# Flood Risk Management (Scotland) Act 2009:

# Interim Report:

Local Flood Risk Management Plan
Tay Local Plan District



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### Foreword

This Interim Report on the Tay Local Flood Risk Management Plan shows the progress made in delivering the actions to avoid and reduce the risk of flooding, and prepare and protect ourselves and our communities across the local plan district.

"The impacts of flooding experienced by individuals, communities and businesses can be devastating and long lasting. It is vital that we continue to reduce the risk of any such future events and improve Scotland's ability to manage and recover from any events which do occur."

(Tay Local Flood Risk Management Plan, June 2016)

The publication of this Interim Report shows that the coordinated and collaborative efforts of public bodies can be brought together to deliver sustainable outcomes.

This Interim Report is published by Perth & Kinross Council on behalf of a partnership comprising Angus Council, Fife Council, Stirling Council, SEPA, Scottish Water, Loch Lomond and the Trossachs National Park Authority; Cairngorms National Park Authority and Forestry Commission Scotland.

Individuals are the first line of defence against flooding and have responsibilities to protect themselves from flooding. Through self-help and property level protection, awareness raising and signing up to Floodline, individuals, businesses and communities can, and have, made key contributions to the delivery of the actions in the Plan, which are detailed in this Interim Report.

Since the publication of the Plan in June 2016, public sector finances in Scotland have continued to be under considerable pressure. This places an even greater responsibility on SEPA, local authorities, Scottish Water and other responsible authorities to deliver their flood risk management responsibilities and, in particular the actions in the Plan, to manage flooding in a sustainable way.

SEPA, local authorities, Scottish Water and other responsible authorities will continue to work collaboratively to implement the actions in the Plan to its conclusion in June 2022.

We would like to thank all those who contributed to the development of this Plan which will help shape the way in which floods and their impacts are managed across the Tay local plan district.

### Contributors

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Fife Council
Stirling Council

### SEPA

Scottish Water

Loch Lomond and the Trossachs National Park
Cairngorms National Park Authority
Forestry Commission Scotland
Transport Scotland
Scottish Flood Forum

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### Chapter 1 - Background

This Interim Report is a legal requirement of the Flood Risk Management (Scotland) Act 2009 (Section 37) and is required to be published between July 2018 and June 2019. The Interim Report includes the conclusions of a review of the Tay Local Flood Risk Management Plan (the 'Plan'), published in June 2016 and includes information on the progress that has been made towards implementing the actions identified in the Plan.

Further details on flood risk management responsibilities in Scotland and the legal requirement for the publication of this Interim Report can be found in Appendix 1.

A copy of the published Tay Local Flood Risk Management Plan can be found at the following link:

http://www.pkc.gov.uk/media/36487/Tay-Local-Flood-Risk-Management-Plan/pdf/Tay LFRM Plan FINAL with links.pdf?m=636094599123000000

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### Chapter 2 - Review of the Plan

This section sets out the conclusions of the review of the Plan and a summary of the progress of actions as detailed in published Tay Local Flood Risk Management Plan. It draws upon the assessment of progress of actions presented in the subsequent sections.

### 2.1 Key Progress in Reducing the Impacts of Flooding since Publication

The following key progress has been made on the actions set out in the published Tay Local#Iood Risk Management Plan:-

- Improved Partnership Working the introduction of the Flood Act has resulted in a more modern, coordinated and sustainable approach to flood risk management.
   SEPA and responsible authorities are working more closely together than ever before.
- Overall Progress following a slow start, good progress is now being made on the
  identified actions across the Tay Local Plan District. Out of the 182 selected actions,
  154 have a green status, 24 amber and 4 actions have a red status. While the
  majority of actions have a green status, a number of these have yet to commence
  and this will happen over the remainder of the Plan as set out in Chapter 3 of this
  report.
- Almondbank Flood Protection Scheme substantially completed in August 2018 benefitting 31 homes and 48 businesses.
- Comrie Flood Protection Scheme proposals are being developed.
- Pitlochry Flood Study flood risk in Pitlochry is a priority; the flood study has identified flood risk management measures within the town.
- Aberfeldy, Perth, Kirriemuir and Forfar flood risk in these areas is a priority and flood protection studies are underway.
- Perth Integrated Catchment Study Scottish Water and Perth & Kinross Council have been working in partnership to develop a city-wide model.
- Flood Mapping and Modelling Improvements a number are underway in the Tay Local Plan District by SEPA and other organisations. This will improve the understanding of flood risk across this area.
- Flood Forecasting SEPA has continued to operate the Scottish Flood Forecasting Service Partnership with the Met Office. Daily, national flood guidance statements are issued to Category 1 and 2 agencies (such as emergency responders, local authorities and other organisations with flooding management duties). Each daily statement gives an assessment of the risk of flooding for the next five days to help enable these organisations to put preparations in place to reduce the impact of flooding. SEPA's Flood Alert service is freely available to everyone and helps enable communities to be aware and prepared to reduce the impacts of flooding. SEPA has also continued to provide a flood warning service to a number of locations within the Tay Local Plan District.

- Self Help Perth & Kinross Council has rolled out property level protection (PLP) measures for Council housing in Aberfeldy and Alyth, with further communities (Comrie and Bankfoot) targeted for 2019.
- Awareness Raising Community engagement and awareness raising activities
  have been carried out across the Tay Local Plan District, specifically in PVA's
  where significant actions are underway or have been undertaken (i.e. flood studies
  and schemes).
- Maintenance local authorities have continued to assess watercourses and carry out clearance and repair works where such works would substantially reduce flood risk. They have also continued to maintain existing flood protection schemes and defences. Scottish Water has continued to undertake risk based inspection, maintenance and repair on the public sewer network.
- Emergency Plans/Response Perth and Kinross Council#urther developed its Flooding Emergency Response Plan to take more account of the areas at highest risk of flooding.
- Planning Policies Planning authorities have continued to apply existing planning policies and SEPA and Scottish Water have provided flood risk advice with a view to avoiding flood risk.

### 2.2 How Current is the Plan?

The Tay Local FRM Plan was published in June 2016 to supplement the Flood Risk Management Strategy published by SEPA in December 2015. The Plan details how the actions identified in the Strategy were to be implemented over the period from 2016 to 2022. The Strategy and Plan were based on the National Flood Risk Assessment and the designated Potentially Vulnerable Areas at that time.

Since the identification of the actions in the Plan, there have and continue to be advancements in our knowledge and methods of assessment. These include the publication by SEPA of an updated National Flood Risk Assessment and Potentially Vulnerable Areas in December 2018. These advancements may inform the delivery of the actions in this Plan and will be used in the development of future Strategies and Plans.

It is therefore considered that this is the Interim Report for the current Tay Local FRM Plan, albeit the planned delivery and actual delivery dates have changed for some actions. This is further detailed in Chapter 3 of this report.

### 2.3 Significant Challenges

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Based on a review of the progress of actions detailed in this Interim Report, the following key challenges and issues have had, or may have, an impact on the delivery of actions to manage flood risk. Arrangements planned to deliver the remaining actions are described

below. Where these challenges have had an impact on the delivery of specific actions or actions across an LPD, this is detailed in Chapter 3.

However, the overall delivery of actions in the Plan has not been impacted by funding, although resource issues have been noted.

### Significant weather events

The Tay LPD was adversely affected by significant weather events in late 2015 and early 2016 (Storms Desmond and Frank), which had knock on impacts on the delivery of actions in the Plan from June 2016 onwards. For example, Perth & Kinross Council and Angus Council resources were deployed to deal with the emergency events at that time as well as the follow up activities and necessary works, which are still being delivered into the current financial year (2018/19). This has caused consequential delays in the planned delivery of some actions as staff resources that would have been delivering planned actions have been delivering emergency actions.

A further significant weather event affecting the Tay LPD was the 'Beast from the East' which resulted in extremely low temperatures and high levels of snow fall across much of the Plan area in March 2018. Fortunately there was not much significant flooding associated with this event, as a gradual thaw limited the impacts of snowmelt.

Arrangements planned to deliver the remaining actions affected by significant weather events are described below and in Chapter 3.

### **Funding**

"The lists of prioritised actions to meet agreed goals and objectives in the first six-year cycle considered what would be achievable assuming a similar level of funding for flood risk management activities from The Scottish Government. However, given the timing of spending reviews and annualised financial settlements for local government, the actual ability to deliver all the actions set in the Strategies in December 2015 and detailed in this Plan will be dependent on the availability of the necessary funding in each year of the six year Plan."

(Tay Local Flood Risk Management Plan, June 2016).

The level of funding from Scottish Government for flood risk activities for the first years of the six year Plan has been at the levels anticipated.

Stirling Council has reported some funding issues which have affected the delivery of clearance and repair actions.

### **Allocation of Resources**

The availability and retention of skilled staff to deliver flood risk actions has been a limiting factor in some areas. The increased workload created by the weather events noted above

has put more pressure on existing staff resources. This has caused consequential delays in the planned delivery of actions.

Arrangements planned to deliver the remaining actions affected by allocation of resource issues are described below and are detailed in Chapter 3.

### **Procurement and Use of Contractors and Consultants**

The availability of consultants has been a limiting factor in some areas. In the period following publication of the Plan, Perth and Kinross Council were initially unable to engage consultants to carry out some of the other actions noted below and underwent repeated procurement exercises. The market response to tender opportunities has since improved. The Council also encountered some initial issues in engaging site supervision staff for the Almondbank Flood Protection Scheme. These resource issues have caused consequential delays in the planned delivery of actions and have led to increased costs.

Arrangements planned to deliver the remaining actions affected by the use of consultants issues are described below and are detailed in Chapter 3.

### **Other Actions**

Perth and Kinross Council has carried out additional actions, out with the actions identified within the Tay Local Flood Risk Management Plan. These actions include:

- Delivering on previous commitments to complete investigations into flood schemes (at Comrie, Bankfoot and Coupar Angus) and carrying out the associated public consultation events in late 2016.
- River bank erosion protection works, as well as repairs to a surface water outfall, have been carried out on the River Almond at Inveralmond, Perth.
- Works to address surface water flooding have been carried out at Perth Harbour.
- Investigation works have been carried out on the North Muirton Flood embankment.
   The Council now plans to install a sheet piled cut off wall to prevent ground water seepage during future flood events.

Further details on these actions are provided within Section 3.3 of this document.

### 2.4 Prioritisation of Actions for Next Plan Cycle

Any actions that are not put forward for inclusion in the next Local FRM plan by December 2019 will be deferred for consideration until 2028-34. The background to this is explained below.

Many actions contained in the current Local FRM Plan involve undertaking investigations (e.g. flood studies) to assess the need for further action to manage flood risk. If further

action is found to be required, then it may be implemented in a future Local FRM Plan. For example, a flood protection study may recommend that a community flood action group is set up to increase resilience to flooding, or that flood defences are constructed. The community flood action group or flood defences may be implemented as part of the next Local FRM Plan covering the period between 2022-28.

However for any new actions to be considered and included in the next Local FRM Plan (from 2022-28), the responsible authorities need to fully detail and submit them for consideration as actions. The deadline date for the submission of such actions to SEPA has been set as December 2019. Any actions submitted will then be assessed and prioritised against the FRM objectives, and consulted upon ahead of the publication of the next cycle of FRM Strategies in December 2021 and Local FRM Plans in June 2022. Any actions that miss the December 2019 deadline may therefore be deferred for consideration until the third cycle of Plans covering the period from 2028-34.

### 2.5 Arrangements Planned to Deliver Remaining Actions

The actions in the Plan will continue to be delivered over the reminder of the 2016 to 2022 period. This will be as per the published Plan, subject to revisions in delivery dates as detailed in Chapter 3 of this Interim Report.

In general, most of the actions in the Plan will be delivered by June 2022. Where specific measures are required to address a delay and ensure an action is completed then this is described against the relevant action. In addition where there is a risk that remaining actions will not be delivered by the end of the Plan, planned contingencies have been considered, which are described against the relevant action.

### 2.6 Next Steps

A Final Report on the plan will be published between July 2021 and June 2022. This will include:

- an updated assessment of the progress made towards implementing the current actions:
- a summary of the current measures which were not implemented, with reasons for their non-implementation, and;
- a description of any other measures implemented since the plan was finalised which the lead authority considers have contributed to the achievement of the flood risk objectives.

In the meantime, to find out more about how flood risk is being managed please refer to your local responsible authority's website:

Angus Council Website - Flooding

Fife Council - Flooding

Perth and Kinross Council - Flooding

Stirling Council - Flooding

Scottish Environment Protection Agency (SEPA)

**Scottish Water** 

Forestry Commission Scotland

**Cairngorms National Park Authority** 

Loch Lomond & The Trossachs National Park Authority

**Transport Scotland** 

**Scottish Flood Forum** 

### 2.7 Conclusions

This report sets out the conclusions of the interim review of the Tay Local Flood Risk Management Plan as well as information on the progress made towards implementing the measures set out therein.

The introduction of the Flood Act has led to improved partnership working and data sharing between SEPA and the responsible authorities.

The published Tay Local FRM plan remains current and relevant. Since publication in June 2016, in general good progress has been made over the initial three years of the first cycle, despite a relatively slow start. Progress on the initial actions was delayed by the response required to Storms Frank and Desmond which required additional actions to be implemented. Staff resources were required to complete investigations into flood schemes (in Comrie, Bankfoot and Coupar Angus) and to carry out public consultation. The procurement of sufficient consultancy services initially also proved problematic. However with relatively few flood events since early 2016, more steady progress has been made in delivering the selected actions. Flood studies have generally progressed as programmed, while progress on the larger and more complex flood protection schemes has been slightly delayed. A large flood protection scheme in Almondbank has been completed in 2018 and progress has also been made on the development of a further major scheme for Comrie.

It should be noted that the responsible authorities involved in delivering the actions for the Tay LPD are also involved in delivering actions in other local plan districts and their resources have to be split accordingly.

### **Chapter 3 - Assessment of Progress of Actions**

This section sets out an assessment of the progress towards implementing the actions set out in the LFRMP.

There are actions that apply across the whole of the Tay LPD and actions that are specific to each of the 17 Potentially Vulnerable Areas (as defined under Section 13 of the Act) in the Tay LPD, which are shown below in Figure 1.

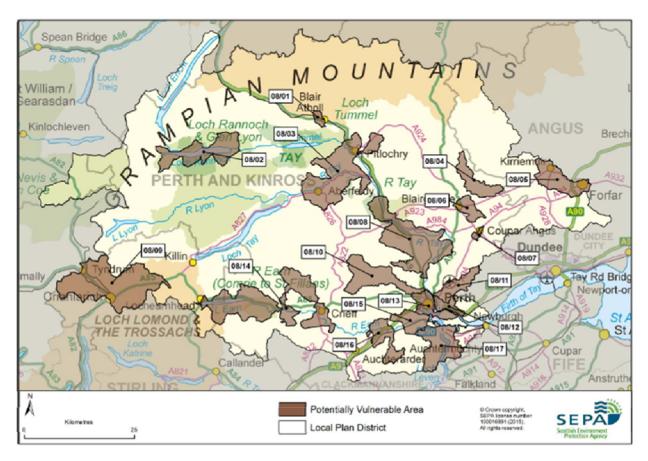


Figure 1: The Tay Local Plan District with Potentially Vulnerable Areas identified (Reproduced from Tay Flood Risk Management Strategy, SEPA, December 2015)

The actions that apply across the Tay LPD are shown in Tables 1 and 2 while the actions that apply to individual PVAs are summarised in Table 3.

The summary of the assessment of progress is shown using the traffic light system, where each item is marked as Red, Amber or Green (RAG) and where:

- GREEN Action has been delivered and/or is on programme and within budget;
- AMBER Action is behind programme and/or over budget, but the key dates are still anticipated to be met;
- RED Action is behind programme and/or over budget, with key dates unlikely to be met and/or outputs unlikely to achieve what was anticipated by the LFRMP.

### 3.1 Progress with General Actions to Manage Flood Risk Across the Tay LPD

This section sets out an assessment of the progress towards implementing actions that apply across the whole of the Tay Local Plan District over the six-year Plan, which is presented in Table 1 below.

Table 1: Summary of Progress for General Actions to Manage Flood Risk that Apply Across the Tay Local Plan District

Action	RAG Status
Flood Forecasting	G
Self Help	G
Awareness Raising	G
Maintenance	G
Emergency Plans / Response	G
Planning Policies	G

These general actions are also set out in more detail in Table 2 below which provides further information including the RAG Status; who is responsible for the delivery and implementation of the actions; any interim progress and the work to be undertaken to complete the action.

Table 2: Progress with General Actions to Manage Flood Risk that Apply Across the Tay Local Plan District

Action (ID)	RAG Status	Description	Delivery Lead	Interim Progress	Planned actions to complete
FLOOD FORECASTING (80410009)	G	The Scottish Flood Forecasting Service is a joint initiative between SEPA and the Met Office that produces daily, national flood guidance statements which are issued to Category 1 and 2 Responders. The flood guidance statements provide an assessment of the risk of flooding for a five day period allowing responders time to put preparations in place to reduce the impact of flooding. The service also provides information which allows SEPA to issue flood warnings, giving people a better chance of reducing the impact of flooding on their home or business. For more information please visit SEPA's website.	SEPA	SEPA has continued to operate the Scottish Flood Forecasting Service (SFFS) Partnership with the Met Office with daily, national flood guidance statements issued to Category 1 and 2 agencies (such as emergency responders, local authorities and other organisations with flooding management duties). Each daily statement gives an assessment of the risk of flooding for the next five days to help enable these organisations to put preparations in place to reduce the impact of flooding. SEPA's Flood Alert service is freely available to everyone and helps enable communities to be aware and prepared to reduce the impacts of flooding.	SEPA will continue to improve the Scottish Flood Forecasting Service (SFFS) with the Met Office, with daily flood guidance statements and flood alerts issued as required to enable communities and responders to reduce the impacts of flooding.
SELF HELP (80410011)	G	Everyone is responsible for protecting themselves and their property from flooding. Self-help actions can be undertaken by any individuals, businesses, organisations or communities at risk of flooding. They are applicable to all sources, frequency and scales of flooding. They focus on awareness raising and understanding of flood risk. Property and business owners can take simple steps to reduce damage and disruption to their homes and businesses should flooding happen. This includes preparing a flood plan and flood kit, installing property level protection, signing up to Floodline and Resilient Communities Initiative, and ensuring that properties and businesses are insured against flood damage.		Local authorities have engaged and supported their local communities to become more resilient to emergency situations, including flood events. Advice has been given on how to prepare for flooding, install property level protection and the Resilient Communities Initiative.  In Perth and Kinross, communities have been engaged through the multi-agency Local Resilience Partnership Community and Business Resilience Group, led by the Council. Perth and Kinross Council also trialled a pilot scheme offering Property Level Protection (PLP) measures to residents within selected communities. This scheme offered PLP products to residents at a reduced rate, benefitting from the Council's ability to buy products in bulk. However the uptake of PLP through this scheme was very low across the pilot communities and the scheme did not progress beyond the pilot stage. However as part of the pilot scheme, the Council has taken action to protect Council housing within some of the selected communities. Further details are provided within the relevant areas of Section 3.2 of this report.  Angus Council's Roads supervisors have been advised of the corporate message on flooding and the Council's Flood Team seek feedback from them following flood incidents to assess the impact of Council's message and actions.  Where communities work with the Stirling Council's resilience and risk team to develop community resilience plans, the Council will also provide flood pods that can be distributed in a time of need.  The Scottish Flood Forum provided support and advice to 5 communities (Bankfoot, Aberfeldy, Alyth, Blairgowrie and Comrie) to help people protect themselves and their property. This includes advice to	Local authorities will continue to support communities to become more resilient to flooding and to develop community resilience groups and emergency plans.  PLP products are to be fitted to Council housing within the remainder of the selected communities in Perth and Kinross by 2019. Further details are provided within the relevant areas of Section 3.2 of this report.

# **AWARENESS RAISING** (80410013)

G

Public awareness, participation and community support are essential components of sustainable flood risk management. SEPA and the responsible authorities have a duty to raise public awareness of

flood risk. This is undertaken both individually and collaboratively by a range of organisations. Improved awareness of flood risk and actions that prepare individuals, homes and businesses for flooding can reduce the overall impact. From 2016 SEPA will undertake flood risk education and awareness raising activities. In addition, SEPA will engage with community resilience groups and participate in property level protection events

delivered by the Scottish Flood Forum where

possible.

Across Scotland, SEPA will create and share communication and education resources with other responsible authorities. These resources will include awareness campaigns, media and marketing activity and promotion of SEPA's flood forecasting and warning services (Floodline). Where they exist, SEPA will engage with community resilience groups and community safety partnerships.

Local authorities will be undertaking additional awareness raising activities when developing any specific project proposals and will engage with community resilience groups and local communities. As a responsible authority, Scottish Water will support SEPA and responsible authorities with awareness raising activities as required and provide targeted flooding communications for Scottish Water specific activities. Scottish Water will raise awareness by producing and supplying targeted information to the public on large capital projects and detailed local studies. More general information and flooding guidance will be available on the website at https://www.scottishwater.co.uk/you-and-yourhome/your-home/flooding-information.

authorities

Responsible

SEPA has delivered a range of awareness raising activities through campaigning, education activities and partnership delivery. SEPA have run national and local digital and direct engagement campaigns to raise awareness of flood risk and SEPA's flood warning service, Floodline. SEPA publish and publicise an electronic newsletter (Flooding Gateway) four times a year which is distributed to a wide audience. SEPA are working with Education Scotland and the Scottish Government's Resilience team to embed flooding awareness within the Curriculum for Excellence, and resilience partners in Safer Communities programmes. SEPA have also developed an online tool that helps everyone share information on current flooding issues (Report-a-Flood). SEPA have worked in partnership with local authorities, emergency services and community organisations (e.g. Neighbourhood Watch Scotland, Citizens Advice Scotland and others) to share their resources and help to promote preparedness and understanding of how they manage flood risk in Scotland. SEPA have actively supported the Scottish Flood Forum and worked closely with UK agencies to develop joint flooding information.

residents on PLP assessments and advice on insurance and developing community resilience to

prepare for flooding.

Local Authorities have undertaken awareness raising activities around specific project proposals and have engaged with community resilience groups and local communities. Local authorities have also developed their websites and social media to provide more advice and information on flood risk management. Stirling Council use SEPA's flood alerts to deliver targeted flood awareness information. The Council are developing an annual programme of attending local highland games to deliver awareness raising objectives. The Council also works with the Scottish Fire and Rescue Service to deliver joint flooding messages at annual fire station open days.

Scottish Water support SEPA and responsible authorities with their awareness raising activities as required and provide targeted communications for Scottish Water sewer flooding programme activities. Scottish Water raise awareness by producing and supplying targeted information to the public on large capital projects and detailed local studies. Forestry Commission Scotland (FCS) continues to

engage with responsible authorities to make sure that the contribution of woodlands and forestry is recognised when natural flood management measures are promoted. Interactions with the public are sought at public National events (for example the Royal Highland

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SEPA will continue to raise awareness of flood risk through campaigning, developing education and engagement tools, creating new partnerships and improving the flood warning and forecasting service. Many of SEPA's awareness raising activities that are currently underway will continue. SEPA's focus will be on promoting the flood warning and forecasting service, innovation, education and engagement with partners, customers and the public.

Local Authorities will continue with awareness raising activities when developing proposals for the remaining actions in the Tay Local Flood Risk Management Plan.

Scottish Water are continuing to support SEPA and Local Authorities in their awareness raising activities. General awareness raising is carried out through the Scottish Water website and national advertising campaigns to increase public awareness of the implications of their actions on sewer flooding. For site specific capital projects and local studies, targeted public engagement is being carried out at a local level.

Forestry Commission Scotland will continue to:

- i) improve FCS's regional knowledge on flood risk and the potentially vulnerable areas;
- ii) identify opportunities for forestry projects across the country;
- iii) engage with local communities through the revision of Land Management Plans

				Show) and regional/local events (for example the Turiff	
				Show) to highlight the role that trees and woodland	
				have in contributing to managing flood risk. This	
				includes working with facilitators (from the charitable	
				sectors and businesses) to help partnership initiatives	
				that aim to improve public resilience to flood risk and to	
				make sure that the communities have access to	
				information and help/support. FCS continue to work on	
				partnership initiatives to spatially identify where	
				woodland can be planted and managed - these include	
				the local communities. Forest Enterprise Scotland (the	
				agency of Forestry Commission Scotland) engages with	
				communities, NGOs and statutory stakeholders on the	
				revision of Land Management Plans. Flooding is part of	
				these catchment-focused discussions where FCS's	
				planners raise awareness of the benefits that trees and	
				forestry can bring to flooding and the associated	
				reduction of peak flows through:-	
				1) Evaporation of rainfall from canopy and;	
				2) Transpiration of heavy rain into the forest soils and	
				geology.	
				The Scottish Flood Forum has raised awareness with	
				five flood risk communities (Bankfoot, Aberfeldy, Alyth,	
				Comrie and Blairgowrie) through a range of community	
				engagement actions that have helped them to prepare	
				for flooding. The SFF provided input to community	
				meetings and events to support engagement with	
				responsible authorities. The SFF produced three flood	
				risk community focussed newsletters which were sent	
				to group and individuals across Scotland. The SFF also	
				promoted and delivered three peer to peer flood risk	
				community networking events	
MAINTENANCE	G	Local authorities have a duty to assess	Local	Local authorities have continued to inspect and assess	· · · · · · · · · · · · · · · · · · ·
(80410007)		watercourses and carry out clearance and repair	Authority,	watercourses and carry out clearance and repair works	assess watercourses and carry out clearance and
(00110001)		works where such works would substantially	asset / land	where such works would substantially reduce flood risk.	repair works where this would substantially
		reduce flood risk. They produce schedules of	managers	This has included producing schedules of clearance	reduce flood risk. Reactive maintenance will also
		clearance and repair works and make these		and repair works and making these available for public	continue to be undertaken where issues are
		available for public inspection. Scottish Water will		inspection.	identified.
		undertake risk based inspection, maintenance and		In Perth and Kinross, the Council's routine watercourse	Perth and Kinross Council will also continue to
		repair on the public sewer network. Asset owners		inspections are a carried out either annually, six	maintain the formal flood schemes within its area,
		and riparian landowners are responsible for the		monthly or quarterly, depending on the flood risk	as per the existing inspection and maintenance
		maintenance and management of their own assets		associated with each watercourse. Further reactive	regime. Road gullies will continue to be monitored
		including those which help to reduce flood risk.		inspections have been carried out when issues have	and cleared as per the gulley monitoring
		Section 18 and 59 of the Flood Risk Management		been highlighted or during times of flooding. Where a	programme.
		(Scotland) Act 2009 place duties of watercourse		flood risk is identified, and clearance and repair works	Stirling council will continue to inspect
		assessment, clearance and repair on local		would substantially reduce that flood risk, then those works are included on the Council's clearance and	watercourses to identify flood risks and to carry
		authorities. In addition, local authorities may also be responsible for maintenance of existing flood		repair schedule and carried out.	out the fortnightly inspection and clearance regime which has resulted in a reduction in
		protection schemes or defences.		Significant examples of clearance and repair works are	localised and repeat flooding incidents. Budgets
		protection schemes of defences.		noted within various PVAs in this report. Culvert	have however been reduced therefore the volume
				replacement works were also carried out at Westhaugh	of clearance and repair works have reduced.
				of Dalshian, Pitlochry in 2016.	Maintenance will continue to be carried out on a
				or Daisman, Filloutry in 2010.	maintenance will continue to be carried out off a

				The Council has also continued to inspect and maintain existing flood protection schemes.  Perth and Kinross Council also operates a monitoring programme for the inspection and maintenance of road gullies. Each gulley is inspected, and cleared if required, once per year. The monitoring programme identifies gullies that are more at risk from blockage so that they can be checked more frequently. It also enables the Council to reduce the frequency of inspections where gullies are found to require less frequent maintenance. Through this monitoring, the Council is developing a more strategic and sustainable approach to gully maintenance. The public can also contact the Council to highlight issues with any road gullies.  In Angus, the Council's maintenance contract is let and managed on yearly basis. Reactive maintenance is also undertaken where issues are identified.  Stirling Council has a successful watercourse inspection regime in place which identifies risks. Where the problems reside in private property the Council notifies landowners of their riparian responsibilities. The council also has a fortnightly maintenance regime in place where key hot spot locations have been identified. This work is carried out by contractors and managed by the Council's flooding team. Any additional works identified are added to a schedule of works and prioritised based on risk and the available budget.  Scottish Water have carried out risk based inspection, maintenance and repair on the public sewer network	risk based priority. The council will continue to seek methods of continuing a sustainable level of maintenance activities through volunteers and criminal justice support. There are plans to expand this to involve criminal justice colleagues to arrange clearance works where they are not the Council's responsibility or within council ownership and where landowners agree to this work.  Scottish Water will continue to carry out risk based inspection, maintenance and repair on the public sewer network
<b>EMERGENCY</b>	G	Providing an emergency response to flooding is the		Local authorities have developed emergency plans.	Local authorities will continue to review, develop
PLANS /		responsibility of many organisations, including local authorities, the emergency services and SEPA.	and 2 Responders	Perth and Kinross Council further developed its Flooding Emergency Response Plan in October 2017.	and implement their emergency plans.  Where no incidents have occurred in Perth and
RESPONSE		Effective management of an emergency response	i veshouneis	The Plan is designed to ensure that contingency	Kinross within a 12 month period a table top
(80410014)		relies on emergency plans that are prepared under		measures are in place for a coordinated and flexible	exercise will be conducted to test the response
(00410014)		the Civil Contingencies Act 2004 by Category 1		response to flooding incidents to mitigate the effects of	plan. This exercise may include consideration of
		and 2 Responders. The emergency response by these organisations is coordinated through regional		flooding emergencies on people, property and infrastructure.	flooding incidents, severe weather, widespread flooding, storm events, etc.
		and local resilience partnerships. This response		Angus Council has developed emergency plans that	Angus Council will continue to review emergency
		may be supported by the work of voluntary		take account of new information received and the plans	plans to ensure that they are relevant and fit for
		organisations. Emergency response plans are		are constantly under review. Angus Council continue to	purpose. Continue to provide support to resilience
		applicable for all types of flooding. They set out the		support resilience partnerships whenever requested to	partnerships.
		steps to be taken during flooding in order to		do so.	Stirling Council will continue to develop a
		maximise safety and minimise impacts where possible. Under the Civil Contingencies Act,		Over and above civil contingencies planning, in June 2017 Stirling Council established a formal Flood	partnership working model and embed communications links between key group
		Category 1 Responders have a duty to maintain		Partnership Group between the Scottish Fire & Rescue	stakeholders and also to expand group
		emergency plans. Emergency plans may also be		Service, the Scottish Flood Forum, SEPA, Emergency	membership to other potential partners (e.g.
		prepared by individuals, businesses, organisations		Planning Officers and the flooding teams from each	volunteer sector)
		or communities.		Local Authority and Scottish Water. There is potential to	Fife Council's Flood Emergency Plan is due to be
		Scottish Water is a Category 2 responder under		expand the working group to include other agencies or	updated in November 2018.
		the Civil Contingencies Act 2004 and will support		the voluntary sector. Ongoing dialogue and quarterly	Scottish Water will continue to carry out risk
		regional and local resilience partnerships as		meetings take place between these parties to better	based inspection, maintenance and repair on the

		roquirod		plan joint amarganay responses to somewhite rials	public cower network
		required.		plan joint emergency responses to community risks.	public sewer network
				Fife Council's updated Flood Emergency Plan was	
				published in November 2016.	
				Scottish Water have continued to carry out risk based inspection, maintenance and repair on the public sewer	
				network	
PLANNING	G	The Scottish Planning Policy (SPP) and	Planning	SEPA exercises its planning functions with a view to	Perth and Kinross Council will publish LDP2 and
	9	accompanying Planning Advice Notes set out	authority	reducing overall flood risk. SEPA effectively contribute	revised Supplementary Guidance on Flooding
POLICIES		Scottish Ministers' priorities for the operation of the	authority	to the delivery of sustainable flood risk management	and Drainage.
(80010001)		planning system and for the development and use		and support the delivery of FRM Strategies and Local	Following consultation on the Perth and Kinross
(00010001)		of land. In terms of flood risk management, the		FRM Plans. In line with the management actions that	proposed LDP2, the Council considered the
		SPP supports a catchment scale approach to		accord with national planning policies SEPA will object	representations made to the Proposed Plan and
		sustainable flood risk management and aims to		to development at medium to high risk of flooding when	approved responses to these representations at a
		build the resilience of our cities and towns;		it is contrary to the risk framework set out in Scottish	special Council meeting in August 2018. The
		encourage sustainable land management in our		Planning Policy. SEPA will also continue to engage at	Proposed Plan was then submitted to Scottish
		rural areas; and to address the long term		the offset of the development plan process and	Ministers for examination on 14 September 2018.
		vulnerability of parts of our coasts and islands.		encourage planning authorities to undertake a Strategic	The Reporter will examine the unresolved issues.
		Under this approach, new development in areas		Flood Risk Assessment to inform their spatial strategy.	Following amendment of the LDP2 in line with the
		with medium to high likelihood of flooding should		The current Perth and Kinross Local Development Plan	Reporter's recommendations (unless there are
		generally be avoided.		(LDP1) contains planning policy and development	reasonable and justifiable grounds for not
		SEPA has a statutory role in relation to the		allocations which ensure that new development at	accepting some of the recommendations), the
		provision of flood risk advice to planning		medium to high risk of flooding is avoided (unless flood	Council will adopt LDP2. This is anticipated to be
		authorities. This role is expressed in Section 72 of		protection measures to the appropriate standard (1:200	July 2019.
		the Flood Risk Management (Scotland) Act 2009.		years) already exist and are maintained, are under	Perth and Kinross Council's existing
		SEPA also has a duty to co-operate with planning		construction, or are a planned measure in a current	Supplementary Guidance (SG) on Flood Risk and
		authorities in the preparation of development plans.		flood risk management plan). SEPA and Perth and	Flood Risk Assessments (Developers Guidance
		When consulted in relation to planning applications		Kinross Council's flooding team input to the planning	note on Flooding and Drainage) is also currently
		for development or site allocations in development		application process as necessary to implement flood	being reviewed and will be revised and consulted
		plans, and where the planning authority considers		risk policy and ensure there is an appropriate	on in January 2019 with a view to adoption
		there may be a risk of flooding, SEPA will provide		assessment and mitigation of flood risk as detailed	alongside LDP2. The main aspects that are being
		advice. The advice provided by SEPA will be with respect to the risk of flooding and on the basis of		development proposals come forward. The Council's flooding team has reviewed 872 planning applications	updated are the guidance on climate change; the
		the relevant information it holds which is suitable		since the start of the 2016/17 financial year as a	requirements for sustainable urban drainage systems (SuDS) and the ongoing maintenance
		for planning purposes. It will also be in line with the		consultee in the planning process. The Council's	responsibilities, including information on potential
		principles and duties set out in the FRM Act.		flooding team has also provided additional advice on	maintenance agreements with Scottish Water
		Further information about how SEPA engage in the		flood risk management to the Planning Authority out	under Section 7 of the Sewerage (Scotland) Act.
		planning system, including guidance on flood risk		with these formal consultations.	Angus Council has developed an Internal
		and planning is available on SEPA website		Perth and Kinross Council is reviewing LDP1, which	guidance document for use by Developers and
		http://www.sepa.org.uk/environment/land/planning/.		was adopted in February 2014 to produce LDP2. LDP1	Planning Officers to assist in explaining the
		Current national planning policies, the Scottish		includes the policies and development allocations	requirements. The Council's Flood Team will
		Planning Policy and accompanying Planning		against which the planning applications for	continue to provide the current level of support to
		Advice notes restrict development within the		development are considered. Key milestones in its	Planning colleagues.
		floodplain and limit exposure of new receptors to		review have included publication and consultation on	Stirling Council will continue work closely with
		flood risk. Planning authorities are responsible for		the Main Issues Report (consulting on key issues and	both planning authorities in the development and
		implementing this policy guidance when preparing		changes from the adopted LDP1) in December 2015	implementation of local development plans to
		Local Development Plans and when considering		and the publication and consultation on the LDP2	incorporate flood risk management objectives into
		individual planning applications. In addition to		Proposed Plan (the settled view of the Council) in	the process from the outset.
		national policies, local planning policies may place		December 2017. To inform this process, the Council	
		further requirements within their area of operation		has undertaken a Strategic Environmental Assessment	
		to restrict inappropriate development and prevent		(SEA) and prepared an Environmental Report to	
		unacceptable risk. Scottish Water is a statutory		identify, describe and evaluate the likely significant	
		consultee within the planning legislation. They		effects on the environment. The SEA includes the	

provide advice to planning authorities during the preparation of Local Development Plans and are required to comment on all outline or full planning applications which are referred by a planning authority.

consideration of flood risk in site assessment and policy work, and involved engagement with SEPA and the Council's flooding team.

Angus Council's Flood Team provide responses to all Planning Applications where there is potential for flood risk or surface water management systems to ensure that Scottish Planning Policy and suitable design criteria are met.

Within Stirling Council, flood risk information, including the local flood risk management plan, have fed into the newly completed local development plan. Planning authorities are kept informed of new developments internally through flooding teams and through attendance of regular local advisory group meetings. Loch Lomond & Trossachs National Park have a number of flooding policies in their local development plan which are used by development management during the assessment of planning applications. Their usage is being monitored as part of the monitoring of the Local Development Plan.

Fife Council's Planning Policy has been amended in the Strategic Plan to ensure that flooding is considered at the outset in line with current SPP. A Planning Policy is in place to ensure a flood risk assessment, SuDs details and any other relevant information is provided with the submission of a Planning Application; otherwise the application is returned as incomplete.

### 3.2 Progress with Specific Actions to Manage Flood Risk Within PVAs

This section sets out an assessment of the progress towards implementing actions that are specific to each of the 17 PVAs shown in Table 3. Assessments of the progress of actions within each PVA are presented.

Table 3: Summary of Progress of Specific Actions to Manage Flood Risk Within PVA's During 2016-2022

PVA	Location	Flood protection scheme/ works	Flood protection study	Maintain flood protection scheme*	Natural flood management study	Natural flood management works	Strategic mapping and modelling	New flood warning	Maintain flood warning*	Flood forecasting	Community flood action groups	Awareness raising	Self help	Property level protection scheme	Surface water plan/study	Maintenance	Site protection plans	Emergency plans/ response	Planning policies
08/01	Blair Atholl			N/A			Α		N/A	G	G	G	G			G		G	G
08/02	Kinloch Rannoch			N/A					N/A	G		G	G			G		G	G
08/03	Aberfeldy & Pitlochry		G	G			Α		G	G	G	G	G			G		G	G
08/04	Alyth			N/A		O	RA		N/A	G		G	G			O		G	G
08/05	Kirriemuir & Forfar		O	G			<mark>A</mark> G		N/A	G		G	G		U	O		G	G
08/06	Blairgowrie			N/A			G		G	G		G	G		U	O		G	G
08/07	Coupar Angus			N/A			G		N/A	G		G	G			O		G	G
08/08	Luncarty, Stanley, Bankfoot, Dunkeld & Birnam		G	N/A			AG		G	G		G	G			G		O	G
08/09	Tyndrum & Crianlarich		7	N/A			Α		N/A	G		G	G			Α		G	G
08/10	Almondbank	Α		G	,		A R		G	G		G	G			G		G	G
08/11	Scone	G	G	N/A			Α		N/A	G		G	G		G	G		G	G
08/12	Perth to Kinfauns (north of A90)	G		G			Α		G	G		G	G		G	G		G	G
08/13	Perth Centre		Α	G			Α		G	G	G	G	G		G	G		G	G
08/14	Comrie	Α		G			Α		G	G	G	G	G			G		G	G
08/15	Forteviot			N/A			RA		G	G		G	G			G		G	G
08/16	Dunning			N/A			<mark>A</mark> G		G	G		G	G			G		G	G
08/17	Bridge of Earn			G			A R		G	G	G	G	G			G		G	G

<sup>\*</sup> Note: N/A is used where there is no formal Flood Protection Scheme or flood warning scheme present.

There are no specific actions identified for 'property level protection scheme' and 'site protection plans' actions. Consideration of property level protection schemes will be included in the 'flood protection study', 'surface water plan/study' and/or 'emergency

plans/response' actions. Site protection plans will be identified through these same 'study' actions and also 'planning policies' action.

### 3.2.5 Kirriemuir & Forfar PVA 08/05

Local Plan District	Local authority	Main catchment
Tay	Angus Council	River Tay

# Ballock Errorve Northmus Northmus

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### **Summary of Progress within PVA**

There are approximately 150 residential properties and 80 non-residential properties at risk of flooding in the Kirriemuir and Forfar PVA. The Annual Average Damages are approximately £950,000. Further information can be found in <u>Tay Local FRM Plan</u> under PVA 08/05.

The PVA has been experienced significant weather events including Storms Desmond and Frank in December 2015 and January 2016, which resulted in flooding in the upper Tay catchment.

Key progress has been made with the letting of a contract for a flood protection study to identify the main flood sources in Kirriemuir and Forfar.

SEPA have also made progress on strategic mapping and modelling undertaking a screening exercise to characterise the catchments of the Dean Water and Gairie Burn.

Selecte	Selected Actions in Kirriemuir & Forfar PVA																	
PVA	Flood protections scheme/works	T OTC	Maintain flood protection scheme	Natural flood management	Natural flood management	Strategic mapping and	New flood warning	Maintain flood warning	Flood forecasting	Community flood action groups	Awareness raising	Self help	Property level protection scheme	Surface water plan/study	Maintenance	Site protection plans	Emergency plans/ response	Planning policies
08/05		G	G			A G	i		G		G	G		G	G		G	G

Summary of F	Progress	of Actions to Manage Flood Ris	sk in Kirriemu	ir and Forfa	r (PVA 08/05)	
Action	Status	Description	Delivery	Planned	Interim Progress	Planned Actions to
(Action ID)	(RAG)		Lead	Dates		Complete
Flood Protection Study (80110005)	G	Angus Council will undertake a flood protection study for Forfar to be delivered by financial year 2019/20. This will assess whether flood storage, modification of conveyance, direct flood defences, sediment management and natural flood management could reduce flood risk. The study will also consider the viability of property level protection and will include surface water investigations in partnership with Scottish Water. The study will take a catchment approach considering the interactions between both upstream and downstream.  Angus Council will coordinate the study with Scottish Water, SEPA and Landowners, etc.	Angus	2016 - 2020	The fluvial/NFM studies for Forfar were incorporated within the scope of Angus Council's Kirriemuir and Forfar Flood Protection Study which commenced in April 2018.  The fluvial/NFM studies for	Work still to be completed by Angus Council includes:-  • Undertaking resident and community Surveys  • Completing fluvial modelling and mapping  • Identifying a long list/short list of options  • Seeking to prioritise any NFM opportunities with associated water quality benefits  • An economic assessment of preferred options  • Preparation of a final report  Work still to be
Protection Study (80100005)	G	A flood protection study has been recommended for Kirriemuir to assess whether flood storage, sediment management, modification of conveyance, direct flood defences and natural flood	Angus Council	2016 -	Kirriemuir were incorporated within the scope of Angus Council's Kirriemuir and Forfar Flood Protection Study.	completed by Angus Council includes:-  Undertaking resident and community Surveys

		management could reduce flood risk. Natural flood management options that should be considered include floodplain restoration and sediment management. The study should also consider the viability of property level protection and property relocation. The study will take a catchment approach considering the interactions between both upstream and downstream.  Angus Council will coordinate the study with Scottish Water, SEPA and Landowners, etc.				<ul> <li>Complete fluvial modelling and mapping</li> <li>Identifying a long list/short list of options</li> <li>Seeking to prioritise any NFM opportunities with associated water quality benefits</li> <li>An economic assessment of preferred options</li> <li>Preparation of a final report</li> </ul>
Maintain Flood Protection Scheme (80100017)		The existing Kirriemuir Flood Prevention Scheme provides protection from the Gairie Burn. Angus Council will maintain the existing Flood Protection Scheme ensuring works are coordinated and	Angus Council	2016 - 2022	The existing Kirriemuir - Gairie Burn flood prevention scheme is inspected within Angus Council's watercourse inspection programme. Remedial work is identified and	Angus Council will continue to inspect the Kirriemuir - Gairie Burn Flood Protection Scheme and prioritise its maintenance to ensure the maximum
	G	infrastructure is fully assessed. This will be done by undertaking routine, reactive, programmed, regulatory and emergency response inspections. This work will be carried out by Angus Council engineers on a priority needs basis as resource allows. The general maintenance standard			programmed with other identified priorities. Recent improvements have included the repair and reinstatement of a flood wall following inspection.	possible level of protection is maintained. Angus Council will continue to engage with J and D Wilkies on a regular basis as the main receptor of flooding to seek their views on the

		target is to conduct watercourse inspections annually and structural				efficiency of the scheme.
		inspections biennially.				
Strategic Mapping and Modelling (80410016)	A	SEPA will seek to develop flood mapping in the Dean Water and Gairie Burn areas to improve understanding of flood risk. The extent and timing of improvements will depend on detailed scoping and data availability. Where this work coincides with local authority studies, SEPA will work collaboratively to ensure consistent modelling approaches are applied.	SEPA	2017- 2018	A screening exercise to characterise the catchment and identify the data necessary to support mapping improvements has been undertaken. Local authority flood studies are currently underway for Kirriemuir and Forfar.	SEPA will await the conclusion of these studies and review their suitability to inform updates to existing flood mapping before progressing further with this action.
Strategic Mapping and Modelling (80410019)	G	Scottish Water will review the assessment of flood risk within the highest risk sewer catchments to improve knowledge and understanding of surface water flood risk. Scottish Water will undertake further investigation and modelling within the Kirriemuir & Forfar sewer catchments to improve knowledge and understanding of surface water flood risk in this area as required under Section 16 of the Flood Risk Management (Scotland) Act 2009.	Scottish Water	Forfar 2016- 2019 Kirriemuir 2016- 2019	The Scottish Water assessment of flood risk within the Forfar sewer catchment has been delivered. The assessment will improve knowledge and understanding of surface water flood risk in this area. The Scottish Water assessment of flood risk within the Kirriemuir sewer catchment has not yet started. The assessment will improve knowledge and understanding of surface water flood risk in this area	The Kirriemuir assessment will be delivered within the planned timescale.

Flood Forecasting (80410009)	G	Refer to Description in Table 2.	SEPA	2016 - 2022	SEPA has continued to operate the Scottish Flood Forecasting Service (SFFS) Partnership with the Met Office with daily, national flood guidance statements issued to Category 1 and 2 agencies (such as emergency responders, local authorities and other organisations with flooding management duties). Each daily statement gives an assessment of the risk of flooding for the next five days to help enable these organisations to put preparations in place to reduce the impact of flooding. SEPA's Flood Alert service is freely available to everyone and helps enable communities to be aware and prepared to reduce the impacts of flooding.	SEPA will continue and improve the Scottish Flood Forecasting Service (SFFS) with the Met Office, with daily flood guidance statements and flood alerts issued as required to enable communities and responders to reduce the impacts of flooding.
Awareness Raising (80410013)	G	Refer to Description in Table 2.	Responsible authorities	2016 - 2022	No additional awareness raising activities have been carried out in this PVA, beyond those already described in Table 2 of this report.	Refer to planned actions described in Table 2 of this report. Angus Council will continue with awareness raising activities as part of the Kirriemuir and Forfar Flood

						Protection Study.
<b>Self Help</b> (80410011)	G	Refer to Description in Table 2.	-	2016 - 2022	No additional self-help activities have been carried out in this PVA, beyond those already described in Table 2 of this report.	Refer to planned actions described in Table 2 of this report.
Surface Water Plan/Study (80080018)	G	Angus Council will prepare Surface Water Management Plans (SWMPs) to cover Forfar. This will identify the most sustainable measures to manage urban drainage and the risk of surface water flooding, as well as sources of flooding such as the sewer network, watercourses and sea. This will establish a long- term action plan for each area to manage surface water and influence future capital investment, drainage maintenance, land-use planning, emergency planning etc. Angus Council will co- ordinate this work with Scottish Water and SEPA through the local plan district (LPD) partnership with delivery of the SWMP by 2019/2020.	Angus Council	Forfar 2016 - 2020 Kirriemuir 2016 - 2020	The Kirriemuir and Forfar Flood Protection Study commenced in April 2018 The Stage 1 SWMP for Forfar is complete; Stage 2 is identifying opportunities to attenuate surface water within the study area. The SWMP for Kirriemuir has been incorporated within the scope of the Flood Protection Study.	Angus Council will continue to lead the SWMP Partnership and identify joint and/or separate solutions to surface water flooding within the Forfar and Kirriemuir study area. The Council will seek support from the SWMP Partners to prioritise solutions and seek funding.
<b>Maintenance</b> (80410007)	G	Refer to Description in Table 2.	Angus Council, asset / land managers	2016 - 2022	No additional maintenance activities have been carried out in this PVA, beyond those already described in	Refer to planned actions described in Table 2 of this report.

					Table 2 of this report.	
Emergency Plans/ Response (80410014)	G	Refer to Description in Table 2.	Category 1 and 2 responders	2016 - 2022	No additional emergency plans/response activities have been carried out in this PVA, beyond those already described in Table 2 of this report.	Refer to planned actions described in Table 2 of this report.
Planning Policies (80010001)	G	Refer to Description in Table 2.	Planning authority	2016 - 2022	No additional planning policy activities have been carried out in this PVA, beyond that already described in Table 2 of this report.	Refer to planned actions described in Table 2 of this report.





### 3.3 Other Actions

This section sets out details of additional significant actions undertaken in the Tay Local Plan District by local authorities to contribute to the implementation of the current actions in the plan and the achievement of the objectives in the plan.

Perth and Kinross Council have carried out additional actions, out with the actions identified within the Tay Local Flood Risk Management Plan. These actions include:

- Delivering on previous commitments to complete investigations into flood schemes
  (at Comrie, Bankfoot and Coupar Angus) and carrying out the associated public
  consultation events in late 2016. This included community drop-in sessions and
  presentations to provide these communities with further information on the risk of
  flooding; the outcome of the Council's investigations into flood schemes; work to
  raise awareness of flooding and help the community become more resilient to it and
  other action being taken on flood risk. The events were also attended by SEPA,
  Scottish Water and the Scottish Flood Forum.
- River bank erosion protection works, as well as repairs to a surface water outfall, have been carried out on the River Almond at Inveralmond, Perth. The works were completed in December 2017 and have helped to manage the risk of surface water flooding in the Inveralmond Industrial Estate as well as protecting the integrity of the existing flood defences in the area. \$\scrt{2}\text{cottish Water also completed repairs to an adjacent drainage outfall earlier in 2017.
- Works to address surface water flooding have been carried out at Perth Harbour.
   The works have helped to manage the risk of flooding to properties in the harbour area and were completed in March 2018.
- Investigation works have been carried out on the North Muirton flood embankment. The Council now plans to install a sheet piled cut off wall to prevent ground water seepage during future flood events. This measure is programmed for completion in March 2019 and will manage the risk of flooding to adjacent properties while protecting the integrity of the flood defences in this area as well.

### List of Acronyms and Abbreviations

FCS Forestry Commission Scotland

FEH Flood Estimation Handbook

FEP Flood Emergency Plan

FRM Flood Risk Management

ICS Integrated Catchment Study

LFRMP Local Flood Risk Management Plan

LPD Local Plan District

PLP Property Level Protection

NFM Natural Flood Management

PVA Potentially Vulnerable Area

Q&S Quality & Standards (Scottish Water)

RAG Red, Amber, Green

SEA Strategic Environmental Assessment

SEPA Scottish Environment Protection Agency

SFFS Scottish Flood Forecasting Service

SPP Scottish Planning Policy

SR10/15 Spending Review periods for 2010-2015 and 2016-2021 for Scottish

Water capital maintenance expenditure

SUDS Sustainable Urban Drainage System

SWMP Surface Water Management Plan

TEAMB Tay Estuary and Montrose Basin

### Annex 1: FRM Responsibilities & Legal Requirement for this Interim Report

### Flood Risk Management in Scotland

The Scottish Ministers, SEPA and responsible authorities must exercise their flood risk related functions with a view to reducing overall flood risk (refer to Section 1(1) of the Flood Risk Management (Scotland) Act 2009).

Through the preparation of a national flood risk assessment and setting of objectives to reduce the level of flood risk by SEPA, which is published in Flood Risk Management Strategy, and the publication of Local Flood Risk Management Plan's by 'lead' local authorities, which detail how and when the actions agreed to meet these objectives are to be done, SEPA and all responsible authorities must act to manage flood risk in a sustainable way.

Flood Risk Management Strategy for the Tay Local Plan District

Local Flood Risk Management Plan for the Tay Local Plan District

### Legal Requirement

This document sets out the conclusions of the review of the Local Flood Risk Management Plan (LFRMP) for the Tay Local Plan District (LPD) as required by Section 37 of the Flood Risk Management (Scotland) Act 2009 (the "Act").

### 37 Local flood risk management plans: interim report

- (1) Not earlier than 2 years and not later than 3 years after a local flood risk management plan is finalised, the lead authority must
  - (a) review the plan, and
  - (b) publish a report on the conclusions of the review including information on the progress that has been made towards implementing the measures identified in the implementation part of the plan.
- (2) The lead authority must make copies of the report available for public inspection.

The Tay LFRMP, which includes the 'implementation part of the plan', was published in June 2016. The Interim Report is therefore to be published between July 2018 and June 2019. The Interim Report will provide a summary of the LFRMP actions ('measures') and the proposed delivery timescales.

The information on progress will include:

- an assessment of the progress towards implementing each of the actions;
- reasons for any actions where delivery is not as planned; and
- a description of arrangements planned to deliver the remaining actions and to address delayed actions.

The Interim Report is published by the 'lead authority' as defined by Section 34(9) of the Act in partnership with SEPA and the 'responsible authorities', as defined by Section 5 of the Act. The approval of the Interim Report will be in accordance with the agreed governance arrangements for the LPD. The responsible authorities for the Tay LPD are:

- Perth & Kinross Council (lead authority)
- Angus Council
- Fife Council
- Stirling Council
- SEPA
- Scottish Water
- Loch Lomond and the Trossachs National Park
- Cairngorms National Park
- Forestry Commission Scotland

The lead authority must also publish a Final Report on the LFRMP under Section 38 of the Act between July 2021 and June 2022 (not earlier than 5 years and not later than 6 years from the publication of the plan). The Final Report will provide an assessment of current actions and a summary of current actions not implemented, with reasons for their non-implementation. The Final Report will also include a description of any other measures implemented, which the lead authority considers have contributed to the achievement of the objectives summarised in the LFRMP.

### **Publication**

#

The published Interim Report for the Tay LFRMP will be made available for public inspection, as per Section 37(2) of the Act, via the website of the lead authority, Perth & Kinross Council:

### http://www.pkc.gov.uk/frmplans

Links to the published Interim Report for the Tay LFRMP will also be provided from Scottish Government, SEPA and other responsible authority websites.

A hard (paper) copy of the published Interim Report for the Tay LFRMP is also available for public inspection at the following location(s):

- (1) Pullar House, 35 Kinnoull Street, Perth PH1 5GD
- (2) Auchterarder Library, Chapel Wynd, Auchterarder PH3 1BL
- (3) Blairgowrie Area Office, 46 Leslie Street, Blairgowrie PH10 6AQ
- (4) Crieff Area Office, 32 James Square, Crieff PH7 3EY
- (5) Pitlochry Area Offices/Library, 26/28 Atholl Road, Pitlochry PH16 5BX
- (6) Breadalbane Community Campus, Crieff Road, Aberfeldy PH15 2DU
- (7) Loch Leven Community Campus & Library, The Muirs KY13 8FQ

during the hours of 8.45 a.m. to 5.00 p.m., Mondays to Fridays inclusive, except 8.45am to 11am on the first Thursday of every month.

Copies of the published Interim Report for the Tay LFRMP may also be available at offices of other responsible authorities. Those persons living in the Angus, Stirling and Fife Council areas of the Tay District should contact their own local authority in the first instance:

Angus Council Accessline	03452 777 778
Fife Council General Enquiries	03451 550 000
Stirling Council Contact Centre	01786 404 040