



**PROPOSED NORTHERN EXTENSION TO PITAIRLIE
QUARRY, ANGUS**



**ENVIRONMENTAL IMPACT ASSESSMENT REPORT
NON-TECHNICAL SUMMARY
AUGUST 2020**

TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997

**THE TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT
ASSESSMENT) (SCOTLAND) REGULATIONS 2017**



Client Reference: x:\786\PitairlieEiAR2020


DENFIND STONE LTD.

**ENVIRONMENTAL IMPACT ASSESSMENT REPORT
NON-TECHNICAL SUMMARY**

**PROPOSED NORTHERN EXTENSION TO
PITAIRLIE QUARRY, NEAR MONIKIE
ANGUS**

Prepared For:

DENFIND STONE LTD.

Signed.....
Dalgleish Associates Ltd

Date **17th August 2020**

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INTRODUCTION

This report is the Non-Technical Summary (NTS) of the Environmental Impact Assessment Report (EIAR) prepared in support of the planning application by Denfind Stone Ltd for a northern extension to Pitairlie Quarry.

The proposal would allow the extraction of some 375,000 tonnes of sandstone. It is proposed to work the deposit at an average of 8,000 tonnes per annum over a period of 50 years. The proposal also makes provision for the reinstatement of the existing southern quarry void.

PRE-APPLICATION CONSULTATION

In accordance with The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013, and as this constitutes a major application in the terms of the Regulations, Pre-Application Consultation has been undertaken with Monikie and Newbigging Community Council, the Councillors representing the Carnoustie and District Ward and all residents residing within 300m of the proposed planning application boundary.

An overview of the development, plans and impact assessment reports were placed on Dalgleish Associates Ltd's website for viewing. Due to the restrictions imposed on public meetings, as a consequence of the coronavirus outbreak, the proposals were subject to an interactive web-based consultation.

A pre-application consultation report has been prepared and submitted with the planning application; where relevant, the EIA has been informed by consultations with interested parties.

ENVIRONMENTAL IMPACT ASSESSMENT

An Environmental Impact Assessment (EIA) of the potential impacts on the environment of the proposed quarry extension has been undertaken in accordance with the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017.

The results of the EIA are contained in the Environmental Impact Assessment Report (EIAR). The Regulations require that the EIAR is summarised in a Non-Technical Summary, written in non-technical language.

THE APPLICANT COMPANY

Denfind Stone Ltd. is a family owned Scottish company which began trading in 2004 when Brian and Alison Binnie recognised that the disused Pitairlie sandstone

quarry on their farm had the potential to meet the growing demand for local, high quality, natural and aesthetically sympathetic building materials.

Since reopening the quarry, the business has relocated into a purpose-built production facility, housing state of the art stone processing machinery which enables the business to supply an extensive natural stone product range. Over the past 15 years the Company has expanded to become one of Scotland's leading suppliers of natural stone.

Denfind Stone supplies local Angus sandstone products as well as a wide range of other Scottish natural stone, including other sandstone, limestone and granite. The Company's range of products have been used extensively in residential, commercial and landscaping projects for private clients, house builders, construction companies, local councils and Historic Scotland.

Denfind Stone is committed to providing the highest level of quality stone products, customer care and service to its clients. The business is committed to using environmentally friendly and sustainable methods at every stage of the stone production process, from quarry to delivery.

The business' own stone is quarried and processed on site in Angus allowing for maximum efficiency, and a lasting and positive environmental impact. Additionally, the business has installed solar panels and a biomass plant to maximise the energy efficiency of the plant and the 'green credentials' of the business.

PROJECT TEAM

The project team responsible for the preparation of the EIAR was:

- **Dalgleish Associates Ltd** – Project Management, Site Design, Hydrology and Hydrogeology, Landscape and Visual.
- **ECOS Countryside Services LLP** – Ecological Impact Assessment.
- **Vibroch Ltd** – Noise Impact Assessment.
- **DustScanAQ** – Dust and Air Quality Assessment.
- **Rathmell Archaeology Ltd** – Archaeological Evaluation.

APPLICATION PROCESS AND PROGRAMME

The Planning Application was lodged in August 2020 with public advertisements in accordance with the Regulations. A statutory minimum period of 16 weeks is available to the Planning Authority for determination of the application.

ACCESS TO DOCUMENTATION

A full copy of the Environmental Impact Assessment Report from which this NTS has been prepared can be viewed at Angus Council's e-Planning website.

Hard copies of the EIAR and NTS can be obtained from Dalglish Associates Ltd at the address below at a cost of £200. Electronic copies on CD are available at a cost of £20 each. Copies of the Non-Technical Summary in hard copy or electronic format are available for free on request.

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EXPRESSING YOUR VIEWS

For the first 28 days of the consultation period commencing after the proposal has been advertised, the statutory and non-statutory consultees and members of the public have an opportunity to formally lodge their views on the proposals with Angus Council.

PLANNING

Along with Scottish Planning Policy guidance, the planning policies contained in the Development Plan which comprises the TAYplan Strategic Development Plan 2016-2036, October 2017 and the Angus Local Development Plan, September 2016 have been examined.

The proposal has been the subject of an Environmental Impact Assessment. The EIAR addresses all potential Environmental Impacts, both positive and negative, on the natural environment by virtue of the scale, type, location and length of the proposed operations and the quality and extent of mitigation and restoration proposed. With the exception of landscape and visual impact, which is assessed as slight to moderate on a local scale during operations and reducing to slight at restoration; all other impacts have been assessed as being negligible to slight.

The proposals are considered to be broadly consistent with National Policy and the Development Plan. It is considered that an overall benefit will be derived from the proposal and that there are no over-riding factors which would merit refusal.

NEED FOR THE DEVELOPMENT

The minerals industry provides raw materials for construction, manufacturing, agriculture and other specialist sectors. The Scottish Government recognises the strategic importance of the construction industry to the economy and the need for minerals to serve it.

In June 2014 the Scottish Government issued its updated Scottish Planning Policy document. Paragraph 238 of the SPP states that: *"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"*.

In line with the SPP, Planning Authorities have an obligation to maintain sufficient mineral landbanks. The size of the land bank is derived from information supplied by operators with regards to production and the market area. Accordingly, an Authority may consider "need" in terms of a landbank or market area deficit.

The Angus Local Development Plan (ALDP) acknowledges that Scottish Planning Policy (SPP) 2014 requires that all LDPs should support the maintenance of a landbank of permitted reserves for construction aggregates of at least 10 years at all times.

It is noted that Pitairlie Quarry produces a building stone, used for specialist walling and paving products; it is clear that this stone is not a 'general hard rock aggregate' and that the reserve should be considered separately from the main hard rock landbank.

ALDP Policy PV19 Minerals states: *"Angus Council will protect existing mineral resources within Angus which are of economic and/or conservation value from other forms of development. Proposals for new or extended mineral workings must demonstrate that the development is required to maintain, at least a 10 year land bank for aggregates or the development is required for the local, regional and/or national market that cannot be satisfied by recycled or secondary aggregates at existing workings"*.

In accordance with Policy PV19 Minerals, since 2004, the quarry waste at Pitairlie has been worked to recover sandstone that is suitable for walling and paving products and has a proven conservation value. However, the reserves of waste rock suitable for these products has

been depleted over recent years and is likely to be exhausted within the next 1-2 years. Accordingly, the proposal seeks to maintain a landbank of a natural stone that is not otherwise available from existing quarries in Angus and cannot be satisfied by recycling or secondary aggregates.

A key principle coming to the fore of national, regional and local planning policy is the underlying concept of 'local supply' of natural resources. Local supply avoids unsustainable imports by minimising the distance of travel from source to point of consumption. In terms of minerals, local supply should relate to the development of the indigenous resource rather than relying upon imports. At Pitairlie there is also a clear locational need for the extension as it links directly with the processing facility thereby reducing the necessity for additional HGV haulage on the public road network which would clearly occur if all stone had to be sourced externally, at greater distance, and imported to the facility.

The proposal would release some 375,000 tonnes of natural stone which, based on the permitted level of processing (maximum of 8,000 tonnes per annum) would secure a continued strategic resource in the Angus region over the next 50 years.

As one of Scotland's leading suppliers of natural stone, from a business perspective, it is imperative that Denfind Stone Ltd secures future reserves to ensure a continuity of the business.

The Pitairlie Quarry market area is mature and there is a consistent demand for the natural stone products produced by the quarry both within the Angus region and across the UK. Development proposals within the Angus Local Development Plan suggest that this demand shall continue. It is considered therefore that there is a demonstrated need for the continued development of Pitairlie Quarry.

DESCRIPTION OF THE DEVELOPMENT

Site Location and Description

The existing Pitairlie Quarry is located in a rural area of Angus. The quarried area extends to some 4 hectares (ha). Immediately to the north-east of the quarry is the processing facility, hardstanding storage areas, offices and welfare facilities and car parking area; overall this area extends to around 1ha. The processing facility takes access onto the B961; the access has been constructed to the satisfaction of Angus Council.

The existing quarry is bordered to the south, east and west by plantation and woodland and agricultural land to the north. The land generally falls to the south. The

Pitairlie Burn passes through Pitairlie Den Plantation and is located towards the western boundary of the quarry.

The proposed excavation area is located on agricultural land to the north-west of the processing area and is bounded by agricultural land to the east and west and Denfind Plantation to the north. The proposed excavation area is located some 470m to the south of the village of Monikie.

No.3 Denfind Cottage is located some 45m east of the proposed excavation area (both No.s 1 and 3 Denfind Cottages are in the ownership of the applicant). Other private residential properties are located along the western side of Panmure Road at distances of 110-120m to the east and north-east of the proposed excavation area. The properties of Galloway and Lismore are located to the south-east of the existing quarry void and some 270m from the proposed northern quarry extension. These properties, along with a proposal to for holiday cabins within Denfind Plantation, form the main locations for assessment of impacts.

The agricultural field forming the extension area generally slopes from the north to the south and south-west with ground levels on the field boundaries varying from 126m Above Ordnance Datum (AOD) in the north-west and 135m AOD in the north-east to 112m AOD in the south-west and 124m AOD in the south-east (Figure 2.2 Existing Topography Plan refers). The southern quarry varies from around 116m AOD in the north to around 100m AOD on the southern quarry edge and 83m AOD in the southern quarry void. The southern quarry pond fluctuates seasonally with an average depth of around 87.8m AOD.

Economic Geology/Existing Markets

The solid geology underlying the site comprises sedimentary strata belonging to the Dundee Flagstone Formation, part of the Lower Old Red Sandstone sequence of Devonian age. These consist of medium to coarse-grained, cross-bedded sandstones and substantial, distinctive, flaggy sandstones, interbedded with minor siltstones and mudstones.

The mineral deposit within the proposed extension area is a good quality sandstone that is naturally flat-bedded and has a density and hardness popular with stonemasons and builders alike, and can be applied to a full range of products including:

- Internal and External Cladding (30/40/100/140mm);
- Paving;
- Dry Stone Dyking;
- Feature Walling;
- Entrance Features; and
- Coping Stones.

There is an established market demand for these products within the Angus region and across the UK.

The Proposal

The proposal would allow the extraction of some 375,000 tonnes of sandstone. It is proposed to work the deposit at an average of 8,000 tonnes per annum. It is unlikely that this level of production would be achieved consistently throughout the duration of the site. Accordingly, to allow an element of leeway, planning permission is sought for a period of 50 years. The proposal also makes provision for the reinstatement of the existing southern quarry void.

Operational Standards

In applying for an extension of operations, the applicants have endeavoured to minimise the potential environmental impacts from extraction and haulage operations and to employ operational standards in line with the requirements of the Quarries Regulations 1999 (as amended) and the Scottish Environment Protection Agency (SEPA).

Development Programme

The proposal seeks to undertake an extension to Pitairlie Quarry. The proposed excavation area extends to some 4.6ha. The depth of overburden down to rock head varies from around 5m to 9m. The excavation of sandstone shall be undertaken from rock head to a depth of 15m; an overall excavation depth of 20m to 24m. The proposal also includes the reinstatement of the existing southern quarry void.

Site Enclosure

The existing site is enclosed by boundary fencing which shall be maintained through operations. Prior to the commencement of operations, the extension area operational boundary shall be inspected and secured for the purpose of public safety and to ensure that the operational area is kept stockproof. Throughout the duration of operations the boundary shall be maintained until the restoration of the site is complete.

At the commencement of operations, or in the first suitable planting season, it is proposed to undertake mixed woodland planting, on the northern boundary of the site and immediately to the west of No.3 Denfind Cottage. The planting shall be subject to on-going maintenance for a period of 5 years to ensure appropriate establishment.

Site Infrastructure

It is proposed to utilise the existing infrastructure at the Pitairlie Quarry Processing Facility (site access route, offices, weighbridge, processing facility, hard standing, stockpiling, maintenance and fuelling facilities). No buildings or fixed plant will be required within the

extension area. Sandstone will be transported from the extension area to processing area via a dedicated internal access road.

Soil Stripping

Soil stripping shall be undertaken as required to maintain an appropriate advance development area. Soils stripped from the excavation area shall either be utilised to improve the agricultural land immediately to the west and south-west of the proposed excavation area, stored for future use, or use at final restoration or placed directly on reinstated land as part of the progressive restoration of the site. Soil storage mounds shall not exceed 3.0m in height. Soil stripping shall be timed to be undertaken outwith the bird breeding season and shall only be carried out when soils are reasonably dry.

Phase 1

The Phase 1 excavation, including the development of the access haul route, extends to an area of some 2.2ha. Phase 1 will release an estimated 88,000 tonnes of sandstone over a period of 11 years.

It is proposed to create 3m high screening mounds on the northern and north-eastern excavation boundaries. The soils from the mound footprints will be stripped and the mounds formed utilising overburden from the initial site excavation. Thereafter, the soils shall be replaced over the mound. It is anticipated that the formation of these mounds would take around two weeks at the commencement of operations. On completion, the mounds will be grass seeded. It is proposed that the northern mound shall only actually be constructed once there is a clear indication that the permitted holiday use on the adjacent land, is being implemented.

The first phase of development will create the access haul route from the existing quarry and develop an excavation area from the base of the access along the southern edge of the development area.

The depth of overburden varies in Phase 1 from around 7m in the west to around 4m in the east. A 5m rockhead bench shall be maintained. Rock will be excavated to a depth of around 15m.

During Phase 1 all overburden, unsuitable rock and processing wastage will be placed in the existing southern quarry void to create the final restoration profile. Overburden excavation and placement will be undertaken periodically throughout Phase 1; it is anticipated that this will be split into 3-4 periods of around two weeks with a period of excavation occurring every 2-3 years.

As with the existing quarry, rock would continue to be extracted by excavator, no blasting is required. The

sandstone will be transferred directly to the processing facility; no processing will be undertaken in the quarry void.

Phase 2

Phase 2 extends the excavation area to the north-north-west; an additional landtake of some 1.1ha. Phase 2 will release an estimated 120,000 tonnes of sandstone over a period of 15 years.

As excavation works within Phase 1 near completion advance soil stripping works will commence in Phase 2. Initially stripped soils will be placed in storage on the inner side of the northern screening mound.

Excavation of overburden and rock will commence at the western end of the Phase 2 excavation area and progress east-north-east. All overburden, unsuitable rock and processing wastage from Phase 2 will be progressively backfilled into the Phase 1 void. As original ground level is reached on the backfill area, soils from the on-going intermittent stripping operations shall be utilised for progressive reinstatement.

Phase 3

Phase 3 extends the excavation area to the final north-north-western boundary; an additional landtake of some 1.4ha. Phase 3 will release an estimated 168,000 tonnes of sandstone over a period of 21 years.

As excavation works within Phase 2 near completion advance soil stripping works will commence in Phase 3. Stripped soils will be utilised to progressively restore the backfill area.

Excavation of overburden and rock will commence at the western end of the Phase 3 excavation area and progress east-north-east. All overburden, unsuitable rock and processing wastage from Phase 3 will be progressively backfilled into the Phase 2/3 void.

Restoration and Aftercare

The restoration will be partially progressive following behind the excavation and shall address the stability and safety of the areas that have been subject to excavation or the effects of excavation.

Following the placement of overburden and waste rock from the initial phase of development, the southern quarry will be reinstated. The final topography will be grassland to the north with areas of tree and shrub/scrub planting on the boundaries and on the steeper sloping areas. It is proposed to retain the existing ponds in the southern area of the quarry.

The northern quarry void will contain land reinstated to grassland and slopes around the final void. Following the

cessation of quarrying operations, as groundwater rebound occurs, it is anticipated that a small pond will form in the south-western corner of the final excavation void. Soils and drift stored within the peripheral screening mounds shall be utilised to assist in regrading works and to provide a suitable planting medium. Tree and shrub/scrub planting shall be undertaken on quarry slopes.

Following physical restoration of the land it shall be subject to an aftercare scheme, in terms of Section 41(1) of The Town and Country Planning (Scotland) Act 1997, for a period of 5 years.

Hours of Working

The current consented hours of working for excavation operations are 7.00am to 7.00pm on any day Monday to Friday and 7.00am to 13.00pm on Saturdays. The current working hours have been acceptable to the Planning Authority for previous applications, and it has been demonstrated that works can be undertaken during these hours without any significant amenity impact. Notwithstanding, Denfind Stone Ltd recognises that best practice requires that impacts should be minimised as far as reasonably possible. Accordingly the following reduced hours of working are proposed for the northern extension operations:

- 8.00am to 5.00pm on any day Monday to Friday for soils stripping, mound formation and overburden excavation, haulage and placement; and
- 7.30am to 6.00pm on any day Monday to Friday and 7.30am to 1.00pm on Saturdays for the extraction and haulage of sandstone.

No operations shall be undertaken on any Sundays or public holidays with the exception of essential maintenance operations.

Consideration of Alternatives

The proposal relates to the continued working of an existing operation to allow the extraction of identified reserves contiguous to the site boundary. As the development will have no adverse effect on international designations, European protected species or open space, in terms of planning policy, there is no requirement for justification of the proposal against alternative sites.

The potential to utilise stone from existing quarries within the Angus region has been considered; this relates to Ardownie and Ethiebeaton Quarries near Monifieth (Andesite); Waulkmill and Boysack Quarries near Inverkeilor (andesite and basalt), Hilton of Guthrie north-east of Frickheim (andesite and basalt) and Cunmont near Newbigging (porphyry intrusion). All of the above quarries produce aggregate which is unsuitable for

processing into dimensional stone or cladding which are Denfind's main products.

With respect to operational sustainability, the applicant is conscious of the need to conserve minerals and, since 2004, the recovery of waste rock from previous quarrying at Pitairlie has been a key part of the Company's overall business strategy. Unfortunately, the majority of suitable rock has now been worked within the quarry and reserves will soon run out.

There is a limit to the amount and suitability of available material, and a significant proportion of this is already being used efficiently. Whilst recycling is a means of reducing demand for primary aggregates, the demand currently identified within the Angus and wider market area could never be met solely by recycled materials and there will always be a need for the higher quality product derived from the sandstone at Pitairlie Quarry.

Scoping the Assessment

An Environmental Impact Assessment Report must identify any likely significant impacts which may potentially arise from the proposed development at all stages of the project, including effects of association of the development with other existing or proposed developments.

Consideration has been given to the environmental headings which are outlined in the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017, namely: population and human health; biodiversity (flora and fauna); land take; soil; water; air; climate; material assets; cultural heritage and the landscape and interaction between any of the foregoing.

In response to a formal scoping opinion request, Angus Council identified the key issues, for which potential impacts required to be addressed, as:

- landscape and visual;
- hydrological and hydrogeological;
- ecology/nature conservation;
- noise; and
- dust/air quality.

The assessment in relation to human health has been considered within the relevant headings above e.g. disturbance through noise and the effect of inhalation and respiration of fine airborne dust particles.

Impacts in relation to the other headings are either of little or no significance and, where required, are already adequately controlled by planning condition. In accordance with Circular 1/2017 these headings are

addressed briefly below to confirm that their possible relevance has been considered.

Traffic

The site takes access onto the B961. The existing site access has been constructed to the satisfaction of Angus Council. The existing access, visibility splays and drains will be maintained throughout the duration of operations.

The existing processing facility operates under a separate planning permission which allows the processing of up to 8,000 tonnes of stone per annum. The transport movements in relation to the processing facility were considered by Angus Council in 2018 during the determination of the planning application for the facility; the Council was satisfied that there would be no issue in respect of traffic safety or in relation to flooding and drainage. There will be no change in current traffic patterns as a result of the proposed extension.

In the event that stone was no longer available from Pitairlie Quarry, stone would be imported from external sources to meet the requirements of the processing facility. In this respect, if the proposed extension did not go ahead there would effectively be a doubling of HGV movements associated with the processing facility, which would constitute a negative traffic impact.

On the basis of the above, as the proposal would minimise traffic movements, it is considered to have a positive impact in terms of transportation. There will be no increase in generated traffic levels over those currently generated. These movements have previously been assessed and confirmed to be negligible. The Planning Authority has confirmed that further transport assessment is not considered to be necessary and that this matter can be scoped out of the EIA.

Cultural Heritage

A Historic Environment Report has been prepared by Rathmell Archaeology Ltd which comprises a desk-based assessment and walkover survey. The report confirms that there are no known archaeological features within the proposed development area and that the proposal would have no significant impact on features outwith the site, either physically or in terms of setting.

However, the report does note that there is the potential for the presence of currently unknown archaeological sites within the development area. Accordingly, whilst no further archaeological works are considered necessary prior to determination of the application, to ensure that no asset will be lost or its setting altered without adequate consideration of its significance, in the event that Angus Council is minded to grant planning permission, it is proposed that a planning condition

should be attached requiring the submission and approval of a Written Scheme of Investigation (WSI) which will make provision for appropriate investigation and, if necessary, excavation and recording prior to the commencement of excavation operations. With the implementation of the proposed mitigation, no significant impact is anticipated with regards to archaeology.

Angus Council's Archaeological Services has confirmed that the proposed approach is acceptable and that further reporting in respect of Archaeology/Cultural Heritage can be scoped out of the EIA.

Land Take

The proposed development area is split between two land classifications: class 3.1, which is prime agricultural land, to the north-east, and class 3.2 to the south-west. Some 4.2ha of prime agricultural land will be affected by the proposal; the impact will be temporary on 2.7ha, whilst 1.5ha would be permanently lost at that location. To compensate for this loss, it is proposed that soils stripped during Phase 1 will be utilised to improve class 3.2 land to the west of the development. Accordingly, there will be no overall reduction in prime agricultural land. No significant impact is anticipated with respect to land take.

There is no formal public access within the site, or the immediate environs, no rights of way or core paths. The extension of quarrying will however remove existing access rights (under the Land Reform (Scotland) Act). This is a temporary restriction and is reversible. Provision will be made at restoration, for a safe route (avoiding the historical quarry faces), for informal access across the southern site from east to west to be reinstated.

Soil

There is no definable split between topsoil and subsoil on site. All soils shall be retained on site and utilised for restoration. There are no relevant impacts in relation to the soil resource.

Climate

The type and scale of development proposed is known to have no significant climatic effects.

Material Assets

The mineral deposit within the proposed extension area is a good quality sandstone that is naturally flat-bedded and has a density and hardness popular with stonemasons and builders alike, and can be applied to a full range of products. There is an established market demand for these products within the Angus region and across the UK.

LANDSCAPE

The landscape impact assessment aims to identify and assess the likely impacts which the proposal may have on the landscape.

The Landscape Type within which the development is set is characterised as 'Dipslope Farmland' described as *"an extensive area of lowland farmland sloping gently towards the Angus coast"*.

Overall there would be slight to moderate changes to the landscape character type in a small area, through the alteration to the typical agricultural landcover associated with this type. This impact would reduce to slight in the longer term as much of the quarry area would be returned to agriculture.

The restoration of the existing quarry area in the south would have a slight positive impact on the landscape character type as the site would partially return to an agricultural use.

VISUAL IMPACT

A visual assessment has been undertaken using a number of viewpoints that are considered to be representative of the surrounding area. The existing visual impacts are negligible, due to the hidden nature of the quarry workings, the relatively few viewers affected and medium sensitivity of the nature of the viewpoints.

For locations in close proximity to the northern and eastern boundaries of the proposed extension area, impacts are anticipated to be slight to moderate during the working life of the quarry extension. These visual impacts will reduce to negligible at final restoration. For wider locations visual impacts vary from negligible to slight depending on location. These visual impacts will reduce to negligible at final restoration.

HYDROLOGY AND HYDROGEOLOGY

An assessment of the existing hydrological and hydrogeological conditions at the site has been undertaken, and the potential impacts attributable to the proposed extension have been identified and assessed, and mitigation measures set out, as required.

Surface water from the surrounding catchments will be prevented from entering the extension area, owing to the local topography, and by appropriate use of peripheral bunding and soil mounds.

The groundwater table on a hillside would roughly mirror the surface topography, falling from the high points to the north of the site towards the lower ground to the

south. The existing quarry has encountered some minor groundwater seepages which are likely to continue as operations progress. Piezometers have been installed at the site to allow monitoring of the groundwater table.

All groundwater and surface water collected within the proposed extension area will be diverted to a sump, to allow infiltration into underlying strata via joints and fissures. If required, water will be pumped from the northern extension sump to the southern quarry void. The site may continue to use collected water for dust suppression on haul roads during drier periods during spring and summer, as necessary. If required, surface water within the quarry sump will be pumped to the processing yard, the water being utilised for processing operations.

All fuelling and plant maintenance will continue to be undertaken within the current dedicated area located adjacent to the processing yard, where appropriate controls are in place with respect to handling and storage. No fuels, oils or lubricants will be stored within the proposed quarry extension area.

The hydrological report contains a water management plan which ensures that there are no surface or ground water issues.

The proposed development will not increase the potential for flooding at any of the identified vulnerable receptors (residential properties), as the development will not increase flows within field drains or watercourses. The main impact that development of the site will have on the hydrological regime of the area is that storage capacity within the catchment area will be slightly increased. The extraction of hard rock from the site will effectively increase the potential surface water storage volumes within the hydrological catchment area, thereby slightly reducing flood risk to land and properties downstream of the site. However, given the size of the site, this is only considered to constitute a negligible beneficial impact.

The overall impact on surface water and groundwater from the proposed development is predicted to be localised and negligible.

ECOLOGY

In order to evaluate the potential ecological impact from the proposed quarrying operations ECOS Countryside Services LLP was commissioned to Provide an Ecological Impact Assessment (EclA) in respect of proposed development at Pitairlie Quarry.

There are no Statutory designated sites within the application boundary. Monikie Country Park, designated

under Section 48 of Countryside (Scotland) Act 1967, is within 500m of the application boundary. There will be no impact on the man-made hydrologically and topographically isolated reservoir site.

In terms of vegetation the habitats within the application area are all man-made and highly impoverished, especially the arable land and the existing quarry.

Phase 1 habitat surveys of the site were undertaken in August 2019 and April 2020. Protected species surveys were carried out in April 2020. The survey identified the habitats present within the survey area and included a search for protected species and habitat suitability for protected species within an appropriate survey area. The protected species survey included a bat roost risk assessment and surveys for otter, badger, red squirrel, water vole and birds.

There were no identified impacts for any of the protected species within the application area.

Mitigation has been proposed which avoids unnecessary disturbance to established habitat, compensates for the loss of, or changes to key habitats, avoids/minimises any potential for impacts on protected species and creates new habitat.

The residual impact, assuming successful implementation of the suggested mitigation measures, will be an adverse impact of negligible magnitude and will not therefore significantly adversely affect local habitats or flora and fauna.

The loss of habitat will have a negligible impact. With appropriate mitigation there will be no significant impact on local habitats of flora and fauna. Over the life of the project, restoration will deliver a net biodiversity gain, beginning with the first phase restoration of the southern quarry.

NOISE

In order to evaluate the potential noise impact from the proposed quarrying operations the applicant commissioned Vibrock Ltd, a national independent firm of environmental consultants, to undertake a study of the ambient noise levels at nearby sensitive locations. Noise levels were predicted based on probable plant deployment for the proposed operations.

Site operations shall meet the relevant best practice as detailed within Planning Advice Note 50 (PAN 50) Annex A. The proposed noise control measures along with effective day to day site management shall ensure that the proposed development is undertaken without significant noise impact.

There shall be no residual impacts from the development in terms of noise climate.

AIR QUALITY

In order to evaluate the potential impact on air quality from the proposed extension of quarrying operations, the applicant commissioned DustScanAQ, an independent dust and air quality consultancy, to undertake a dust and air quality impact assessment.

An assessment of the significance of the environmental impact of the potential nuisance arising from fugitive dust associated the future development of the site over the operational period has been undertaken.

This assessment has given consideration to the method of working, the dust control measures to be employed, the duration of potential dust generating activities, meteorological conditions, and the location and sensitivity of receptors.

A Site Dust Management Plan for extraction, haulage and restoration operations shall be implemented on site. The regulation and control of potential nuisance dust from the site shall be based around the principal of "best practice" and emphasis is placed on day to day site management to identify on-going requirements for dust mitigation.

The proposal makes provision for the on-going monitoring of dis-amenity dust and for an initial period of monitoring of finer particulate matter (PM₁₀).

The possibility of a cumulative dust impact, attributable to two or more mineral workings, or other developments, operating in close proximity, has been considered; cumulative impacts are assessed as negligible.

The assessment has concluded that operations can be undertaken without exceeding the Air Quality Objectives for PM₁₀ and PM_{2.5}.

If the control of dust emissions and mitigation of the potential environmental impacts of dust from the proposed operations is implemented through the Site Dust Management Plan, the overall effect on air quality is assessed as slight adverse and is therefore considered to be not significant.

CUMULATIVE IMPACT

The possibility of a cumulative impact, attributable to two or more operations working in close proximity has been considered.

Excavation operations with the southern quarry excavation will be completed and the only works in this area will be the short-term placement of overburden to complete restoration. The landscape, noise and dust assessments within this report have considered the proposal with respect to the cumulative impact of the northern quarry excavation and southern overburden placement when undertaken in tandem with the operation of the processing facility. The assessment has demonstrated that impacts are within acceptable parameters.

Cunmont Quarry is located approximately 1km to the west-south-west. It is understood that the only operations currently being undertaken at Cunmont relate to recycling operations and a road maintenance depot. However, the Angus Review of Mineral Operations does identify a potential reserve of some 2 million tonnes and planning permission at the quarry is valid until 2042. Accordingly, it is possible that Cunmont will recommence quarrying at some point in the future. Given the separation distance, even with quarry production ongoing at Cunmont, there is unlikely to be any significant cumulative operational impacts and cumulative impact is likely to be restricted to that of HGVs on the public road network and, as there will be no change to existing vehicle movements in relation to Pitairlie, the proposed northern extension will not have any cumulative impact on traffic movements.

Having regard to the separation distance any cumulative impact is anticipated to be negligible.

WASTE MANAGEMENT PLAN

The Management of Extractive Waste (Scotland) Regulations 2010 require that mineral planning applications must include a Waste Management Plan (WMP).

Extractive waste from the proposed operations will constitute soils, overburden, predominantly unsuitable rock (shales, silts and mudstones) and waste rock from the cutting and processing of stone. All of these extractive wastes will be managed on site appropriately and utilised in the reinstatement of the site; no significant environmental impacts are anticipated in relation to extractive waste.

Given the limited potential for any impact, detailed control of these materials through a WMP is not required and, in such situations, the Regulations make provision for a waiver of the requirement for a WMP. Appendix 3 contains an application to waive the requirement for a WMP.

OVERVIEW

It is recognised by Denfind Stone Ltd that the proposed extension requires to be undertaken in compliance with current planning and environmental guidelines. Due regard has been taken of these factors and measures devised to mitigate against any potential impact resulting from the proposal. The method of working has been designed on engineering principles which will enable safe working both for site personnel and members of the public, while ensuring stability of the surrounding land.

No quarry development can be designed to have no adverse environmental impacts, although mitigation measures can negate many of these, lower the magnitude of others and reduce the probability of significant impacts occurring. Following the implementation of the mitigation measures described in the Environmental Impact Assessment Report the overall environmental impact of the proposal is considered to be slight reducing to negligible at restoration.

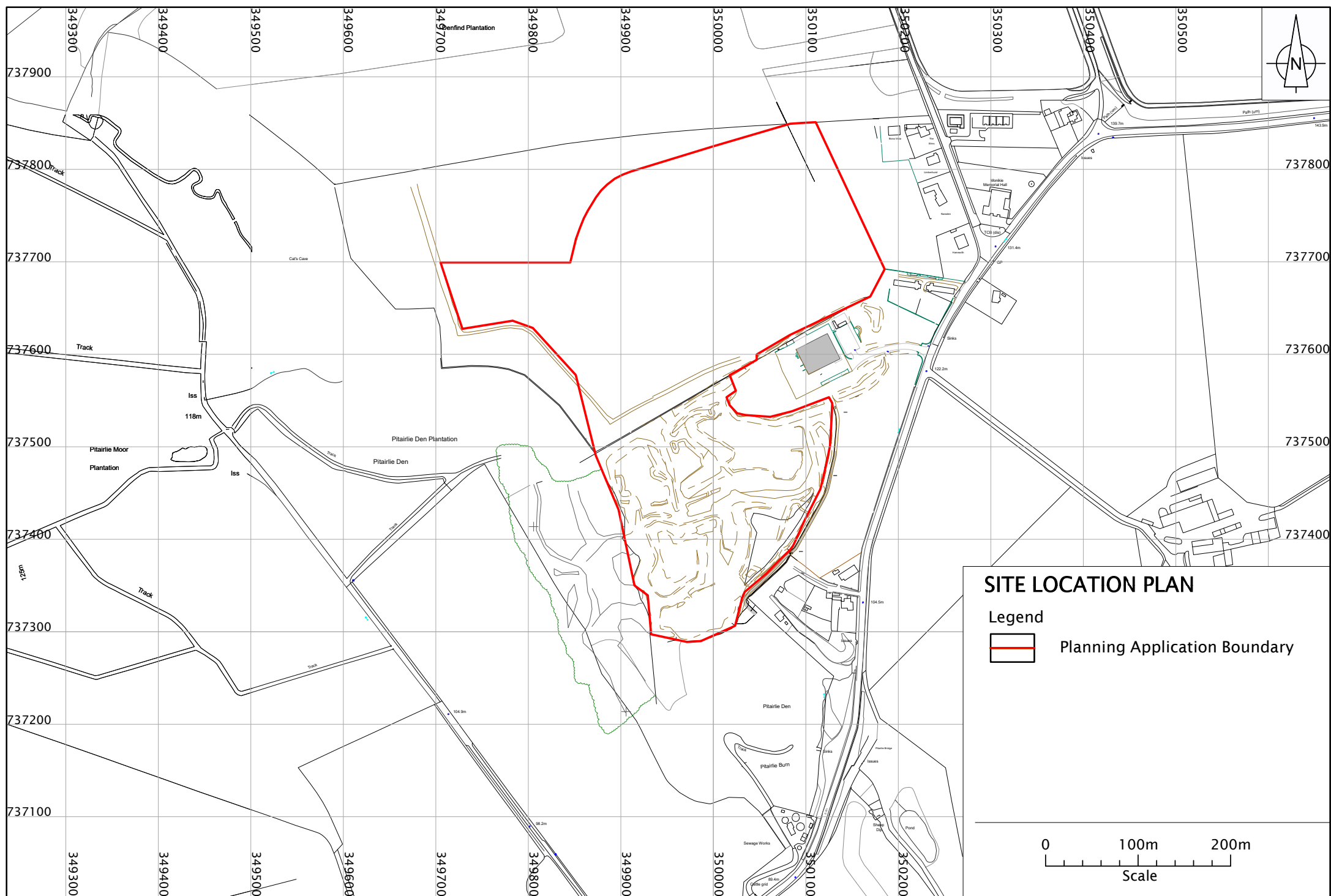
There are material considerations relating to the identified need for consented natural building stone reserves in the Angus Region and the minimisation of haulage distances through the provision of a local supply adjacent to the processing facility, which favour the grant of the permission sought. The proposal would also secure a source of long-term local employment.

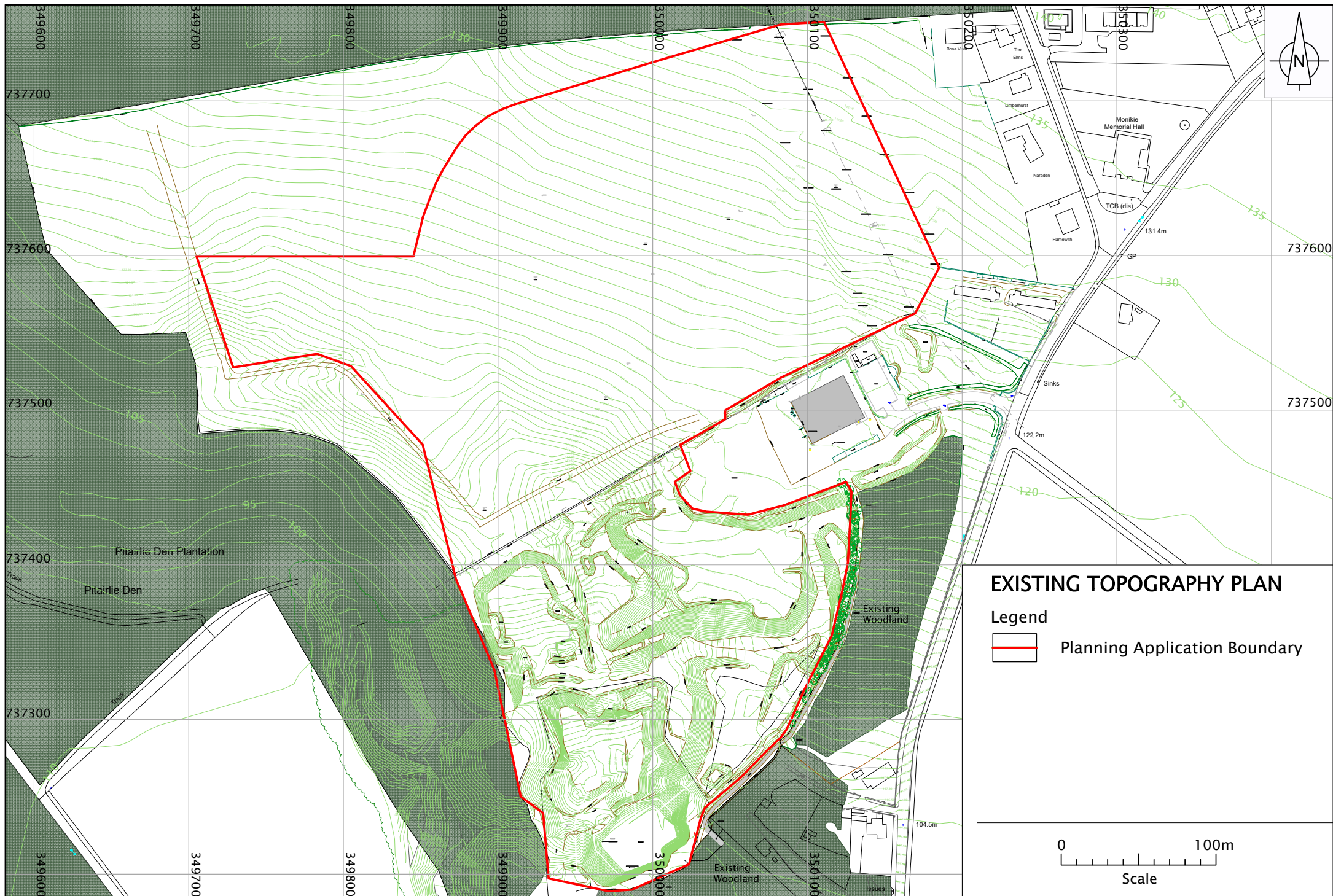
It is considered that, in planning terms, the proposal is in accordance with National and Development Plan policy and that the positive benefits identified outweigh the identified minor disbenefits.

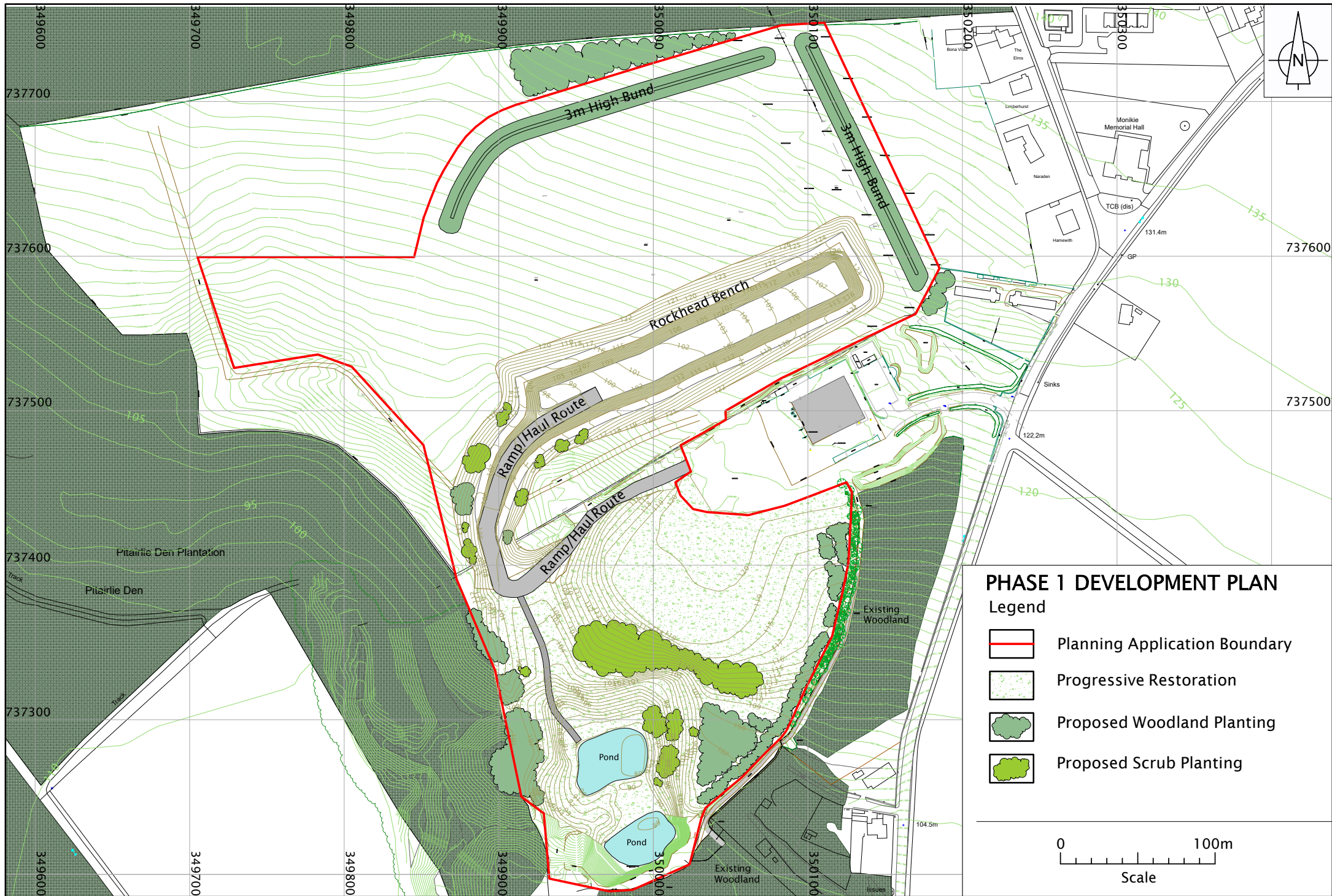
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









PHASE 1 DEVELOPMENT PLAN

Legend

-  Planning Application Boundary
-  Progressive Restoration
-  Proposed Woodland Planting
-  Proposed Scrub Planting

0 100m
Scale



