pursued collectively. However if there is a conflict between the first aim and any of the others then greater weight must be given to the first aim. Planning decisions should reflect this weighting. Paragraph 213 also applies to development outwith a National Park that affects the Park.

86. Development plans for National Parks are expected to be consistent with the National Park Plan, which sets out the management strategy for the Park. The authority preparing a development plan for a National Park, or which affects a National Park, is required to pay special attention to the desirability of consistency with the National Park Plan, having regard to the contents.

Coastal Planning

87. The planning system should support an integrated approach to coastal planning to ensure that development plans and regional marine plans are complementary. Terrestrial planning by planning authorities overlaps with marine planning in the intertidal zone. On the terrestrial side, mainland planning authorities should work closely with neighbouring authorities, taking account of the needs of port authorities and aquaculture, where appropriate. On the marine side, planning authorities will need to ensure integration with policies and activities arising from the National Marine Plan, Marine Planning Partnerships, Regional Marine Plans, and Integrated Coastal Zone Management, as well as aquaculture.

Development Plans

88. Plans should recognise that rising sea levels and more extreme weather events resulting from climate change will potentially have a significant impact on coastal and island areas, and that a precautionary approach to flood risk should be taken. They should confirm that new development requiring new defences against coastal erosion or coastal flooding will not be supported except where there is a clear justification for a departure from the general policy to

41 including clusters and groups; extensions to existing clusters and groups; replacement housing; plots for self build; holiday homes; new build or conversion linked to rural business.

avoid development in areas at risk. Where appropriate, development plans should identify areas at risk and areas where a managed realignment of the coast would be beneficial.

89. Plans should identify areas of largely developed coast that are a major focus of economic or recreational activity that are likely to be suitable for further development; areas subject to significant constraints; and largely unspoiled areas of the coast that are generally unsuitable for development. It should be explained that this broad division does not exclude important local variations, for example where there are areas of environmental importance within developed estuaries, or necessary developments within the largely unspoiled coast where there is a specific locational need, for example for defence purposes, tourism developments of special significance, or essential onshore developments connected with offshore energy projects or (where appropriate) aquaculture.

90. Plans should promote the developed coast as the focus of developments requiring a coastal location or which contribute to the economic regeneration or well-being of communities whose livelihood is dependent on marine or coastal activities. They should provide for the development requirements of uses requiring a coastal location, including ports and harbours, tourism and recreation, fish farming, land-based development associated with offshore energy projects and specific defence establishments.

91. Plans should safeguard unspoiled sections of coast which possess special environmental or cultural qualities, such as wild land. The economic value of these areas should be considered and maximised, provided that environmental impact issues can be satisfactorily addressed.

Supporting Business and Employment

NPF Context

92. NPF3 supports the many and varied opportunities for planning to support business and employment. These range from a focus on the role of cities as key drivers of our economy, to the continuing need for diversification of our rural economy to strengthen communities and retain young people in remote areas. Planning should address the development requirements of businesses and enable key opportunities for investment to be realised. It can support sustainable economic growth by providing a positive policy context for development that delivers economic benefits.

Policy Principles

93. The planning system should:

- promote business and industrial development that increases economic activity while safeguarding and enhancing the natural and built environments as national assets;
- allocate sites that meet the diverse needs of the different sectors and sizes of business which are important to the plan area in a way which is flexible enough to accommodate changing circumstances and allow the realisation of new opportunities; and
- give due weight to net economic benefit of proposed development.

Key Documents

- Government Economic Strategy[42]

42 www.scotland.gov.uk/Topics/Economy/EconomicStrategy

- Tourism Development Framework for Scotland[43]
- A Guide to Development Viability[44]

Delivery

Development Planning

94. Plans should align with relevant local economic strategies. These will help planning authorities to meet the needs and opportunities of indigenous firms and inward investors, recognising the potential of key sectors for Scotland with particular opportunities for growth, including:

- energy;
- life sciences, universities and the creative industries;
- tourism and the food and drink sector;
- financial and business services.

95. Plans should encourage opportunities for home-working, live-work units, micro-businesses and community hubs.

96. Development plans should support opportunities for integrating efficient energy and waste innovations within business environments. Industry stakeholders should engage with planning authorities to help facilitate co-location, as set out in paragraph 179.

97. Strategic development plan policies should reflect a robust evidence base in relation to the existing principal economic characteristics of their areas, and any anticipated change in these.

98. Strategic development plans should identify an appropriate range of locations for significant business clusters. This could include sites identified in the National Renewables Infrastructure Plan[45], Enterprise Areas[46], business parks, science parks, large and medium-sized industrial sites and high amenity sites.

99. Strategic development plans and local development plans outwith SDP areas should identify any nationally important clusters of industries handling hazardous substances within their areas and safeguard them from development which, either on its own or in combination with other development, would compromise their continued operation or growth potential. This is in the context of the wider statutory requirements in the Town and Country Planning (Development Planning) (Scotland) Regulations 2009[47] to have regard to the need to maintain appropriate distances between sites with hazardous substances and areas where the public are likely to be present and areas of particular natural sensitivity or interest.

100. Development plans should be informed by the Tourism Development Framework for Scotland in order to maximise the sustainable growth of regional and local visitor economies. Strategic development plans should identify and safeguard any nationally or regionally important locations for tourism or recreation development within their areas.

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43 www.visitscotland.org/pdf/Tourism%20Development%20Framework%20-%20FINAL.pdf

44 www.scotland.gov.uk/Resource/Doc/212607/0109620.pdf

45 www.scottish-enterprise.com/~/media/SE/Resources/Documents/Sectors/Energy/energy-renewables-reports/National-renewables-infrastructure-plan.ashx

46 www.scotland.gov.uk/Topics/Economy/EconomicStrategy/Enterprise-Areas

47 These statutory requirements are due to be amended in 2015 as part of the implementation of Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances.

101. Local development plans should allocate a range of sites for business, taking account of current market demand; location, size, quality and infrastructure requirements; whether sites are serviced or serviceable within five years; the potential for a mix of uses; their accessibility to transport networks by walking, cycling and public transport and their integration with and access to existing transport networks. The allocation of such sites should be informed by relevant economic strategies and business land audits in respect of land use classes 4, 5 and 6.

102. Business land audits should be undertaken regularly by local authorities to inform reviews of development plans, and updated more frequently if relevant. Business land audits should monitor the location, size, planning status, existing use, neighbouring land uses and any significant land use issues (e.g. underused, vacant, derelict) of sites within the existing business land supply.

103. New sites should be identified where existing sites no longer meet current needs and market expectations. Where existing business sites are underused, for example where there has been an increase in vacancy rates, reallocation to enable a wider range of viable business or alternative uses should be considered, taking careful account of the potential impacts on existing businesses on the site.

104. Local development plans should locate development which generates significant freight movements, such as manufacturing, processing, distribution and warehousing, on sites accessible to suitable railheads or harbours or the strategic road network. Through appraisal, care should be taken in locating such development to minimise any impact on congested, inner urban and residential areas.

105. Planning authorities should consider the potential to promote opportunities for tourism and recreation facilities in their development plans. This may include new developments or the enhancement of existing facilities.

Development Management

106. Efficient handling of planning applications should be a key priority, particularly where jobs and investment are involved. To assist with this, pre-application discussions are strongly encouraged to determine the information that should be submitted to support applications. Such information should be proportionate and relevant to the development and sufficient for the planning authority requirements on matters such as the number of jobs to be created, hours of working, transport requirements, environmental effects, noise levels and the layout and design of buildings. Decisions should be guided by the principles set out in paragraphs 28 to 35.

107. Proposals for development in the vicinity of major-accident hazard sites should take into account the potential impacts on the proposal and the major-accident hazard site of being located in proximity to one another. Decisions should be informed by the Health and Safety Executive's advice, based on the PADHI tool. Similar considerations apply in respect of development proposals near licensed explosive sites (including military explosive storage sites).

108. Proposals for business, industrial and service uses should take into account surrounding sensitive uses, areas of particular natural sensitivity or interest and local amenity, and make a positive contribution towards placemaking.

Enabling Delivery of New Homes

NPF Context

109. NPF3 aims to facilitate new housing development, particularly in areas within our cities network where there is continuing pressure for growth, and through innovative approaches to rural housing provision. House building makes an important contribution to the economy. Planning can help to address the challenges facing the housing sector by providing a positive and flexible approach to development. In particular, provision for new homes should be made in areas where economic investment is planned or there is a need for regeneration or to support population retention in rural and island areas.

Policy Principles

110. The planning system should:

- identify a generous supply of land for each housing market area within the plan area to support the achievement of the housing land requirement across all tenures, maintaining at least a 5-year supply of effective housing land at all times;
- enable provision of a range of attractive, well-designed, energy efficient, good quality housing, contributing to the creation of successful and sustainable places; and
- have a sharp focus on the delivery of allocated sites embedded in action programmes, informed by strong engagement with stakeholders.

Key Documents

- The Housing (Scotland) Act 2001[48] requires local authorities to prepare a local housing strategy supported by an assessment of housing need and demand
- Planning Advice Note 2/2010: Affordable Housing and Housing Land Audits[49]

Delivery

111. Local authorities should identify functional housing market areas, i.e. geographical areas where the demand for housing is relatively self-contained. These areas may significantly overlap and will rarely coincide with local authority boundaries. They can be dynamic and complex, and can contain different tiers of sub-market area, overlain by mobile demand, particularly in city regions.

112. Planning for housing should be undertaken through joint working by housing market partnerships, involving both housing and planning officials within local authorities, and cooperation between authorities where strategic planning responsibilities and/or housing market areas are shared, including national park authorities. Registered social landlords, developers, other specialist interests, and local communities should also be encouraged to engage with housing market partnerships. In rural or island areas where there is no functional housing market area, the development plan should set out the most appropriate approach for the area.

48 www.legislation.gov.uk/asp/2001/10/contents

49 www.scotland.gov.uk/Publications/2010/08/31111624/0

Development Planning

113. Plans should be informed by a robust housing need and demand assessment (HNDA), prepared in line with the Scottish Government's HNDA Guidance[50]. This assessment provides part of the evidence base to inform both local housing strategies and development plans (including the main issues report). It should produce results both at the level of the functional housing market area and at local authority level, and cover all tenures. Where the Scottish Government is satisfied that the HNDA is robust and credible, the approach used will not normally be considered further at a development plan examination.

114. The HNDA, development plan, and local housing strategy processes should be closely aligned, with joint working between housing and planning teams. Local authorities may wish to wait until the strategic development plan is approved in city regions, and the local development plan adopted elsewhere, before finalising the local housing strategy, to ensure that any modifications to the plans can be reflected in local housing strategies, and in local development plans in the city regions.

115. Plans should address the supply of land for all housing. They should set out the housing supply target (separated into affordable and market sector) for each functional housing market area, based on evidence from the HNDA. The housing supply target is a policy view of the number of homes the authority has agreed will be delivered in each housing market area over the periods of the development plan and local housing strategy, taking into account wider economic, social and environmental factors, issues of capacity, resource and deliverability, and other important requirements such as the aims of National Parks. The target should be reasonable, should properly reflect the HNDA estimate of housing demand in the market sector, and should be supported by compelling evidence. The authority's housing supply target should also be reflected in the local housing strategy.

116. Within the overall housing supply target[51], plans should indicate the number of new homes to be built over the plan period. This figure should be increased by a margin of 10 to 20% to establish the housing land requirement, in order to ensure that a generous supply of land for housing is provided. The exact extent of the margin will depend on local circumstances, but a robust explanation for it should be provided in the plan.

117. The housing land requirement can be met from a number of sources, most notably sites from the established supply which are effective or expected to become effective in the plan period, sites with planning permission, proposed new land allocations, and in some cases a proportion of windfall development. Any assessment of the expected contribution to the housing land requirement from windfall sites must be realistic and based on clear evidence of past completions and sound assumptions about likely future trends. In urban areas this should be informed by an urban capacity study.

118. Strategic development plans should set out the housing supply target and the housing land requirement for the plan area, each local authority area, and each functional housing market area. They should also state the amount and broad locations of land which should be allocated in local development plans to meet the housing land requirement up to year 12 from the expected year of plan approval, making sure that the requirement for each housing market area is met in full. Beyond year 12 and up to year 20, the strategic development plan should provide an indication of the possible scale and location of housing land, including by local development plan area.

50 www.scotland.gov.uk/Topics/Built-Environment/Housing/supply-demand/chma/hnda

51 Note: the housing supply target may in some cases include a contribution from other forms of delivery, for example a programme to bring empty properties back into use.

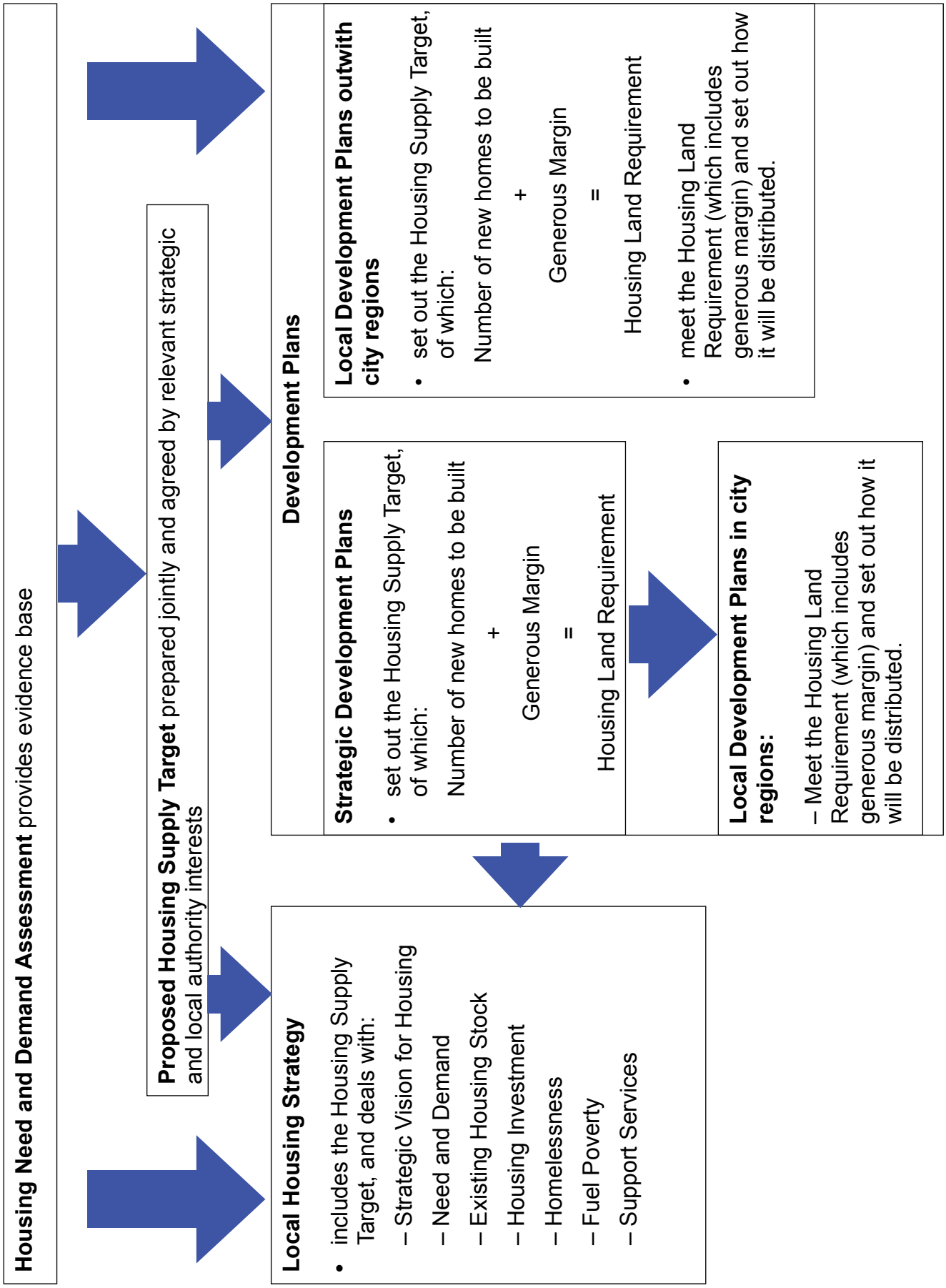
119. Local development plans in city regions should allocate a range of sites which are effective or expected to become effective in the plan period to meet the housing land requirement of the strategic development plan up to year 10 from the expected year of adoption. They should provide for a minimum of 5 years effective land supply at all times. In allocating sites, planning authorities should be confident that land can be brought forward for development within the plan period and that the range of sites allocated will enable the housing supply target to be met.

120. Outwith city regions, local development plans should set out the housing supply target (separated into affordable and market sector) and the housing land requirement for each housing market area in the plan area up to year 10 from the expected year of adoption. They should allocate a range of sites which are effective or expected to become effective in the plan period to meet the housing land requirement in full. They should provide a minimum of 5 years effective land supply at all times. Beyond year 10 and up to year 20, the local development plan should provide an indication of the possible scale and location of the housing land requirement.

121. In the National Parks, local development plans should draw on the evidence provided by the HNDAs of the constituent housing authorities. National Park authorities should aim to meet the housing land requirement in full in their area. However, they are not required to do so, and they should liaise closely with neighbouring planning authorities to ensure that any remaining part of the housing land requirement for the National Parks is met in immediately adjoining housing market areas, and that a 5-year supply of effective land is maintained.

122. Local development plans should allocate appropriate sites to support the creation of sustainable mixed communities and successful places and help to ensure the continued delivery of new housing.

Diagram 1: Housing Land, Development Planning and the Local Housing Strategy



Maintaining a 5-year Effective Land Supply

123. Planning authorities should actively manage the housing land supply. They should work with housing and infrastructure providers to prepare an annual housing land audit as a tool to critically review and monitor the availability of effective housing land, the progress of sites through the planning process, and housing completions, to ensure a generous supply of land for house building is maintained and there is always enough effective land for at least five years. A site is only considered effective where it can be demonstrated that within five years it will be free of constraints[52] and can be developed for housing. In remoter rural areas and island communities, where the housing land requirement and market activity are of a more limited scale, the housing land audit process may be adapted to suit local circumstances.

124. The development plan action programme, prepared in tandem with the plan, should set out the key actions necessary to bring each site forward for housing development and identify the lead partner. It is a key tool, and should be used alongside the housing land audit to help planning authorities manage the land supply.

125. Planning authorities, developers, service providers and other partners in housing provision should work together to ensure a continuing supply of effective land and to deliver housing, taking a flexible and realistic approach. Where a shortfall in the 5-year effective housing land supply emerges, development plan policies for the supply of housing land will not be considered up-to-date, and paragraphs 32-35 will be relevant.

Affordable Housing

126. Affordable housing is defined broadly as housing of a reasonable quality that is affordable to people on modest incomes. Affordable housing may be provided in the form of social rented accommodation, mid-market rented accommodation, shared ownership housing, shared equity housing, housing sold at a discount (including plots for self-build), and low cost housing without subsidy.

127. Where the housing supply target requires provision for affordable housing, strategic development plans should state how much of the total housing land requirement this represents.

128. Local development plans should clearly set out the scale and distribution of the affordable housing requirement for their area. Where the HNDA and local housing strategy process identify a shortage of affordable housing, the plan should set out the role that planning will take in addressing this. Planning authorities should consider whether it is appropriate to allocate some small sites specifically for affordable housing. Advice on the range of possible options for provision of affordable housing is set out in PAN 2/2010.

129. Plans should identify any expected developer contributions towards delivery of affordable housing. Where a contribution is required, this should generally be for a specified proportion of the serviced land within a development site to be made available for affordable housing. Planning authorities should consider the level of affordable housing contribution which is likely to be deliverable in the current economic climate, as part of a viable housing development. The level of affordable housing required as a contribution within a market site should generally be no more than 25% of the total number of houses. Consideration should also be given to the nature of the affordable housing required and the extent to which this can be met by proposals capable of development with little or no public subsidy. Where permission is sought for specialist housing, as described in paragraphs 132-134, a contribution to affordable housing may not always be required.

52 Planning Advice Note 2/2010: Affordable Housing and Housing Land Audits sets out more fully the measure of effective sites www.scotland.gov.uk/Publications/2010/08/31111624/5

130. Plans should consider how affordable housing requirements will be met over the period of the plan. Planning and housing officials should work together closely to ensure that the phasing of land allocations and the operation of affordable housing policies combine to deliver housing across the range of tenures. In rural areas, where significant unmet local need for affordable housing has been shown, it may be appropriate to introduce a 'rural exceptions' policy which allows planning permission to be granted for affordable housing on small sites that would not normally be used for housing, for example because they lie outwith the adjacent built-up area and are subject to policies of restraint.

131. Any detailed policies on how the affordable housing requirement is expected to be delivered, including any differences in approach for urban and rural areas, should be set out in supplementary guidance. Where it is considered that housing built to meet an identified need for affordable housing should remain available to meet such needs in perpetuity, supplementary guidance should set out the measures to achieve this. Any specific requirements on design may also be addressed in supplementary guidance.

Specialist Housing Provision and Other Specific Needs

132. As part of the HNDA, local authorities are required to consider the need for specialist provision that covers accessible and adapted housing, wheelchair housing and supported accommodation, including care homes and sheltered housing. This supports independent living for elderly people and those with a disability. Where a need is identified, planning authorities should prepare policies to support the delivery of appropriate housing and consider allocating specific sites.

133. HNDAs will also evidence need for sites for Gypsy/Travellers and Travelling Showpeople. Development plans and local housing strategies should address any need identified, taking into account their mobile lifestyles. In city regions, the strategic development plan should have a role in addressing cross-boundary considerations. If there is a need, local development plans should identify suitable sites for these communities. They should also consider whether policies are required for small privately-owned sites for Gypsy/Travellers, and for handling applications for permanent sites for Travelling Showpeople (where account should be taken of the need for storage and maintenance of equipment as well as accommodation). These communities should be appropriately involved in identifying sites for their use.

134. Local development plans should address any need for houses in multiple occupation (HMO). More information is provided in Circular 2/2012 Houses in Multiple Occupation[53]. Planning authorities should also consider the housing requirements of service personnel and sites for people seeking self-build plots. Where authorities believe it appropriate to allocate suitable sites for self-build plots, the sites may contribute to meeting the housing land requirement.

53 www.scotland.gov.uk/Publications/2012/06/4191

Valuing the Historic Environment

NPF and wider policy context

135. NPF3 recognises the contribution made by our cultural heritage to our economy, cultural identity and quality of life. Planning has an important role to play in maintaining and enhancing the distinctive and high-quality, irreplaceable historic places which enrich our lives, contribute to our sense of identity and are an important resource for our tourism and leisure industry.

136. The historic environment is a key cultural and economic asset and a source of inspiration that should be seen as integral to creating successful places. Culture-led regeneration can have a profound impact on the well-being of a community in terms of the physical look and feel of a place and can also attract visitors, which in turn can bolster the local economy and sense of pride or ownership.

Policy Principles

137. The planning system should:

- promote the care and protection of the designated and non-designated historic environment (including individual assets, related settings and the wider cultural landscape) and its contribution to sense of place, cultural identity, social well-being, economic growth, civic participation and lifelong learning; and
- enable positive change in the historic environment which is informed by a clear understanding of the importance of the heritage assets affected and ensure their future use. Change should be sensitively managed to avoid or minimise adverse impacts on the fabric and setting of the asset, and ensure that its special characteristics are protected, conserved or enhanced.

Key Documents

- Scottish Historic Environment Policy[54]
- Historic Environment Strategy for Scotland[55]
- Managing Change in the Historic Environment – Historic Scotland's guidance note series[56]
- Planning Advice Note 2/2011: Planning and Archaeology[57]
- Planning Advice Note 71: Conservation Area Management[58]
- Scottish Historic Environment Databases[59]

54 www.historic-scotland.gov.uk/index/heritage/policy/shep.htm
55 www.scotland.gov.uk/Publications/2014/03/8522
56 www.historic-scotland.gov.uk/managingchange
57 www.scotland.gov.uk/Publications/2011/08/04132003/0
58 www.scotland.gov.uk/Publications/2004/12/20450/49052
59 http://smrforum-scotland.org.uk/wp-content/uploads/2014/03/SHED-Strategy-Final-April-2014.pdf

Delivery

Development Planning

138. Strategic development plans should protect and promote their significant historic environment assets. They should take account of the capacity of settlements and surrounding areas to accommodate development without damage to their historic significance.

139. Local development plans and supplementary guidance should provide a framework for protecting and, where appropriate, enhancing all elements of the historic environment. Local planning authorities should designate and review existing and potential conservation areas and identify existing and proposed Article 4 Directions. This should be supported by Conservation Area Appraisals and Management Plans.

Development Management

140. The siting and design of development should take account of all aspects of the historic environment. In support of this, planning authorities should have access to a Sites and Monuments Record (SMR) and/or a Historic Environment Record (HER) that contains necessary information about known historic environment features and finds in their area.

Listed Buildings

141. Change to a listed building should be managed to protect its special interest while enabling it to remain in active use. Where planning permission and listed building consent are sought for development to, or affecting, a listed building, special regard must be given to the importance of preserving and enhancing the building, its setting and any features of special architectural or historic interest. The layout, design, materials, scale, siting and use of any development which will affect a listed building or its setting should be appropriate to the character and appearance of the building and setting. Listed buildings should be protected from demolition or other work that would adversely affect it or its setting.

142. Enabling development may be acceptable where it can be clearly shown to be the only means of preventing the loss of the asset and securing its long-term future. Any development should be the minimum necessary to achieve these aims. The resultant development should be designed and sited carefully to preserve or enhance the character and setting of the historic asset.

Conservation Areas

143. Proposals for development within conservation areas and proposals outwith which will impact on its appearance, character or setting, should preserve or enhance the character and appearance of the conservation area. Proposals that do not harm the character or appearance of the conservation area should be treated as preserving its character or appearance. Where the demolition of an unlisted building is proposed through Conservation Area Consent, consideration should be given to the contribution the building makes to the character and appearance of the conservation area. Where a building makes a positive contribution the presumption should be to retain it.

144. Proposed works to trees in conservation areas require prior notice to the planning authority and statutory Tree Preservation Orders[60] can increase the protection given to such trees. Conservation Area Appraisals should inform development management decisions.

60 www.scotland.gov.uk/Publications/2011/01/28152314/0

Scheduled Monuments

145. Where there is potential for a proposed development to have an adverse effect on a scheduled monument or on the integrity of its setting, permission should only be granted where there are exceptional circumstances. Where a proposal would have a direct impact on a scheduled monument, the written consent of Scottish Ministers via a separate process is required in addition to any other consents required for the development.

Historic Marine Protected Areas

146. Where planning control extends offshore, planning authorities should ensure that development will not significantly hinder the preservation objectives of Historic Marine Protected Areas.

World Heritage Sites

147. World Heritage Sites are of international importance. Where a development proposal has the potential to affect a World Heritage Site, or its setting, the planning authority must protect and preserve its Outstanding Universal Value.

Gardens and Designed Landscapes

148. Planning authorities should protect and, where appropriate, seek to enhance gardens and designed landscapes included in the Inventory of Gardens and Designed Landscapes and designed landscapes of regional and local importance.

Battlefields

149. Planning authorities should seek to protect, conserve and, where appropriate, enhance the key landscape characteristics and special qualities of sites in the Inventory of Historic Battlefields.

Archaeology and Other Historic Environment Assets

150. Planning authorities should protect archaeological sites and monuments as an important, finite and non-renewable resource and preserve them in situ wherever possible. Where in situ preservation is not possible, planning authorities should, through the use of conditions or a legal obligation, ensure that developers undertake appropriate excavation, recording, analysis, publication and archiving before and/or during development. If archaeological discoveries are made, they should be reported to the planning authority to enable discussion on appropriate measures, such as inspection and recording.

151. There is also a range of non-designated historic assets and areas of historical interest, including historic landscapes, other gardens and designed landscapes, woodlands and routes such as drove roads which do not have statutory protection. These resources are, however, an important part of Scotland's heritage and planning authorities should protect and preserve significant resources as far as possible, in situ wherever feasible.

A Low Carbon Place

Delivering Heat and Electricity

NPF Context

152. NPF3 is clear that planning must facilitate the transition to a low carbon economy, and help to deliver the aims of the Scottish Government's Report on Proposals and Policies[61]. Our spatial strategy facilitates the development of generation technologies that will help to reduce greenhouse gas emissions from the energy sector. Scotland has significant renewable energy resources, both onshore and offshore. Spatial priorities range from extending heat networks in our cities and towns to realising the potential for renewable energy generation in our coastal and island areas.

153. Terrestrial and marine planning facilitate development of renewable energy technologies, link generation with consumers and guide new infrastructure to appropriate locations. Efficient supply of low carbon and low cost heat and generation of heat and electricity from renewable energy sources are vital to reducing greenhouse gas emissions and can create significant opportunities for communities. Renewable energy also presents a significant opportunity for associated development, investment and growth of the supply chain, particularly for ports and harbours identified in the National Renewables Infrastructure Plan[62]. Communities can also gain new opportunities from increased local ownership and associated benefits.

Policy Principles

154. The planning system should:

- support the transformational change to a low carbon economy, consistent with national objectives and targets[63], including deriving:
  - 30% of overall energy demand from renewable sources by 2020;
  - 11% of heat demand from renewable sources by 2020; and
  - the equivalent of 100% of electricity demand from renewable sources by 2020;
- support the development of a diverse range of electricity generation from renewable energy technologies – including the expansion of renewable energy generation capacity – and the development of heat networks;
- guide development to appropriate locations and advise on the issues that will be taken into account when specific proposals are being assessed;
- help to reduce emissions and energy use in new buildings and from new infrastructure by enabling development at appropriate locations that contributes to:
  - Energy efficiency;
  - Heat recovery;
  - Efficient energy supply and storage;

61 www.scotland.gov.uk/Topics/Environment/climatechange/scotlands-action/lowcarbon/meetingthetargets

62 www.scottish-enterprise.com/~/media/SE/Resources/Documents/Sectors/Energy/energy-renewables-reports/National-renewables-infrastructure-plan.ashx

63 Further targets may be set in due course, for example district heating targets have been proposed.

– Electricity and heat from renewable sources; and
– Electricity and heat from non-renewable sources where greenhouse gas emissions can be significantly reduced.

Key Documents

- Electricity Generation Policy Statement[64]
- 2020 Routemap for Renewable Energy in Scotland[65]
- Towards Decarbonising Heat: Maximising the opportunities for Scotland, Draft Heat Generation Policy Statement[66]
- Low Carbon Scotland: Meeting Our Emissions Reductions Targets 2013 - 2027[67]

Delivery

Development Planning

155. Development plans should seek to ensure an area's full potential for electricity and heat from renewable sources is achieved, in line with national climate change targets, giving due regard to relevant environmental, community and cumulative impact considerations.

156. Strategic development plans should support national priorities for the construction or improvement of strategic energy infrastructure, including generation, storage, transmission and distribution networks. They should address cross-boundary issues, promoting an approach to electricity and heat that supports the transition to a low carbon economy.

157. Local development plans should support new build developments, infrastructure or retrofit projects which deliver energy efficiency and the recovery of energy that would otherwise be wasted both in the specific development and surrounding area. They should set out the factors to be taken into account in considering proposals for energy developments. These will depend on the scale of the proposal and its relationship to the surrounding area and are likely to include the considerations set out at paragraph 169.

Heat

158. Local development plans should use heat mapping to identify the potential for co-locating developments with a high heat demand with sources of heat supply. Heat supply sources include harvestable woodlands, sawmills producing biomass, biogas production sites and developments producing unused excess heat, as well as geothermal systems, heat recoverable from mine waters, aquifers, other bodies of water and heat storage systems. Heat demand sites for particular consideration include high density developments, communities off the gas grid, fuel poor areas and anchor developments such as hospitals, schools, leisure centres and heat intensive industry.

159. Local development plans should support the development of heat networks in as many locations as possible, even where they are initially reliant on carbon-based fuels if there is potential to convert them to run on renewable or low carbon sources of heat in the future. Local development plans should identify where heat networks, heat storage and energy centres exist or would be appropriate and include policies to support their implementation. Policies should support

64 www.scotland.gov.uk/Topics/Business-Industry/Energy/EGPSMain
65 www.scotland.gov.uk/Publications/2011/08/04110353/0
66 www.scotland.gov.uk/Publications/2014/03/2778
67 www.scotland.gov.uk/Topics/Environment/climatechange/scotlands-action/lowcarbon/meetingthetargets

safeguarding of piperuns within developments for later connection and pipework to the curtilage of development. Policies should also give consideration to the provision of energy centres within new development. Where a district network exists, or is planned, or in areas identified as appropriate for district heating, policies may include a requirement for new development to include infrastructure for connection, providing the option to use heat from the network.

160. Where heat networks are not viable, microgeneration and heat recovery technologies associated with individual properties should be encouraged.

Onshore Wind

161. Planning authorities should set out in the development plan a spatial framework identifying those areas that are likely to be most appropriate for onshore wind farms as a guide for developers and communities, following the approach set out below in Table 1. Development plans should indicate the minimum scale[68] of onshore wind development that their spatial framework is intended to apply to. Development plans should also set out the criteria that will be considered in deciding all applications for wind farms of different scales – including extensions and re-powering – taking account of the considerations set out at paragraph 169.

162. Both strategic and local development planning authorities, working together where required, should identify where there is strategic capacity for wind farms, and areas with the greatest potential for wind development, considering cross-boundary constraints and opportunities. Strategic development planning authorities are expected to take the lead in dealing with cross-boundary constraints and opportunities and will coordinate activity with constituent planning authorities.

163. The approach to spatial framework preparation set out in the SPP should be followed in order to deliver consistency nationally and additional constraints should not be applied at this stage. The spatial framework is complemented by a more detailed and exacting development management process where the merits of an individual proposal will be carefully considered against the full range of environmental, community, and cumulative impacts (see paragraph 169).

164. Individual properties and those settlements not identified within the development plan will be protected by the safeguards set out in the local development plan policy criteria for determining wind farms and the development management considerations accounted for when determining individual applications.

165. Grid capacity should not be used as a reason to constrain the areas identified for wind farm development or decisions on individual applications for wind farms. It is for wind farm developers to discuss connections to the grid with the relevant transmission network operator. Consideration should be given to underground grid connections where possible.

166. Proposals for onshore wind turbine developments should continue to be determined while spatial frameworks and local policies are being prepared and updated. Moratoria on onshore wind development are not appropriate.

68 For example, Loch Lomond and The Trossachs and Cairngorms National Parks refer to developments of more than one turbine and over 30 metres in height as large-scale commercial wind turbines.

Table 1: Spatial Frameworks

<table>
<tr><td colspan="3">Group 1: Areas where wind farms will not be acceptable:

National Parks and National Scenic Areas.</td></tr>
<tr><td colspan="3">Group 2: Areas of significant protection:

Recognising the need for significant protection, in these areas wind farms may be appropriate in some circumstances. Further consideration will be required to demonstrate that any significant effects on the qualities of these areas can be substantially overcome by siting, design or other mitigation.</td></tr>
<tr><td>National and international designations:

• World Heritage Sites;
• Natura 2000 and Ramsar sites;
• Sites of Special Scientific Interest;
• National Nature Reserves;
• Sites identified in the Inventory of Gardens and Designed Landscapes;
• Sites identified in the Inventory of Historic Battlefields.</td><td>Other nationally important mapped environmental interests:

• areas of wild land as shown on the 2014 SNH map of wild land areas;
• carbon rich soils, deep peat and priority peatland habitat.</td><td>Community separation for consideration of visual impact:

• an area not exceeding 2km around cities, towns and villages identified on the local development plan with an identified settlement envelope or edge. The extent of the area will be determined by the planning authority based on landform and other features which restrict views out from the settlement.</td></tr>
<tr><td colspan="3">Group 3: Areas with potential for wind farm development:

Beyond groups 1 and 2, wind farms are likely to be acceptable, subject to detailed consideration against identified policy criteria.</td></tr>
</table>

Other Renewable Electricity Generating Technologies and Storage

167. Development plans should identify areas capable of accommodating renewable electricity projects in addition to wind generation, including hydro-electricity generation related to river or tidal flows or energy storage projects of a range of scales.

168. Development plans should identify areas which are weakly connected or unconnected to the national electricity network and facilitate development of decentralised and mobile energy storage installations. Energy storage schemes help to support development of renewable energy and maintain stability of the electricity network in areas where reinforcement is needed to manage congestion. Strategic development planning authorities are expected to take the lead in dealing with cross-boundary constraints and opportunities and will coordinate activity between constituent planning authorities.

Development Management

169. Proposals for energy infrastructure developments should always take account of spatial frameworks for wind farms and heat maps where these are relevant. Considerations will vary relative to the scale of the proposal and area characteristics but are likely to include:

- net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities;
- the scale of contribution to renewable energy generation targets;
- effect on greenhouse gas emissions;
- cumulative impacts – planning authorities should be clear about likely cumulative impacts arising from all of the considerations below, recognising that in some areas the cumulative impact of existing and consented energy development may limit the capacity for further development;
- impacts on communities and individual dwellings, including visual impact, residential amenity, noise and shadow flicker;
- landscape and visual impacts, including effects on wild land;
- effects on the natural heritage, including birds;
- impacts on carbon rich soils, using the carbon calculator;
- public access, including impact on long distance walking and cycling routes and scenic routes identified in the NPF;
- impacts on the historic environment, including scheduled monuments, listed buildings and their settings;
- impacts on tourism and recreation;
- impacts on aviation and defence interests and seismological recording;
- impacts on telecommunications and broadcasting installations, particularly ensuring that transmission links are not compromised;
- impacts on road traffic;
- impacts on adjacent trunk roads;
- effects on hydrology, the water environment and flood risk;
- the need for conditions relating to the decommissioning of developments, including ancillary infrastructure, and site restoration;

- opportunities for energy storage; and
- the need for a robust planning obligation to ensure that operators achieve site restoration.

170. Areas identified for wind farms should be suitable for use in perpetuity. Consents may be time-limited but wind farms should nevertheless be sited and designed to ensure impacts are minimised and to protect an acceptable level of amenity for adjacent communities.

171. Proposals for energy generation from non-renewable sources may be acceptable where carbon capture and storage or other emissions reduction infrastructure is either already in place or committed within the development's lifetime and proposals must ensure protection of good environmental standards.

172. Where new energy generation or storage proposals are being considered, the potential to connect those projects to off-grid areas should be considered.

Community Benefit

173. Where a proposal is acceptable in land use terms, and consent is being granted, local authorities may wish to engage in negotiations to secure community benefit in line with the Scottish Government Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments[69].

Existing Wind Farm Sites

174. Proposals to repower existing wind farms which are already in suitable sites where environmental and other impacts have been shown to be capable of mitigation can help to maintain or enhance installed capacity, underpinning renewable energy generation targets. The current use of the site as a wind farm will be a material consideration in any such proposals.

Planning for Zero Waste

NPF and Wider Context

175. NPF3 recognises that waste is a resource and an opportunity, rather than a burden. Scotland has a Zero Waste Policy, which means wasting as little as possible and recognising that every item and material we use, either natural or manufactured, is a resource which has value for our economy. Planning plays a vital role in supporting the provision of facilities and infrastructure for future business development, investment and employment.

Policy Principles

176. The planning system should:

- promote developments that minimise the unnecessary use of primary materials and promote efficient use of secondary materials;
- support the emergence of a diverse range of new technologies and investment opportunities to secure economic value from secondary resources, including reuse, refurbishment, remanufacturing and reprocessing;
- support achievement of Scotland's zero waste targets: recycling 70% of household waste and sending no more than 5% of Scotland's annual waste arisings to landfill by 2025; and
- help deliver infrastructure at appropriate locations, prioritising development in line with the waste hierarchy: waste prevention, reuse, recycling, energy recovery and waste disposal.

69 www.scotland.gov.uk/Publications/2013/11/8279

Key Documents

- EU revised Waste Framework Directive[70] (2008/98/EC)
- Waste (Scotland) Regulations 2012[71]: a statutory framework to maximise the quantity and quality of materials available for recycling and minimise the need for residual waste infrastructure;
- Zero Waste Plan[72] and accompanying regulations and supporting documents;
- Safeguarding Scotland's Resources: A blueprint for a more resource efficient and circular economy;
- Circular 6/2013 Development Planning[73];
- SEPA waste data sources: including Waste Data Digests[74] and Waste Infrastructure Maps[75];
- SEPA Thermal Treatment of Waste Guidelines 2013[76];
- Waste capacity tables[77] (formerly Zero Waste Plan Annex B capacity tables)

Delivery

177. Planning authorities and SEPA should work collaboratively to achieve zero waste objectives, having regard to the Zero Waste Plan, through development plans and development management. A revised version of PAN 63: Planning and Waste Management will be published in due course.

Development Planning

178. Plans should give effect to the aims of the Zero Waste Plan and promote the waste hierarchy.

179. For new developments, including industrial, commercial, and residential, plans should promote resource efficiency and the minimisation of waste during construction and operation.

180. Plans should enable investment opportunities in a range of technologies and industries to maximise the value of secondary resources and waste to the economy, including composting facilities, transfer stations, materials recycling facilities, anaerobic digestion, mechanical, biological and thermal treatment plants. In line with the waste hierarchy, particular attention should be given to encouraging opportunities for reuse, refurbishment, remanufacturing and reprocessing of high value materials and products. Industry and business should engage with planning authorities to help identify sites which would enable co-location with end users of outputs where appropriate.

181. Planning authorities should have regard to the annual update of required capacity for source segregated and unsorted waste, mindful of the need to achieve the all-Scotland operational capacity. However, this should not be regarded as a cap and planning authorities should generally facilitate growth in sustainable resource management.

70 http://ec.europa.eu/environment/waste/framework/revision.htm
71 www.legislation.gov.uk/sdsi/2012/9780111016657/contents
72 www.scotland.gov.uk/Topics/Environment/waste-and-pollution/Waste-1/wastestrategy
73 www.scotland.gov.uk/Publications/2013/12/9924/0
74 www.sepa.org.uk/waste/waste_data/waste_data_digest.aspx
75 www.sepa.org.uk/waste/waste_infrastructure_maps.aspx
76 www.sepa.org.uk/waste/waste_regulation/energy_from_waste.aspx
77 www.scotland.gov.uk/Topics/Environment/waste-and-pollution/Waste-1/wastestrategy/annexb

182. The planning system should support the provision of a network of infrastructure to allow Scotland's waste and secondary resources to be managed in one of the nearest appropriate installations, by means of the most appropriate methods and technologies, in order to protect the environment and public health. While a significant shortfall of waste management infrastructure exists, emphasis should be placed on need over proximity. The achievement of a sustainable strategy may involve waste crossing planning boundaries. However, as the national network of installations becomes more fully developed, there will be scope for giving greater weight to proximity in identifying suitable locations for new waste facilities.

183. Any sites identified specifically for energy from waste facilities should enable links to be made to potential users of renewable heat and energy. Such schemes are particularly suitable in locations where there are premises nearby with a long-term demand for heat. Paragraphs 158 to 160 set out policy on heat networks and mapping.

184. Plans should safeguard existing waste management installations and ensure that the allocation of land on adjacent sites does not compromise waste handling operations, which may operate 24 hours a day and partly outside buildings.

185. Strategic development plans and local development plans outwith city regions should set out spatial strategies which make provision for new infrastructure, indicating clearly that it can generally be accommodated on land designated for employment, industrial or storage and distribution uses.

186. Local development plans should identify appropriate locations for new infrastructure, allocating specific sites where possible, and should provide a policy framework which facilitates delivery. Suitable sites will include those which have been identified for employment, industry or storage and distribution. Updated Scottish Government planning advice on identifying sites and assessing their suitability will be provided in due course.

187. Local development plans should identify where masterplans or development briefs will be required to guide the development of waste installations for major sites.

Development Management

188. In determining applications for new installations, authorities should take full account of the policy set out at paragraph 176. Planning authorities should determine whether proposed developments would constitute appropriate uses of the land, leaving the regulation of permitted installations to SEPA.

189. SEPA's Thermal Treatment of Waste Guidelines 2013 and addendum sets out policy on thermal treatment plants.

190. All new development including residential, commercial and industrial properties should include provision for waste separation and collection to meet the requirements of the Waste (Scotland) Regulations.

191. Planning authorities should consider the need for buffer zones between dwellings or other sensitive receptors and some waste management facilities. As a guide, appropriate buffer distances may be:

- 100m between sensitive receptors and recycling facilities, small-scale thermal treatment or leachate treatment plant;
- 250m between sensitive receptors and operations such as outdoor composting, anaerobic digestion, mixed waste processing, thermal treatment or landfill gas plant; and
- greater between sensitive receptors and landfill sites.

192. Planning authorities should:

- consider requiring the preparation of site waste management plans for construction sites;
- secure decommissioning or restoration (including landfill) to agreed standards as a condition of planning permission for waste management facilities; and
- ensure that landfill consents are subject to an appropriate financial bond unless the operator can demonstrate that their programme of restoration, including the necessary financing, phasing and aftercare of sites, is sufficient.

A Natural, Resilient Place

Valuing the Natural Environment

NPF Context

193. The natural environment forms the foundation of the spatial strategy set out in NPF3. The environment is a valued national asset offering a wide range of opportunities for enjoyment, recreation and sustainable economic activity. Planning plays an important role in protecting, enhancing and promoting access to our key environmental resources, whilst supporting their sustainable use.

Policy Principles

194. The planning system should:

- facilitate positive change while maintaining and enhancing distinctive landscape character;
- conserve and enhance protected sites and species, taking account of the need to maintain healthy ecosystems and work with the natural processes which provide important services to communities;
- promote protection and improvement of the water environment, including rivers, lochs, estuaries, wetlands, coastal waters and groundwater, in a sustainable and co-ordinated way;
- seek to protect soils from damage such as erosion or compaction;
- protect and enhance ancient semi-natural woodland as an important and irreplaceable resource, together with other native or long-established woods, hedgerows and individual trees with high nature conservation or landscape value;
- seek benefits for biodiversity from new development where possible, including the restoration of degraded habitats and the avoidance of further fragmentation or isolation of habitats; and
- support opportunities for enjoying and learning about the natural environment.

Key Documents

- Getting the Best from Our Land – A Land Use Strategy for Scotland[78]
- The 2020 Challenge for Scotland's Biodiversity[79]
- European Landscape Convention[80]
- Nature Conservation (Scotland) Act 2004[81]
- The Conservation (Natural Habitats etc) Regulations[82]
- The Wildlife and Countryside Act 1981[83]

78 www.scotland.gov.uk/Topics/Environment/Countryside/Landusestrategy
79 www.scotland.gov.uk/Publications/2013/06/5538
80 www.coe.int/t/dg4/cultureheritage/heritage/landscape/default_en.asp
81 www.legislation.gov.uk/asp/2004/6/contents
82 www.legislation.gov.uk/uksi/1994/2716/contents/made
83 www.legislation.gov.uk/ukpga/1981/69

- EU Birds Directive – 2009/147/EC[84]
- EU Habitats Directive – 92/43/EEC[85]
- Ramsar Convention on Wetlands of International Importance[86]
- National Parks (Scotland) Act 2000[87]
- River Basin Management Plans[88]

Delivery

195. Planning authorities, and all public bodies, have a duty under the Nature Conservation (Scotland) Act 2004 to further the conservation of biodiversity. This duty must be reflected in development plans and development management decisions. They also have a duty under the Water Environment and Water Services (Scotland) Act 2003 to protect and improve Scotland's water environment. The Scottish Government expects public bodies to apply the Principles for Sustainable Land Use, as set out in the Land Use Strategy, when taking significant decisions affecting the use of land.

Development Plans

196. International, national and locally designated areas and sites should be identified and afforded the appropriate level of protection in development plans. Reasons for local designation should be clearly explained and their function and continuing relevance considered when preparing plans. Buffer zones should not be established around areas designated for their natural heritage importance. Plans should set out the factors which will be taken into account in development management. The level of protection given to local designations should not be as high as that given to international or national designations.

197. Planning authorities are encouraged to limit non-statutory local designations to areas designated for their local landscape or nature conservation value:

- the purpose of areas of local landscape value should be to:
  - safeguard and enhance the character and quality of a landscape which is important or particularly valued locally or regionally; or
  - promote understanding and awareness of the distinctive character and special qualities of local landscapes; or
  - safeguard and promote important local settings for outdoor recreation and tourism.
- local nature conservation sites should seek to accommodate the following factors:
  - species diversity, species or habitat rarity, naturalness and extent of habitat;
  - contribution to national and local biodiversity objectives;
  - potential contribution to the protection or enhancement of connectivity between habitats or the development of green networks; and
  - potential to facilitate enjoyment and understanding of natural heritage.

84 ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm
85 ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm
86 www.ramsar.org/cda/en/ramsar-home/main/ramsar/1_4000_0
87 www.legislation.gov.uk/asp/2000/10/contents
88 www.sepa.org.uk/water/river_basin_planning.aspx

198. Local nature conservation sites designated for their geodiversity should be selected for their value for scientific study and education, their historical significance and cultural and aesthetic value, and for their potential to promote public awareness and enjoyment.

199. Plans should address the potential effects of development on the natural environment, including proposals for major-accident hazard sites and the cumulative effects of incremental changes. They should consider the natural and cultural components together, and promote opportunities for the enhancement of degraded landscapes, particularly where this helps to restore or strengthen the natural processes which underpin the well-being and resilience of communities.

200. Wild land character is displayed in some of Scotland's remoter upland, mountain and coastal areas, which are very sensitive to any form of intrusive human activity and have little or no capacity to accept new development. Plans should identify and safeguard the character of areas of wild land as identified on the 2014 SNH map of wild land areas.

201. Plans should identify woodlands of high nature conservation value and include policies for protecting them and enhancing their condition and resilience to climate change. Forestry Commission Scotland's Native Woodland Survey of Scotland[89] provides information and guidance. Planning authorities should consider preparing forestry and woodland strategies as supplementary guidance to inform the development of forestry and woodland in their area, including the expansion of woodland of a range of types to provide multiple benefits. Scottish Government advice on planning for forestry and woodlands is set out in The Right Tree in the Right Place[90].

Development Management

202. The siting and design of development should take account of local landscape character. Development management decisions should take account of potential effects on landscapes and the natural and water environment, including cumulative effects. Developers should seek to minimise adverse impacts through careful planning and design, considering the services that the natural environment is providing and maximising the potential for enhancement.

203. Planning permission should be refused where the nature or scale of proposed development would have an unacceptable impact on the natural environment. Direct or indirect effects on statutorily protected sites will be an important consideration, but designation does not impose an automatic prohibition on development.

204. Planning authorities should apply the precautionary principle where the impacts of a proposed development on nationally or internationally significant landscape or natural heritage resources are uncertain but there is sound evidence indicating that significant irreversible damage could occur. The precautionary principle should not be used to impede development without justification. If there is any likelihood that significant irreversible damage could occur, modifications to the proposal to eliminate the risk of such damage should be considered. If there is uncertainty, the potential for research, surveys or assessments to remove or reduce uncertainty should be considered.

205. Where peat and other carbon rich soils are present, applicants should assess the likely effects of development on carbon dioxide (CO_2) emissions. Where peatland is drained or otherwise disturbed, there is liable to be a release of CO_2 to the atmosphere. Developments should aim to minimise this release.

89 www.forestry.gov.uk/nwss

90 www.forestry.gov.uk/pdf/fcfc129.pdf/$file/fcfc129.pdf

206. Where non-native species are present on site, or where planting is planned as part of a development, developers should take into account the provisions of the Wildlife and Countryside Act 1981 relating to non-native species.

International Designations

Natura 2000 Sites

207. Sites designated as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) make up the Natura 2000 network of protected areas. Any development plan or proposal likely to have a significant effect on these sites which is not directly connected with or necessary to their conservation management must be subject to an "appropriate assessment" of the implications for the conservation objectives. Such plans or proposals may only be approved if the competent authority has ascertained by means of an "appropriate assessment" that there will be no adverse effect on the integrity of the site.

208. A derogation is available for authorities to approve plans or projects which could adversely affect the integrity of a Natura site if:

- there are no alternative solutions;
- there are imperative reasons of overriding public interest, including those of a social or economic nature; and
- compensatory measures are provided to ensure that the overall coherence of the Natura network is protected.

209. If an authority wishes to use this derogation, Scottish Ministers must be notified. For sites hosting a priority habitat or species (as defined in Article 1 of the Habitats Directive), prior consultation with the European Commission via Scottish Ministers is required unless either the proposal is necessary for public health or safety reasons or it will have beneficial consequences of primary importance to the environment.

210. Authorities should afford the same level of protection to proposed SACs and SPAs (i.e. sites which have been approved by Scottish Ministers for formal consultation but which have not yet been designated) as they do to sites which have been designated.

Ramsar Sites

211. All Ramsar sites are also Natura 2000 sites and/or Sites of Special Scientific Interest and are protected under the relevant statutory regimes.

National Designations

212. Development that affects a National Park, National Scenic Area, Site of Special Scientific Interest or a National Nature Reserve should only be permitted where:

- the objectives of designation and the overall integrity of the area will not be compromised; or
- any significant adverse effects on the qualities for which the area has been designated are clearly outweighed by social, environmental or economic benefits of national importance.

213. Planning decisions for development within National Parks must be consistent with paragraphs 84-85.

Protected Species

214. The presence (or potential presence) of a legally protected species is an important consideration in decisions on planning applications. If there is evidence to suggest that a protected species is present on site or may be affected by a proposed development, steps must be taken to establish their presence. The level of protection afforded by legislation must be factored into the planning and design of the development and any impacts must be fully considered prior to the determination of the application. Certain activities – for example those involving European Protected Species as specified in the Conservation (Natural Habitats, &c.) Regulations 1994 and wild birds, protected animals and plants under the Wildlife and Countryside Act 1981 – may only be undertaken under licence. Following the introduction of the Wildlife and Natural Environment (Scotland) Act 2011, Scottish Natural Heritage is now responsible for the majority of wildlife licensing in Scotland.

Areas of Wild Land

215. In areas of wild land (see paragraph 200), development may be appropriate in some circumstances. Further consideration will be required to demonstrate that any significant effects on the qualities of these areas can be substantially overcome by siting, design or other mitigation.

Woodland

216. Ancient semi-natural woodland is an irreplaceable resource and, along with other woodlands, hedgerows and individual trees, especially veteran trees of high nature conservation and landscape value, should be protected from adverse impacts resulting from development. Tree Preservation Orders[91] can be used to protect individual trees and groups of trees considered important for amenity or their cultural or historic interest.

217. Where appropriate, planning authorities should seek opportunities to create new woodland and plant native trees in association with development. If a development would result in the severing or impairment of connectivity between important woodland habitats, workable mitigation measures should be identified and implemented, preferably linked to a wider green network (see also the section on green infrastructure).

218. The Scottish Government's Control of Woodland Removal Policy[92] includes a presumption in favour of protecting woodland. Removal should only be permitted where it would achieve significant and clearly defined additional public benefits. Where woodland is removed in association with development, developers will generally be expected to provide compensatory planting. The criteria for determining the acceptability of woodland removal and further information on the implementation of the policy is explained in the Control of Woodland Removal Policy, and this should be taken into account when preparing development plans and determining planning applications.

91 www.scotland.gov.uk/Publications/2011/01/28152314/0

92 www.forestry.gov.uk/pdf/fcfc125.pdf/%24FILE/fcfc125.pdf

Maximising the Benefits of Green Infrastructure

NPF Context

219. NPF3 aims to significantly enhance green infrastructure networks, particularly in and around our cities and towns. Green infrastructure and improved access to open space can help to build stronger, healthier communities. It is an essential part of our long-term environmental performance and climate resilience. Improving the quality of our places and spaces through integrated green infrastructure networks can also encourage investment and development.

Policy Principles

220. Planning should protect, enhance and promote green infrastructure, including open space and green networks, as an integral component of successful placemaking.

221. The planning system should:

- consider green infrastructure as an integral element of places from the outset of the planning process;
- assess current and future needs and opportunities for green infrastructure to provide multiple benefits;
- facilitate the provision and long-term, integrated management of green infrastructure and prevent fragmentation; and
- provide for easy and safe access to and within green infrastructure, including core paths and other important routes, within the context of statutory access rights under the Land Reform (Scotland) Act 2003.

Key Documents

- Green Infrastructure: Design and Placemaking[93]
- Getting the Best from Our Land – A Land Use Strategy for Scotland[94]
- Planning Advice Note 65: Planning and Open Space[95]
- Reaching Higher – Scotland's National Strategy for Sport[96]
- The Play Strategy for Scotland and Action Plan[97]
- Let's Get Scotland Walking: The National Walking Strategy[98]

Delivery

Development Planning

222. Development plans should be based on a holistic, integrated and cross-sectoral approach to green infrastructure. They should be informed by relevant, up-to-date audits, strategies and action plans covering green infrastructure's multiple functions, for example open space, playing fields, pitches, outdoor access, core paths, active travel strategies, the historic environment, biodiversity, forestry and woodland, river basins, flood management, coastal zones and the marine environment.

93 www.scotland.gov.uk/Publications/2011/11/04140525/0
94 www.scotland.gov.uk/Publications/2011/03/17091927/0
95 www.scotland.gov.uk/Publications/2008/05/30100623/0
96 www.scotland.gov.uk/Topics/ArtsCultureSport/Sport/NationalStrategies/Sport-21
97 www.scotland.gov.uk/Publications/2013/10/9424
98 www.scotland.gov.uk/Publications/2014/06/5743

Plans should promote consistency with these and reflect their priorities and spatial implications.

223. Strategic development plans should safeguard existing strategic or regionally important assets and identify strategic priorities for green infrastructure addressing cross-boundary needs and opportunities.

224. Local development plans should identify and protect open space identified in the open space audit and strategy as valued and functional or capable of being brought into use to meet local needs.

225. Local development plans should seek to enhance existing and promote the creation of new green infrastructure, which may include retrofitting. They should do this through a design-led approach, applying standards which facilitate appropriate provision, addressing deficits or surpluses within the local context. The standards delivered through a design-led approach should result in a proposal that is appropriate to place, including connections to other green infrastructure assets. Supplementary guidance or master plans may be used to achieve this.

226. Local development plans should identify sites for new indoor or outdoor sports, recreation or play facilities where a need has been identified in a local facility strategy, playing field strategy or similar document. They should provide for good quality, accessible facilities in sufficient quantity to satisfy current and likely future community demand. Outdoor sports facilities should be safeguarded from development except where:

- the proposed development is ancillary to the principal use of the site as an outdoor sports facility;
- the proposed development involves only a minor part of the outdoor sports facility and would not affect its use and potential for sport and training;
- the outdoor sports facility which would be lost would be replaced either by a new facility of comparable or greater benefit for sport in a location that is convenient for users, or by the upgrading of an existing outdoor sports facility to provide a facility of better quality on the same site or at another location that is convenient for users and maintains or improves the overall playing capacity in the area; or
- the relevant strategy (see paragraph 224) and consultation with **sport**scotland show that there is a clear excess of provision to meet current and anticipated demand in the area, and that the site would be developed without detriment to the overall quality of provision.

227. Local development plans should safeguard existing and potential allotment sites to ensure that local authorities meet their statutory duty to provide allotments where there is proven demand. Plans should also encourage opportunities for a range of community growing spaces.

228. Local development plans should safeguard access rights and core paths, and encourage new and enhanced opportunities for access linked to wider networks.

229. Local development plans should encourage the temporary use of unused or underused land as green infrastructure while making clear that this will not prevent any future development potential which has been identified from being realised. This type of greening may provide the advance structure planting to create the landscape framework for any future development.

Development Management

230. Development of land allocated as green infrastructure for an unrelated purpose should have a strong justification. This should be based on evidence from relevant audits and strategies that the proposal will not result in a deficit of that type of provision within the local area and that alternative sites have been considered. Poor maintenance and neglect should not be used as a justification for development for other purposes.

231. Development proposals that would result in or exacerbate a deficit of green infrastructure should include provision to remedy that deficit with accessible infrastructure of an appropriate type, quantity and quality.

232. In the design of green infrastructure, consideration should be given to the qualities of successful places. Green infrastructure should be treated as an integral element in how the proposal responds to local circumstances, including being well-integrated into the overall design layout and multi-functional. Arrangements for the long-term management and maintenance of green infrastructure, and associated water features, including common facilities, should be incorporated into any planning permission.

233. Proposals that affect regional and country parks must have regard to their statutory purpose of providing recreational access to the countryside close to centres of population, and should take account of their wider objectives as set out in their management plans and strategies.

Promoting Responsible Extraction of Resources

NPF Context

234. Minerals make an important contribution to the economy, providing materials for construction, energy supply and other uses, and supporting employment. NPF3 notes that minerals will be required as construction materials to support our ambition for diversification of the energy mix. Planning should safeguard mineral resources and facilitate their responsible use. Our spatial strategy underlines the need to address restoration of past minerals extraction sites in and around the Central Belt.

Policy Principles

235. The planning system should:

- recognise the national benefit of indigenous coal, oil and gas production in maintaining a diverse energy mix and improving energy security;
- safeguard workable resources and ensure that an adequate and steady supply is available to meet the needs of the construction, energy and other sectors;
- minimise the impacts of extraction on local communities, the environment and the built and natural heritage; and
- secure the sustainable restoration of sites to beneficial afteruse after working has ceased.

Key Documents

- Electricity Generation Policy Statement[99]
- Management of Extractive Waste (Scotland) Regulations 2010[100]
- PAN 50: Controlling the Environmental Effects of Surface Mineral Workings[101]
- Planning Advice Note 64: Reclamation of Surface Mineral Workings[102]
- Circular 2/2003: Safeguarding of Aerodromes, Technical Sites and Military Explosive Storage Areas[103]
- Circular 34/1996: Environment Act 1995 Section 96[104]

Delivery

Development Planning

236. Strategic development plans should ensure that adequate supplies of construction aggregates can be made available from within the plan area to meet the likely development needs of the city region over the plan period.

237. Local development plans should safeguard all workable mineral resources which are of economic or conservation value and ensure that these are not sterilised by other development. Plans should set out the factors that specific proposals will need to address, including:

- disturbance, disruption and noise, blasting and vibration, and potential pollution of land, air and water;
- impacts on local communities, individual houses, sensitive receptors and economic sectors important to the local economy;
- benefits to the local and national economy;
- cumulative impact with other mineral and landfill sites in the area;
- effects on natural heritage, habitats and the historic environment;
- landscape and visual impacts, including cumulative effects;
- transport impacts; and
- restoration and aftercare (including any benefits in terms of the remediation of existing areas of dereliction or instability).

238. Plans should support the maintenance of a landbank of permitted reserves for construction aggregates of at least 10 years at all times in all market areas through the identification of areas of search. Such areas can be promoted by developers or landowners as part of the plan preparation process or by planning authorities where they wish to guide development to particular areas. As an alternative, a criteria-based approach may be taken, particularly where a sufficient landbank already exists or substantial unconstrained deposits are available.

99 www.scotland.gov.uk/Publications/2013/06/5757
100 www.legislation.gov.uk/ssi/2010/60/contents/made
101 www.scotland.gov.uk/Publications/1996/10/17729/23424
102 www.scotland.gov.uk/Publications/2003/01/16122/16256
103 www.scotland.gov.uk/Publications/2003/01/16204/17030
104 www.scotland.gov.uk/Publications/1996/11/circular-34-1996-root/circular-34-1996-guidance

239. Local development plans should identify areas of search where surface coal extraction is most likely to be acceptable during the plan period and set out the preferred programme for the development of other safeguarded areas beyond the plan period, with particular emphasis on protecting local communities from significant cumulative impacts. Where possible, plans should secure extraction prior to permanent development above workable coal reserves.

240. For areas covered by a Petroleum Exploration and Development Licence (PEDL), local development plans should also:

- identify licence areas;
- encourage operators to be as clear as possible about the minimum and maximum extent of operations (e.g. number of wells and duration) at the exploration phase whilst recognising that the factors to be addressed by applications should be relevant and proportionate to the appropriate exploration, appraisal and production phases of operations;
- confirm that applicants should engage with local communities, residents and other stakeholders at each stage of operations, beginning in advance of any application for planning permission and in advance of any operations;
- ensure that when developing proposals, applicants should consider, where possible, transport of the end product by pipeline, rail or water rather than road; and
- provide a consistent approach to extraction where licences extend across local authority boundaries.

241. Policies should protect areas of peatland and only permit commercial extraction in areas suffering historic, significant damage through human activity and where the conservation value is low and restoration is impossible.

Development Management

242. Operators should provide sufficient information to enable a full assessment to be made of the likely effects of development together with appropriate control, mitigation and monitoring measures. This should include the provision of an adequate buffer zone between sites and settlements, taking account of the specific circumstances of individual proposals, including size, duration, location, method of working, topography, the characteristics of the various environmental effects likely to arise and the mitigation that can be provided.

243. Borrow pits should only be permitted if there are significant environmental or economic benefits compared to obtaining material from local quarries; they are time-limited; tied to a particular project and appropriate reclamation measures are in place.

244. Consent should only be granted for surface coal extraction proposals which are either environmentally acceptable (or can be made so by planning conditions) or provide local or community benefits which clearly outweigh the likely impacts of extraction. Site boundaries within 500 metres of the edge of settlements will only be environmentally acceptable where local circumstances, such as the removal of dereliction, small-scale prior extraction or the stabilisation of mining legacy, justify a lesser distance. Non-engineering works and mitigation measures within 500 metres may be acceptable.

245. To assist planning authorities with their consideration of impacts on local communities, neighbouring uses and the environment, applicants should undertake a risk assessment for all proposals for shale gas and coal bed methane extraction. The assessment can, where appropriate, be undertaken as part of any environmental impact assessment and should also be developed in consultation with statutory consultees and local communities so that it informs the design of the proposal. The assessment should clearly identify those onsite activities (i.e. emission of pollutants, the creation and disposal of waste) that pose a potential risk using a source–pathway–receptor model and explain how measures, including those under environmental and other legislation, will be used to monitor, manage and mitigate any identified risks to health, amenity and the environment. The evidence from, and outcome of, the assessment should lead to buffer zones being proposed in the application which will protect all sensitive receptors from unacceptable risks. When considering applications, planning authorities and statutory consultees must assess the distances proposed by the applicant. Where proposed distances are considered inadequate the Scottish Government expects planning permission to be refused.

246. Conditions should be drafted in a way which ensures that hydraulic fracturing does not take place where permission for such operations is not sought and that any subsequent application to do so is subject to appropriate consultation. If such operations are subsequently proposed, they should, as a matter of planning policy, be regarded as a substantial change in the description of the development for which planning permission is sought or a material variation to the existing planning permission. Where PEDL and Underground Coal licences are granted for the same or overlapping areas, consideration should be given to the most efficient sequencing of extraction.

247. The Scottish Government is currently exploring a range of options relating to the effective regulation of surface coal mining. This is likely to result in further guidance on effective restoration measures in due course. In the meantime, planning authorities should, through planning conditions and legal agreements, continue to ensure that a high standard of restoration and aftercare is managed effectively and that such work is undertaken at the earliest opportunity. A range of financial guarantee options is currently available and planning authorities should consider the most effective solution on a site-by-site basis. All solutions should provide assurance and clarity over the amount and period of the guarantee and in particular, where it is a bond, the risks covered (including operator failure) and the triggers for calling in a bond, including payment terms. In the aggregates sector, an operator may be able to demonstrate adequate provision under an industry-funded guarantee scheme.

248. Planning authorities should ensure that rigorous procedures are in place to monitor consents, including restoration arrangements, at appropriate intervals, and ensure that appropriate action is taken when necessary. The review of mineral permissions every 15 years should be used to apply up-to-date operating and environmental standards although requests from operators to postpone reviews should be considered favourably if existing conditions are already achieving acceptable standards. Conditions should not impose undue restrictions on consents at quarries for building or roofing stone to reflect the likely intermittent or low rate of working at such sites.

Supporting Aquaculture

NPF Context

249. Aquaculture makes a significant contribution to the Scottish economy, particularly for coastal and island communities. Planning can help facilitate sustainable aquaculture whilst protecting and maintaining the ecosystem upon which it depends. Planning can play a role in supporting the sectoral growth targets to grow marine finfish (including farmed Atlantic salmon) production sustainably to 210,000 tonnes; and shellfish, particularly mussels, sustainably to 13,000 tonnes with due regard to the marine environment by 2020.

Policy Principles

250. The planning system should:

- play a supporting role in the sustainable growth of the finfish and shellfish sectors to ensure that the aquaculture industry is diverse, competitive and economically viable;
- guide development to coastal locations that best suit industry needs with due regard to the marine environment;
- maintain a presumption against further marine finfish farm developments on the north and east coasts to safeguard migratory fish species.

Key Documents

- National Marine Plan

Delivery

Development Planning

251. Local development plans should make positive provision for aquaculture developments. Plans, or supplementary guidance, should take account of Marine Scotland's locational policies when identifying areas potentially suitable for new development and sensitive areas which are unlikely to be appropriate for such development. They should also set out the issues that will be considered when assessing specific proposals, which could include:

- impacts on, and benefits for, local communities;
- economic benefits of the sustainable development of the aquaculture industry;
- landscape, seascape and visual impact;
- biological carrying capacity;
- effects on coastal and marine species (including wild salmonids) and habitats;
- impacts on the historic environment and the sea or loch bed;
- interaction with other users of the marine environment (including commercial fisheries, Ministry of Defence, navigational routes, ports and harbours, anchorages, tourism, recreational and leisure activities); and
- cumulative effects on all of the above factors.

Development Management

252. Applications should be supported, where necessary, by sufficient information to demonstrate:

- operational arrangements (including noise, light, access, waste and odour) are satisfactory and sufficient mitigation plans are in place; and
- the siting and design of cages, lines and associated facilities are appropriate for the location. This should be done through the provision of information on the extent of the site; the type, number and physical scale of structures; the distribution of the structures across the planning area; on-shore facilities; and ancillary equipment.

253. Any land-based facilities required for the proposal should, where possible, be considered at the same time. The planning system should not duplicate other control regimes such as controlled activities regulation licences from SEPA or fish health, sea lice and containment regulation by Marine Scotland.

Managing Flood Risk and Drainage

NPF Context

254. NPF3 supports a catchment-scale approach to sustainable flood risk management. The spatial strategy aims to build the resilience of our cities and towns, encourage sustainable land management in our rural areas, and to address the long-term vulnerability of parts of our coasts and islands. Flooding can impact on people and businesses. Climate change will increase the risk of flooding in some parts of the country. Planning can play an important part in reducing the vulnerability of existing and future development to flooding.

Policy Principles

255. The planning system should promote:

- a precautionary approach to flood risk from all sources, including coastal, water course (fluvial), surface water (pluvial), groundwater, reservoirs and drainage systems (sewers and culverts), taking account of the predicted effects of climate change;
- flood avoidance: by safeguarding flood storage and conveying capacity, and locating development away from functional flood plains and medium to high risk areas;
- flood reduction: assessing flood risk and, where appropriate, undertaking natural and structural flood management measures, including flood protection, restoring natural features and characteristics, enhancing flood storage capacity, avoiding the construction of new culverts and opening existing culverts where possible; and
- avoidance of increased surface water flooding through requirements for Sustainable Drainage Systems (SuDS) and minimising the area of impermeable surface.

256. To achieve this the planning system should prevent development which would have a significant probability of being affected by flooding or would increase the probability of flooding elsewhere. Piecemeal reduction of the functional floodplain should be avoided given the cumulative effects of reducing storage capacity.

257. Alterations and small-scale extensions to existing buildings are outwith the scope of this policy, provided that they would not have a significant effect on the storage capacity of the functional floodplain or local flooding problems.

Key Documents

- Flood Risk Management (Scotland) Act 2009[105]
- Updated Planning Advice Note on Flooding
- Delivering Sustainable Flood Risk Management[106] (Scottish Government, 2011).
- Surface Water Management Planning Guidance[107] (Scottish Government, 2013).

Delivery

258. Planning authorities should have regard to the probability of flooding from all sources and take flood risk into account when preparing development plans and determining planning applications. The calculated probability of flooding should be regarded as a best estimate and not a precise forecast. Authorities should avoid giving any indication that a grant of planning permission implies the absence of flood risk.

259. Developers should take into account flood risk and the ability of future occupiers to insure development before committing themselves to a site or project, as applicants and occupiers have ultimate responsibility for safeguarding their property.

Development Planning

260. Plans should use strategic flood risk assessment (SFRA) to inform choices about the location of development and policies for flood risk management. They should have regard to the flood maps prepared by Scottish Environment Protection Agency (SEPA), and take account of finalised and approved Flood Risk Management Strategies and Plans and River Basin Management Plans.

261. Strategic and local development plans should address any significant cross boundary flooding issues. This may include identifying major areas of the flood plain and storage capacity which should be protected from inappropriate development, major flood protection scheme requirements or proposals, and relevant drainage capacity issues.

262. Local development plans should protect land with the potential to contribute to managing flood risk, for instance through natural flood management, managed coastal realignment, washland or green infrastructure creation, or as part of a scheme to manage flood risk.

263. Local development plans should use the following flood risk framework to guide development. This sets out three categories of coastal and watercourse flood risk, together with guidance on surface water flooding, and the appropriate planning approach for each (the annual probabilities referred to in the framework relate to the land at the time a plan is being prepared or a planning application is made):

- **Little or No Risk** – annual probability of coastal or watercourse flooding is less than 0.1% (1:1000 years)
  - No constraints due to coastal or watercourse flooding.

105 www.legislation.gov.uk/asp/2009/6/contents

106 www.scotland.gov.uk/Publications/2011/06/15150211/0

107 http://www.scotland.gov.uk/Publications/2013/02/7909/0

- **Low to Medium Risk** – annual probability of coastal or watercourse flooding is between 0.1% and 0.5% (1:1000 to 1:200 years)
  - Suitable for most development. A flood risk assessment may be required at the upper end of the probability range (i.e. close to 0.5%), and for essential infrastructure and the most vulnerable uses. Water resistant materials and construction may be required.
  - Generally not suitable for civil infrastructure. Where civil infrastructure must be located in these areas or is being substantially extended, it should be designed to be capable of remaining operational and accessible during extreme flood events.
- **Medium to High Risk** – annual probability of coastal or watercourse flooding is greater than 0.5% (1:200 years)
  - May be suitable for:
    - residential, institutional, commercial and industrial development within built-up areas provided flood protection measures to the appropriate standard already exist and are maintained, are under construction, or are a planned measure in a current flood risk management plan;
    - essential infrastructure within built-up areas, designed and constructed to remain operational during floods and not impede water flow;
    - some recreational, sport, amenity and nature conservation uses, provided appropriate evacuation procedures are in place; and
    - job-related accommodation, e.g. for caretakers or operational staff.
  - Generally not suitable for:
    - civil infrastructure and the most vulnerable uses;
    - additional development in undeveloped and sparsely developed areas, unless a location is essential for operational reasons, e.g. for navigation and water-based recreation, agriculture, transport or utilities infrastructure (which should be designed and constructed to be operational during floods and not impede water flow), and an alternative, lower risk location is not available; and
    - new caravan and camping sites.
  - Where built development is permitted, measures to protect against or manage flood risk will be required and any loss of flood storage capacity mitigated to achieve a neutral or better outcome.
  - Water-resistant materials and construction should be used where appropriate. Elevated buildings on structures such as stilts are unlikely to be acceptable.

Surface Water Flooding

- Infrastructure and buildings should generally be designed to be free from surface water flooding in rainfall events where the annual probability of occurrence is greater than 0.5% (1:200 years).
- Surface water drainage measures should have a neutral or better effect on the risk of flooding both on and off the site, taking account of rain falling on the site and run-off from adjacent areas.

Development Management

264. It is not possible to plan for development solely according to the calculated probability of flooding. In applying the risk framework to proposed development, the following should therefore be taken into account:

- the characteristics of the site;
- the design and use of the proposed development;
- the size of the area likely to flood;
- depth of flood water, likely flow rate and path, and rate of rise and duration;
- the vulnerability and risk of wave action for coastal sites;
- committed and existing flood protection methods: extent, standard and maintenance regime;
- the effects of climate change, including an allowance for freeboard;
- surface water run-off from adjoining land;
- culverted watercourses, drains and field drainage;
- cumulative effects, especially the loss of storage capacity;
- cross-boundary effects and the need for consultation with adjacent authorities;
- effects of flood on access including by emergency services; and
- effects of flood on proposed open spaces including gardens.

265. Land raising should only be considered in exceptional circumstances, where it is shown to have a neutral or better impact on flood risk outside the raised area. Compensatory storage may be required.

266. The flood risk framework set out above should be applied to development management decisions. Flood Risk Assessments (FRA) should be required for development in the medium to high category of flood risk, and may be required in the low to medium category in the circumstances described in the framework above, or where other factors indicate heightened risk. FRA will generally be required for applications within areas identified at high or medium likelihood of flooding/flood risk in SEPA's flood maps.

267. Drainage Assessments, proportionate to the development proposal and covering both surface and foul water, will be required for areas where drainage is already constrained or otherwise problematic, or if there would be off-site effects.

268. Proposed arrangements for SuDS should be adequate for the development and appropriate long-term maintenance arrangements should be put in place.

A Connected Place

Promoting Sustainable Transport and Active Travel

NPF Context

269. The spatial strategy set out in NPF3 is complemented by an ongoing programme of investment in transport infrastructure. The economy relies on efficient transport connections, within Scotland and to international markets. Planning can play an important role in improving connectivity and promoting more sustainable patterns of transport and travel as part of the transition to a low carbon economy.

Policy Principles

270. The planning system should support patterns of development which:

- optimise the use of existing infrastructure;
- reduce the need to travel;
- provide safe and convenient opportunities for walking and cycling for both active travel and recreation, and facilitate travel by public transport;
- enable the integration of transport modes; and
- facilitate freight movement by rail or water.

271. Development plans and development management decisions should take account of the implications of development proposals on traffic, patterns of travel and road safety.

Key Documents

- National Transport Strategy[108]
- Climate Change (Scotland) Act 2009[109]
- Low Carbon Scotland: Meeting the Emissions Reduction Targets 2013-2027[110]
- Infrastructure Investment Plan[111]
- Strategic Transport Projects Review[112]
- Transport Assessment Guidance[113]
- Development Planning and Management Transport Appraisal Guidance (DPMTAG)[114]
- PAN 66: Best Practice in Handling Applications Affecting Trunk Roads[115]

108 www.scotland.gov.uk/Publications/2006/12/04104414/0

109 www.legislation.gov.uk/asp/2009/12/contents

110 www.scotland.gov.uk/Topics/Environment/climatechange/scotlands-action/lowcarbon/meetingthetargets

111 www.scotland.gov.uk/Publications/2011/12/05141922/0

112 www.transportscotland.gov.uk/strategic-transport-projects-review

113 www.transportscotland.gov.uk/system/files/documents/tsc-basic-pages/Planning_Reform_-_DPMTAG_-_Development_Management__DPMTAG_Ref__17__-_Transport_Assessment_Guidance_FINAL_-_June_2012.pdf

114 www.transportscotland.gov.uk/development-planning-and-management-transport-appraisal-guidance-dpmtag

115 www.scotland.gov.uk/Resource/Doc/47021/0026434.pdf

- Design Manual for Roads and Bridges[116]
- Designing Streets[117]
- Roads for All[118]
- Cycling Action Plan in Scotland[119] (CAPS)
- Let's Get Scotland Walking: The National Walking Strategy[120]
- A More Active Scotland – Building a Legacy from the Commonwealth Games[121]
- Switched On Scotland: A Roadmap to Widespread Adoption of Plug-in Vehicles[122]
- Tourism Development Framework for Scotland[123]

Delivery

Development Planning

272. Development plans should take account of the relationship between land use and transport and particularly the capacity of the existing transport network, environmental and operational constraints, and proposed or committed transport projects.

273. The spatial strategies set out in plans should support development in locations that allow walkable access to local amenities and are also accessible by cycling and public transport. Plans should identify active travel networks and promote opportunities for travel by more sustainable modes in the following order of priority: walking, cycling, public transport, cars. The aim is to promote development which maximises the extent to which its travel demands are met first through walking, then cycling, then public transport and finally through use of private cars. Plans should facilitate integration between transport modes.

274. In preparing development plans, planning authorities are expected to appraise the impact of the spatial strategy and its reasonable alternatives on the transport network, in line with Transport Scotland's DPMTAG guidance. This should include consideration of previously allocated sites, transport opportunities and constraints, current capacity and committed improvements to the transport network. Planning authorities should ensure that a transport appraisal is undertaken at a scale and level of detail proportionate to the nature of the issues and proposals being considered, including funding requirements. Appraisals should be carried out in time to inform the spatial strategy and the strategic environmental assessment. Where there are potential issues for the strategic transport network, the appraisal should be discussed with Transport Scotland at the earliest opportunity.

116 www.dft.gov.uk/ha/standards/dmrb/index.htm
117 www.scotland.gov.uk/Publications/2010/03/22120652/0
118 http://www.transportscotland.gov.uk/guides/j256264-00.htm
116 www.transportscotland.gov.uk/strategy-and-research/publications-and-consultations/cycling-action-plan-2013
120 www.scotland.gov.uk/Publications/2014/06/5743
121 www.scotland.gov.uk/Publications/2014/02/8239/0
122 www.transportscotland.gov.uk/report/j272736-00.htm
123 www.visitscotland.org/pdf/Tourism%20Development%20Framework%20-%20FINAL.pdf

275. Development plans should identify any required new transport infrastructure or public transport services, including cycle and pedestrian routes, trunk road and rail infrastructure. The deliverability of this infrastructure, and by whom it will be delivered, should be key considerations in identifying the preferred and alternative land use strategies. Plans and associated documents, such as supplementary guidance and the action programme, should indicate how new infrastructure or services are to be delivered and phased, and how and by whom any developer contributions will be made. These should be prepared in consultation with all of the parties responsible for approving and delivering the infrastructure. Development plans should support the provision of infrastructure necessary to support positive changes in transport technologies, such as charging points for electric vehicles.

276. Where public transport services required to serve a new development cannot be provided commercially, a contribution from the developer towards an agreed level of service may be appropriate. The development plan action programme should set out how this will be delivered, and the planning authority should coordinate discussions with the public transport provider, developer, Transport Scotland where appropriate, and relevant regional transport partnerships at an early stage in the process. In rural areas the plan should be realistic about the likely viability of public transport services and innovative solutions such as demand-responsive public transport and small-scale park and ride facilities at nodes on rural bus corridors should be considered.

277. Disused railway lines with a reasonable prospect of being reused as rail, tram, bus rapid transit or active travel routes should be safeguarded in development plans. The strategic case for a new station should emerge from a complete and robust multimodal transport appraisal in line with Scottish Transport Appraisal Guidance. Any appraisal should include consideration of making best use of current rail services; and should demonstrate that the needs of local communities, workers or visitors are sufficient to generate a high level of demand, and that there would be no adverse impact on the operation of the rail service franchise. Funding partners must be identified. Agreement should be reached with Transport Scotland and Network Rail before rail proposals are included in a development plan or planning application and it should be noted that further technical assessment and design work will be required before any proposed new station can be confirmed as viable.

278. While new junctions on trunk roads are not normally acceptable, the case for a new junction will be considered where the planning authority considers that significant economic growth or regeneration benefits can be demonstrated. New junctions will only be considered if they are designed in accordance with DMRB and where there would be no adverse impact on road safety or operational performance.

279. Significant travel-generating uses should be sited at locations which are well served by public transport, subject to parking restraint policies, and supported by measures to promote the availability of high-quality public transport services. New development areas should be served by public transport providing access to a range of destinations. Development plans should indicate when a travel plan will be required to accompany a proposal for a development which will generate significant travel.

280. Along with sound choices on the location of new development, appropriate street layout and design are key are to achieving the policy principles at paragraph 270. The design of all new development should follow the placemaking approach set out in this SPP and the principles of Designing Streets, to ensure the creation of places which are distinctive, welcoming, adaptable, resource efficient, safe and pleasant and easy to move around and beyond.

281. National maximum parking standards for certain types and scales of development have been set to promote consistency (see Annex B: Parking Policies and Standards). Where an area is well served by sustainable transport modes, planning authorities may set more restrictive standards, and where public transport provision is limited, planning authorities may set less restrictive standards. Local authorities should also take account of relevant town centre strategies when considering appropriate parking provision (see paragraphs 64-65 and Annex A: Town Centre Health Checks and Strategies).

282. When preparing development plans, planning authorities should consider the need for improved and additional freight transfer facilities. Strategic freight sites should be safeguarded in development plans. Existing roadside facilities and provision for lorry parking should be safeguarded and, where required, development plans should make additional provision for the overnight parking of lorries at appropriate locations on routes with a high volume of lorry traffic. Where appropriate, development plans should also identify suitable locations for new or expanded rail freight interchanges to support increased movement of freight by rail. Facilities allowing the transfer of freight from road to rail or water should also be considered.

283. Planning authorities and port operators should work together to address the planning and transport needs of ports and opportunities for rail access should be safeguarded in development plans. Planning authorities should ensure that there is appropriate road access to ferry terminals for cars and freight, and support the provision of bus and train interchange facilities.

284. Planning authorities, airport operators and other stakeholders should work together to prepare airport masterplans and address other planning and transport issues relating to airports. Relevant issues include public safety zone safeguarding, surface transport access for supplies, air freight, staff and passengers, related on- and off-site development such as transport interchanges, offices, hotels, car parks, warehousing and distribution services, and other development benefiting from good access to the airport.

285. Canals, which are scheduled monuments, should be safeguarded as assets which can contribute to sustainable economic growth through sensitive development and regeneration. Consideration should be given to planning for new uses for canals, where appropriate.

Development Management

286. Where a new development or a change of use is likely to generate a significant increase in the number of trips, a transport assessment should be carried out. This should identify any potential cumulative effects which need to be addressed.

287. Planning permission should not be granted for significant travel-generating uses at locations which would increase reliance on the car and where:

- direct links to local facilities via walking and cycling networks are not available or cannot be made available;
- access to local facilities via public transport networks would involve walking more than 400m; or
- the transport assessment does not identify satisfactory ways of meeting sustainable transport requirements.

Guidance is available in Transport Assessment and Implementation: A Guide[124]

124 www.scotland.gov.uk/Publications/2005/08/1792325/23264

288. Buildings and facilities should be accessible by foot and bicycle and have appropriate operational and servicing access for large vehicles. Cycle routes, cycle parking and storage should be safeguarded and enhanced wherever possible.

289. Consideration should be given to how proposed development will contribute to fulfilling the objectives of Switched On Scotland – A Roadmap to Widespread Adoption of Plug-in Vehicles. Electric vehicle charge points should always be considered as part of any new development and provided where appropriate.

290. Development proposals that have the potential to affect the performance or safety of the strategic transport network need to be fully assessed to determine their impact. Where existing infrastructure has the capacity to accommodate a development without adverse impacts on safety or unacceptable impacts on operational performance, further investment in the network is not likely to be required. Where such investment is required, the cost of the mitigation measures required to ensure the continued safe and effective operation of the network will have to be met by the developer.

291. Consideration should be given to appropriate planning restrictions on construction and operation related transport modes when granting planning permission, especially where bulk material movements are expected, for example freight from extraction operations.

Supporting Digital Connectivity

NPF Context

292. NPF3 highlights the importance of our digital infrastructure, across towns and cities, and in particular our more remote rural and island areas. Our economy and social networks depend heavily on high-quality digital infrastructure. To facilitate investment across Scotland, planning has an important role to play in strengthening digital communications capacity and coverage across Scotland.

Policy Principles

293. The planning system should support:

- development which helps deliver the Scottish Government's commitment to world-class digital connectivity;
- the need for networks to evolve and respond to technology improvements and new services;
- inclusion of digital infrastructure in new homes and business premises; and
- infrastructure provision which is sited and designed to keep environmental impacts to a minimum.

Key Documents

- Scotland's Digital Future[125] and associated Infrastructure Action Plan[126]
- Scotland's Cities: Delivering for Scotland[127]
- A National Telehealth and Telecare Delivery Plan for Scotland to 2015[128]

125 www.scotland.gov.uk/Resource/Doc/981/0114237.pdf
126 www.scotland.gov.uk/Publications/2012/01/1487
127 www.scotland.gov.uk/Publications/2012/01/05104741/0
128 www.scotland.gov.uk/Resource/0041/00411586.pdf

- Planning Advice Note 62, Radio Telecommunications provides advice on siting and design[129]
- Circular 2/2003: Safeguarding of Aerodromes, Technical Sites and Military Explosives Storage Areas[130]

Delivery

Development Planning

294. Local development plans should reflect the infrastructure roll-out plans of digital communications operators, community groups and others, such as the Scottish Government, the UK Government and local authorities.

295. Local development plans should provide a consistent basis for decision-making by setting out the criteria which will be applied when determining planning applications for communications equipment. They should ensure that the following options are considered when selecting sites and designing base stations:

- mast or site sharing;
- installation on buildings or other existing structures;
- installing the smallest suitable equipment, commensurate with technological requirements;
- concealing or disguising masts, antennas, equipment housing and cable runs using design and camouflage techniques where appropriate; and
- installation of ground-based masts.

296. Local development plans should set out the matters to be addressed in planning applications for specific developments, including:

- an explanation of how the proposed equipment fits into the wider network;
- a description of the siting options (primarily for new sites) and design options which satisfy operational requirements, alternatives considered, and the reasons for the chosen solution;
- details of the design, including height, materials and all components of the proposal;
- details of any proposed landscaping and screen planting, where appropriate;
- an assessment of the cumulative effects of the proposed development in combination with existing equipment in the area;
- a declaration that the equipment and installation is designed to be in full compliance with the appropriate ICNIRP guidelines for public exposure to radiofrequency radiation[131]; and
- an assessment of visual impact, if relevant.

297. Policies should encourage developers to explore opportunities for the provision of digital infrastructure to new homes and business premises as an integral part of development. This should be done in consultation with service providers so that appropriate, universal and future-proofed infrastructure is installed and utilised.

129 www.scotland.gov.uk/Publications/2001/09/pan62/pan62-

130 www.scotland.gov.uk/Publications/2003/01/16204/17030

131 The radiofrequency public exposure guidelines of the International Commission on Non-Ionising Radiation Protection, as expressed in EU Council recommendation 1999/519/ EC on the limitation of exposure of the general public to electromagnetic fields.

Development Management

298. Consideration should be given to how proposals for infrastructure to deliver new services or infrastructure to improve existing services will contribute to fulfilling the objectives for digital connectivity set out in the Scottish Government's World Class 2020 document. For developments that will deliver entirely new connectivity – for example, mobile connectivity in a "not spot" – consideration should be given to the benefits of this connectivity for communities and the local economy.

299. All components of equipment should be considered together and designed and positioned as sensitively as possible, though technical requirements and constraints may limit the possibilities. Developments should not physically obstruct aerodrome operations, technical sites or existing transmitter/receiver facilities. The cumulative visual effects of equipment should be taken into account.

300. Planning authorities should not question the need for the service to be provided nor seek to prevent competition between operators. The planning system should not be used to secure objectives that are more properly achieved under other legislation. Emissions of radiofrequency radiation are controlled and regulated under other legislation and it is therefore not necessary for planning authorities to treat radiofrequency radiation as a material consideration.

Annex A – Town Centre Health Checks and Strategies

Town centre health checks should cover a range of indicators, such as:

Activities

- retailer representation and intentions (multiples and independents);
- employment;
- cultural and social activity;
- community activity;
- leisure and tourism facilities;
- resident population; and
- evening/night-time economy.

Physical environment

- space in use for the range of town centre functions and how it has changed;
- physical structure of the centre, condition and appearance including constraints and opportunities and assets;
- historic environment; and
- public realm and green infrastructure.

Property

- vacancy rates, particularly at street level in prime retail areas;
- vacant sites;
- committed developments;
- commercial yield; and
- prime rental values.

Accessibility

- pedestrian footfall;
- accessibility;
- cycling facilities and ease of movement;
- public transport infrastructure and facilities;
- parking offer; and
- signage and ease of navigation.

Community

- attitudes, perceptions and aspirations.

Town centre strategies should:

- be prepared collaboratively with community planning partners, businesses and the local community;
- recognise the changing roles of town centres and networks, and the effect of trends in consumer activity;
- establish an agreed long-term vision for the town centre;
- seek to maintain and improve accessibility to and within the town centre;
- seek to reduce the centre's environmental footprint, through, for example, the development or extension of sustainable urban drainage or district heating networks;
- identify how green infrastructure can enhance air quality, open space, landscape/settings, reduce urban heat island effects, increase capacity of drainage systems, and attenuate noise;
- indicate the potential for change through redevelopment, renewal, alternative uses and diversification based on an analysis of the role and function of the centre;
- promote opportunities for new development, using master planning and design, while seeking to safeguard and enhance built and natural heritage;
- consider constraints such as fragmented site ownership, unit size and funding availability, and recognise the rapidly changing nature of retail formats;
- identify actions, tools and delivery mechanisms to overcome these constraints, for example improved management, Town Teams, Business Improvement Districts or the use of compulsory purchase powers[132]; and
- include monitoring against the baseline provided by the health check to assess the extent to which it has delivered improvements.

More detailed advice on town centre health checks and strategies can be found in the Town Centre Masterplanning Toolkit.

132 www.scotland.gov.uk/Topics/archive/National-Planning-Policy/themes/ComPur

Annex B – Parking Policies and Standards

Parking Restraint Policy – National Maximum Parking Standards for New Development

In order to achieve consistency in the levels of parking provision for specific types and scales of development, the following national standards have been set:

- retail (food) (Use Class 1) 1000m^2 and above – up to 1 space per 14m^2;
- retail (non-food) (Use Class 1) 1000m^2 and above – up to 1 space per 20m^2;
- business (Use Class 4) 2500m^2 and above – up to 1 space per 30m^2;
- cinemas (Use Class 11a) 1000m^2 and above – up to 1 space per 5 seats;
- conference facilities 1000m^2 and above – up to 1 space per 5 seats;
- stadia 1500 seats and above – up to 1 space per 15 seats;
- leisure (other than cinemas and stadia) 1000m^2 and above – up to 1 space per 22m^2; and
- higher and further education (non-residential elements) 2500m^2 and above – up to 1 space per 2 staff plus 1 space per 15 students.

Local standards should support the viability of town centres. Developers of individual sites within town centres may be required to contribute to the overall parking requirement for the centre in lieu of individual parking provision.

Parking for Disabled People – Minimum Provision Standards for New Development

Specific provision should be made for parking for disabled people in addition to general provision. In retail, recreation and leisure developments, the minimum number of car parking spaces for disabled people should be:

- 3 spaces or 6% (whichever is greater) in car parks with up to 200 spaces; or
- 4 spaces plus 4% in car parks with more than 200 spaces.

Employers have a duty under employment law to consider the disabilities of their employees and visitors to their premises. The minimum number of car parking spaces for disabled people at places of employment should be:

- 1 space per disabled employee plus 2 spaces or 5% (whichever is greater) in car parks with up to 200 spaces; or
- 6 spaces plus 2% in car parks with more than 200 spaces.

Glossary

Affordable housing	Housing of a reasonable quality that is affordable to people on modest incomes.
Anchor development (in the context of heat demand)	A large scale development which has a constant high demand for heat.
Article 4 Direction	Article 4 of the Town and Country Planning (General Permitted Development) (Scotland) Order 1992 gives the Scottish Government and planning authorities the power to remove permitted development rights by issuing a direction.
Biodiversity	The variability in living organisms and the ecological complexes of which they are part. This includes diversity within species, between species and of ecosystems (UN Convention on Biological Diversity, 1992).
Brownfield land	Land which has previously been developed. The term may cover vacant or derelict land, land occupied by redundant or unused building and developed land within the settlement boundary where further intensification of use is considered acceptable.
Civil infrastructure (in the context of flood risk)	Hospitals, fire stations, emergency depots, schools, care homes, ground-based electrical and telecommunications equipment.
Climate change adaptation	The adjustment in economic, social or natural systems in response to actual or expected climatic change, to limit harmful consequences and exploit beneficial opportunities.
Climate change mitigation	Reducing the amount of greenhouse gases in the atmosphere and reducing activities which emit greenhouse gases to help slow down or make less severe the impacts of future climate change.
Community	A body of people. A community can be based on location (for example people who live or work in or use an area) or common interest (for example the business community, sports or heritage groups).
Cumulative impact	Impact in combination with other development. That includes existing developments of the kind proposed, those which have permission, and valid applications which have not been determined. The weight attached to undetermined applications should reflect their position in the application process.
Cumulative effects (in the context of the strategic transport network)	The effect on the operational performance of transport networks of a number of developments in combination, recognising that the effects of a group of sites, or development over an area may need different mitigation when considered together than when considered individually.

Ecosystems services	The benefits people obtain from ecosystems; these include provisioning services such as food, water, timber and fibre; regulating services that affect climate, floods, disease, waste and water quality; cultural services with recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis and nutrient cycling.
Effective housing land supply	The part of the established housing land supply which is free or expected to be free of development constraints in the period under consideration and will therefore be available for the construction of housing.
Energy Centre	A stand alone building or part of an existing or proposed building where heat or combined heat and electricity generating plant can be installed to service a district network.
Essential infrastructure (in a flood risk area for operational reasons)	Defined in SEPA guidance on vulnerability as 'essential transport infrastructure and essential utility infrastructure which may have to be located in a flood risk area for operational reasons. This includes electricity generating stations, power stations and grid and primary sub stations, water treatments works and sewage treatment works and wind turbines'.
Flood	The temporary covering by water from any source of land not normally covered by water, but not including the overflow of a sewage system.
Flood plain	The generally flat areas adjacent to a watercourse or the sea where water flows in time of flood or would flow but for the presence of flood prevention measures. The limits of a flood plain are defined by the peak water level of an appropriate return period event. See also 'Functional flood plain'.
Flood risk	The combination of the probability of a flood and the potential adverse consequences associated with a flood, for human health, the environment, cultural heritage and economic activity.
Freeboard allowance	A height added to the predicted level of a flood to take account of the height of waves or turbulence and uncertainty in estimating the probability of the flooding.
Functional flood plain	The areas of land where water flows in times of flood which should be safeguarded from further development because of their function as flood water storage areas. For planning purposes the functional floodplain will generally have a greater than 0.5% (1:200) probability of flooding in any year. See also 'Washland'.
Green infrastructure	Includes the 'green' and 'blue' (water environment) features of the natural and built environments that can provide benefits without being connected. Green features include parks, woodlands, trees, play spaces, allotments, community growing spaces, outdoor sports facilities, churchyards and cemeteries, swales, hedges, verges and gardens. Blue features include rivers, lochs, wetlands, canals, other water courses, ponds, coastal and marine areas including beaches, porous paving and sustainable urban drainage systems.

Green networks	Connected areas of green infrastructure and open space that together form an integrated and multi-functional network.
Hazardous substances	Substances and quantities as currently specified in and requiring consent under the Town and Country Planning (Hazardous Substances) (Scotland) Regulations 1993 as amended (due to be replaced in 2015 as part of the implementation of Directive 2012/18/EU).
Historic environment	Scotland's historic environment is the physical evidence for human activity that connects people with place, linked with the associations we can see, feel and understand.
Historic Marine Protected Areas	Areas designated in Scottish territorial waters (0-12 miles) under the Marine (Scotland) Act 2010 for the purpose of preserving marine historic assets of national importance.
Housing supply target	The total number of homes that will be delivered.
Hut	A simple building used intermittently as recreational accommodation (ie. not a principal residence); having an internal floor area of no more than 30m^2; constructed from low impact materials; generally not connected to mains water, electricity or sewerage; and built in such a way that it is removable with little or no trace at the end of its life. Huts may be built singly or in groups.
Major-accident hazard site	Site with or requiring hazardous substances consent.
Most vulnerable uses (in the context of flood risk and drainage)	Basement dwellings, isolated dwellings in sparsely populated areas, dwelling houses behind informal embankments, residential institutions such as residential care homes/prisons, nurseries, children's homes and educational establishments, caravans, mobile homes and park homes intended for permanent residential use, sites used for holiday or short-let caravans and camping, installations requiring hazardous substance consent.
National Nature Reserve (NNR)	An area considered to be of national importance for its nature conservation interests.
National Scenic Area (NSA)	An area which is nationally important for its scenic quality.
Open space	Space within and on the edge of settlements comprising green infrastructure and/or civic areas such as squares, market places and other paved or hard landscaped areas with a civic function. Detailed typologies of open space are included in PAN65.

Outdoor sports facilities	Uses where **sport**scotland is a statutory consultee under the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013, which establishes 'outdoor sports facilities' as land used as: (a) an outdoor playing field extending to not less than 0.2ha used for any sport played on a pitch; (b) an outdoor athletics track; (c) a golf course; (d) an outdoor tennis court, other than those within a private dwelling, hotel or other tourist accommodation; and (e) an outdoor bowling green.
Outstanding Universal Value (OUV)	The Operational Guidelines for the Implementation of the World Heritage Convention, provided by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) states that OUV means cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity. The Statement of OUV is the key reference for the future effective protection and management of the World Heritage Site.
PADHI	Planning Advice for Development near Hazardous Installations, issued by the Health and Safety Executive.
Prime agricultural land	Agricultural land identified as being Class 1, 2 or 3.1 in the land capability classification for agriculture developed by Macaulay Land Use Research Institute (now the James Hutton Institute).
Place	The environment in which we live; the people that inhabit these spaces; and the quality of life that comes from the interaction of people and their surroundings. Architecture, public space and landscape are central to this.
Pluvial flooding	Flooding as a result of rainfall runoff flowing or ponding over the ground before it enters a natural (e.g. watercourse) or artificial (e.g. sewer) drainage system or when it cannot enter a drainage system (e.g. because the system is already full to capacity or the drainage inlets have a limited capacity).
Ramsar sites	Wetlands designated under the Ramsar Convention on Wetlands of International Importance.
Scheduled monument	Archaeological sites, buildings or structures of national or international importance. The purpose of scheduling is to secure the long-term legal protection of the monument in the national interest, in situ and as far as possible in its existing state and within an appropriate setting.
Sensitive receptor	Aspect of the environment likely to be significantly affected by a development, which may include for example, population, fauna, flora, soil, water, air, climatic factors, material assets, landscape and the inter-relationship between these factors. In the context of planning for Zero Waste, sensitive receptors may include aerodromes and military air weapon ranges.

Setting	Is more than the immediate surroundings of a site or building, and may be related to the function or use of a place, or how it was intended to fit into the landscape of townscape, the view from it or how it is seen from areas round about, or areas that are important to the protection of the place, site or building.
Site of Special Scientific Interest (SSSI)	An area which is designated for the special interest of its flora, fauna, geology or geomorphological features.
Strategic Flood Risk Assessment	Provides an overview of flood risk in the area proposed for development. An assessment involves the collection, analysis and presentation of all existing available and readily derivable information on flood risk from all sources. SFRA applies a risk-based approach to identifying land for development and can help inform development plan flood risk policy and supplementary guidance.
Strategic Transport Nework	Includes the trunk road and rail networks. Its primary purpose is to provide the safe and efficient movement of strategic long-distance traffic between major centres, although in rural areas it also performs important local functions.
Sustainable Development	Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The Brundtland Definition. Our Common Future, The World Commission on Environment and Development, 1987.
Sustainable Economic Growth	Building a dynamic and growing economy that will provide prosperity and opportunities for all, while ensuring that future generations can enjoy a better quality of life too.
Washland	An alternative term for the functional flood plain which carries the connotation that it floods very frequently.
Watercourse	All means of conveying water except a water main or sewer.
Windfall Sites	Sites which become available for development unexpectedly during the life of the development plan and so are not identified individually in the plan.

This document is also available on the Scottish Government Website:
www.scotland.gov.uk

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ITEM 12

Ambition · Opportunity · Place

Scotland's Third National Planning Framework

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The Scottish Government
Riaghaltas na h-Alba

SG Purpose	To focus government and public services on creating a more successful country, with opportunities for all to flourish, through increasing sustainable economic growth.										
SG National Outcomes	The planning system and service contribute to all 16 National Outcomes										
SG National Plans, Policies & Strategies	**Government Economic Strategy**										
	Infrastructure Investment Plan										
	Scotland's Digital Future	Electricity & Heat Generation Policy Statements	2020 Challenge for Scotland's Biodiversity	Scottish Historic Environment Strategy and Policy	Housing Strategy	National Planning Framework & Scottish Planning Policy	Land Use Strategy	Low Carbon Scotland: Report of Proposals and Policies	National Marine Plan	Regeneration Strategy	National Transport Strategy
Planning Vision	We live in a Scotland with a growing, low carbon economy with progressively narrowing disparities in well-being and opportunity. It is growth that can be achieved whilst reducing emissions and which respects the quality of environment, place and life which makes our country so special. It is growth which increases solidarity – reducing inequalities between our regions. We live in sustainable, well-designed places and homes which meet our needs. We enjoy excellent transport and digital connections, internally and with the rest of the world.										
Planning Outcomes	Planning makes Scotland **a successful, sustainable place** – supporting sustainable economic growth and regeneration, and the creation of well-designed places.			Planning makes Scotland **a low carbon place** – reducing our carbon emissions and adapting to climate change.			Planning makes Scotland **a natural, resilient place** – helping to protect and enhance our natural and cultural assets, and facilitating their sustainable use.		Planning makes Scotland **a connected place** – supporting better transport and digital connectivity.		
National Planning	**Scottish Planning Policy (SPP)**						**National Planning Framework (NPF)**				
	Principal Policies										
	Sustainability			Placemaking							
	Subject Policies										
	Town Centres	Heat and Electricity		Natural Environment	Travel			*Cities and Towns* *Rural Areas* *Coast and Islands* *National Developments*			
	Rural Development			Green Infrastructure							
	Homes										
	Business & Employment	Zero Waste		Aquacultural	Digital Connectivity						
				Minerals							
	Historic Environment			Flooding & Drainage							
	COMMUNITY PLANNING										
Strategic	Strategic Development Plans										
Local	Local Development Plans										
Site	Master Plans										

Ambition · Opportunity · Place

Scotland's Third National Planning Framework

The Scottish Government, Edinburgh, 2014

Some cover images from: The Steve Tiesdell Legacy Image Collection

Laid before the Scottish Parliament by the Scottish Ministers under PART 1A Section 3C (1) of the Planning Etc. (Scotland) Act 2006

June 2014

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The Scottish Government
St Andrew's House
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Ministerial Foreword

The central purpose of the Scottish Government is to make Scotland a more successful country, with opportunities for all to flourish through increasing sustainable economic growth.

This, Scotland's Third National Planning Framework – NPF3 – is the spatial expression of the Government Economic Strategy, and of our plans for infrastructure investment. It is about our ambition to create great places that support sustainable economic growth across the country.

NPF3 is a strategy for all of Scotland – championing our most successful places and supporting change in areas where, in the past, there has been a legacy of decline. It builds on the success of our city regions and will help to transform our towns. It highlights opportunities for rural development that will strengthen our communities. And it sets out an ambitious agenda to secure investment in the unique assets of our coast and our islands.

NPF3 brings together our plans and strategies in economic development, regeneration, energy, environment, climate change, transport and digital infrastructure to provide a coherent vision of how Scotland should evolve over the next 20 to 30 years. In turn, this vision will help to inform our future policies and prioritise investment decisions.

I am grateful to the many people, communities and organisations and the Scottish Parliament, who have shared their views and ideas to inform the development of NPF3. We now have an opportunity to build on this shared sense of ownership to shape the delivery of our national spatial plan. All local authorities are required to reflect our national planning policy within their strategic and local development plans. In turn, I expect development plans to form an integral part of local community planning alongside place-based Single Outcome Agreements, supporting public sector bodies to work together, and with communities, to make a real difference to local places and people's lives.

A planning system that provides clarity and confidence to developers and communities is vitally important to Scotland. Together with the Scottish Planning Policy, NPF3 provides a clear national vision of what is expected of the planning system and the outcomes that it must deliver for the people of Scotland. Whilst some of these outcomes will only be realised in the long-term, there is much that can be achieved within the five year lifespan on NPF3. I urge all those with an interest in planning in Scotland to work together now to drive forward our ambition and deliver real and positive change on the ground.

Derek Mackay MSP
Minister for Local Government and Planning

Planning in Scotland

Scottish Planning Policy is Scottish Government policy on how nationally important land use planning matters should be addressed across the country. As a statement of Ministers' priorities, we expect it to carry significant weight in the preparation of development plans and to be a material consideration in planning decisions.

The **National Planning Framework** (NPF) is a long-term strategy for Scotland. It is the spatial expression of the Government Economic Strategy, and of our plans for development and investment in infrastructure. NPF identifies national developments and other strategically important development opportunities in Scotland. It is accompanied by an Action Programme which identifies how we expect it to be implemented, by whom, and when.

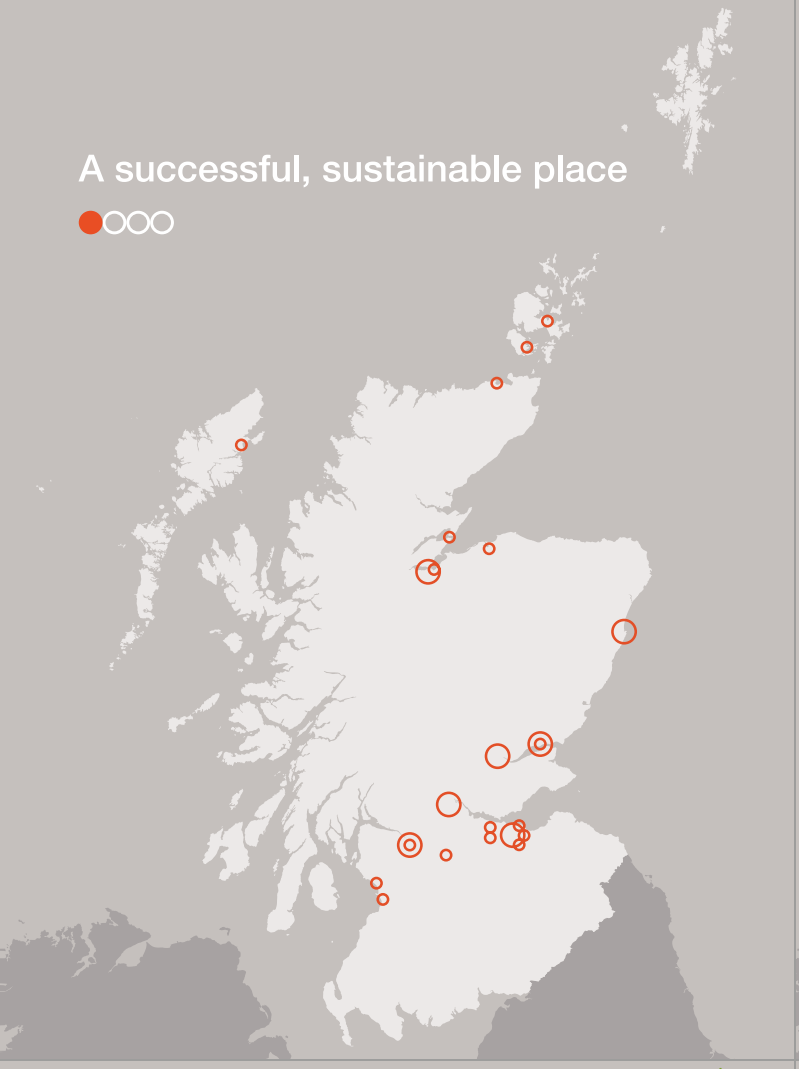
Statutory development plans must have regard to the NPF, and Scottish Ministers expect planning decisions to support its delivery. The forthcoming National and Regional Marine Plans should also be taken into account where relevant. NPF3 informs development and investment decisions of the Scottish Government, its agencies, planning authorities, private investors and other bodies.

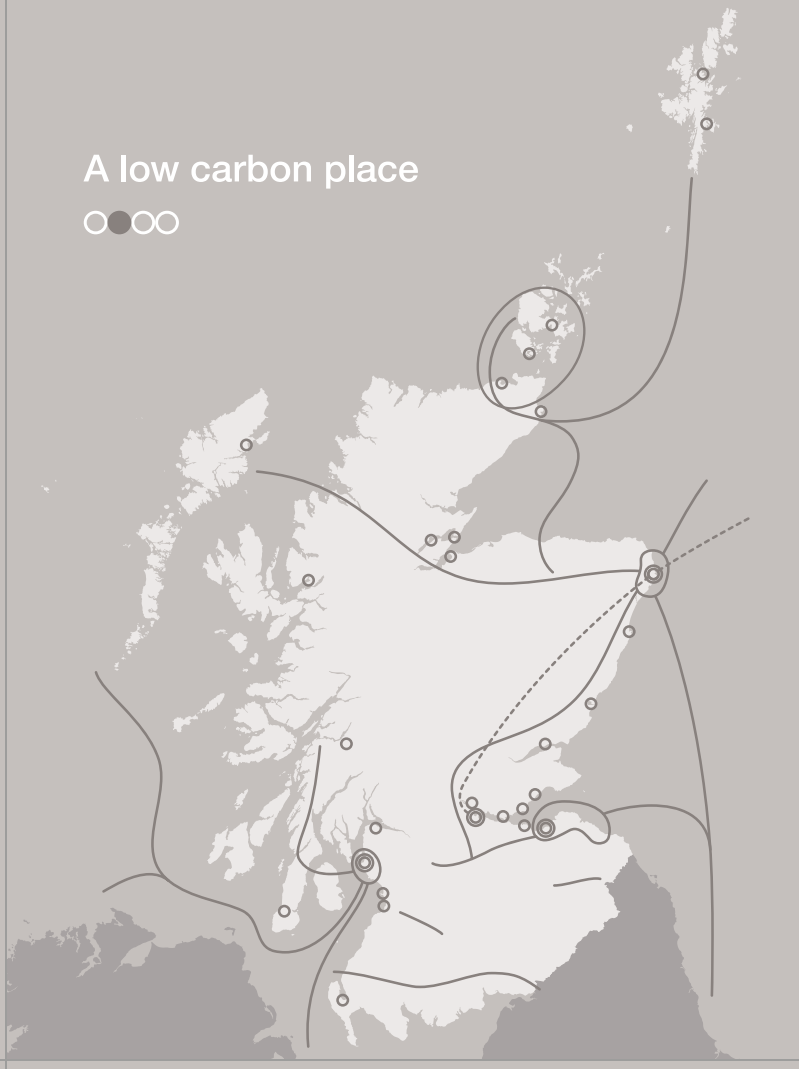
Statutory land use planning also has a key to play as part of community planning partnerships – NPF3 should be considered by local authorities as they work with community planning partners to take forward their Single Outcome Agreement as a binding plan for place.

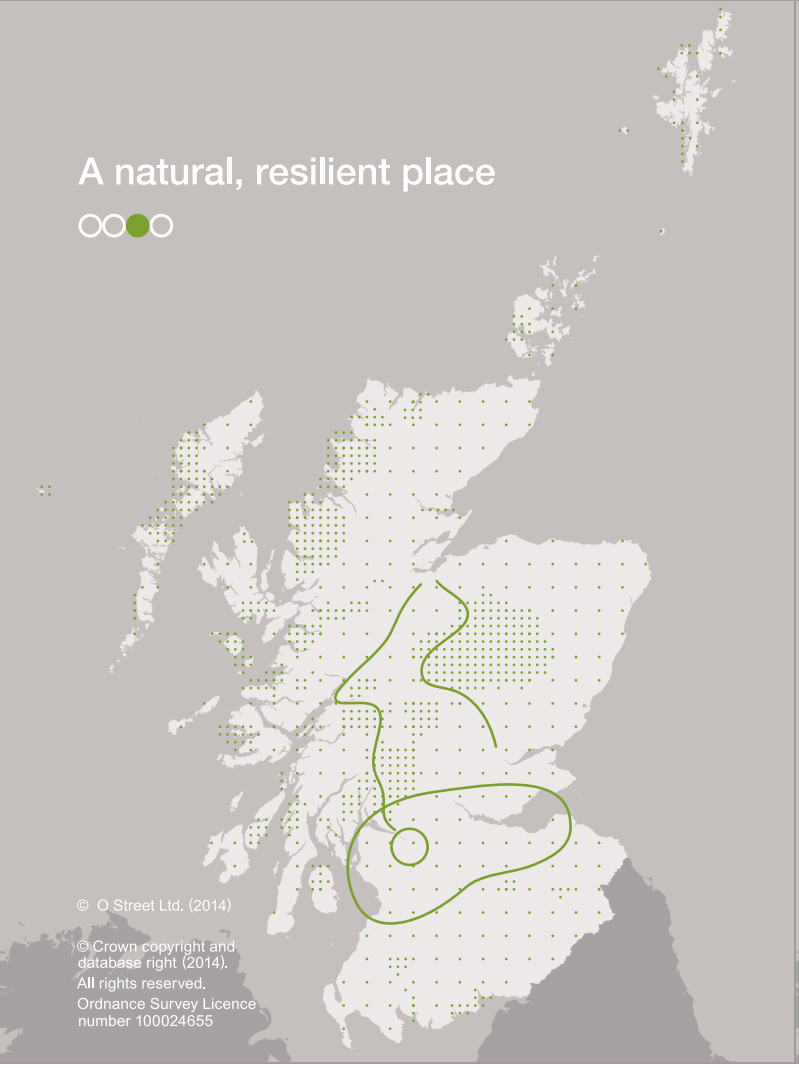
Together, NPF and SPP, applied at the national, strategic and local levels, will help the planning system to deliver our vision and outcomes for Scotland, and will contribute to the Scottish Government's central purpose.

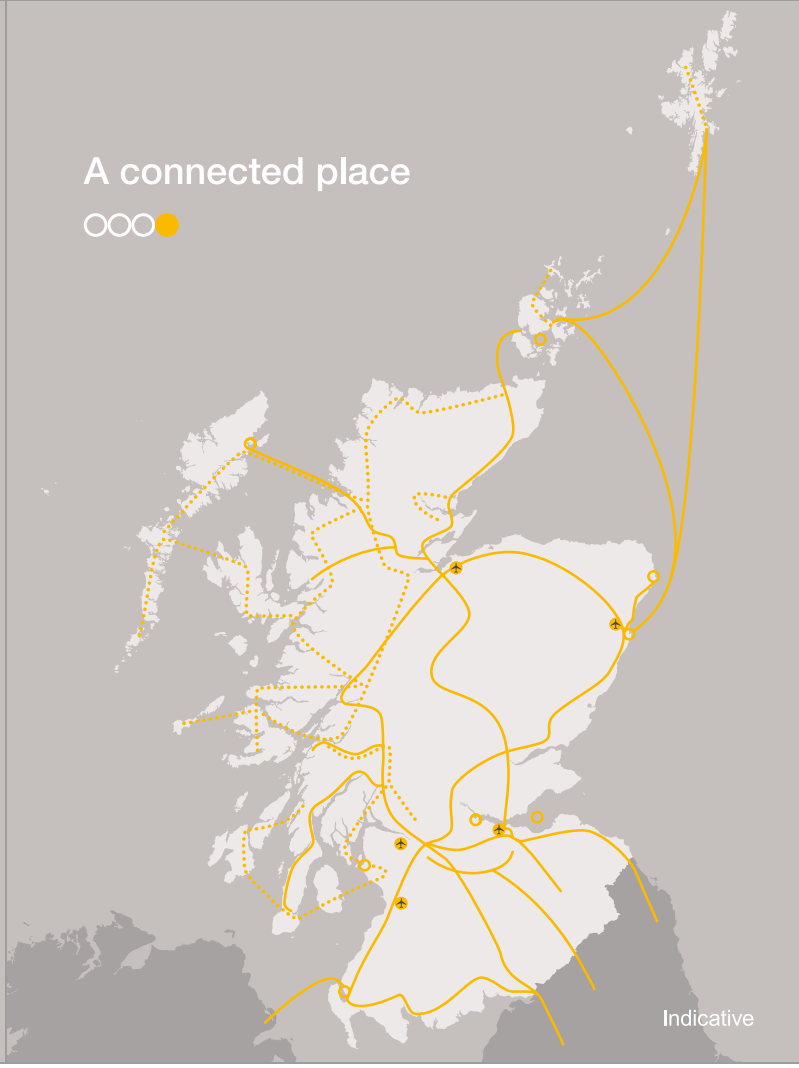
Supporting information, including the accompanying environmental, business and equalities assessments, consultation responses and our analysis of proposals for national development status in NPF3, is available on our website at:
http://www.scotland.gov.uk/Topics/Built-Environment/planning

Contents









Using the maps in this document: Strategy maps are provided for each of the four themes included in the document: *a successful, sustainable place, a low carbon place, a natural, resilient place* and *a connected place* and the national developments. A fold-out key is provided for each of the full size individual maps.

Ambition, Opportunity…

1.1 The Scottish Government's central purpose is to create a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth. To achieve this, the Government Economic Strategy aims to share the benefits of growth by encouraging economic activity and investment across all of Scotland's communities, whilst protecting our natural and cultural assets.

1.2 Our vision is a Scotland which is:

- **a successful, sustainable place.** We have a growing low carbon economy which provides opportunities that are more fairly distributed between, and within, all our communities. We live in high quality, vibrant and sustainable places with enough, good quality homes. Our living environments foster better health and we have reduced spatial inequalities in well-being. There is a fair distribution of opportunities in cities, towns and rural areas, reflecting the diversity and strengths of our unique people and places.
- **a low carbon place.** We have seized the opportunities arising from our ambition to be a world leader in low carbon energy generation, both onshore and offshore. Our built environment is more energy efficient and produces less waste and we have largely decarbonised our travel.
- **a natural, resilient place.** Natural and cultural assets are respected, they are improving in condition and represent a sustainable economic, environmental and social resource for the nation. Our environment and infrastructure have become more resilient to the impacts of climate change.
- **a connected place.** The whole country has access to high-speed fixed and mobile digital networks. We make better use of our existing infrastructure, and have improved internal and international transport links to facilitate our ambition for growth and our commitment to an inclusive society.

1.3 Our spatial strategy shows where there will be opportunities for growth and regeneration, investment in the low carbon economy, environmental enhancement and improved connections across the country. It indicates where we expect most change to happen, from our city regions to rural areas and coastal towns.

… Place

1.4 Scotland is a diverse country. Our national spatial strategy provides a flexible framework for sustainable growth and development which reflects the varied assets of our many distinctive places.

1.5 Scotland's seven city regions are home to the majority of our population and economic activity. In the coming years, our **cities network** will continue to be a focus for investment. We will build on the collective strengths of the city regions and on the opportunities which are unique to each. We aim to transform cities into models of low carbon living, supporting growth, addressing regeneration and improving connections. Many of our largest and most vibrant **towns** are located close to our cities.

> Our spatial strategy provides a growth and development agenda for each of our city regions, and highlights where infrastructure investment will be a priority. Many nationally important developments are located in or close to our cities.

1.6 A sustainable, economically active **rural area**, which attracts investment and supports vibrant, growing communities, is essential to our vision. Within this, we recognise the collective national importance of our networks of rural **towns and villages**. We are committed to safeguarding our natural and cultural assets and making innovative and sustainable use of our resources.

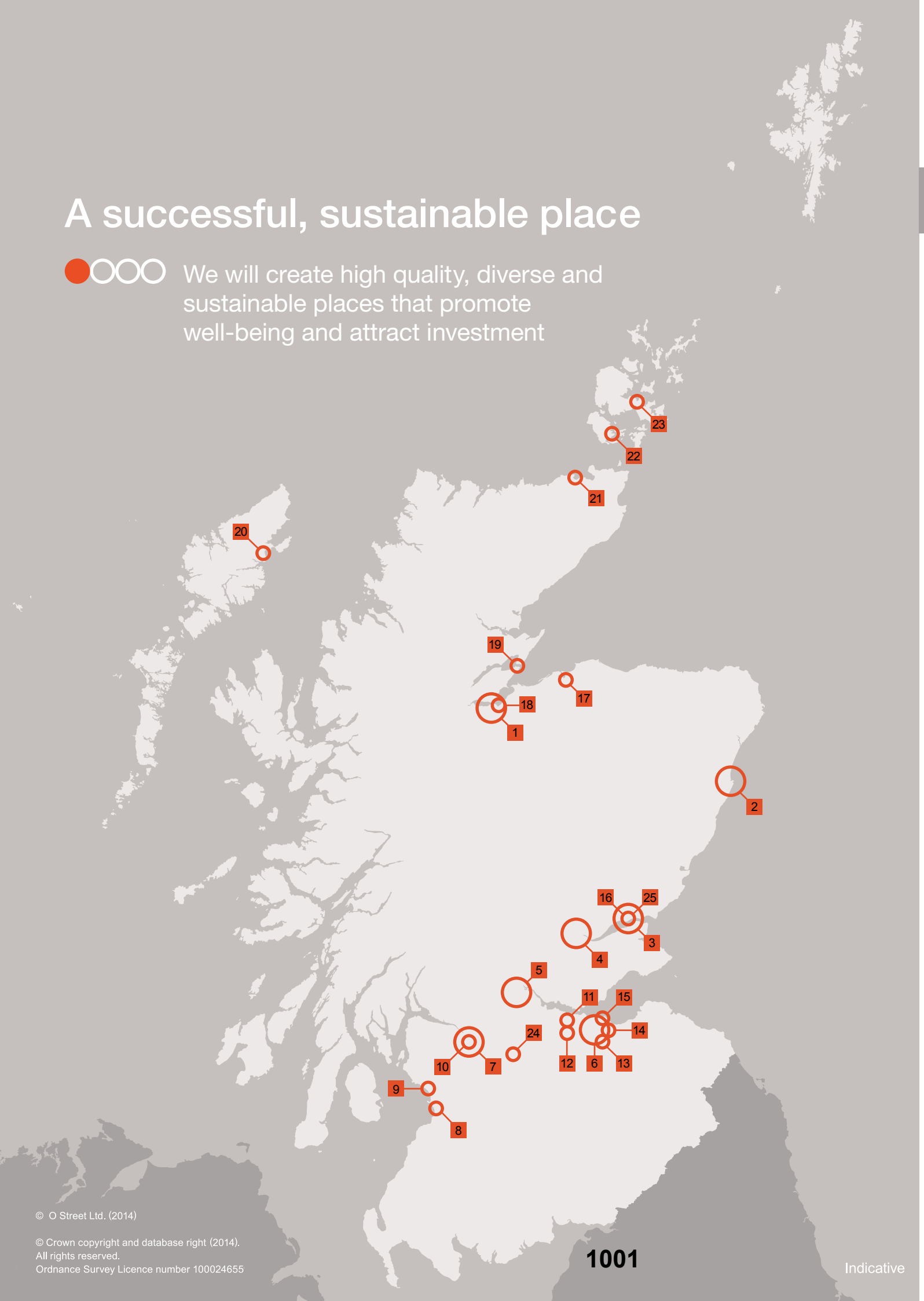
> Our spatial strategy provides a vision for sustainable growth and development across rural Scotland, and highlights the role of some of our rural towns in achieving this. Our rural areas are diverse – but this strategy sets an agenda that will be shared by communities from the south of Scotland to the northern Highlands and Islands.

1.7 Scotland's varied **coast and islands** have an exceptional, internationally recognised environment. They now have an unprecedented opportunity to secure growth from renewable energy generation as well as other key economic sectors including tourism and food and drink. In our more remote areas, this will bring new employment, reverse population decline and stimulate demand for development and services. Infrastructure investment, including improved transport and digital links and a planned approach to development, will be required to support this change and realise this potential.

> Our spatial strategy emphasises the importance of our islands and coast as an economic opportunity and a resource to be protected and enjoyed. Many coastal and island towns act as transport and service hubs and provide a focal point for investment and growth.

A successful, sustainable place

We will create high quality, diverse and sustainable places that promote well-being and attract investment



Detail key

Place

Cities

1. Inverness
2. Aberdeen
3. Dundee
4. Perth
5. Stirling
6. Edinburgh
7. Glasgow

Enterprise Areas

8. Prestwick International
9. Irvine
10. Creative Clyde
11. Broxburn
12. Livingston
13. Midlothian BioCampus
14. Edinburgh BioQuarter
15. Port of Leith
16. Dundee Port
17. Enterprise Park Forres
18. Inverness Campus
19. Nigg
20. Arnish
21. Scrabster
22. Lyness
23. Hatston

National Developments

24. Ravenscraig
25. Dundee Waterfront

2. A successful, sustainable place

We will create high quality, diverse and sustainable places that promote well-being and attract investment.

Scotland today

2.1 Scotland has the highest level of Gross Value Added (GVA) per head in the UK outside of London and the South East of England, and productivity levels match the UK as a whole. Whilst the recession in Scotland has been shallower than that experienced elsewhere in the UK, economic recovery is expected to continue through the 5-year lifetime of NPF3.

2.2 We want to build on our success. The Scottish Government Economic Strategy aims to stimulate economic activity and investment across all of Scotland's communities. It sets out the action we are taking to accelerate economic recovery and provide jobs and identifies seven key sectors with particular opportunities for growth. These opportunities arise from existing competitive advantage and the potential to capitalise on our natural assets. Our key sectors are: energy; food and drink; life sciences; tourism; financial and business services; universities and the creative industries.

2.3 Employment levels and community resilience vary across Scotland. Fragile places can be found not only in remote areas, but also close to and within some of our towns and cities. The Scottish Government is committed to reducing the gap between those who are most and least advantaged in society, and this has a spatial dimension. Our Cohesion Target aims to narrow the gap in economic participation between the best and worst performing regions by 2017.

2.4 All of our people are entitled to a good quality living environment. The population of Scotland is expected to rise from 5.31 million in 2012 to 5.78 million in 2037. The population is ageing, particularly in rural areas and household sizes are getting smaller: 2010-based projections indicate that we will have 2.89 million households by 2035, an increase of 23%. Growth is projected to be highest in the local authority areas of Edinburgh, Perth and Kinross, Aberdeen, East Lothian and Aberdeenshire. In other areas, including some in the west, the increases are much smaller, although Glasgow itself is projected to grow by 28%. These contrasts between areas reflect very different circumstances around the country.

2.5 The financial climate has reduced the amount of new housing built in recent years. In the coming years, we want to see a significant increase in house building to ensure housing requirements are met across the country.

Scotland tomorrow

2.6 Our strategy aims to ensure that all parts of Scotland make best use of their assets to build a sustainable future. Planning will help to create high quality, diverse and sustainable places that promote well-being and attract investment.

2.7 Great places support vibrant, empowered communities, and attract and retain a skilled workforce. Emerging technologies for renewable energy and improved digital connectivity are changing our understanding of what constitutes a sustainable community. We must ensure that development facilitates adaptation to climate change, reduces resource consumption and lowers greenhouse gas emissions.

2.8 We will support growth in priority sectors and locations, and promote a place-based approach to development. We want to capitalise on the distinctive potential of each of our cities as economic drivers, reinvigorate our towns and encourage innovation in our rural areas. Much can be gained by focusing on our energy resources; on the natural and cultural assets that underpin our tourism and food and drink sectors; on our highly educated and skilled people; on our emerging growth sectors including life sciences and creative industries; on our established strengths in financial services and higher education; and on our existing infrastructure in the transport, energy and industrial sectors.

2.9 We need to close the gap between our best- and worst-performing regions. To address long-standing problems of inequity we will need new solutions that reflect the distinctive character of all our places.

2.10 Flexibility is required to allow for different approaches to housing provision that respond to varying local requirements. Planning should focus its efforts particularly on areas where the greatest levels of change are expected and where there is pressure for development.



2.11 Our Enterprise Areas are a particular priority for action. Successful places can emerge from areas which have, in the past, seen decline. Scotland's Regeneration Strategy promotes community-led regeneration with a particular emphasis on the economic, physical and social fabric of disadvantaged communities. The Scottish Futures Trust is helping to make more efficient use of public assets to improve the quality of places. Legislation on community empowerment will strengthen opportunities for communities to have their voices heard in decisions that affect them and their local area, as well as scope to take ownership of and manage properties to support their aspirations. The Town Centre Action Plan will help us to realise the full potential of our many and varied towns.

Spatial priorities for change

Cities will be a focus for investment

2.12 Scotland's seven distinctive cities, together with their surrounding regions, will continue to be a focus for investment in the coming years. Our spatial strategy recognises the strengths which are shared across the city regions, as well as the distinctive assets of each. Each city's relationship with its surrounding region is unique.

2.13 Cities are the main driver of our economy – notably the performance of Aberdeen and Edinburgh exceeds what may be expected from their population size. All of the seven key sectors in our economic strategy have a strong presence in the cities, in particular the creative industries, financial and business services, learning and life sciences. Many of our Enterprise Areas are located in and around our cities.

2.14 There is considerable scope for our cities to capitalise on new and growing economic sectors. The cities and their wider regions host many of the sites identified in the National Renewables Infrastructure Plan, and other key economic development sites, for example those near our main airports. There are a number of sites within the cities network where there is scope to make use of our cool climate, skills, and fibre network to attract investment in data centres. The Scottish Cities Alliance has prepared City Investment Plans showing the key investment and development opportunities in each city.



2.15 City centres are key assets for attracting investment and providing services. Quality of place is fundamental to the success of our cities, in particular city centres. We wish to see ambitious, up-to-date frameworks for city centre development. These should focus on the quality, sustainability and resilience of the built environment and wider public realm, and on improving accessibility by public and sustainable transport modes, such as cycling.

2.16 Reducing the impact of the car on city and town centres will make a significant contribution to realising their potential as sustainable places to live and invest by addressing congestion, air pollution and noise and improving the public realm. Significant health benefits could be achieved by substantially increasing active travel within our most densely populated areas.

2.17 The cities are, of course, at the core of their regions, but the towns within these regions are also important centres where many people live and work. Many of these towns are crucial transport, commercial and cultural hubs. The Town Centres Review called for a 'town centres first' approach to planning policy. The Scottish Planning Policy responds to that objective and the Town Centre Action Plan reflects a further call to expand this beyond planning policy to a principle which drives public sector investment decisions. We are committed to working with COSLA and other partners to determine how this principle will work in practice.

2.18 In some parts of the cities network, population decline is expected, whilst in other places there is projected growth. Some cities have greater pressure for additional housing development. In some, regeneration remains a priority. But throughout, there will be a need to ensure a generous supply of housing land in sustainable places where people want to live, providing enough homes and supporting economic growth.

2.19 In some of our city regions, infrastructure capacity is limiting the delivery of new housing and other development. We expect to see more concerted efforts – involving planning authorities, developers, government agencies and infrastructure providers – to remove these constraints. Solutions could include new infrastructure provision in some cases, but more viable and sustainable options are likely to make best use of existing infrastructure and service capacity. Strategic thinking, partnership working and innovation will be required to unlock funding for capacity enhancement. Housing requirements will continue to be at their most acute around Edinburgh, Perth and Aberdeen – requiring targeted action to better match demand for land with infrastructure capacity.



2.20 Further increasing the density of development, particularly in the centre of towns and cities and in key locations which are well-served by public transport, could accommodate much of this growth. However, more ambitious and imaginative planning will be needed to meet requirements for a generous and effective supply of land for housing in a sustainable way. Planning can ensure it enhances quality of life through good placemaking, and lead a move towards new, lower carbon models of urban living. More empowered communities have a key role to play in this. Our programme of town centre charrettes will demonstrate how significant change can be achieved through a design-led and collaborative approach.

2.21 Most of Scotland's vacant and derelict land lies in and around our cities, and particularly in west central Scotland. This presents a significant challenge, yet also an opportunity for investment. Planning has an important role to play in finding new and beneficial uses for previously used land including, in the right circumstances, 'green' end uses. A planned approach will continue to deliver development in the parts of our city regions where there is a continuing need for regeneration.

2.22 The challenges and opportunities vary across the country. The longstanding proposals at **Ravenscraig** to bring one of Europe's largest areas of previously developed land back into use will benefit from additional impetus of national development status to secure further investment. The redevelopment of the **Dundee Waterfront**, also a national development, demonstrates the way in which planning can effectively deliver large-scale transformation.

A flexible strategy for diverse places – distinctive city regions

2.23 This is a national strategy with a shared vision for Scotland, but it will be applied in different ways in each of our seven cities. The following section demonstrates the diverse and distinctive opportunities for Scotland's city regions to develop as successful, sustainable places.

Glasgow and the Clyde Valley

The Glasgow region encompasses, North and South Lanarkshire, East and West Dunbartonshire, Renfrewshire, East Renfrewshire and Inverclyde, and is home to around a third of Scotland's population.

The area is Scotland's biggest economic region. There are opportunities to develop each of our seven key economic sectors in the region, and there are particular strengths in energy, financial services, universities, life sciences and tourism. Glasgow is aiming to be widely recognised as an exemplary Green City. Building on its economic strategy, the city is working with its neighbouring local authorities to develop proposals for a city deal to drive employment and economic development across the city region.

The city region has ambitious plans for growth in a development corridor extending through the city and along the Clyde. The Creative Clyde Enterprise Area reflects the importance of this sector for the city region and supports the development of a new, vibrant digital quarter on the Clyde waterfront. Glasgow city centre is the key economic asset for the region, and contains a number of significant opportunities for investment, most notably its waterfront area. The City of Glasgow College development and new South Glasgow Hospital will be completed in 2015. Much development will be focused on the city centre, in the key regeneration areas and at a number of Community Growth Areas around the city region.

Regeneration is the central focus of planning across this city region. Partnership working is driving consolidation and renewal of the built environment, embedding future growth within a distinctive placemaking agenda. The Urban Regeneration Companies at Clyde Gateway, Clydebank and Riverside Inverclyde are continuing to transform some of Scotland's most extensive post-industrial areas. It is essential that we build on the success already achieved to address nationally significant and longstanding issues of disadvantage.

Facilities for the 2014 Commonwealth Games are in place and the focus over the coming years will be on building a legacy for all of Scotland. As a key part of this, there has already been excellent progress in the regeneration of the Clyde Gateway, an ambitious transformational project where there has been outstanding progress to date. We are confident that the long-term vision for regeneration in this area, delivered through partnership working and involving local people, agencies and developers, provides a strong foundation to attract investment. In the next five years and beyond, this initiative will create a vibrant place that benefits communities and investors alike.

Other longstanding regeneration priorities will require further impetus to secure delivery. The masterplanned development of Ravenscraig, a national development, will transform one of Europe's largest areas of vacant and derelict land into a new, sustainable community.

New opportunities continue to emerge. The Strathleven area has significant potential for growth and regeneration and there are proposals for a Simplified Planning Zone at Hillington. The work of the Glasgow Canals Partnership to drive forward regeneration along the Forth and Clyde Canal corridor demonstrates the scope to secure investment that transforms the quality of the environment for communities across the city and the wider Central Belt.

Integral to the delivery of these infrastructure and regeneration projects will be the Central Scotland Green Network – improving quality of place, addressing environmental inequalities and enhancing health and well-being. Alongside this, the Metropolitan Glasgow Strategic Drainage Partnership is improving the quality of the water environment in the Glasgow area and facilitating growth and regeneration. Sustainable infrastructure networks will form the foundations of regeneration and development and build resilience to climate change. There is significant scope for district heating in the north of the city and in the central Glasgow area.

The relationship between Glasgow and its surrounding communities is crucial. Considerable progress is being made in transforming many of the towns across the region. Whilst sharing the common driver of adapting to economic change, these towns are finding distinctive solutions which reflect each of their unique qualities, whilst working together to contribute to the wider cities agenda. Initiatives range from using Paisley's distinctive street pattern and historic buildings to create a 21st-century town centre, to revisiting the role of Cumbernauld's town centre to better reflect today's lifestyles.

Connectivity is key to the success of the region, with High Speed Rail between Glasgow and Edinburgh, and in time on to London, aimed at making the Central Belt a stronger and more unified economic region in European terms. Improvements to the regional rail network, including links to Ayrshire and Inverclyde, are progressing through a £430 million investment over 16 years. The gateway role of Glasgow and Prestwick Airports, and the growth of their associated economic investment zones including the Prestwick International Aerospace Park Enterprise Area, will bring economic and connectivity benefits. Continuing work to improve surface access to Glasgow Airport has been informed by the Glasgow Airport Strategic Transport Appraisal and forthcoming review of the Airport Surface Access Strategy.

Edinburgh and the south east

Edinburgh is Scotland's capital city, and the south east of the country supports many of our most important economic assets – and many more future opportunities. The city region includes West Lothian, Midlothian and East Lothian, extends north into Fife and south into the Scottish Borders.

Edinburgh is one of Europe's most important centres for financial services and tourism, and the world's foremost festival city. Energy will be an increasingly important sector, centred on the city and at sites around the Forth. Life sciences will also see growth, in particular in clusters linked to universities. Creative industries, universities and food and drink all have a strong presence in the city region, and good prospects for growth.

The City of Edinburgh Council's Economic Strategy sets out a vision for Edinburgh to be "a confident, creative and inspiring capital city, powering growth and providing jobs for the city region and Scotland. A city whose quality of life and commitment to sustainability draws talent and investment from around the world where the public, private and third sectors collaborate with common purpose."

As with Glasgow, Edinburgh will benefit from unifying projects across the Central Belt including High Speed Rail and the Central Scotland Green Network. Enhancement of the gateway role of Edinburgh Airport will bring economic and connectivity benefits, as will new freight capacity on the Forth. Within the city, efforts to promote active travel are being taken forward, providing health and environmental benefits. Southwards, the Borders Railway will provide a new sustainable transport connection from the city to the Scottish Borders, whilst the A1 provides an essential cross-border link. The completion of the Queensferry Crossing, the Forth Replacement Crossing which was included as a national development in NPF2, will further strengthen connectivity along Scotland's east coast economic corridor.

The SESPlan area is projected to have the second largest rate of growth of the four SDPAs – a 20% increase in population and 32% increase in households between 2010 and 2035. A planned approach is required to ensure development needs are met, whilst taking into account existing and future infrastructure capacity. Led by SESplan, we wish to see greater and more concerted effort to deliver a generous supply of housing land in this area.

Whilst programmed transport improvements will collectively go some way towards enhancing capacity for growth, the longer-term spatial strategy for delivering housing land will need to acknowledge and address the region's infrastructure constraints. To help unlock effective housing land in the city-region, strategic, cross-boundary transport infrastructure improvements are required. Securing funding for these projects will be crucial to realise the region's potential for growth. Road network capacity, including the A720 where interventions are being taken forward at Sherriffhall Roundabout, has particular implications for future development.

Within Edinburgh, the city centre, the waterfront, West Edinburgh and South East Edinburgh will be a focus for growth. The city centre is the civic, cultural, tourism and commercial hub, with its world-renowned built heritage as a key asset. The waterfront is a priority for regeneration, new homes and port, energy and industrial development. West Edinburgh is a significant location for investment, with the airport, the National Showground and the International Business Gateway. Development here will require continued co-ordination and planning to achieve a successful business-led city extension which fulfils its potential for international investment, new jobs and high quality of place. Further south, the National Performance Centre for Sport at Heriot Watt University will open in 2016. There are existing district heat networks in central Edinburgh and potential for these to expand in areas of development.

South East Edinburgh, and into Midlothian, will accommodate significant growth and is a key location for life sciences based around the Edinburgh BioQuarter and nearby Midlothian BioCampus. Both are part of a national Life Sciences Enterprise Area, whilst the Low Carbon/Renewables East Enterprise Area includes Leith Port. North and west of the city, Glenrothes, Kirkcaldy, Dunfermline and Livingston are important hubs for employment and services, and strategic growth areas are identified across the region. In West Lothian, key economic initiatives include the Heartlands development, where a new junction has been opened on the M8, and the Enterprise Areas at Broxburn and Livingston. The Fife Energy Corridor, which extends from Methil to Longannet, has potential for significant investment in energy-related business development, as do the Cockenzie and Torness areas in East Lothian.

As well as growth, regeneration remains a priority in some parts of the city region. PARC, an Urban Regeneration Company, continues to work to regenerate the Craigmillar area of Edinburgh. Work is also ongoing at several locations around the city and in other towns, in particular the coalfield areas.

Stirling

Stirling is the historic city at the heart of Scotland. Energy, food and drink, financial and public services, and tourism are among the key economic sectors, and the city is a nationally important centre for sport. The Loch Lomond and The Trossachs National Park is a short journey away. Stirling also has close links with surrounding areas, including Falkirk, Clackmannanshire and into west Fife.

Stirling's city vision is to be a location of choice with a vibrant and growing economy, a place with jobs and opportunities for all, providing a high quality of life for residents and visitors.

Planning in Stirling focuses on both regeneration and sustainable growth, for the city itself and the nearby towns and villages. Its central, well-connected location, outstanding built heritage and thriving university campus make it ideally positioned to attract investment.

The city centre is a key focus for that investment, with the City Investment Plan emphasising its role as a focal point for business activity, tourism and city centre living. Infrastructure investment priorities include improving digital connectivity and transport links, and enhancing the quality and availability of business premises.

The Forthside area is also a priority for mixed development, including the new National Conservation Centre, and there is potential for the Stirling University Innovation Park to be extended. Continued regeneration, in particular at Raploch and the Eastern Villages, will remain a priority, as will tackling flood risk issues. There are plans for growth and regeneration in several locations outwith the city, including a new settlement proposed at Durieshill and at a number of strategic development areas.

Perth

Perth is Scotland's newest city and a strategically important gateway to the north and north east of the country. Along with Dundee, it sits within a wider region with scenic countryside and towns.

Perth's central location within Scotland's road and rail network makes it ideally placed to attract investment, as does its high quality of life with a strong cultural scene in and around the city and a range of outdoor activities on its doorstep. Key tourism assets include the towns and countryside in Perthshire and Angus, extending into the Cairngorms National Park. Gleneagles, located close to Perth, is the venue for the 2014 Ryder Cup.

The City Investment Plan sets out a vision to develop Perth into the most desirable place in Scotland to live, work, visit and invest. The city centre will be a focus for investment, as will strategic growth areas identified at west and north west Perth and at Oudenarde. These, together with a number of strategic growth areas in Dundee, Angus and north Fife, will provide a focus for most new housing and business development.

Dundee and Tayside

Dundee is undergoing transformational change, led by over £1 billion of investment in the regeneration of its waterfront. Along with Perth, it sits within a wider city region with high quality countryside and distinctive towns. The Dundee city region extends northwards into Angus and southwards into Fife.

The City Investment Plan vision is for "Dundee to be an internationally recognised city at the heart of a vibrant region with more and better employment opportunities for our people." Priorities include growing businesses and sectors, employability and skills, improving physical infrastructure, place marketing and tourism promotion.

Dundee is an established and growing centre for creative industries (particularly video-gaming), for universities, life sciences and for high-tech manufacturing. Energy will become an increasingly important sector, with opportunities at Dundee Port which is part of the Low Carbon/Renewables East Enterprise Area, and elsewhere on the coast, including at Montrose. Key tourism assets include the towns and countryside in Perthshire and Angus, extending into the Cairngorms National Park, and into Fife where St Andrews is a focus for visitors.

The redevelopment of Dundee Waterfront encompasses 240 acres along 8km of the River Tay, in five distinctive areas – Central Waterfront, Seabraes, City Quay, Dundee Energy Parks and the Port of Dundee. This project includes the V&A at Dundee, improvements to the railway station and port and industrial development. It is facilitating growth and regeneration in the city and the wider region. As part of this, significant improvements to the public realm will strengthen the city's appeal to investors and reinforce civic identity.

A strategic approach to green infrastructure will help to achieve sustainable development patterns and contribute to placemaking in and around the city. Transport connections to the rest of the cities network will continue to be a priority. In the longer term, there is a need to finalise the best approach to upgrading the A90 through Dundee, either by improving the existing road or on a new alignment by-passing the city.

Aberdeen and the north east

Aberdeen is the energy capital of Europe. The north east of Scotland has above-average incomes, low unemployment and a high quality of life. The area's exceptional economic performance provides a real opportunity to build on its success and benefit Scotland as a whole. The City Investment Plan sets out an ambition "to maintain Aberdeen's position as one of the world's key energy capitals and to maximize its growth potential and diversification into other sectors." Infrastructure provision is a key part of this agenda for growth and investment.

Aberdeen and its wider city region is well-placed to take advantage of continued exploitation of North Sea oil and gas reserves and to develop its expertise in serving this sector, and the growing renewable energy sector around the world. Opportunities from oil and gas reserves West of Shetland, from decommissioning existing infrastructure and from the deployment of offshore renewables will become increasingly important. Food and drink, life sciences, universities, creative industries and tourism are among the other key sectors for this city region.

The expansion of Aberdeen Harbour will strengthen its key role in supporting the economy of the north east, as too will continued improvements to infrastructure including the Aberdeen Western Peripheral Route and Aberdeen Airport. The economic significance of the region is recognised through the need for infrastructure capacity enhancement, both within the city region and in terms of wider links. Beyond the opening of the Aberdeen Western Peripheral Route by 2018, the Infrastructure Investment Plan commitment to improving rail links from Aberdeen to the Central Belt by 2030 will be progressed in phases with improvements being seen by 2019, as well as progress in the planning for removing single track sections around Montrose. £170 million of improvements to the Aberdeen to Inverness railway including improvements between Aberdeen and Inverurie will be in place by 2019 and work is underway to dual the A96 by 2030.

Development of Carbon Capture and Storage technology focussed on Peterhead, and possibly St Fergus, enhancements to the electricity grid and new connections for offshore renewables underline the importance of energy-related development to this region, as does the planned European Offshore Wind Deployment Centre off the coast of Aberdeen. There is a growing district heat network in the centre of the city.

The city region extends from the city into wider Aberdeenshire. The area has the greatest projected population growth of Scotland's four strategic development plan areas (23%), with a 35% increase in households between 2010 and 2035. Much of the new housing development in the city region will be in a number of strategic growth areas in the city and in corridors extending from it – northwards to Peterhead, north west to Huntly and southwards to Laurencekirk. Affordable housing will continue to be a strategic priority in the North East given the wider context provided by the buoyant private housing market in the region. The focus of regeneration efforts will be in the city centre, other parts of the city, and in some coastal communities – most notably Peterhead and Fraserburgh. The city, and the whole region, will benefit from improved conference facilities.

There are particular opportunities in the 'Energetica' corridor from Aberdeen northwards towards Peterhead, where a key hub for energy infrastructure and related development is envisaged. There will be benefits to taking a co-ordinated approach to planning for this and related development in the wider Peterhead area.

Inverness and the Inner Moray Firth

Inverness is the capital of the Highlands – the fastest-growing city in Scotland, serving the whole region and acting as a gateway to the Highlands and Islands. The City Investment Plan envisages Inverness as "a can-do place where individuals, communities and businesses are able to realise their full potential and fulfil ambitions that benefit them, their city and the wider region."

Key economic sectors include energy, tourism and life sciences. Better surface access to Inverness Airport, with the dualling of the A96 and a new rail station at Dalcross, will bring economic and connectivity benefits. The University of the Highlands and Islands is centred at the new £100 million Inverness Campus, and life sciences are a particular focus here and in the A96 corridor, with the Forres Enterprise Park forming part of a Life Sciences Enterprise Area. Financial services are becoming ever more important to the area's economy.

Inverness city centre is the administrative, transport, services and tourist hub for the region. Further hotel accommodation will strengthen this. The city is expanding to the west, south and, in particular, to the east, with growth along the A96 Corridor to Moray, including development of a new settlement at Tornagrain. A further growth corridor extends from Muir of Ord and the Black Isle north eastwards through to Tain and Nigg. Regeneration is a priority at a number of locations in Inverness, including at the Muirtown Basin and at Longman. Making more use of the harbour and Caledonian Canal can bring particular benefits.

A number of key ports and industrial sites around the Moray and Cromarty Firths – including Ardersier, Nigg, Highland Deephaven, Invergordon and Buckie – are well-placed to take advantage of investment in the energy sector, both in renewables and in oil and gas. The Nigg yard is part of the Low Carbon/Renewables North Enterprise Area. Their development will go hand in hand with continuing protection of the very special environment of the Firths.

We will have vibrant rural areas

2.24 Rural areas support a number of economic sectors, including tourism, food and drink and other primary industries. Growth and investment in these sectors relies on the continuing environmental quality of our countryside, infrastructure and the sustainable use of our natural resources. It is now far easier to access further and higher education in rural Scotland, helping to attract and retain people and investment. In many areas, the knowledge economy is a positive driver for change, stimulating skills and innovation. This extends across the country, from the Dumfries Learning Town initiative and Heriot Watt's Galashiels campus in the south to the University of the Highlands and Islands in the north.

2.25 Increased population growth will be vital to sustain many of our rural communities. Patterns of population change vary across rural Scotland. Between 2002 and 2012 Argyll and Bute experienced a 4.5% fall in population whilst in Aberdeenshire, the Orkney Islands and Highland there was an increase of around 11%. 2010-based household projections for local authorities range from significant growth between 2010 and 2035 in more accessible rural areas such as Aberdeenshire, Perth and Kinross, East and West Lothian and Clackmannanshire, and lower growth in more remote areas including the Western Isles, Dumfries and Galloway and Argyll and Bute. By making higher education, jobs, housing and public transport available in more remote rural areas, we are working to address the continued out-migration of young people from rural areas.

2.26 We do not wish to see development in our rural areas unnecessarily constrained. There will be a continuing need for new housing – we expect more people to live and work in Scotland's rural areas as digital links and opportunities for remote working and new enterprises continue to grow. The Scottish Planning Policy sets out a framework for planning for rural housing which reflects the varying characteristics and pressures of rural communities. It highlights that careful planning is required to manage demand in our most accessible countryside around towns and cities. Remote areas are likely to benefit from a more flexible approach, particularly where it helps to sustain fragile communities. Facilitating the delivery of affordable rural housing remains a priority to support community vitality and increase population growth. Design solutions will ensure that affordability need not be at odds with achieving more ambitious emissions standards.

2.27 Nationally, the Scottish Government will continue to work with the housing sector to identify innovative approaches to rural housing, including assisting rural enablers to support individual house building and, as in all of Scotland, to ensure a sufficient supply of new and affordable housing for both rent and ownership. This is a significant factor in sustaining rural communities, and there are particular housing support mechanisms available in crofting communities.

2.28 Our diverse and vibrant rural towns support clusters of services, have a significant share of homes and jobs, and act as transport hubs for a much wider rural community. We want to see the role of these towns strengthened and diversified. Benefiting from the actions set out in the Town Centre Action Plan, they will also be a focus for increased active travel initiatives and for new technologies, including low carbon and renewable heat and digital connectivity.

2.29 Whilst many regionally and locally important towns will continue to grow and prosper, we also need innovation and vision for our more fragile towns to make the most of their resources and build their resilience. Community ownership of assets and an emphasis on 'local people leading' will help to stimulate further initiatives that revive the fortunes of many of our key towns, villages and rural communities. Our target is for one million acres of land to be community owned by 2020. All over Scotland, 'transition towns' are demonstrating new ideas for alternative, lower carbon ways of living through community-led initiatives. Successful places will be those which attract ideas, investment and people.

A flexible strategy for diverse places – rural towns

2.30 All of our towns are important. To illustrate their diversity, the following section highlights the opportunities arising in just five of our towns in different parts of rural Scotland.

Elgin – a diversifying town

The Elgin 'City for the Future' study noted the town's important role as a regional leader, providing a good range of services. Its vision is to stimulate business development, diversification and innovation. Key initiatives include a 'high street first' approach to regeneration, innovation in technology and business, education and health, the visitor economy and arts, culture and heritage. By 2030, dualling of the A96 will enhance the connectivity of this part of the country, with Elgin acting as an important transport hub. Marine renewables could provide opportunities for economic diversification in the area around Elgin. Nearby Buckie has potential as an operational and maintenance base for offshore renewable energy development in the Moray Firth, and a grid connection will come onshore at Portgordon and connect to the network at Blackhillock, near Keith.

Fort William – a tourism town

Fort William provides important services to an extensive rural area. Given the town's location and its role as a gateway to some of Scotland's most iconic and scenic coastal and mountain areas, tourism forms a key part of the local economy. Lochaber has become known as a nationally important centre for outdoor activities like sailing, climbing and mountain biking, and there are further opportunities for regeneration and to develop activities along the Caledonian Canal. Programmed improvements to the A82 and the scenic routes initiative will support this further.

Kilmarnock – a changing town

Like many other areas of Scotland, East Ayrshire has experienced economic challenges in recent years. East Ayrshire's strategy for growth focuses on the regeneration of Kilmarnock, including the redevelopment of the former Diageo site, an extensive area of previously used land in the heart of the town. Kilmarnock is a strategically important hub for the wider rural area, supporting jobs and providing services to its surrounding communities. Its relationship with other towns, including nearby Ayr, Irvine and Cumnock, requires consideration through a place-based approach to development. Transport connections from this area to Glasgow and the wider cities network, and to the south, will continue to be a priority, as will the development of the Central Scotland Green Network across Ayrshire.

Galashiels – a connected town

The Central Borders is expected to accommodate a significant share of the wider area's future housing requirements, and will continue to be a focus for economic investment and services. The completion of the Borders Railway will support new, more sustainable locations for development in the Central Borders, with Galashiels providing an important transport interchange. There are opportunities for the town, as in other distinctive towns across the Borders, to increase footfall in its town centre, including through diversification of retail facilities. In Hawick, Selkirk and Galashiels, flood protection measures are a priority to unlock central sites for development and build future resilience. Opportunities for district heating serving Galashiels are also expected.

Dumfries – a gateway town

Dumfries is the regional capital of the south west of Scotland. Demonstrating the potential of rural towns to make a unique and significant contribution to the national spatial strategy, regeneration of the Crichton Quarter and the Learning Town initiative are providing opportunities for local learning, skills development and innovation, including in carbon management and rural development. Tourism, food and drink and primary industries will continue to be important for Dumfries. A new hospital will be developed, strengthening the role of Dumfries as an important service centre. The Solway has significant opportunities for marine renewable energy generation, which could help to further diversify the local economy over the long-term. Wider opportunities for economic growth are also likely to be located along the A74 corridor. The area has a close relationship with Carlisle, and connections, including by rail and via the A77 and A75, will continue to be important locally and for longer-distance links to Ireland, England and Europe.

Regional spatial priorities – South of Scotland
The South of Scotland has a key role to play as a Gateway to Scotland. In 2013, the 'Borderlands' Report highlighted the opportunities arising for closer collaborative working between local authorities in the south of Scotland and north of England. Building on this, cross-border working is now being explored, focusing on opportunities for tourism, transport connections and business development across the region as a whole. Complementing this, our national spatial strategy aims to facilitate sustainable rural development across the south of Scotland and highlights the role of key towns, such as Dumfries, Stranraer and Galashiels as priority areas for further action and investment. The strategy also reflects the importance of connections between this area and other parts of Scotland, the north of England and Northern Ireland.

Coastal and island communities will benefit from new investment

2.31 Our islands and coastal areas contain some of our most vibrant and culturally distinctive communities. Working together with the National Planning Framework, Scotland's first National Marine Plan will provide the strategic policy framework to encourage sustainable development and use of the marine environment to deliver economic and social benefits for island and coastal communities.

2.32 Whilst some of our coastal and island areas are characterised by low density and dispersed development, in particular crofting settlements, there are also towns which act as hubs for services and transport networks and will be a focus for new development. Examples range from Stranraer in the south west where regeneration is ongoing following relocation of the ferry terminal to Cairnryan, to Wick and Thurso in the far north where charrettes have begun to define new visions for these more remote communities.

2.33 Some towns around our coast may be more vulnerable because of the economic downturn and the challenging financial climate for the public sector. Our Town Centre Action Plan highlights what we are doing to support investment and a mix of uses to reinvigorate centres like these. Land reform and the community right to buy can also strengthen relatively remote communities, empowering them to create new futures.



2.34 There are opportunities to develop the existing strengths of many of our coastal and island areas, for example in tourism and in primary industries like food and drink. They have continuing strengths in key sectors including whisky, forestry (notably in Argyll and Dumfries and Galloway), fishing in many ports along the coast and in the islands, and crofting. In the east, existing links with the oil and gas sector, and the growing opportunities in and around the cities network for renewable energy development, have a strong coastal dimension. Land use and marine planning should aim to balance development with environmental quality and activities such as fishing and tourism.

2.35 Seizing new opportunities such as those in the learning economy and the energy sector will help to deliver sustainable economic growth, attracting and retaining population and supporting services. The University of the Highlands and Islands, and other centres of learning and research like the Heriot Watt Campus in Kirkwall, are transforming the further and higher education sector in many of our island and coastal communities.

2.36 Aquaculture is an important aspect of the economy across parts of coastal Scotland, supporting many jobs – often in small communities – and representing a significant element of Scotland's exports. The industry has identified ambitious growth targets which we want to see realised.

2.37 We are working with the oil and gas sector to maintain the competitiveness of the industry and capitalise on skills, experience and existing infrastructure. There will be significant opportunities for increased production from oil and gas reserves in the West of Shetland and northern North Sea, and for decommissioning of existing infrastructure reaching the end of its life. Many of the sites identified in our National Renewables Infrastructure Plan have the potential to benefit from this. Existing assets – like Sullom Voe, the adjacent TOTAL gas plant and the Flotta oil terminal – will continue to play an important economic role.



A flexible strategy for diverse places – coastal and island hubs

2.38 Many coastal and island communities have key towns, where development opportunities, employment, homes and services are often clustered. Place-based development plans for our coastal and island areas should recognise the role of these towns as important focal points for investment and transport connections. To illustrate their diversity, the following section highlights the opportunities arising in just six of our northern and western and northern coastal and island towns.

Stranraer

Stranraer and Cairnryan are Scotland's gateway to Northern Ireland. Since relocation of the ferry terminal from the centre of Stranraer, regeneration plans for the waterfront have become of critical importance to the town and wider region. Local partners are working together to fulfill their vision for the town as a marine leisure destination. A masterplan is driving forward regeneration of the town centre and redevelopment of derelict land at the former ferry port. Housing renewal and retail initiatives are helping to reinvigorate the centre of town, and the refurbished West Pier was reopened in 2013. It is important that the momentum gained from designating Port Facilities at Loch Ryan as a national development in NPF2 is not lost – following opening of the new facilities in 2011, targeted interventions are being made to improve the A77 and A75 and a new electric bus service is providing a low carbon transport link from the new port facilities to the town centre. The A75 is a Euroroute, providing a vital link from Northern Ireland across the region to the rest of Scotland, England and Europe.

Campbeltown

Like a number of other coastal towns in south west Scotland, research suggests that Campbeltown could be particularly vulnerable to the economic downturn. However, it also has significant opportunities for business development and future growth – for example, Scotland's only facility for the manufacture of wind turbine towers is located at nearby Machrihanish. The recent upgrading of Campbeltown Harbour, and emerging plans for offshore renewables, mean the town is now well-placed to act as a green energy hub, as reflected in the National Renewables Infrastructure Plan. Improved access from the Central Belt is underway, including trunking of the A83. A 3-year summer-only pilot ferry service has also been introduced between Ardrossan and Campbeltown. The Kintyre peninsula provides important links to Islay, Gigha and Jura, acting as a transport hub for much of Argyll. Plans to improve digital and electricity grid connections will play a key role in supporting business development.

Oban

Oban is a gateway to the isles and a popular tourism destination in its own right. The Lorn Arc Initiative aims to make use of Oban's strategic location by repositioning the town's economy. Through regeneration and development, the initiative aims to generate employment across a number of sectors, including renewable energy, tourism and marine science. The wider area has significant potential as a focus for innovation and expertise – the nearby Scottish Association for Marine Science is a key centre for marine study and there are plans to establish a European Marine Science Park, whilst Balcardine has been identified as a location for renewable energy-related business development. Investment in infrastructure is planned, including the extension of Oban North Pier and improvements to road infrastructure. Oban is an important transport interchange with a crucial rail service and connections by bus and ferry to Argyll and the Inner Hebrides. Oban Airport will continue to play a role in supporting business activity and providing essential links to services for wider rural communities.

Stornoway

Stornoway's strategic location, economic potential and role as a service centre underline its importance to the Western Isles. Improved grid connection to the islands will be essential to realise the area's renewable energy potential. Alongside this, new energy technologies for the islands are being explored, for example energy storage, energy efficiency measures and infrastructure for electric and hydrogen fuelled vehicles. This could not only build resilience but also help to address disadvantage and higher fuel costs. Arnish is part of the Low Carbon/Renewables North Enterprise Area. Stornoway is an important transport hub for passenger and commercial transport. Stornoway harbour's strategic location means that it will be well placed as a stopping point for international shipping with the opening of the North East Passage to navigation. It also has significant potential as a destination for cruise ships and leisure craft. The Scottish Government's Step Change Programme will transform digital connectivity through significant investment in next generation broadband.



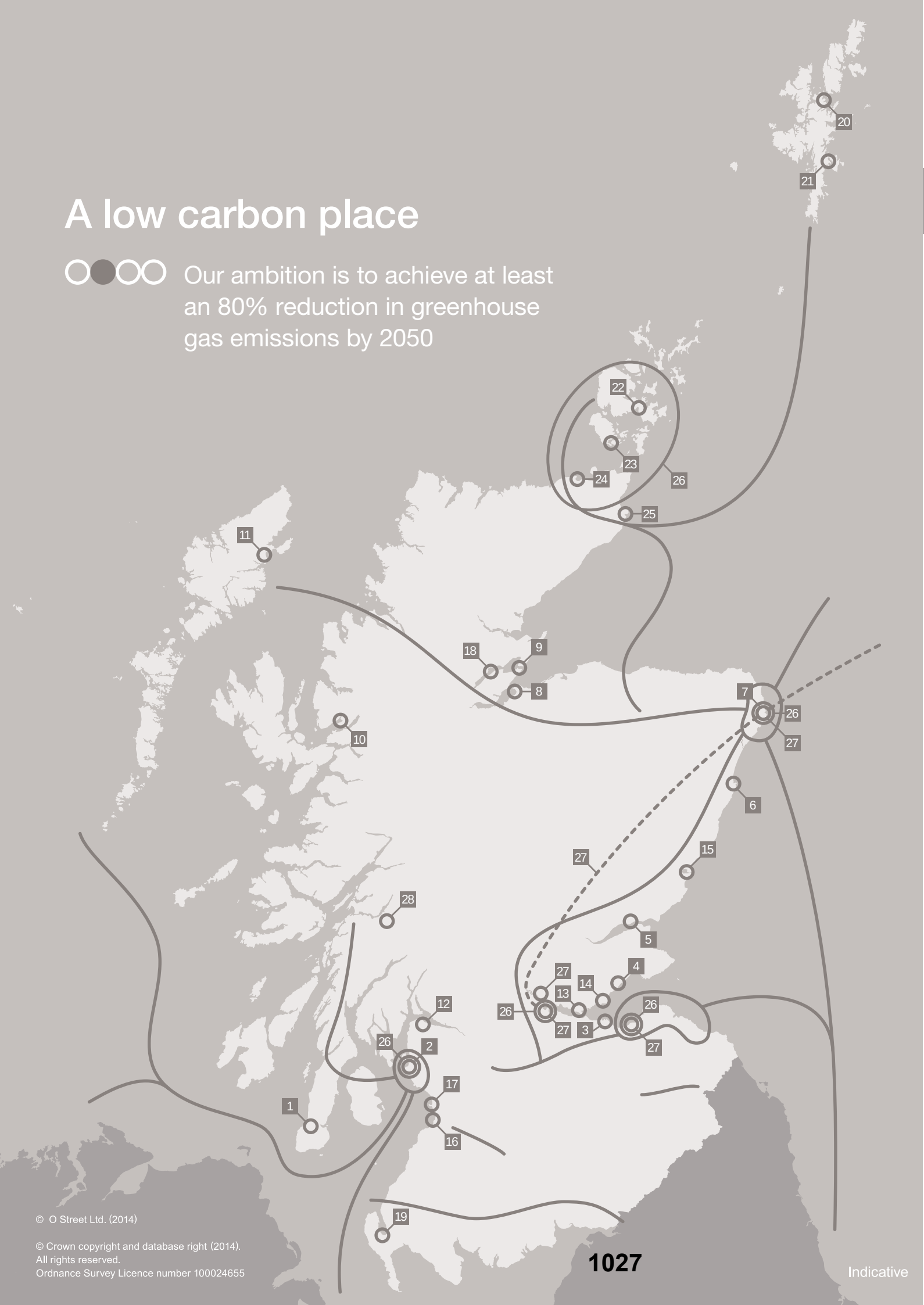
Kirkwall
Kirkwall has an important role to play within the wider area of co-ordinated action for the Pentland Firth and Orkney Waters. Ambitious plans for wave and tidal energy, together with the wider area's importance as a strategic location for shipping and energy infrastructure, provide significant new opportunities for the town. Improvements to Hatston pier, identified within the National Renewables Infrastructure Plan, are helping to position the town at the forefront of innovation in the energy sector. The Orkney Islands have enviable opportunities for tourism development, building on the unique and internationally recognised heritage of the islands and the quality of the natural environment. Kirkwall is an important transport hub for accessing many of the other islands. Improved grid connection will be a vital component in the future success of Orkney's marine energy sector. As part of this, there will be opportunities to develop new technologies and approaches to harness renewable power generation on and around the islands.

Lerwick
Lerwick forms a focus for regeneration and development activity, provides crucial services and acts as a cultural centre for the Shetland Islands. Fishing continues to increase its already significant contribution to the Shetland economy. Tourism and creative sectors are priorities for growth. The town is an important transport hub, with the harbour providing inter-island ferry connections and links to Aberdeen, Orkney and further afield, and benefiting from continuing growth in the cruise market. Lerwick has significant potential to support renewable energy development in the waters off Shetland, as recognised in the National Renewables Infrastructure Plan. The development of a grid connection to the mainland will be essential to facilitate this. Work is underway to construct a major new gas plant adjacent to the existing Sullom Voe Oil Terminal, and substantial investment has been committed to improve and refurbish the existing terminal in preparation for increased flows of oil from west of Shetland. Opportunities will arise from the decommissioning of existing offshore oil and gas infrastructure.

Regional spatial priorities – Northern and Western Isles
In July 2013, the Lerwick Declaration affirmed the Government's commitment to subsidiarity and local decision-making. As part of this commitment, Scottish Ministers recognise the case for further empowering our island communities, and have worked with the island councils of Shetland, Orkney and Eilean Siar, as well as the mainland Councils with islands, to explore how to give this practical effect. In line with this, our spatial strategy reflects the special planning challenges and opportunities for the Northern and Western Isles, including their potential to lead deployment of new offshore renewable technologies, scope for other sectors including tourism and food and drink, and the importance of digital and transport links to the rest of Scotland.

A low carbon place

Our ambition is to achieve at least an 80% reduction in greenhouse gas emissions by 2050



Detail key

Infrastructure

NRIP sites

1. Machrihanish/ Campbeltown
2. Hunterston
3. Leith
4. Methil
5. Dundee
6. Aberdeen
7. Peterhead
8. Ardersier
9. Nigg
10. Kishorn
11. Arnish

NRIP – further potential sites

12. Inverclyde
13. Rosyth
14. Burntisland
15. Montrose
16. Ayr
17. Troon
18. Highland Deephaven
19. Stranraer/Cairnryan
20. Sella Ness
21. Lerwick
22. Hatston (Kirkwall)
23. Lyness
24. Scrabster
25. Wick

Energy Hubs – Areas of Co-ordinated Action

26. Peterhead, Hunterston, Cockenzie, Grangemouth, Pentland Firth and Orkney Waters

National Developments

27. Carbon Capture and Storage (CCS) Network and Thermal Generation
- High Voltage Energy Transmission Network
28. Pumped Storage (Cruachan)

3. A low carbon place

Our ambition is to achieve at least an 80% reduction in greenhouse gas emissions by 2050.

Scotland today

3.1 Planning will play a key role in delivering on the commitments set out in Low Carbon Scotland: the Scottish Government's report on proposals and policies (RPP2). The priorities identified in this spatial strategy set a clear direction of travel which is consistent with our world-leading climate change legislation.

3.2 At present, the energy sector accounts for a significant share of our greenhouse gas emissions. To address this, we need to employ our skills and innovation to help capitalise on our outstanding natural advantages.

3.3 Scotland is estimated to account for nearly 60% of total EU oil and gas reserves. This forms our largest industrial sector, contributing an estimated £22 billion to Scotland's GDP in 2012. The industry employs around 200,000 people across Scotland by supporting the wider economy.

3.4 We have long relied on hydropower for a source of clean energy. It is estimated that untapped potential could sustain the electricity needs of around a quarter of our homes. We have a significant wind resource, both onshore and offshore, and electricity generation from wind continues to rise. Scotland also has 25% of Europe's tidal resource and 10% of its wave potential. We are pioneering marine renewable energy technologies – there are more marine energy devices commissioned, partly commissioned, under construction or permitted in Scotland than in any other country in the world.

3.5 Heating and cooling constitutes around half of our total demand for energy, and our renewable heat infrastructure is growing. The distribution of new and planned district heating schemes is broadening from small-scale, rural installations towards larger projects across our towns and cities. Both will be required if we are to meet our target for renewable heat.

3.6 Industry estimates are that renewable energy currently supports around 11,000 jobs in Scotland and we expect employment in this sector to grow significantly over the coming years.

3.7 A planned approach to development has ensured that onshore wind energy development largely avoids our internationally and nationally protected areas. Whilst there is strong public support for wind energy as part of the renewable energy mix, opinions about onshore wind in particular locations can vary. In some areas, concern is expressed about the scale, proximity and impacts of proposed wind energy developments. In others, it is recognised as an opportunity to improve the long-term resilience of rural communities. We are seeing more communities benefiting from local ownership of renewables, with at least 285 MW of community and locally-owned schemes installed by 2013.

Scotland tomorrow

3.8 By 2020, we aim to reduce total final energy demand by 12%. To achieve this, and maintain secure energy supplies, improved energy efficiency and further diversification of supplies will be required. We want to meet at least 30% of overall energy demand from renewables by 2020 – this includes generating the equivalent of at least 100% of gross electricity consumption from renewables, with an interim target of 50% by 2015. Heat accounts for a significant share of our energy consumption, and by 2020 we are aiming to source 11% of heat demand and 10% of transport fuels from renewable sources.

3.9 Our Electricity and forthcoming Heat Generation Policy Statements set out how our energy targets will be met. We are making good progress in diversifying Scotland's energy generation capacity, and lowering the carbon emissions associated with it, but more action is needed. Maintaining security of supplies and addressing fuel poverty remain key objectives. We want to continue to capitalise on our wind resource, and for Scotland to be a world leader in offshore renewable energy. In time, we expect the pace of onshore wind energy development to be overtaken by a growing focus on our significant marine energy opportunities, including wind, wave and tidal energy.

3.10 The Electricity Generation Policy Statement sets out a continued and important role for thermal generation in Scotland's future energy mix. There will be a requirement for new or upgraded efficient fossil fuel thermal generation capacity, progressively fitted with carbon capture and storage (CCS).

3.11 Some of our coal and nuclear power stations are nearing the end of their current life. In Scotland, we need a minimum of 2.5 GW of thermal generation with CCS to meet our requirements and support diversification of supplies. There will be no nuclear new build in Scotland, although we have not ruled out extending the operating life of Scotland's existing nuclear power stations at Hunterston B and Torness. Subject to strict safety considerations, this could help to maintain security of supply over the next decade while the transition to renewables and cleaner thermal generation takes place. Proposals are also now coming forward for world-leading projects for energy generation that implement CCS technology and use our natural capacity to store carbon in the geological formations of the oil and gas fields of the North Sea.

3.12 Both terrestrial and marine planning have a key role to play in reaching these ambitious targets by facilitating development, linking generation with consumers and guiding new infrastructure to appropriate locations. We are clear that development must work with and sustain our environmental assets, and should provide opportunities for communities.

3.13 The low carbon energy sector is fast moving and will continue to be shaped by technological innovation and a changing environment. As a result, our strategy must remain sufficiently flexible to adapt to uncertainty and change so we are well placed to make the most of the new opportunities that will undoubtedly emerge.

3.14 Our natural energy resources will result in unprecedented opportunities for associated development, investment and growth in the coming years. Ports and harbours identified in the National Renewables Infrastructure Plan will invest in their facilities to accommodate manufacturing, servicing and maintenance of our renewable energy infrastructure. We expect planning to enable development in all of these locations.

3.15 In line with our commitment to reducing social and spatial inequalities in Scotland, the transition to a low carbon economy will provide opportunities for communities across the country. As a key part of this, we are aiming to achieve at least 500 MW of renewable energy in community and local ownership by 2020 and are working to secure greater benefits from commercial-scale developments.

Spatial priorities for change

Cities will be exemplars of low carbon living and a focus for essential energy infrastructure

3.16 Much of our energy infrastructure, and the majority of Scotland's energy consumers, are located in and around the cities network. The cities network will also be a focus for improving the energy efficiency of the built environment. A key challenge, but also a significant opportunity for reducing emissions, lies in retrofitting efficiency measures for the existing building stock.

3.17 We are seeing an increasing number of district heating networks across the country. We can make much better use of the heat sources we have, including unused and renewable heat, and have prepared a Scotland heat map to help this to happen. We believe that there are significant opportunities for the cities in particular to use renewable and low carbon heat energy. New development should be future-proofed to ensure that connections to existing or planned heat networks are taken forward as soon as they are viable.

3.18 CCS provides a major opportunity to reduce emissions from the energy sector, and to establish Scotland as a world leader in this new technology. This has implications for both land use and marine planning. Where feasible, replacement and new large-scale electricity generation, fuelled by gas or coal but designed to operate with CCS technology, will be located at existing generating sites or in areas of industrial activity close to where the majority of the population live. These sites may also provide opportunities to make residual or unused heat available to a heat network servicing homes and businesses.

3.19 The conversion of Peterhead gas-fired power station can pioneer CCS technology and make best use of existing infrastructure, including existing pipelines, and help to establish the area as a hub for CO_2 transport and storage. A further coal-fired power station with CCS is proposed at Grangemouth. There is consent for a new Combined Cycle Gas Turbine Power Station at Cockenzie, and Longannet will require alterations as requirements for CCS increase. To make best use of existing infrastructure, we have identified proposals for **new and replacement facilities at all four sites** as a national development.

3.20 In the long-term, we expect that a CCS network may emerge around the Forth, where there is a particular cluster of industrial activities and energy generation and the potential to link to existing pipeline infrastructure. By building expertise, and ultimately connecting this network beyond our national boundaries, there will be scope for the CCS sector to generate significant employment and business opportunities for Scotland.

3.21 Several of the sites in the National Renewables Infrastructure Plan are located within or close to urban areas. Cities have also been a focus for investment and business development in the energy sector, with head offices focused particularly in Glasgow and Aberdeen, and the Green Investment Bank in Edinburgh. The importance of retaining the economic benefits from investment in the energy sector in Scotland is driving other initiatives within city regions, including the Fife Energy Corridor and Aberdeenshire's Energetica project.

3.22 The cities network includes a number of important industrial areas that are linked with energy production and processing. At Grangemouth, existing infrastructure and industry form a nationally important resource, and there are proposals for enhanced freight facilities which are supported by national development status. There is potential for use of any available excess heat from Grangemouth to provide heat through a district heating network. Co-ordinated action will ensure best use of these assets, and should be accompanied by improvements to the quality of place and environment in the Grangemouth-Falkirk area, contributing to the wider delivery of the Central Scotland Green Network.

Rural communities will benefit from well-planned renewable energy development

3.23 Onshore wind will continue to make a significant contribution to diversification of energy supplies. We do not wish to see wind farm development in our National Parks and National Scenic Areas. Scottish Planning Policy sets out the required approach to spatial frameworks which will guide new wind energy development to appropriate locations, taking into account important features including wild land.

3.24 Local and community ownership and small-scale generation can have a lasting impact on rural Scotland, building business and community resilience and providing alternative sources of income. Collectively, the potential benefits of community energy projects are nationally significant.

3.25 Opportunities for manufacturing and servicing to support the renewable energy sector will continue to grow across rural areas, changing Scotland's economic geography by broadening the distribution of employment and development. Many of the ports identified in the National Renewables Infrastructure Plan, such as Ardersier, Nigg, Highland Deephaven, Montrose, Ayr, Troon and Stranraer, are within rural areas where new employment could have a significant impact on local economies.

3.26 Given the relatively high energy costs for households in rural Scotland, there will be particular benefits from improving the energy efficiency of homes and businesses. The lower density of development in much of the rural area will need new approaches to heating including microgeneration – individual small-scale heat projects can collectively help to reduce fuel costs for homes and businesses. Planning of rural towns and their surrounding areas must support low carbon living, decarbonisation of heat and transportation.

3.27 Plans for updating and decommissioning of elements of the gas transmission network to meet the requirements of the European Union Industrial Emissions Directive, whilst maintaining reliable and affordable supplies, are expected to require further action in the coming years.

3.28 Electricity grid enhancements will facilitate increased renewable electricity generation across Scotland. An updated national development focusing on enhancing the **high voltage transmission network** supports this, and will help to facilitate offshore renewable energy developments. Distribution Network Operators (DNOs) also have plans to make essential upgrades to the distribution networks. This will be vital, particularly for enabling areas that are remote from the main grid to realise their renewable energy potential. The environmental impacts of this type of infrastructure require careful management.

3.29 We recognise that there will be a need to mitigate the environmental impacts of new or upgraded high voltage onshore transmission lines and that there will be a cost associated with this. Mitigation corridors bringing wider benefits to landscape and visual amenity, and which promote green places and active travel networks, may be an effective option in some areas.



3.30 Hydroelectric power is a key asset in the north of Scotland, where there are many opportunities for new 'run of river' hydroelectric development. On a larger scale, increasing the capacity of pumped storage hydroelectricity can complement our ambitions for more renewable energy capacity. Amongst the most advanced plans for this, and one which builds on an existing asset, are the proposals to increase capacity at Cruachan. We have identified new and expanded **pumped storage** facilities, including Cruachan, as a national development. We are also currently exploring the potential role of other storage technologies within the future energy mix.

3.31 At former nuclear generation sites at Dounreay in Caithness, Hunterston A in Ayrshire and Chapelcross in Dumfries and Galloway, site decommissioning is progressing, as are plans for an economically sustainable future for those sites and their wider areas. Similar challenges will arise for areas around Hunterston B and Torness, following future decommissioning.

Coastal and island communities will attract innovation and investment

3.32 Many of the economic opportunities arising from the transition to a low carbon economy are emerging in our coastal areas and islands – including the deployment of onshore and, in particular, offshore renewable energy. Significant areas for wind, wave and tidal energy have been identified inshore, and, in the longer term, new construction methods will open up opportunities for generation in deeper waters much further offshore.

3.33 Two adjacent offshore wind farms in the Outer Moray Firth have been granted consent, representing the world's third largest windfarm with a generating capacity of 1866 MW. We also expect proposals for offshore wind to come forward off the Firths of Tay and Forth. Scottish Ministers are committed to maximising the economic benefits arising from the manufacturing, construction, operations and maintenance activities associated with offshore wind energy developments.

3.34 Major infrastructure investment will provide the marine renewable energy industry with upgraded and new-build port and harbour facilities. We expect to secure manufacturing commitments from major inward investors in the coming years and for planning to enable development in key locations. Many opportunities lie in and around our cities and on the more developed east coast, where ports and harbours already support significant industrial activity. We expect that future infrastructure provision, combined with new business and industrial development, will reinforce the importance of key locations including Hunterston, Peterhead and Cockenzie. We want to see a co-ordinated approach to guide development in these areas – making the most efficient use of resources, reducing environmental impacts and supporting high quality development.

3.35 Marine planning is identifying further opportunities for offshore wind off the west coast and for wave and tidal energy across the north and west coasts and islands. Wave energy offers particular potential off the Western Seaboard, and there is both wave and tidal energy in the Pentland Firth and Orkney Waters Marine Energy Park. It has been estimated that the renewables sector could, by reaching its full potential, bring over 3,500 full-time equivalent jobs to the Western Isles, almost 2,900 to Shetland, and over 4,500 on Orkney by 2030. There is a need to plan for enough homes and infrastructure to accommodate this growth, delivering benefits for existing communities and supporting the creation of high quality places.

3.36 Plans have been approved to redevelop Kishorn in Wester Ross as a manufacturing base to support offshore renewable energy development, and could create up to 2,500 jobs in the area. Projects are being taken forward at several other locations – for example Lyness and Hatston (which both form part of a Low Carbon Enterprise Area) and Coplands Dock, all on the Orkney mainland.

3.37 Significant ports and smaller harbours on the Caithness and Sutherland coast and the Moray coast can support development of the renewable energy sector. Initiatives such as the Nigg Energy Park and Skills Academy and the promotion of Buckie Harbour form an integral part of local economic strategies and are linked with offshore proposals. To the south, further ports and harbours have been identified as having potential for renewables-based investment, including Montrose, Methil, Burntisland, Ayr and Troon.

3.38 Onshore planning has a role to play in helping to realise these ambitious plans. Longer-term improvements to road and rail access to north Caithness are likely to be required as investment and employment in this currently sparsely-populated area grows. Given the resource of the Pentland Firth and Orkney Waters and its pioneering role in marine energy, Wick, Thurso and Scrabster will have an important role to play as centres for investment, hubs for transport and servicing and as places to live and work. Plans for a transhipment container hub within Scapa Flow, which could benefit in the long-term from the opening up of northern trade routes, are supported by the emphasis within our spatial strategy on broadening opportunities for more remote rural communities.

3.39 Careful planning is needed to make best use of the natural and infrastructure assets across our coastal and island areas, and to balance potentially competing uses within often sensitive environments. A strategic approach to mitigating potential impacts on this sensitive environment is likely to form an integral part of marine planning, whilst issues arising in the coastal interface should be reflected in land use plans.

3.40 Strengthening the electricity grid will be essential in unlocking renewable resources, both onshore and offshore. Interconnectors to the Western Isles, Orkney and Shetland and onshore connections for offshore renewables on other parts of the coast are all required to fully realise the potential for diverse and widely distributed renewable energy development.

A flexible strategy for diverse places – areas of co-ordinated action

3.41 The low carbon agenda forms a crucial part of our strategy. We expect development plans to promote a positive, planned approach to providing low carbon infrastructure across Scotland. In spatial terms, the following key locations are of particular significance, and will benefit from co-ordinated action and masterplanning to deliver development in the coming years.

Peterhead is a focus for a number of important projects, including the conversion of the existing power station to provide CCS and proposals for further expansion of the harbour to support this and other opportunities for diversification. Nearby St. Fergus has a potentially nationally important role in supporting an emerging CCS network. The area may also be the landfall for an international North Sea interconnector and could be a focus for onshore connections to support offshore renewable energy. These can support wider aspirations for growth, including the Energetica corridor where energy-driven opportunities are being used to focus investment and promote a place-based approach to development.

Cockenzie, and the Forth coast extending to Torness, is also a potentially important energy hub. There are significant plans for offshore wind to the east of the Firths of Forth and Tay. Proposals for grid connections for these projects are now emerging, requiring undersea cabling connecting with converter stations and substations. We want developers to work together to minimise the number and impacts of these developments by combining infrastructure where possible. Whilst we have safeguarded Cockenzie as a site for future thermal generation, it may present significant opportunities for renewable energy-related investment. We expect developers, East Lothian Council and the key agencies, including Scottish Enterprise to work together to ensure that best use is made of the existing land and infrastructure in this area. Given the particular assets of Cockenzie, if there is insufficient land for competing proposals, we wish to see priority given to those which make best use of this location's assets and which will bring the greatest economic benefits.

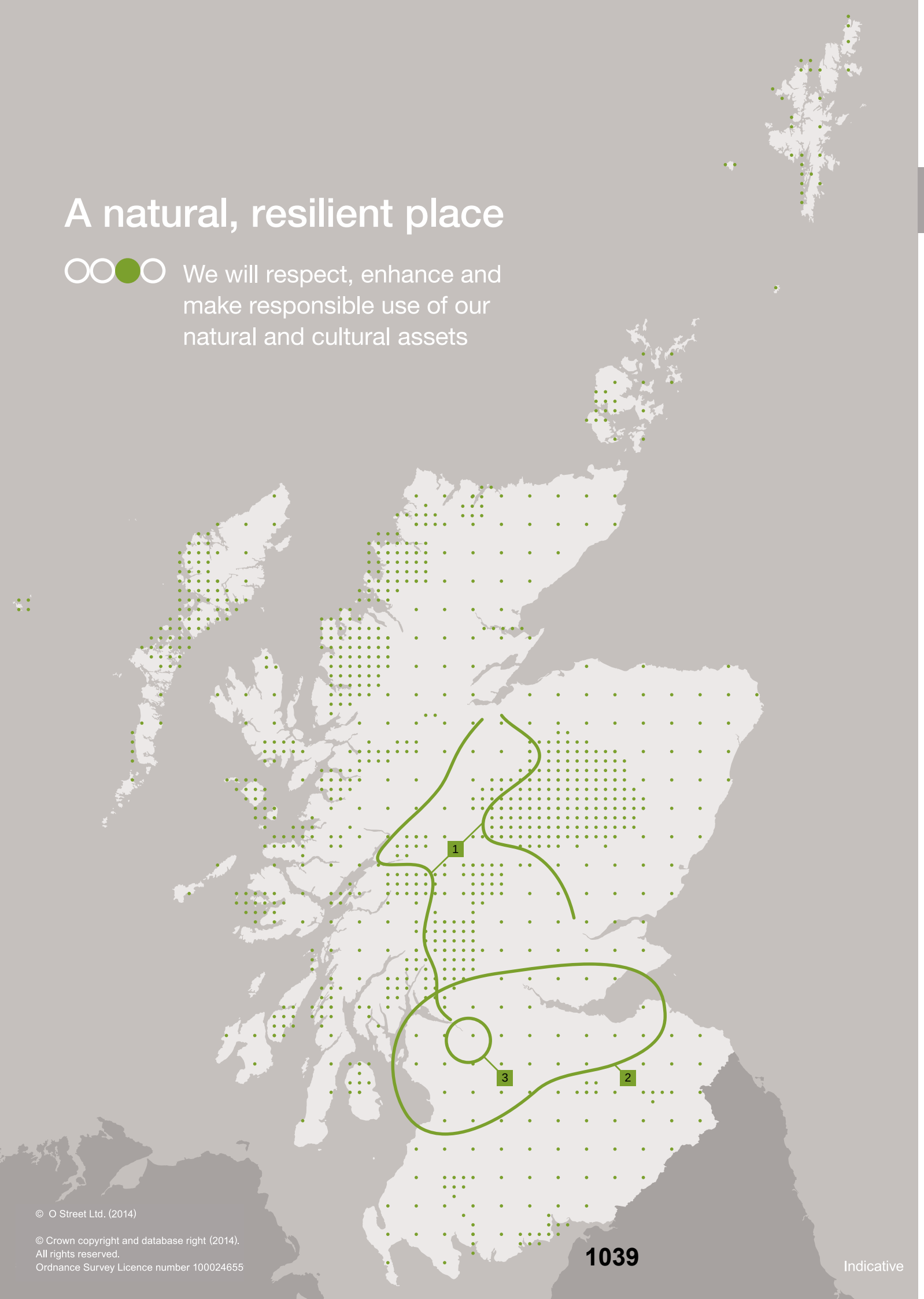
We wish to see co-ordinated action at **Grangemouth**, a nationally important area for infrastructure and investment. The Grangemouth Investment Zone is designated as a national development, along with a new power station with CCS. Together with wider developments on the Firth of Forth, these projects will make a significant contribution to the spatial strategy and support major employment and investment. The area includes many communities who have long lived adjacent to significant industrial activities and it will be important to ensure that their living environment and quality of life are protected and enhanced. A strategic approach will be needed to avoid adverse impacts on the environment of the Forth Estuary. There is considerable potential to support this through the delivery of the Central Scotland Green Network.

Hunterston has long been identified as a priority for industrial and employment use. It benefits from good transport connections, and close proximity to the cities network. North Ayrshire Council and its partners are exploring future options for the site. Links with ongoing regeneration at Irvine through the Irvine Bay Urban Regeneration Company and its Life Sciences Enterprise Area will continue to be important. Future development at Hunterston should aim to make sustainable use of its key assets, including its deep water access. Activities which could align with our national strategy include manufacturing and servicing support for offshore renewable energy development, building on the success of the onshore test facility for offshore wind turbines. There is local support for coastal tourism development in the area, and the site owner, Clydeport, has its own ambitions. Given its existing infrastructure, Hunterston will be an important landfall for strategic grid connections, including the link from Carradale in Argyll and the ISLES Project.

The **Orkney, Pentland Firth and North Caithness** area is an internationally renowned historic and natural environment, with significant future prospects for growth and innovation. There are unparalleled opportunities for marine renewable energy development – generating significant new business and employment opportunities for the surrounding coastal and island communities. The Pentland Firth and Orkney Waters was designated as Scotland's first Marine Energy Park in July 2012. Orkney's European Marine Energy Centre is pioneering wave and tidal energy technologies and is the only centre of its kind in the world. Twelve wave and tidal development schemes are being progressed with a total capacity estimated at 1,600 MW on full deployment. Onshore and offshore grid connections, including an Orkney Islands interconnector, will be essential in fully realising this potential. The emerging Pilot Marine Spatial Plan for this area, together with land use planning, can support delivery of offshore renewables and help to ensure infrastructure and onshore facilities are provided in a co-ordinated way.

A natural, resilient place

We will respect, enhance and make responsible use of our natural and cultural assets



1039

Indicative

Detail key

Environment

1 Scenic Corridors

National Scenic Areas, National Parks and Biosphere Reserves

National Developments

2 Central Scotland Green Network

3 Metropolitan Glasgow Strategic Drainage Partnership

National Cycling and Walking Network

4. A natural, resilient place

We will respect, enhance and make responsible use of our natural and cultural assets.

Scotland today

4.1 Scotland has a world-class environment – our nature and culture are inextricably linked.

4.2 Our principal physical asset is our land. Our most productive soils extend along the east coast and across the Central Belt into Ayrshire. Peatlands are an important habitat for wildlife and a very significant carbon store, containing 1,600 million tonnes of the 3,000 million tonnes in all Scottish soils. Our mineral resources support the construction and energy sectors. Woodlands and forestry are an economic resource, as well as an environmental asset.

4.3 Scotland has abundant water resources, including iconic lochs and river networks and an extensive canal network, which contribute to the quality and distinctiveness of our environment. Clean, high quality drinking water is vital for quality of life and the success of our food and drink sector.

4.4 Scotland's landscapes are spectacular, contributing to our quality of life, our national identity and the visitor economy. Landscape quality is found across Scotland and all landscapes support place-making. National Scenic Areas and National Parks attract many visitors and reinforce our international image. We also want to continue our strong protection for our wildest landscapes – wild land is a nationally important asset. Closer to settlements landscapes have an important role to play in sustaining local distinctiveness and cultural identity, and in supporting health and well-being.



4.5 Biodiversity in Scotland is rich and varied. We have numerous internationally and nationally important habitats and species with a diverse network of protected sites, concentrated particularly in the north and west of Scotland, along our coasts and estuaries and in our upland areas. However, biodiversity is not just confined to our rural areas – our built environment, key infrastructure corridors and the greenspaces within our cities and towns also provide important habitats, and can together contribute to a wider national ecological network. Our marine wildlife is rich and varied. Geodiversity underpins our landscapes and provides important ecosystem services.

4.6 The historic environment is an integral part of our well-being and cultural identity. Scotland currently has five World Heritage Sites, and many historic cities, towns and villages with a rich variety of buildings and townscapes. Our archaeological sites reflect our long history of human settlement.

Scotland tomorrow

4.7 We have long sought to protect Scotland's environment, recognising that it is a dynamic resource rather than a fixed asset. To better reflect this, more proactive and innovative environmental stewardship is required. The pressing challenge of climate change means that our action on the environment must continue to evolve, strengthening our longer-term resilience. A planned approach to development helps to strike the right balance between safeguarding assets which are irreplaceable, and facilitating change in a sustainable way. We must work with, not against, our environment to maintain and further strengthen its contribution to society.

4.8 All of our resources, including our waste, require sustainable management to deliver on our climate change commitments and realise opportunities for business and employment. A decentralised network of processing facilities will be needed to achieve our vision for a circular economy where waste is recognised as an opportunity, not a burden. We expect planning authorities to work with the market to identify viable solutions and leave a sustainable legacy for future generations. Working together with the Zero Waste Plan, the Scottish Planning Policy provides a policy framework for achieving this within development planning and management.



4.9 The Scottish Government's Land Use Strategy sets out key principles for the use and management of Scotland's land. It emphasises that land use should deliver multiple benefits, and encourages us to make best use of assets to support primary activities including food production, flood management and carbon storage. To achieve this, we must recognize that the environment is a functioning ecosystem and take into account the opportunity costs arising from poor decisions on land use.

4.10 The 2020 Challenge for Scotland's Biodiversity aims to promote and enhance Scotland's nature, and to better connect people with the natural world. Maintaining our natural capacity to provide services makes economic sense – to help achieve this, biodiversity in Scotland needs to be viewed at a landscape scale.

4.11 Although there is great scope to further develop our tourism sector, our environment is more than a recreational resource. We will also need construction materials and energy minerals to support our ambition for diversifying the energy mix, and past extraction sites will require restoration. Climate change means that sustainable management of the water environment is not just a national opportunity, but a global issue. Innovation and investment will be required to develop our reputation as a Hydro Nation.

4.12 Scotland's environmental agenda is not only about playing to our strengths. In the coming years, we want to see a step change in environmental quality, especially in places with long-standing disadvantages arising from a legacy of past industrial activity. Vacant and derelict land is a continuing challenge. We are committed to reversing the decline of some habitats and species and regulating environmental pollution. Environmental quality is central to our health and well-being. Green infrastructure and improved access and education have a key role to play in building stronger communities. Our spatial strategy identifies where development needs to be balanced with a strategic approach to environmental enhancement.



Spatial priorities for change

Quality of life and resilience in city regions will be supported by green infrastructure

4.13 Natural and cultural assets in and around urban areas have a key role to play in supporting sustainable growth, maintaining distinctiveness and promoting quality of life. We expect development plans to identify green networks in all of the city regions. But for the next five years, our strategy continues to prioritise environmental improvements in the Central Belt, with the **Central Scotland Green Network** (CSGN) now helping to make this area more attractive to investors and residents. It remains a national development with a broad purpose and scope to achieve multiple benefits as it increasingly delivers transformational projects on the ground. Remediation of derelict land, prioritised action in disadvantaged communities and active travel (walking and cycling) should be the priorities for the CSGN Trust and others during the lifetime of NPF3.

4.14 A more integrated approach and 'greening' of the urban environment through green infrastructure and retrofitting can improve quality of life within our towns and cities, alongside enhancing their longer-term environmental performance and climate resilience.

4.15 Creating walkable places, with well-designed streets that link our open spaces and wider active travel networks, can deliver better environments for pedestrians and cyclists in town and city centres, and improve health and well-being. We need to plan now for the kind of change to urban environments which is needed to support the vision in the Cycling Action Plan for Scotland (CAPS), and the National Walking Strategy, for example by rolling out 20mph zones to more residential and shopping streets and further application of the principles set out in Designing Streets. Our vision is for pedestrian and cyclist friendly settlements and neighbourhoods, to be connected by a coherent national walking and cycling network, making active travel a much more attractive and practical option for both everyday use and recreation. A planned approach will be essential if we are to achieve our vision for 10% of all journeys by cycle safely and effectively.



4.16 Our urban infrastructure will need to change to adapt to the impacts of climate change. The coastal location of many of Scotland's cities means that land use change may be needed to achieve more sustainable and resilient patterns of development in the long-term. In particular, water management and flooding issues will become increasingly important. We have designated the **Metropolitan Glasgow Strategic Drainage Partnership** as a national development, reflecting its role as an exemplar of sustainable water management at a catchment scale. The canals network supports this initiative and can make a wider contribution to regeneration, particularly across the Central Belt. Both have strong links to the delivery of the Central Scotland Green Network.

4.17 Well-designed green infrastructure can support regeneration efforts within our towns and cities, and improved attractiveness and environmental performance can act as a catalyst for economic investment. Temporary uses for vacant and derelict land, for example for community growing or supporting biodiversity, can also help to attract investment in specific sites or wider areas. Whilst re-use of vacant land remains a priority, in some cases greening initiatives could be the best permanent solutions for sites where built development is unrealistic for cost or other reasons.

4.18 We need to manage change on the urban edge and work to improve productivity and the quality of the landscape setting of our towns and cities. Much of our prime agricultural land, an important and finite resource, is located close to cities, in particular those on the east coast where demand for development land is greatest. This, together with sustainable transport and land for food production within towns and cities, will become increasingly important as we support more localised food distribution networks, reduce emissions and build longer-term resilience.

Rural areas will provide important ecosystem services

4.19 Scotland's rural areas provide many of our natural resources, and help to sustain the ecosystem services upon which our quality of life depends. Scotland's 2020 Challenge for Biodiversity aims to develop a national ecological network over time, and there is an opportunity to link this with green networks in and around our towns and cities. Benefits will be achieved by taking a long-term, strategic approach to environmental management and enhancement. A landscape-scale approach to environmental planning and management should address the decline in some ecosystem services by prioritising action across river catchments, as well as in and around our towns and cities. This can play a long-term role in sustaining diversity and delivering multiple benefits, not only for wildlife but also by providing sustainable food, fibre and fuel.

4.20 We expect further integrated environmental initiatives to emerge over time, drawing on the experience of the Land Use Strategy's two pilot projects. For NPF3, priority lies in taking forward environmental mitigation and enhancement measures in the Firth of Forth, with strong links to be drawn with the Central Scotland Green Network.

4.21 We want to see strengthened links between people and the land. Across Scotland, rural areas will play an important role in supporting the quality of life of all our people, including through renewed interest in hutting and increased community ownership of rural assets.

4.22 Rural areas have a particular role to play in building Scotland's long-term resilience to climate change, and reducing our national greenhouse gas emissions. Peatland restoration is planned on a large scale. The National Peatland Plan will guide planning and decision-making to ensure we protect and enhance the multiple benefits of this internationally significant resource.

4.23 We aim to increase the rate of woodland creation to deliver 100,000 hectares of new woodland over the next 10 years, and have pledged to plant 100 million trees by 2015. Future reviews will assess what further woodland expansion is required in the 2020s to ensure that we meet emissions reduction targets and wider land use objectives. Biomass has a growing role to play in providing heat. As our forests mature, there will be a need to consider timber transport networks and requirements for processing facilities.

4.24 Given its long-term perspective, planning is well placed to deliver adaptation measures that build the resilience of our homes, businesses and infrastructure to our changing climate.

4.25 Adaptation requirements will need to be wide ranging. Catchment-scale flood risk management will become more important in response to changing weather patterns. Planning authorities have a role to play within cross-boundary and multi-sectoral working. Sustainable land management and ecosystems enhancement provide opportunities for adaptation that delivers benefits for communities, the economy and the wider environment. As they emerge, we expect flood risk management plans to become an integral part of strategic and local development planning. Changing water supplies and water quality issues, coastal erosion and increased vulnerability of the historic building stock will also need to be factored into planning decisions over the longer term.

4.26 Reserves of coal bed methane in the Scottish midland valley (Central Belt) could contribute to secure energy supplies in the medium term but will require careful planning to avoid negative environmental and community impacts from extraction activities. A framework for this is set out in the Scottish Planning Policy. There is also a continuing need to actively address the impacts of past uses of the land, including minerals extraction, through restoration and enhancement. Poor management of restoration obligations has left a legacy of opencast coal sites in South Lanarkshire, East Ayrshire, Fife and elsewhere, requiring intervention to ensure that they are properly restored. The Scottish Mines Restoration Trust has been established to help communities and other stakeholders involved in restoring open-cast coal sites across Scotland to bring together viable restoration plans.

4.27 Rural Scotland provides significant opportunities for tourism, outdoor sports and recreation, as reflected in VisitScotland's National Tourism Development Framework, which development plans and planning decisions should support. Scotland's two National Parks are exemplars of sustainable development and growth based on environmental assets and natural resources. World Heritage Sites, geoparks, biosphere reserves and dark skies parks are distinctive assets, whilst forests and key areas for outdoor sports, such as Lochaber and the Scottish Borders, are already important centres for outdoor activities. Closer to the cities network, industrial heritage and the canals network provide opportunities for attracting visitors and are important, place-distinctive resources for communities.

4.28 A **national long distance walking and cycling network** will link key outdoor tourism locations across the country and will be an important tourism asset in its own right. As a result, we have identified it as a national development. Along the length of the network of routes there will be opportunities to develop shared infrastructure to further enhance the tourism offering. Added benefits for rural communities can also be secured through connections with local core path networks to support recreation and active travel.

A flexible strategy for diverse places – Scotland's National Parks

Scotland's two National Parks – Cairngorms, and Loch Lomond and The Trossachs – are special places. National Park Partnership Plans provide the strategic framework for co-ordinated delivery of the four National Park aims, supporting their role as exemplars of a partnership approach to increasing sustainable economic growth and providing multiple benefits for residents, visitors and the wider Scottish economy.

Our National Parks are sustainable, successful places. We want to see positive planning and innovation continue to strengthen communities, encourage investment, support tourism, deliver affordable rural housing, and encourage high quality placemaking and visitor experiences. Both parks can be low carbon places, with potential for increased use of microgeneration and to support the biomass supply chain. They are also connected places, with programmed improvements to key routes including the A82 and A9, the scenic routes initiative, the development of the National Walking and Cycling Network, and other path network improvements.

Above all, our National Parks are natural, resilient places. We expect their exceptional environmental quality, comprising some of the very best of Scotland's nature and landscapes, to continue to form the foundations of their development plans.

The coast and islands will capitalise on their world-class environment

4.29 The environment of our coastal areas, on land and at sea, is an outstanding, internationally important resource. These natural assets support quality of life and underpin important economic sectors like tourism, outdoor recreation and food and drink.

4.30 The marine environment, and its natural resources, are central to this. National and Regional Marine Plans will provide policies to achieve sustainable development, protection and, where appropriate, enhancement of the marine area. Onshore, land management practices, including crofting in the north and west and on the islands, help to sustain unique cultural and natural environments.

4.31 As climate change impacts on Scotland's coastline, there will be a need to address the long-term resilience of some island and coastal communities.

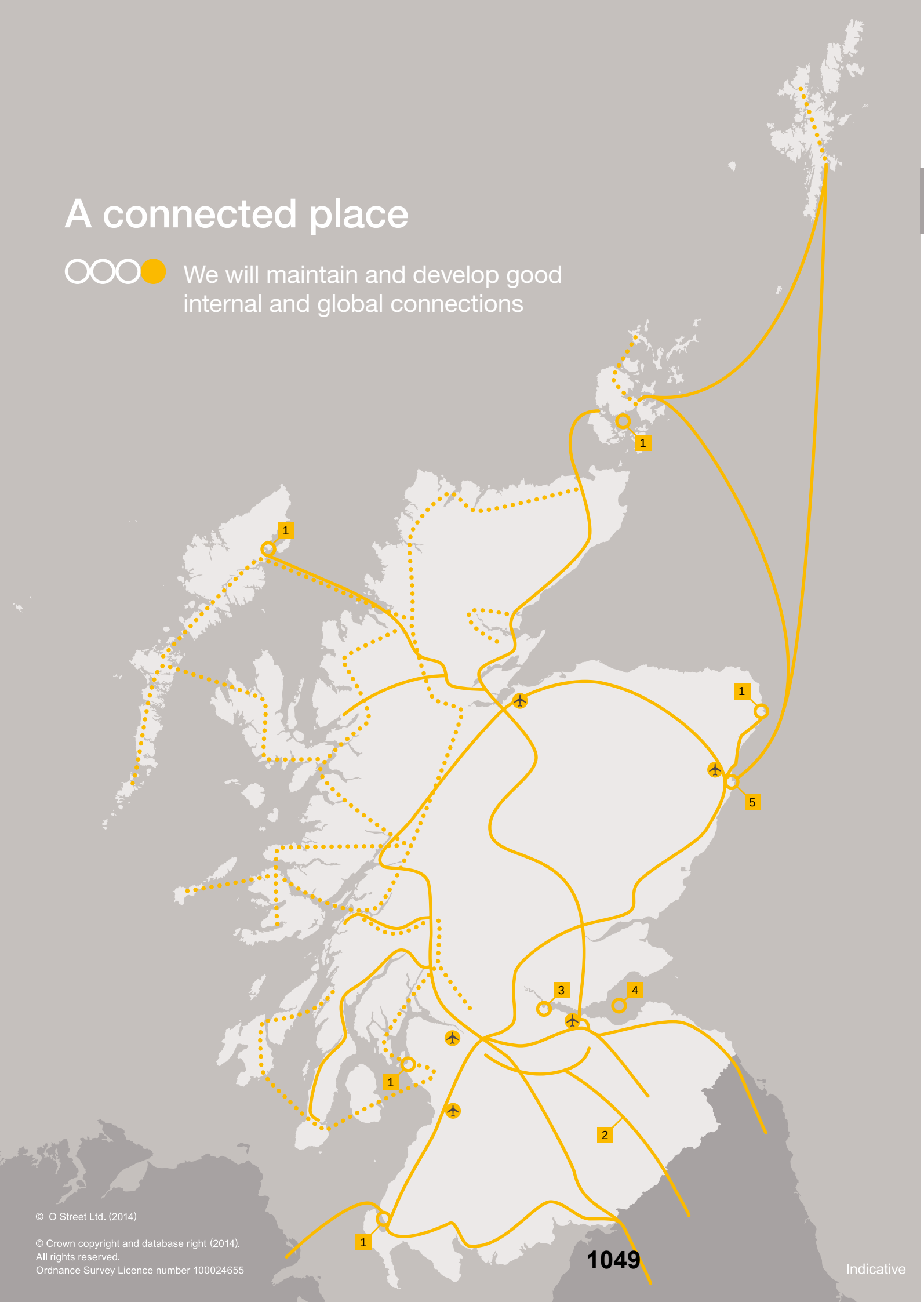
4.32 Outdoor recreation is important throughout the coastal and marine area, with the West Highlands being a particular asset. Sailing is worth around £100 million to the Scottish economy and is a growing sector. The west coast and the Hebridean islands are a main focus for development, but there is also potential in the north and on the east coast. Cruise activity is also expected to develop. This will bring opportunities for ports from Lerwick and Orkney, to Portree and Greenock, and may require further investment to accommodate larger vessels in the future. The Crinan and Caledonian canals are important assets, as are the World Heritage Sites in Orkney and St Kilda – and those included on the tentative list of sites for nomination in Caithness and Shetland. Many of the special mountain and coastal landscapes in this part of Scotland are identified as National Scenic Areas.

4.33 Further south, there is potential to revive and re-invent the tourism tradition on the Clyde coast, to support regeneration and provide new opportunities for coastal and island communities by building on the area's assets and rich cultural heritage. On the east coast, tourism and recreation opportunities are rich and varied, from wildlife watching, to links golf courses, expansive beaches, and historic buildings and settlements.

4.34 Our proposals for a national network of long-distance routes for walking and cycling, linked to local community networks, will support enjoyment of our coasts and island areas. The network has potential to improve and link a wide range of routes, including the Hebridean Way, the Kintyre Way, the Fife Coastal Path and paths along the Solway coast.

A connected place

We will maintain and develop good internal and global connections



Indicative

Detail key

Movement

1 Key ports
- Cairnryan
- Peterhead
- Stornoway
- Scapa Flow
- Hunterston

Key transport routes

National Developments

2 High Speed Rail

Strategic Airport Enhancements: Inverness, Aberdeen, Edinburgh, Glasgow, Prestwick

3 Grangemouth Investment Zone

4 Freight on the Forth

5 Aberdeen Harbour

A Digital Fibre Network

5. A connected place

We will maintain and develop good internal and global connections.

Scotland today

5.1 Scotland's location and its unique geography mean that connections, within our country and with the rest of the world, are crucial. In the 21st-century global connectivity and access to wider networks have become increasingly important.

5.2 The Scottish Government's Infrastructure Investment Plan sets out our programme for investment in all modes of transport and other infrastructure. It emphasises the importance of place and aims to ensure that all of Scotland derives benefit from our infrastructure investment, maximising potential and reducing disparities. The Strategic Transport Projects Review provides the evidence base for much of this transport investment. In addition to these major capital investments, other projects can help to deliver our aspiration for sustainable economic growth. Our strategy complements the Infrastructure Investment Plan – in turn future reviews of infrastructure investment will take into account the longer term development strategy provided by NPF3.

5.3 Our road network is extensive but requires maintenance and in some cases upgrading to provide sufficient capacity, reduce congestion and address safety issues. In recent years a number of major projects have been taken forward, including the Queensferry Crossing, to maintain nationally crucial links.

5.4 Our rail network continues to improve – progress has been made on electrification and more work is planned on key routes, including between Edinburgh and Glasgow. Ports and harbours, as well as key rail freight and passenger terminals, are crucial gateways to Scotland. We are working with the private sector to promote new international routes and services to support our Economic Strategy and gain access to key markets.

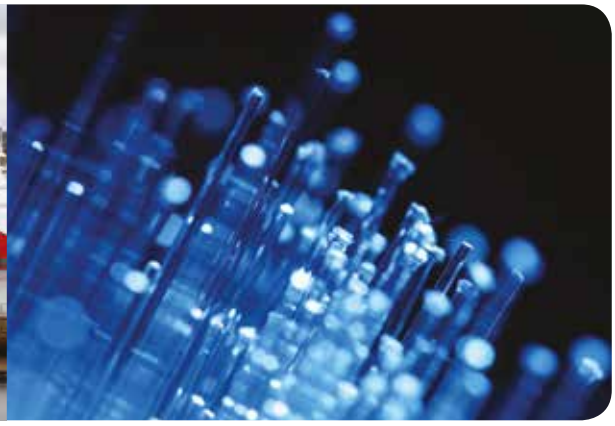
5.5 However, greenhouse gas emissions from the transport sector remain high, generating just under a quarter of Scotland's total emissions. Cycling still only accounts for around 1-2% of our total travel, and car travel continues to rise. We want to significantly increase levels of everyday cycling and walking within and between our settlements, with Action Plans for both Walking and Cycling. The latter sets a vision for of 10% of journeys by bike by 2020 – our substantially increased funding will help to ensure that this vision is realised. We expect action on walking and cycling to extend throughout both urban and rural areas.

5.6 Providing infrastructure to facilitate greater use of low carbon fuel options will be essential in reducing transport sector emissions and to realise our transformational vision of almost complete decarbonisation of road transport by 2050. Through our work with local authorities and other partners there are already approximately 500 electric vehicle charging points located across the whole of Scotland, of which around 300 are publicly accessible as part of the 'ChargePlace Scotland' network. This network, which covers domestic, workplace and en-route installations, will continue to develop to meet the needs of the emerging electric vehicle market.

5.7 In addition, we support the future development of a network of alternative fuelling stations, for example for hydrogen fuel cell electric vehicles, making increased use of low carbon vehicles a viable proposition.

5.8 Connectivity is not just about enabling physical movement, but also virtual links. High quality mobile and fixed broadband connections have become essential to support communities and business development in both rural and urban areas. At present, there remains a significant gap between our most and least connected areas, with digital access being considerably better in more accessible urban areas. Many parts of rural Scotland have little or no connection and require public investment to rebalance the distribution of infrastructure.

5.9 Our Infrastructure Investment Plan aims to accelerate the roll out of next generation broadband to all parts of rural Scotland over the next five years, to support public service provision as well as investment in the digital economy and rural economic growth. Work is progressing to develop new fibre links connecting rural areas, with an expectation of fibre links to 95% of premises Scotland wide by 2017/18. Opportunities for smarter towns and cities are also being explored.



Scotland tomorrow

5.10 Our ability to attract international investment and to build links to global markets form an important part of the Scottish Government Economic Strategy – our target is to increase exports by 50% by 2017 and exposure to international trade will promote productivity and competition within Scottish markets. In the longer term, Scotland can capitalise on its position of the edge of Europe, strategically located to gain from the evolution of world trade routes as the North East Passage opens up. To achieve this, our international and cross-border physical, economic and cultural connections will be crucial.

5.11 Over the coming years, there will be a need for further improvements to ensure that we get best value from our transport infrastructure. Whilst investment programmes are already in place, spatial priorities may change over the longer term.

5.12 Many of our major road and rail infrastructure improvements will be realised in the next two decades, strengthening connections between cities and sustaining lifeline rural links. More efficient rail services and reduced road congestion will support productivity. Our ambition to significantly grow Scotland's exports means that strengthening of international gateways and freight networks will be essential.

5.13 Our long-term ambition is a largely decarbonised transport sector in Scotland, and advances will bring about a revolution in the way we travel. We will look to use alternative fuel sources for trains and vehicles. Significant levels of behavioural change will also be required to fulfil our ambition. Planning will have a role to play in modernising our infrastructure and supporting this change and development strategies should be complemented by improved connections across all transport modes.

5.14 As a key part of the low carbon agenda, we will encourage local authorities to develop at least one exemplar walking- and cycling-friendly settlement to demonstrate how active travel networks can be significantly improved in line with meeting our vision for increased cycling. These settlements, as well as wider core path networks, will act as key nodes on the national walking and cycling network.

5.15 To further reduce the need to travel and ensure continuing economic competitiveness, we will see a step change in digital connectivity in the coming years, supporting our broader aspirations for growth across the country. This will require significant investment in digital infrastructure to ensure coverage extends to our most remote, but asset-rich, rural and island communities. As well as providing new infrastructure to connect existing areas, future developments will build in digital connectivity as a matter of course. We are extending permitted development rights to facilitate this.

Spatial priorities for change

Cities will be better connected and provide a gateway to the rest of the world

5.16 Strengthened digital infrastructure will support our aspirations for more sustainable cities which attract new business. We can expect cities to become significantly 'smarter' in the next few years, using population density and shared infrastructure to further increase access to high performing digital services.

5.17 We aim to have better connected cities – better connected to each other, better connections within each of their regions – and for these transport networks to be progressively decarbonised. City regions are the hubs for the majority of our international connections. We want to make rail travel between cities quicker than by car, and to complete electrification of the railway lines between cities.

5.18 In the short term, Phase 1 of the Edinburgh to Glasgow Improvements Programme will reduce journey times across the Central Belt. Beyond the mid-2020s, there is a clear need to further improve capacity between Edinburgh and Glasgow with consequent opportunities to reduce journey times even further and that need could be met either by proceeding with EGIP Phase 2 or by constructing a fast rail connection between Edinburgh and Glasgow as the first phase in a longer-term plan for a **High Speed Rail** connection to the rest of the UK. This will provide benefits by freeing up capacity on the wider Scottish rail network.

5.19 The Infrastructure Investment Plan makes a commitment to improving rail services and reducing journey time between Inverness and Aberdeen, and from both Aberdeen and Inverness to the Central Belt.

5.20 The road network has an essential role to play in connecting cities by car, public transport and active travel. Construction of the Forth Replacement Crossing (Queensferry Crossing) will be completed by 2016 and the associated public transport strategy will be implemented by the relevant partners. Further improvements will be made to the motorway network, including capacity improvements to the M8, M73 and M74. We will complete dualling of the trunk roads between cities, with dualling of the A9 from Perth to Inverness complete by 2025 and dualling of the A96 from Inverness to Aberdeen by 2030. In addition, the Scottish Government's Infrastructure Investment Plan includes measures to improve the safety, capacity and performance of the strategic inter-city road network.

5.21 Regional transport partnerships have a crucial role to play in improving active travel and transport networks and services within each of the city regions. Edinburgh Trams services are now operational. In Glasgow, we are proceeding with modernisation of the subway, and Fastlink will provide rapid bus transport between the city centre and key locations including the SECC and the new South Glasgow Hospital. By 2018, the Aberdeen Western Peripheral Route and dualling of the A90 between Balmedie and Tipperty will significantly improve transport in and around Aberdeen. Strategic park and ride facilities will play an important role in providing public transport access to city centres. Across the country, we are improving station facilities, including a new station for Dundee and refurbishment of the main stations in Glasgow and Edinburgh.

5.22 Many of Scotland's international gateways are located in or close to the city regions. By air, rail and sea, these gateways ensure Scotland remains an outward-looking country which is well-connected and open for business.

5.23 Given Scotland's location in Europe and the importance of wider global markets, maintaining and enhancing air connectivity is essential. Scotland's major airports provide a gateway to Scotland and in particular to the cities network. We support enhancement of Scotland's **five main airports** as a national development. These gateways are important locations for investment – the national development includes business-related development around Glasgow and Prestwick Airports, and reconfiguration of land use around Edinburgh Airport to accommodate future expansion, relocate the Royal Highland Showground and support the creation of an International Business Gateway to the west of Edinburgh.

5.24 Whilst we continue to support investment in our air connections, we recognise the challenge that this creates for our ongoing work to address climate change. Scotland is one of only a few countries to have included emissions from aviation into our greenhouse gas inventory. This will require wider policies and proposals to go further in reducing emissions.

5.25 Freight transport networks are critical to our economy. Our transport plans will benefit the sector through continued investment in infrastructure. This will help to reduce congestion and encourage modal shift where this is practical and feasible. We will continue to work with industry to ensure efficiency of road movements from both a business and carbon reduction perspective. Over the long-term, wider efforts to increase the use of public transport, and promote walking and cycling for everyday journeys will help to reduce congestion arising from personal travel and benefit the freight sector.



5.26 Rail freight and short-sea shipping have potential to reduce the carbon footprint of our freight sector. Rail freight networks are likely to become increasingly important as our export potential grows alongside our transition to a low carbon economy. There are a number of important interchanges in the Central Belt, including Grangemouth, Coatbridge and Mossend. We will work with the rail freight sector to develop a more strategic view of future development priorities for rail freight within the broader operational context of the network as a whole.

5.27 Whilst Scotland's maritime freight-handling capacity services both the Atlantic and North Sea routes, most movement comes from the North Sea. We must ensure that we have the right infrastructure in place to support these key international connections. Our ambitions to significantly increase exports mean that we should continue to plan for development at strategically important locations. The **Grangemouth Investment Zone** is therefore designated as a national development, as is additional **Freight Capacity on the Forth** where consenting of new freight handling facilities at Rosyth is progressing. Rail freight connections to and from these facilities will be considered as an integral part of the national developments.

5.28 Further north, Aberdeen Harbour serves as a multi-functional seaport, providing berthing and handling facilities for passengers, freight, oil and gas and other sectors. Despite the capacity constraints of the current harbour, this is one of Scotland's key gateways. Expansion of **Aberdeen Harbour**, including improved intermodal connections by road, is identified as a national development.

Rural areas will be more accessible

5.29 Our plans for investment in digital infrastructure will play a key role in improving competitiveness, ensuring that there is no digital divide between rural and urban Scotland. Our 'Digital Scotland Superfast Broadband Programme' is delivering £410 million of public and private investment in parts of Scotland, including rural, semi-rural and suburban areas, that would not otherwise be served commercially. We are also exploring delivery models to extend mobile services to some of our hardest to reach areas.

5.30 Reliance on the car will remain important in rural Scotland, and so providing infrastructure to facilitate greater use of low carbon fuel options, such as the ongoing installation of electric vehicle charging points across the country, will be particularly useful in reducing transport sector emissions.

5.31 The rural south has a key role to play as a gateway to Scotland and we will continue with investment in strategic corridors to support this. Improvements to the A77 and A75 have been progressed and further targeted interventions are planned, supporting the role of Cairnryan as a key gateway whilst improving the connections between rural communities across the south west of Scotland. The Borders Railway, to be completed by 2015, will provide a new public transport route into the south east of Scotland.

5.32 The dualling of the A9 between Perth and Inverness and improvements to the Highland Mainline will provide a step change in accessibility across the rural north, increase business confidence and support investment throughout the region. Improvements to the rail network and dualling of the A96 between Inverness and Aberdeen, including bypasses of towns along the route, will provide opportunities to link the energy sectors in the two city regions as well as improving the quality of place within the towns. Improvements being developed for the A82 will support business and investment in the rural north and west. We will continue to ensure the A95 accommodates the needs of our flourishing whisky industry.

5.33 To achieve a step change in active travel, walking and cycling networks will continue to develop through core path plans and local community networks, connecting where possible with the national long distance network. This network will bring together urban and rural Scotland, to promote a significant increase in active travel as well as broadening recreational access to the countryside for residents and visitors alike.

5.34 For visitors, the journey can become an experience in its own right and we will pilot scenic route projects on the key tourist routes, exploring opportunities to build-in high quality design to infrastructure improvements. The programme is expected to be extended to other routes, including public transport corridors, in the longer term.

We will reduce the disadvantage of distance for our coastal and island communities

5.35 Improved digital infrastructure, both fixed and mobile, is essential to support sustainable economic growth and better connect people and communities. We have identified a **digital fibre network** linking our most peripheral communities as a national development. This will bring particular benefits in the north and west coasts and islands, given their relatively dispersed population and the potential to support population and economic growth through increased home and remote working.

5.36 Air and ferry services will continue to play an essential role – as a lifeline service but also supporting economic activity and the delivery of public services.

5.37 We anticipate longer-term opportunities arising from the opening up of new shipping routes across the Arctic. Several deep water assets, including at Scapa Flow, Stornoway, Shetland and in the Moray Firth, may present opportunities for new or expanded ports to take advantage of this and of wider opportunities, including for tourism development. Further south, Cairnryan remains a key gateway to Ireland.

5.38 As with rural areas, providing infrastructure to facilitate greater use of low carbon fuel options is particularly important in more car dependent coastal and island areas. Some areas, such as Islay and the Western Isles, have used innovative approaches to stimulate this, and there are likely to be further opportunities within island communities where travel range is relatively restricted. Ferry terminals provide a useful focal point for charging infrastructure, and electric vehicle rapid charging points are already available or planned at ferry terminals in the Inner Hebrides, the Western Isles and the Pentland Firth.

5.39 Strategic road and rail connections serve the north and west coast directly, and also the ports which connect to the islands by ferry. Commissioned improvements to the A82 and A9 will strengthen these connections, and we are working closely with Argyll and Bute Council to finalise the trunking of the the A83 between Kennacraig and Campbeltown. In the longer term, improvements to the A85, A87, A830, A835 and A828 will also help to support expected development in some of our more remote rural and coastal communities.

6. Delivery

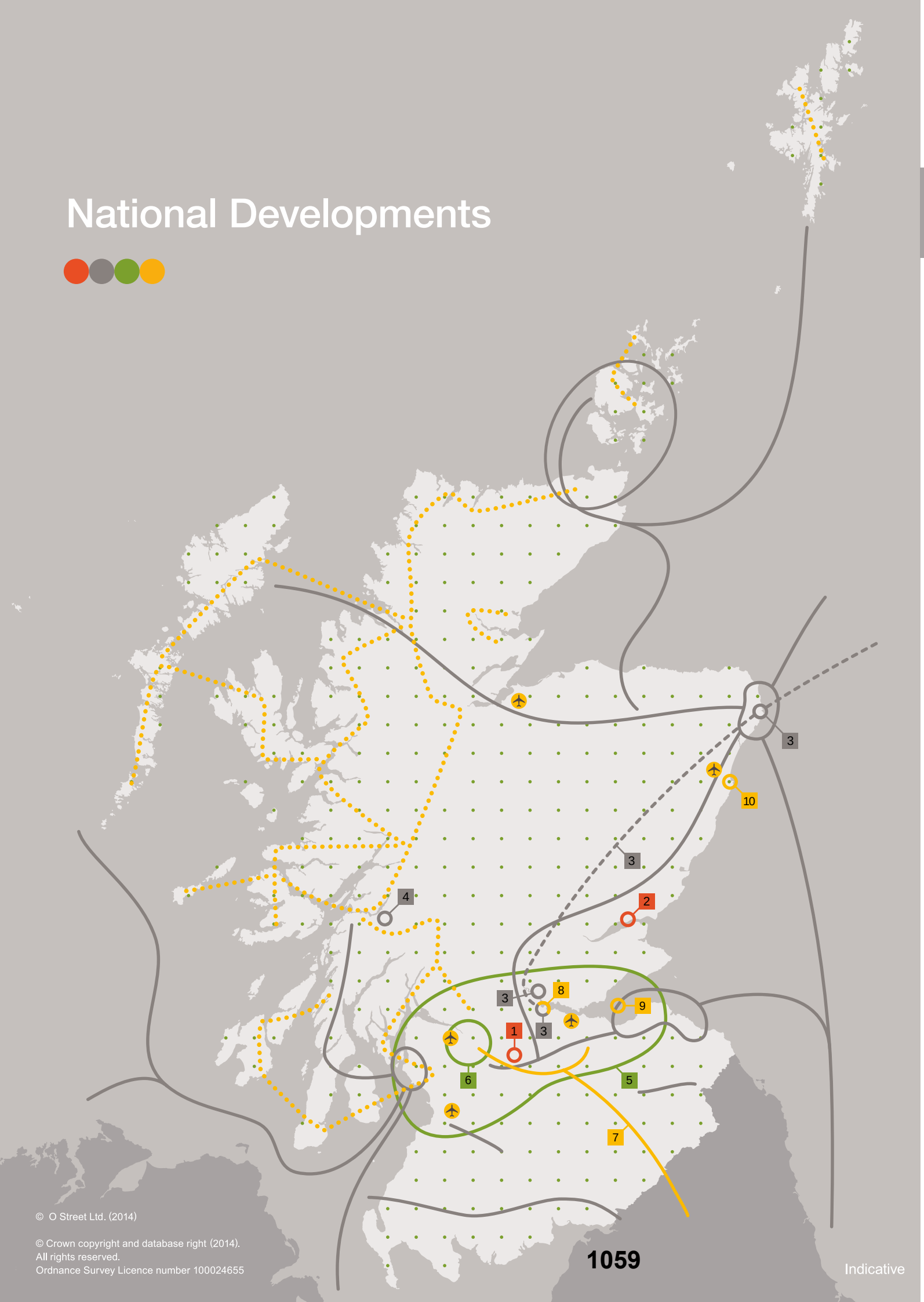
National developments – outcomes

6.1 We have identified 14 national developments that are needed to help to deliver our spatial strategy. Whilst national development status establishes the need for a project, it does not grant development consent. Planning permission and any other necessary assessments and consents will still be required at the consenting stage. Mitigation set out in the Action Programme should inform subsequent planning processes and be applied as appropriate to avoid or reduce environmental effects and demonstrate no adverse effects on the integrity of European protected sites.

6.2 The detailed description of the components of each national development in Annex A will assist planning and other consenting authorities in determining whether national development status applies to a particular proposal.

6.3 National developments will be delivered by a range of public and private sector organisations, and inclusion in NPF3 does not imply funding on the part of the Scottish Government or its agencies. However, to support their delivery, priorities identified in NPF3 will be taken into account when future spending programmes are developed or reviewed.

National Developments



Detail key

National Developments

- 1 Ravenscraig
- 2 Dundee Waterfront
- 3 Carbon Capture and Storage (CCS) Network and Thermal Generation
- A High Voltage Energy Transmission Network
- 4 Pumped storage
- 5 Central Scotland Green Network
- 6 Metropolitan Glasgow Strategic Drainage Partnership
- A National Long Distance Cycling and Walking Network
- 7 High Speed Rail
- Strategic Airport Enhancements
- 8 Grangemouth Investment Zone
- 9 Freight on the Forth
- 10 Aberdeen Harbour
- A Digital Fibre Network

6.4 Our strategy for a **successful, sustainable place** highlights the particular scope for the cities network to progress our economic agenda. We need to create opportunities for all of Scotland to flourish, including areas which have, in the past, experienced decline. To support this, we believe there is a need for two national developments to be taken forward:

1. Ravenscraig is one of the largest areas of vacant and derelict land in Europe. National development status will give this project renewed impetus, within the lifetime of NPF3. Redevelopment of this site for a range of uses will make a significant contribution to addressing concentrations of vacant and derelict land in Central Scotland. A masterplanned approach provides an opportunity to build in low carbon and environmental infrastructure, including heat networks, zero carbon buildings, digital connectivity, sustainable drainage solutions and open space. We expect the outcome to be a sustainable settlement for the 21st century, with a new town centre, jobs, facilities and homes, and sustainable transport connections. This will deliver a high quality of life and access to opportunities for new residents and nearby communities alike.

2. Dundee Waterfront demonstrates the outcomes that city planning can achieve when it is ambitious and well executed. This development is progressing rapidly. Planning authorities across the country can look to it as an example of effective delivery. Plans for the waterfront support several of our objectives, including: regeneration, high quality placemaking, improvements to the public realm, better connections, and support for the low carbon economy. We look forward to seeing further significant progress within the lifetime of NPF3.

6.5 Our strategy for a **low carbon place** reflects the significant opportunities for growth arising from our natural energy resources. To achieve our ambition, we need a range of infrastructure, including new developments and refurbishment or enhancement of existing facilities. Delivery will be assisted by three national developments:

3. A Carbon Capture and Storage (CCS) Network and Thermal Generation is required to maintain the 2.5 GW of thermal generation we require, whilst also reducing greenhouse gas emissions from the energy sector. This national development reflects the opportunity to provide this at existing sites, specifically Longannet and Cockenzie. In addition, proposals for the refurbishment of a gas-fired power station at Peterhead, a new coal-fired power station with CCS at Grangemouth and extension to the existing pipeline to St. Fergus are expected to come forward within the lifetime of NPF3. This national development aims to establish Scotland as a centre of expertise in CCS technology, maintain energy security and diversify the overall energy mix.

4. An Enhanced High Voltage Energy Transmission Network is needed to facilitate renewable electricity development and its export. The specific projects required for this network are set out in the Electricity Networks Strategy Group, and will continue to evolve as new opportunities emerge. Key connections include links to Orkney, Shetland and the Western Isles, and interconnectors to emerging international grid networks. Improvements to the distribution network are also important to many remote rural areas. We support the provision of new infrastructure, whilst acknowledging that full consideration of routes and development components will be required at the consenting stage. The map of national developments provides an indicative picture of key electricity grid upgrades, although these may change in the future.

As part of this national development, we want to see planning enabling development of onshore links to support offshore renewable energy development. A strategy for the marine grid, connecting with the onshore network, will help to provide greater clarity on the offshore projects required.

5. Pumped hydroelectric storage at existing and new sites for hydro electricity generation is needed, to support our security of energy supplies, diversity of supplies and to reduce carbon emissions. This will help to balance electricity supply and demand when we have a much greater proportion of electricity from renewable energy technologies, providing a means to manage more intermittent electricity generation from those sources. During the lifetime of NPF3, we particularly support development at Cruachan in Argyll, a nationally important pumped storage facility with significant potential for enhanced capacity.

6.6 Our strategy for a **natural, resilient place** aims to evolve our approach to environmental stewardship, enhance ecosystem services and adapt to the growing impact of climate change. As well as protecting existing assets, our approach emphasizes the importance of the environment for people, and the need to prioritise environmental enhancement in places where past activity has impacted on landscape and ecological quality.

6. The Central Scotland Green Network remains a national priority. This densely-populated area is rich in cultural, industrial and natural assets. However, in some places past land use has left a legacy of disused land, poor quality greenspace and fragmented habitats. Here, a step change in environmental quality is required to address disadvantage and attract investment, whilst sustaining and enhancing biodiversity, landscape quality and wider ecosystems. Elsewhere, the challenge is to maintain the existing quality of place whilst delivering development in areas of particular pressure. This initiative is now well established, and in the coming years we believe that the priorities for the lead organisations should include promoting active travel, addressing vacant and derelict land and focusing action in disadvantaged areas, to maximise community and health benefits. We expect work to gather further momentum during the lifetime of NPF3. A variety of developments in Central Scotland will contribute to the network. Benefits will also emerge from links with the Metropolitan Glasgow Strategic Drainage Partnership, major area and canal-led regeneration projects and catchment-scale water management planning.

7. The Metropolitan Glasgow Strategic Drainage Partnership is a nationally significant exemplar of catchment-scale water and drainage infrastructure planning. This project is needed to better service existing communities, unlock potential development sites and to build greater resilience to long-term climate change. Further key projects will be delivered within the lifetime of NPF3, ensuring that aspirations for regeneration and growth are supported by improved infrastructure capacity.

8. A National Long Distance Cycling and Walking Network is needed to enhance visitor and recreation experiences, as well as ensuring that Scotland's population has better access to the outdoors for health and well-being. Making better links between existing routes will improve connections between urban and rural, and inland and coastal areas. Whilst it has significant potential as a tourism resource, we also believe that this network can support active travel and contribute to health and well-being. The development should focus on making best use of existing path networks – Scotland's Great Trails, the National Cycling Network and the Scottish Canal Network. It should seek to close key gaps, upgrade connecting routes, build on local core path networks, and link with public transport. Other proposals to strengthen this network over this period do not need planning permission to be implemented but form part of a wider strategy to help achieve the vision for the national network over a 20 year period. A coherent plan for the network will be developed by key partners, led by Scottish Natural Heritage, immediately after adoption of NPF3. The national development description shows the priority 5 year projects within the context of the wider strategy.

6.7 Finally, our strategy for a **connected place** focuses on improving our key gateways and international transport connections, improving links within Scotland and progressively decarbonising transport networks. To complement ongoing investment programmes that support improvements to road and rail infrastructure, we believe that the following key projects are of national significance.

9. High Speed Rail is needed to improve our connection to the rest of the UK and Europe, and to strengthen links between our cities. We are assessing the case for bringing forward a link between Edinburgh and Glasgow in anticipation of the subsequent link to the rest of the UK. This would support economic growth by improving journey times and release wider capacity on Scotland's rail network. The routes for both elements of this project are yet to be defined, but further detail will become available during the lifetime of NPF3. The Edinburgh to Glasgow connection is programmed for delivery by the mid 2020s.

10. Strategic Airport Enhancements are vital to support the role of our main airports as gateways to Scotland. Lifeline air links to remote rural communities are also an essential part of our transport infrastructure. This national development includes enhancements of Aberdeen, Edinburgh, Glasgow, Inverness and Prestwick Airports. National development status also reflects the role of airports as hubs for wider investment and business development. Close to Edinburgh, Glasgow and Prestwick Airports there are significant opportunities for business development as an associated land use. We expect to see further progress on delivery of airport masterplans during the lifetime of NPF3.

11. Grangemouth Investment Zone is a nationally-significant site for industry and freight. There is a need for further upgrading of freight-handling facilities to enhance business activity on the site, flood defences to improve the resilience of the site and to protect its industrial use, and improve transport links to assist with logistics and minimise the impact of industrial traffic on the surrounding community. During the lifetime of NPF3 we expect proposals to progress with additional funding having been made available through Falkirk Council's Tax Incremental Financing scheme. Continued partnership working will support delivery and help to manage impacts on the local community and sensitive environment of the Forth Estuary.

12. Additional Freight Capacity on the Forth is needed because of the strategic importance of the Forth in relation to heavily used North Sea freight shipping routes. In the short term, we expect to see proposals at Rosyth progress through the marine consenting process. Proposals for development at other ports may come forward as economic recovery progresses.

13. Aberdeen Harbour is a nationally-important facility which supports the oil and gas sector, provides international and lifeline connections and makes a significant contribution to the wider economy of the north east. Expansion of the harbour is required to address current capacity constraints, and to consolidate and expand its role. We expect development proposals for this to come forward in the lifetime of NPF3, including new harbour facilities and onshore transport links.

14. A Digital Fibre Network will ensure that we realise our ambition for world-class connectivity across Scotland. This national development focuses on plans for a fibre network to connect our most remote rural communities. This will strengthen the resilience of these communities, and assist projects that play a key role in supporting sustainable economic growth. Opportunities for cabling to be delivered alongside other infrastructure such as the electricity grid and walking and cycling networks are encouraged.

6.8 National development status aims to establish the need for these developments. Where national developments are not locationally specific, site selection will be needed. All developments will require the appropriate level of environmental assessment and public consultation, and will need to demonstrate that environmental impacts can be avoided, or mitigated to an acceptable level at the consenting stage. National development designations do not remove existing permitted development rights from a type of development or location.

6.9 Annex A provides the technical descriptions of the statements of need as required by the Planning etc. (Scotland) Act 2006, and identifies those developments to be processed as national developments within the planning system and other consenting regimes where applications for consent are required.

Further key actions

6.10 We expect to see significant progress over the next five years, and recognise that action is needed now to ensure that we also achieve our longer-term goals. As well as delivering the suite of national developments, there are many other actions that need to be taken forward to deliver the aims of the spatial strategy in NPF3. The Action Programme for NPF3, which will be updated as delivery progresses, identifies the following 30 Actions which will ensure that the delivery of priorities is co-ordinated with other strategies and targets for the Scottish Government and its agencies.

A sustainable, successful place:

1. We will work with planning authorities to maintain an up-to-date, easily accessible national protocol for **Enterprise Areas**.
2. The Scottish Cities Alliance and local authorities will take forward the priorities set out in the **City Investment Plans**.
3. The Scottish Cities Alliance will bring the City Investment Plans together into a **shared investment portfolio brochure**, communicating a consistent investment message across the cities network.
4. As an early priority, we will examine current planning authority approaches to **aligning planning and infrastructure investment** to inform whether further advice on this is required.
5. We will continue to implement and embed the regeneration outcomes as articulated in our Regeneration Strategy. As a priority, we will implement the Town Centre Action Plan, and take forward a series of demonstration projects including a programme of **town centre charrettes**.
6. We will work with housing providers and the development sector to **support housing development** and encourage innovative approaches to affordable housing.
7. In anticipation of longer-term change, we wish to see planning authorities anticipate the likely need for new housing, infrastructure and services resulting from **investment in coastal and rural areas** through a joined-up approach to marine and terrestrial planning.
8. We will support the sustainable growth of the **aquaculture sector**, including through the continuing work of the Ministerial Group for Sustainable Aquaculture.

A low carbon place:

9. We will continue to take action to help generate the equivalent of 100% of Scotland's gross annual electricity consumption from **renewable sources** by 2020, with an interim target of 50% by 2015.
10. We will apply building standards to improve the **energy efficiency** of existing and new buildings.
11. We will work with local authorities to build national and local authority **heat maps** into development plans.
12. We will build on progress to date to deliver our target of 500 MW of **community and locally-owned renewable energy** and promote greater benefits from renewable energy generation.
13. Working with Scottish Enterprise and Highlands and Islands Enterprise, we will implement the **National Renewables Infrastructure Plan** with planning enabling development across the locations it identifies.
14. We will take forward a study to explore the potential role, technology options, and impacts on the energy system of an increase in **energy storage capacity**.
15. The Highland Council, and Dumfries and Galloway Council will continue to work with partners and communities to develop planning frameworks associated with the **decommissioning of nuclear power stations** at Dounreay and Chapelcross.
16. We will finalise the National Marine Plan, including our plans for **offshore wind, wave and tidal energy**, in 2014 and commence development of a strategy for the **marine grid**.
17. We will support a co-ordinated approach to planning for energy-related and other key development in the five **areas of co-ordinated action**: Peterhead, Cockenzie, Grangemouth, Hunterston and the Pentland Firth and Orkney Waters. We believe that these locations have a nationally-significant role to play in delivering our spatial strategy.

A natural, resilient place:

18. We will take forward the provisions of the **Cycling Action Plan** and the **National Walking Strategy**.
19. We will implement the **Scottish Biodiversity Strategy**, including completing the suite of protected places and improving their connectivity through a national ecological network centred on these sites.
20. We will help planning authorities to take a more co-ordinated approach to planning for environmental and habitat improvements for the **Forth Estuary**.
21. We will increase **new woodland creation** to an average of 10,000 hectares per year from 2015, and take action towards delivering the proposal in Low Carbon Scotland (RPP2) to increase the rate of **peatland restoration** to 22,000 hectares per year.

22. SEPA will publish the second round of **River Basin Management Plans** in 2015. National and local flood risk management plans will be published in 2016.
23. We will take action based on the outcome from our consultation on **Opencast Coal Restoration: Effective Regulation**.
24. Planning authorities will support VisitScotland's **Tourism Development Framework** in their development plans.
25. We will take forward the actions in the **Climate Change Adaptation** programme.

A connected place:

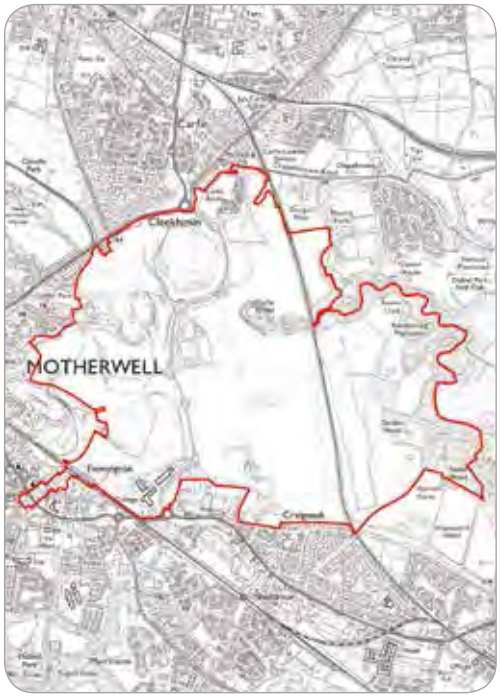
26. We will work with the Cities Alliance to progress **Smart Cities** initiatives.
27. We will deliver the strategic transport projects in the **Infrastructure Investment Plan** and work with the freight sector to identify priority developments for inclusion in NPF4.
28. We will work with industry to take forward the Step Change Programme to provide the capacity to deliver **next generation broadband** to 95% of premises by 2017-18, and a significant uplift in speeds for the remaining areas.
29. We will continue to provide funding for the installation of domestic, workplace and en-route **charging points**, as set out in 'Switched On Scotland: A Roadmap to Widespread Adoption of Plug-in Vehicles'.
30. We will continue to progress the **Scotland's Scenic Routes** initiative.

6.11 We expect strategic and local development plans to take into account the strategy, actions and developments set out in NPF3. We will use the actions and outcomes identified in the Action Programme to monitor progress over the next five years.

Annex A – national developments

Statements of need and technical descriptions

1. STATEMENT OF NEED AND DESCRIPTION – Ravenscraig



1 – Location: Former Ravenscraig steelworks and new transport and communication connections to it.

2 – Description of Classes of Development: Development situated at the location consisting of:

a. construction of buildings for business, general industrial or storage and distribution use where the gross floor space is or exceeds 10,000 square metres or with a site area which is or exceeds 2 hectares.

b. construction of residential buildings where the area of the development site is or exceeds 2 hectares.

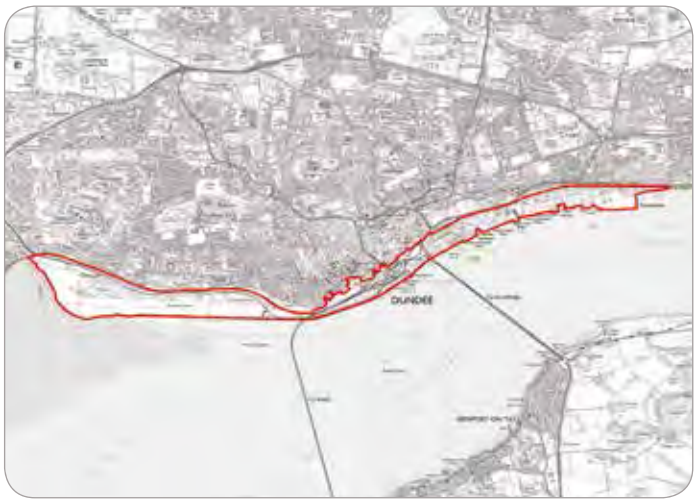
c. construction of new road(s) or fibre-optic cable(s) to the location where the length of the infrastructure exceeds 8 kilometres.

d. development of a new town centre.

3 – Designation: A development within one or more of the Classes of Development described in paragraph (2) (a) to (d) is designated a national development.

4 – Need: These classes of development within the location are needed to support the delivery of large-scale proposals as required in the regeneration of Ravenscraig, currently one of the largest areas of vacant and derelict land in Europe. Its redevelopment for a range of uses makes a significant contribution to addressing concentrations of vacant and derelict land in Central Scotland. It provides an opportunity to build in low carbon and environmental infrastructure.

2. STATEMENT OF NEED AND DESCRIPTION – Dundee Waterfront



1 – Location: Dundee waterfront and new transport and communications to it.

2 – Description of Classes of Development: Development at the location consisting of:

a. construction of buildings for business, general industrial or storage and distribution use where the gross floor space is or exceeds 10,000 square metres or with a site area which is or exceeds 2 hectares.

b. construction of residential buildings where the area of the development site is or exceeds 2 hectares.

c. construction of new road(s), railway track(s) or fibre-optic cable(s) to the location where the length of the infrastructure exceeds 8 kilometres.

3 – Designation: A development within one or more of the Classes of Development described in paragraph (2) (a) to (c) is designated a national development.

4 – Need: These classes of development within the location are needed to support the delivery of large-scale proposals required for the transformation Dundee. This national development supports key economic growth sectors for the city, and will improve quality of place in one of Scotland's cities.

3. STATEMENT OF NEED AND DESCRIPTION – Carbon Capture and Storage Network and Thermal Generation

1 – Location: Carbon Capture and Storage Network Infrastructure, throughout Scotland. Thermal generation at Peterhead (Boddam), Longannet, Grangemouth and Cockenzie.

2 – Description of Classes of Development: Development at the locations consisting of:

a. construction of new or refurbishment of existing pipeline(s) exceeding 8 kilometres in length to provide for the transportation of captured carbon dioxide, including change of use from transporting existing substances.

b. construction of pumping and/or compression equipment required for a carbon dioxide transportation pipeline(s) exceeding 8 kilometres in length.

c. construction of buildings or structures for carbon capture, transportation and/or storage plant and facilities where the gross floor area is or exceeds 10,000 square metres or the site area is or exceeds 2 hectares.

d. construction of new or refurbishments to thermal generation power stations with a generating capacity of over 50 megawatts where that development includes on site carbon capture plant to a level as required in the Electricity Generation Policy Statement, carbon transportation infrastructure and/or storage facilities.

e. construction of new or refurbishments to existing onshore gas pipelines to the thermal generation locations where the generation fuel is to be gas.

f. onshore and offshore carbon dioxide storage sites.

3 – Designation: A development within one or more of the Classes of Development described in paragraph (2) (a) to (f) is designated a national development.

4 – Need: These classes of development are needed to support the delivery of a carbon capture and storage network to establish Scotland as a centre of expertise in this technology. In line with the Scottish Government's Electricity Generation Policy Statement, these classes of development also support the achievement of a minimum of 2.5 gigawatts of thermal generation progressively fitted with carbon capture and storage technology. The aim is to demonstrate that carbon capture and storage is feasible at a commercial scale by 2020, with full retrofit across conventional fossil fuel power stations by 2025-30.

4. STATEMENT OF NEED AND DESCRIPTION – High Voltage Electricity Transmission Network

1 – Location: Throughout Scotland.

2 – Description of Classes of Development: Development consisting of:

a. new and/or upgraded onshore electricity transmission cabling of or in excess of 132 kilovolts, and supporting pylons.

b. new and/or upgraded onshore sub stations directly linked to electricity transmission cabling of or in excess of 132 kilovolts.

c. new and/or upgraded onshore converter stations directly linked to onshore and/or offshore electricity transmission cable(s) of or in excess of 132 kilovolts.

d. new and/or upgraded offshore electricity transmission cabling of or exceeding 132 kilovolts.

3 – Designation: A development within one or more of the Classes of Development described in paragraph (2) (a) to (d) is designated a national development.

4 – Need: These classes of development are needed to support the delivery of an enhanced high voltage electricity transmission grid which is vital in meeting national targets for electricity generation, statutory climate change targets, and security of energy supplies.

5. STATEMENT OF NEED AND DESCRIPTION – Pumped Hydroelectric Storage

1 – Location: Throughout Scotland.

2 – Description of Classes of Development: Development for pumped hydroelectric storage which would be or exceed 50 megawatts consisting of:

a. new and/or expanded and/or refurbished water holding reservoir and dam.

b. new and/or refurbished electricity generating plant structures or buildings.

c. new and/or expanded and/or refurbished pump plant structures or buildings.

d. new and/or expanded and/or refurbished water inlet and outlet pipework.

e. new and/or refurbished substations and/or transformers directly required for the pumped hydroelectric schemes which fall within the description.

f. new and/or replacement transmission cables directly linked to the pumped hydroelectric schemes which fall within the description.

3 – Designation: A development within one or more of the Classes of Development described in paragraph (2) (a) to (f) is designated a national development.

4 – Need: These classes of development are needed to support the strategic role of pumped hydroelectric storage within our electricity network by increasing the capacity through new or expanded sites. This promotes security of electricity supplies and will help to balance electricity demand with intermittency of some types of generation.

6. STATEMENT OF NEED AND DESCRIPTION – Central Scotland Green Network

1 – Location: Local authorities throughout Central Scotland within the boundary identified by the Central Scotland Green Network Partnership.

2 – Description of Classes of Development: The project supports a wide range of environmental enhancement measures, including activities and initiatives that do not require development consent. In addition, the following development categories within the above locations are also included within the national development:

a. development of or exceeding 2 hectares on vacant and derelict land for sustainable drainage systems or allotments.

b. construction of new walking and cycling routes exceeding 8 kilometres.

3 – Designation: A development within one or more of the Classes of Development described in paragraph (2) (a) and (b) is designated a national development.

4 – Need: These classes of development support the delivery of a step change in the quality, accessibility, biodiversity and adaptability of the Central Scotland environment. Active travel projects will provide added value where they integrate with the national walking and cycling network and local authority core paths.

7. STATEMENT OF NEED AND DESCRIPTION – Metropolitan Glasgow Strategic Drainage Partnership

1 – Location: The areas of: East Dunbartonshire Council, East Renfrewshire Council, Glasgow City Council, North Lanarkshire Council, Renfrewshire Council, South Lanarkshire Council, West Dunbartonshire Council.

2 – Description of Class of Development: Development for surface water management within the locations consisting of:

a. works, structures, buildings and pipelines where the site area is or exceeds 2 hectares.

3 – Designation: A development within the Class of Development described in paragraph (2) (a) is designated a national development.

4 – Need: This class of development will contribute to the delivery of infrastructure required for water resource and drainage management on a broad scale within the Glasgow city region. The project will play a key role in adaptation to climate change, and provide an exemplar of catchment-scale planning and management.

8. STATEMENT OF NEED AND DESCRIPTION – National Long Distance Cycling and Walking Network

1 – Location: Throughout Scotland.

2 – Description of Class of Development: The network will include enhancements to a number of routes which do not require planning consent. These are set out in the NPF3 action programme. In addition the following specific proposals are included within the national development.

a. New and improved routes and links for walking and cycling which are likely to need planning permission:

Cycleways

Route 73 (north) of the National Cycle Network – Brodick to Corrie
Route 753 of the National Cycle Network – Gourock-Ardrossan: Largs to Inverkip (up to 15km new traffic free & on road route) In and around Fairlie (up to 10km of new traffic free route)
Route 76 of the National Cycle Network – Manor Powis Roundabout (2km of new traffic free route to avoid major roundabout on A91/A905)
Route 765 of the National Cycle Network – Stirling to Callander: Doune-Burn of Cambus (5km of new traffic free route + 2 bridges)
Southern Upland Cycle Way: Stranraer to Portpatrick (10km of new traffic routes at various locations, road crossings and traffic calming)

Long Distance Routes

Clyde Walkway extension: New Lanark to Biggar
(20km of path creation and improvements)
Crook of Devon to Kinross (10km of path creation and improvements)
Cross-Scotland Pilgrim Way: Tyndrum to Crieff section; Glen Ogle to Tyndrum (40km of path creation and improvements)
Darvel – Muirkirk (20km of path creation and improvements)
John Muir Way: Strathblane to Glasgow spur (15km of path creation and improvements)
North Solway Coastal Route: Drummore to Portpatrick (20km of path improvements)
Speyside Way Extension: Aviemore to Newtonmore: (8km of path creation and 1 bridge)

3 – Designation: A development within the Class of Development described in paragraph (2) (a) is designated a national development.

4 – Need: This class of development will help deliver a strategic national network of walking and cycling routes. The routes included above have been identified for the initial phase of the network, and will make best use of existing path infrastructure. The network will significantly improve visitor experiences and increase tourism within Scotland. It will be a key asset for increasing physical activity and will support active travel. The network will be supported by and will support core path plans and community path networks, transport hubs and strategic tourism and recreation destinations in Scotland as well as settlements.

9. STATEMENT OF NEED AND DESCRIPTION – High Speed Rail

1 – Location: Central and Southern Scotland to the border with England.

2 – Description of Classes of Development: Development within the location consisting of:

a. the construction of new and/or upgraded railway track and electrification solution (overhead cabling and pylons or on track) for the purpose of delivering High Speed Rail.

b. the construction of new and/or refurbished multi-modal railway stations to service the high speed rail lines.

3 – Designation: A development within one or more of the Classes of Development described in paragraph (2) (a) and (b) is designated a national development.

4 – Need: The classes of development support the development of a high speed rail network to Scotland. This aims to provide a more efficient, lower carbon travel option to connect Scotland with London. A link between Edinburgh and Glasgow as an initial phase would realise early benefits from the project, and aims to release capacity on the existing rail network serving cities north of the Central Belt.

10. STATEMENT OF NEED AND DESCRIPTION – Strategic Airport Enhancements

1 – Location: Glasgow Prestwick Airport, Glasgow International Airport, Edinburgh Airport, Aberdeen Airport, Inverness Airport; adjoining land identified for mixed, industrial and business use at Edinburgh, Glasgow and Prestwick Airports.

2 – Description of Classes of Development: Development at the locations consisting of:

a. any extension of the site boundary of the airport for airport operational uses as identified in a current airport masterplan that is supported by the development plan for the area.

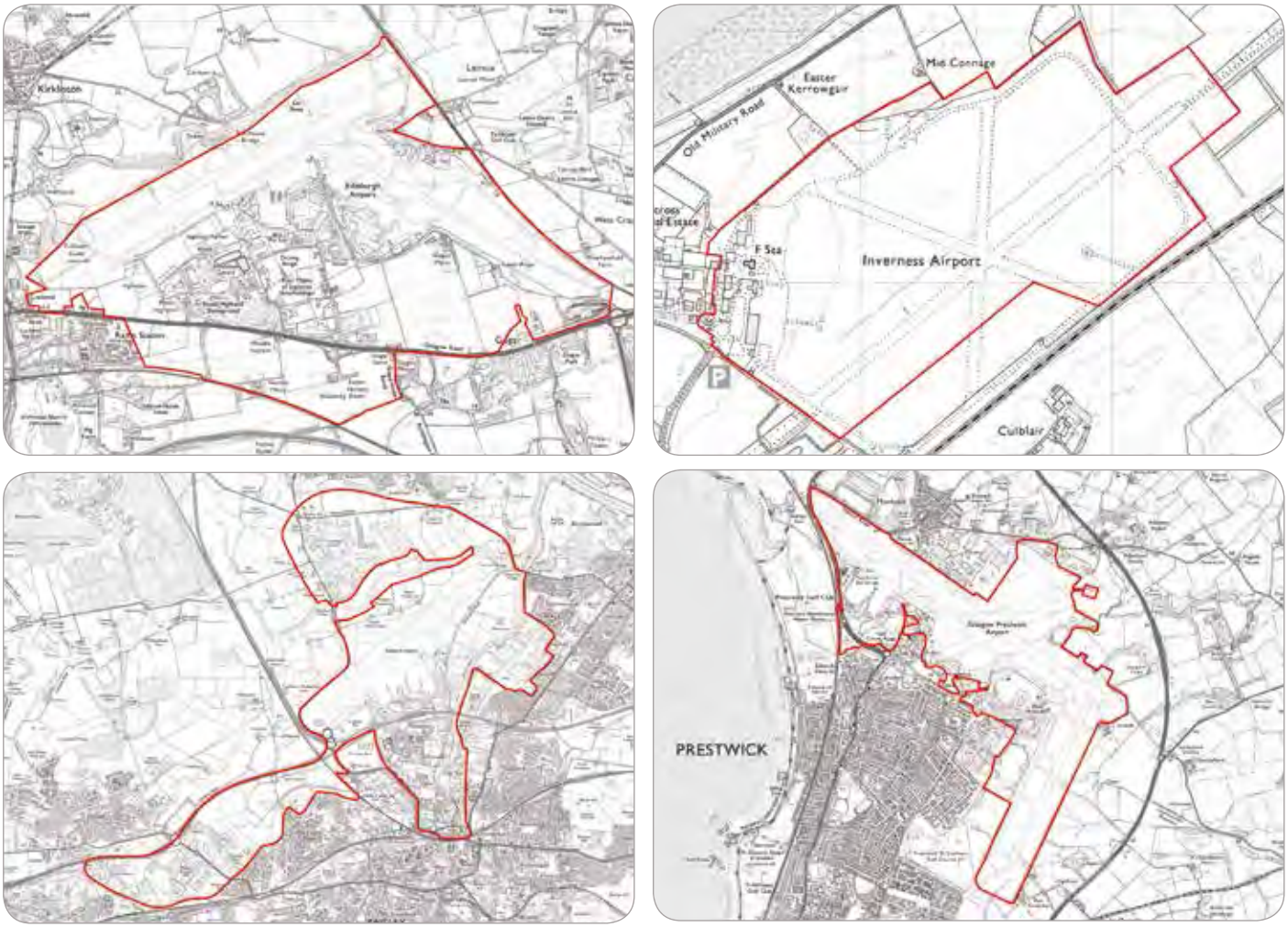
b. new and/or expanded terminal buildings where the gross floor space exceeds 10,000 square metres or the development is or exceeds 2 hectares.

c. construction of buildings for business, general industrial or storage and distribution use requiring a near airport location where the gross floor space is or exceeds 10,000 square metres or the development is or exceeds 2 hectares in the area identified for associated business development at Edinburgh, Glasgow and Prestwick Airports.

d. new National Showground facilities south of the A8 where the gross floor space is or exceeds 10,000 square metres or the development is or exceeds 2 hectares.

e. construction of new walking and cycling routes exceeding 8 kilometres.

f. construction of surface water management schemes where the area of development would exceed 2 hectares.



3 – Designation: A development within one or more of the Classes of Development described in paragraph (2) (a) to (f) is designated a national development.

4 – Need: These strategic airports act as national gateways to and from Scotland. These classes of development support the key gateway and hub function of the airports. All the airports identified have published masterplans for their development – development proposals vary between the airports. Areas adjacent to Glasgow and Edinburgh Airports have been identified for commercial and mixed uses supporting the economic development opportunities which are particularly suited to these locations. At Edinburgh provision is also made for the re-location of the Royal Highland Showground, and ensuring that the major land users in the area continue to have a co-ordinated approach to development.

11. STATEMENT OF NEED AND DESCRIPTION – Grangemouth Investment Zone

1 – Location: The Port of Grangemouth, the adjacent chemicals business area identified by the Development Plan for Falkirk and access routes to the area.

2 – Description of Classes of Development: Development consisting of:

a. construction of a new freight handling facilities where resultant building or structure is or exceeds 10,000 square metres, or the area of development is or exceeds 2 hectares.

b. construction of a new building or structure for business and/or general industrial uses where the resultant building or structure is or exceeds 10,000 square metres, or the site area is or exceeds 2 hectares.

c. construction of flood defence structures and/or the undertaking of works for flood defence within the location where the area of development is or exceeds 2 hectares.

d. the construction of new and/or replacement roads to provide an improved road connection and junction between the location and the M9 motorway where the resultant roads, including motorway junctions exceed 8 kilometres.

e. the construction of new and/or replacement roads to provide an improved road connection and junction between the location and the M8 motorway where the resultant roads, including motorway junctions exceed 8 kilometres.

f. the construction of new/and or replacement railway track to and within the location to provide an enhanced railhead for freight handling purposes.

3 – Designation: A development within one or more of the Classes of Development described in paragraph (2) (a) to (f) is designated a national development.

4 – Need: The classes of development are needed to support the key infrastructure and industry at the Grangemouth Investment Zone, strengthening its nationally important role in freight handling, providing energy-related infrastructure and facilitating wider economic activity. There is a continuing need for a co-ordinated approach to development in this area to minimise impacts on the community and environment.

12. STATEMENT OF NEED AND DESCRIPTION – Freight Handling Capacity on the Forth

1 – Location: Existing and disused ports and harbours on the Forth Estuary and transport access to them.

2 – Description of Classes of Development: Development consisting of:

a. the construction of new and/or expanded multi-modal container freight handling facilities where the resultant building or structure is or exceeds 10,000 square metres, or the area of development is or exceeds 2 hectares.

b. the construction of new and/or replacement road infrastructure exceeding 8 kilometres connecting existing road networks to the freight handling facility.

c. the construction of new and/or upgraded railway track exceeding 8 kilometres connecting existing networks to the freight handling facility.

3 – Designation: A development within one or more of the Classes of Development described in paragraph (2) (a) to (c) is designated a national development.

4 – Need: These classes of development are required to support continued demand for freight handling facilities to service North Sea freight shipping routes. Potential sites around the Firth of Forth are in close proximity to a large share of Scotland's population, and are accessible from transport routes to allow for onward transport of freight.

13. STATEMENT OF NEED AND DESCRIPTION – Aberdeen Harbour

1 – Location: Nigg Bay.

2 – Description of Classes of Development: Development at the location for:

a. the construction of new and/or replacement harbour facilities where the resultant building or structure is or exceeds 10,000 square metres, or the area of development is or exceeds 2 hectares.

b. the construction of new and/or replacement road infrastructure from existing networks.

c. the provision of water supply and related infrastructure directly for new harbor facilities.

3 – Designation: A development within one or more of the Classes of Development described in paragraph (2) (a) to (c) is designated a national development.

4 – Need: These classes of development support the expansion of Aberdeen Harbour. Current constraints will increasingly limit the ability of the harbour to provide crucial services and limit opportunities for business growth at this nationally important facility. Nigg Bay has been identified as the preferred development option, due to the constraints of the existing sites.

14. STATEMENT OF NEED AND DESCRIPTION – National Digital Fibre Network

1 – Location: Throughout Scotland.

2 – Description of Class of Development: Development which consists of:

a. the construction of new broadband cabling where the length of the cabling exceeds 8 kilometres.

3 – Designation: A development within the Class of Development described in paragraph (2) (a) is designated a national development.

4 – Need: These classes of development support the delivery of enhanced digital infrastructure in Scotland which is vital for continued sustainable economic growth. The Highlands and Islands Area will form a focus for development.

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Map credits

2014

- Year of Homecoming
- National Marine Plan
- National Conservation Centre Forthside
- Sectoral Marine Plans for renewable energy
- Scotland Heat Map and local heat datasets
- Heat Generation Policy Statement
- Marine Protected Areas
- National Peatland Plan
- Edinburgh Trams operational

2015

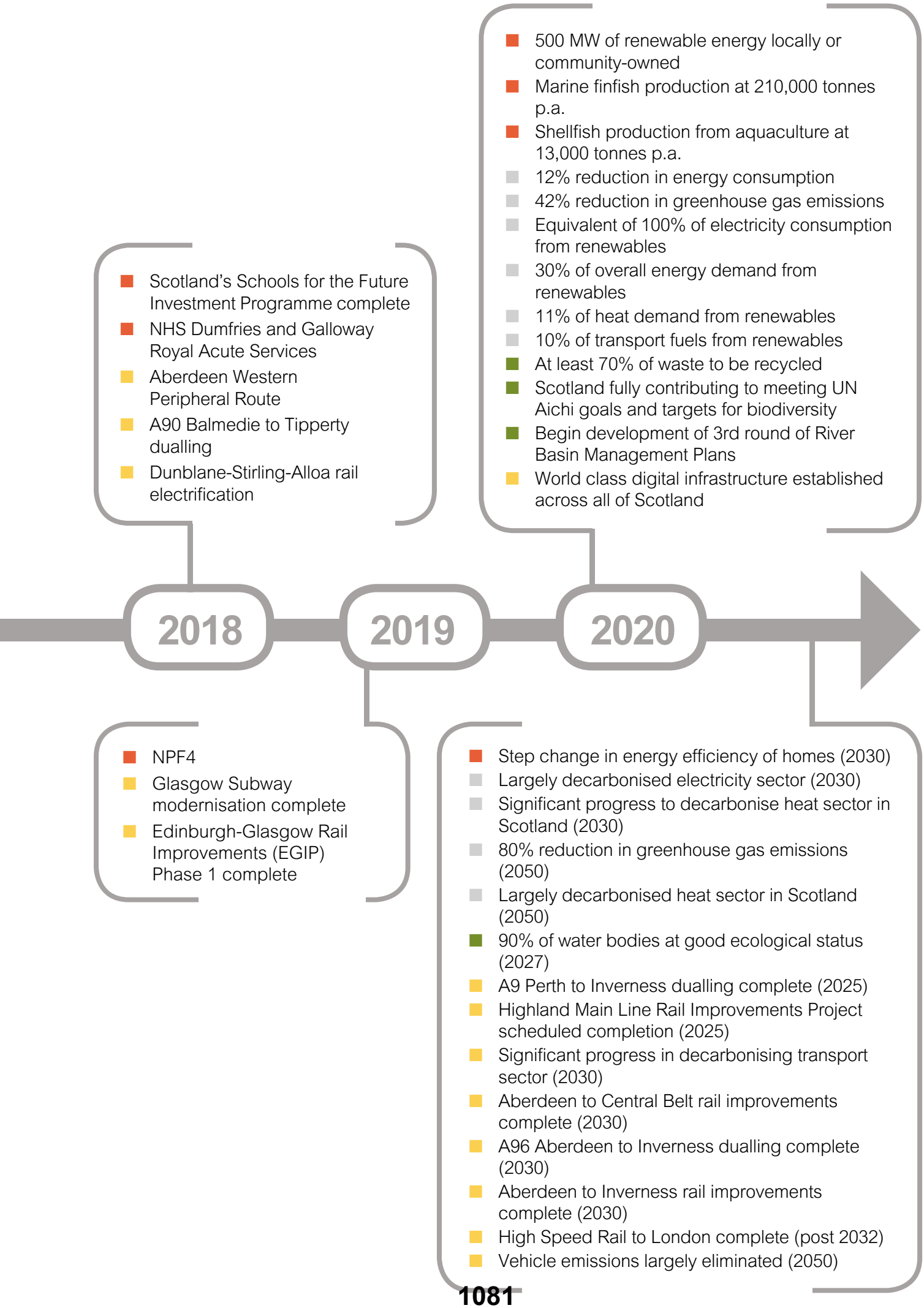
- South Glasgow Hospitals
- Inverness College
- Equivalent of 50% of electricity consumption from renewable energy
- Energy Generation Policy Statement
- DECC Carbon Capture and Storage Commercialisation Project final investment decision
- 2nd round of River Basin Management Plans
- National Flood Risk Management Strategies
- 85% of properties to have next generation broadband (2015/16)
- Borders Railway
- Glasgow Fastlink

2016

- NPF3 Monitoring Report
- 30,000 affordable homes delivered 2011-2016
- V&A at Dundee
- City of Glasgow College
- Ayrshire College
- National Performance Centre for Sport Heriot Watt
- Acute Mental Health and North Ayrshire Community Hospital
- Climate Change – 3rd Report on Policies and Proposals (RPP3)
- 2nd Land Use Strategy
- Local Flood Risk Management Plans
- Well-managed network of Marine Protected Areas
- Queensferry Crossing complete
- Edinburgh-Glasgow via Falkirk rail electrification

2017

- Narrow the gap in economic participation between best and worst performing regions
- Grow exports by 50%
- Royal Hospital for Sick Children/ Department of Clinical Neurosciences Edinburgh
- 95% of premises to have access to next generation broadband (2017/18)
- M8/M73/M74 improvements complete


2018
Scotland's Schools for the Future Investment Programme complete
NHS Dumfries and Galloway Royal Acute Services
Aberdeen Western Peripheral Route
A90 Balmedie to Tipperty dualling
Dunblane-Stirling-Alloa rail electrification
2019
NPF4
Glasgow Subway modernisation complete
Edinburgh-Glasgow Rail Improvements (EGIP) Phase 1 complete
2020
500 MW of renewable energy locally or community-owned
Marine finfish production at 210,000 tonnes p.a.
Shellfish production from aquaculture at 13,000 tonnes p.a.
12% reduction in energy consumption
42% reduction in greenhouse gas emissions
Equivalent of 100% of electricity consumption from renewables
30% of overall energy demand from renewables
11% of heat demand from renewables
10% of transport fuels from renewables
At least 70% of waste to be recycled
Scotland fully contributing to meeting UN Aichi goals and targets for biodiversity
Begin development of 3rd round of River Basin Management Plans
World class digital infrastructure established across all of Scotland
Step change in energy efficiency of homes (2030)
Largely decarbonised electricity sector (2030)
Significant progress to decarbonise heat sector in Scotland (2030)
80% reduction in greenhouse gas emissions (2050)
Largely decarbonised heat sector in Scotland (2050)
90% of water bodies at good ecological status (2027)
A9 Perth to Inverness dualling complete (2025)
Highland Main Line Rail Improvements Project scheduled completion (2025)
Significant progress in decarbonising transport sector (2030)
Aberdeen to Central Belt rail improvements complete (2030)
A96 Aberdeen to Inverness dualling complete (2030)
Aberdeen to Inverness rail improvements complete (2030)
High Speed Rail to London complete (post 2032)
Vehicle emissions largely eliminated (2050)

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