

Flood Risk Management  
(Scotland) Act 2009:

# INTERIM REPORT

## Local Flood Risk Management Plan

Forth Estuary Local Plan District



**Falkirk  
Council**

Published by: Falkirk Council

**Publication date: 31 March 2019**

## **Terms and conditions**

### **Ownership:**

All intellectual property rights INTERIM REPORT Local Flood Risk Management Plan are owned by Falkirk Council, SEPA or its licensors. The INTERIM REPORT Local Flood Risk Management Plan cannot be used for or related to any commercial, business or other income generating purpose or activity, nor by value added resellers. You must not copy, assign, transfer, distribute, modify, create derived products or reverse engineer the INTERIM REPORT Local Flood Risk Management Plan in any way except where previously agreed with Falkirk Council or SEPA. Your use of the INTERIM REPORT Local Flood Risk Management Plan must not be detrimental to Falkirk Council or SEPA or other responsible authority, its activities or the environment.

### **Warranties and Indemnities:**

All reasonable effort has been made to ensure that the INTERIM REPORT Local Flood Risk Management Plan is accurate for its intended purpose; no warranty is given by Falkirk Council or SEPA in this regard. Whilst all reasonable effort has been made to ensure that the INTERIM REPORT Local Flood Risk Management Plan is up to date, complete and accurate at the time of publication, no guarantee is given in this regard and ultimate responsibility lies with you to validate any information given. Falkirk Council or SEPA will not be responsible if the information contained in the INTERIM REPORT Local Flood Risk Management Plan are misinterpreted or misused by you.

### **Copyright and acknowledgements:**

Full copyright and acknowledgements is available in Annex 1.

### **Data Protection:**

You agree not to use the INTERIM REPORT Local Flood Risk Management Plan in any way that constitutes a breach of the Data Protection Act 1998.

**No Partnership or Agency:**

Nothing in these Terms and Conditions are intended to, or shall be deemed to, establish any partnership or joint venture between you and Falkirk Council or SEPA or other responsible authority.

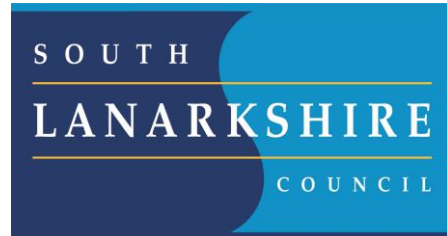
**No Interference:**

Nothing within these Terms and Conditions interferes with the statutory rights or obligations of you or Falkirk Council or SEPA or other responsible authority.

**Jurisdiction:**

These Terms and Conditions are governed by Scots law and in the event of any dispute you agree to submit to the exclusive jurisdiction of the Scottish Courts.

## Prepared In Partnership:



Comhairle Siorrachd  
Chlach Mhanann



Scottish  
Water  
Trusted to serve Scotland



Falkirk  
Council

# Contents

<b>Foreword</b>	<b>6</b>
<b>Background</b>	<b>8</b>
<b>Review of the plan</b>	<b>9</b>
<b>Assessment of progress</b>	<b>15</b>
<b>Progress with LPD-wide actions</b>	<b>19</b>
<b>Progress with PVA-specific actions</b>	<b>26</b>
 Kinross, Milnathort, Glenrothes and Kinglassie (PVA 10/04)	 <b>27</b>

## Foreword

This INTERIM REPORT to the 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.

In summary, twenty nine areas were identified as being potentially vulnerable to risk across the Forth Estuary. These included 14,000 residential and 3,800 non residential properties with an estimated annual average damage of thirty six million pounds.

*“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.”*

(Forth Estuary Local Flood Risk Management Plan, June 2016)

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

The INTERIM REPORT is published by Falkirk Council on behalf of a partnership comprising thirteen local authorities: The City of Edinburgh Council, Clackmannanshire Council, East Dunbartonshire Council, East Lothian Council, Falkirk Council (lead authority), Fife Council, Midlothian Council, North Lanarkshire Council, Perth and Kinross Council, Scottish Borders Council, South Lanarkshire Council, Stirling Council, West Lothian Council; as well as Scottish Water; SEPA; Network Rail, Transport Scotland 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 and 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 and Scottish Water and other responsible authorities will continue to work collaboratively to implement the actions in the Plan to its conclusion in June 2022.

.....  
*Councillor Paul Garner*  
*Environment Portfolio Holder*  
*Falkirk Council*

.....  
*Rhona Geisler*  
*Director of Development Services*  
*Falkirk Council*

## Background

The INTERIM REPORT is a legal requirement of the Flood Risk Management (Scotland) Act 2009 (Section 37). The INTERIM REPORT is required to be published between July 2018 and June 2019. The INTERIM REPORT includes the conclusions of a review of the Forth Estuary 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 Forth Estuary Local Flood Risk Management Plan can be found using the following link:

[http://www.edinburgh.gov.uk/info/20006/emergencies\\_safety\\_and\\_crime/1433/flood\\_risk\\_management\\_plan/1](http://www.edinburgh.gov.uk/info/20006/emergencies_safety_and_crime/1433/flood_risk_management_plan/1)



# Review of the plan

## Key progress in reducing the impacts of flooding since publication

The Forth Estuary Local Flood Risk Management Plan District geographic area extends into thirteen local authority areas with input from other responsible authorities including Scottish Water; SEPA; Network Rail, Transport Scotland and Forestry Commission Scotland. Within the LPD XX Actions were identified for progression within the 6 year period between 2016 and 2021. These Included 10 Flood Protection Schemes or works, 26 studies as well as new flood warning schemes, surface water management plans and natural flood management studies and works.

- New Flood Warning Schemes are now in place for Airth,...
- Flood Studies have been progressed for Airth, Denny and Dunipace, Whitburn,...
- Surface water Management plans have been completed for Bathgate,
- Integrated Catchment Studies have been completed for Falkirk and Edinburgh and East Lothian and are being progressed in West Lothian, Fife
- Significant progress has been made developing relationships, sharing of knowledge, information and understanding between partner responsible authorities beyond any previous working relationships allowing joint working and joint solutions to be sought where there are common problems.

## How current is the Plan?

The Plan was published in June 2016 supplementing 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 2016 to 2022. The Strategy and Plan are 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 advances in our knowledge and development of assessment techniques. These include the publication by SEPA of a new National Flood Risk Assessment and revised designation of Potentially Vulnerable Areas in December 2018. These advances 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 the Plan on which this is the INTERIM REPORT is current, albeit the planned delivery and actual delivery of actions has changed for some actions as detailed in the 'Assessment of the progress of actions'.

## Challenges

Based on a review of the assessment of the progress of actions detailed in this INTERIM REPORT, the following key themes and issues have been identified that have 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 issues have had an impact on the delivery of specific actions or actions across an LPD, this is detailed in the 'Assessment of the progress of actions'.

## **Significant weather events**

Perth and Kinross was adversely affected by significant weather events in late 2015 and early 2016, which had knock on impacts on the delivery of actions in the Plan from June 2016 onwards. Perth & Kinross Council resources were deployed to dealing 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 actions within that area as staff resource that would have been delivering planned actions has been redirected to delivering emergent actions.

Whereby, there has been an issue, arrangements planned to deliver the remaining actions affected by significant weather events are described below and detailed in the 'Assessment of the progress of actions' section of this INTERIM REPORT.

## **Funding**

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. As per the principals of financial settlements for local government, the funding is not 'ring fenced' and local authorities may have allocated these funds to the delivery of other priorities.

The 'actions in the Plan 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 Estuary and Montrose Basin Local Flood Risk Management Plan, June 2016).

## **Allocation of Resources**

The impact on the level of funding from Scottish Government in general settlements for local government may also have had an effect on the availability and allocation of resources within local authorities.

The budgets directly available for delivering flood risk actions has been a limiting factor in some areas. This has caused consequential delays in the planned delivery of actions. Spend profiles for prioritised schemes are submitted on an annual basis by Local Authorities to the Scottish Government in attempt to match funding to spend. However as previously noted, as per the principals of financial settlements for local government, the funding is not 'ring fenced' and local authorities may have allocated these funds to the delivery of other priorities.

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 detailed in the 'Assessment of the progress of actions' section of this INTERIM REPORT.

## **Cost Increases**

Cost increases as actions are detailed and developed have also been a limiting factor in some areas. This has caused consequential delays in the planned delivery of actions and has led to increased costs.

Arrangements planned to deliver the remaining actions affected by cost increase issues are described below and detailed in the 'Assessment of the progress of actions' section of this INTERIM REPORT.

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

The availability of consultants and professional advisors 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 other actions 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 (action within Tay Local FRM Plan).

This has caused consequential delays in the planned delivery of actions and has led to increased costs.

## **Other actions**

### **Prioritisation of actions for next plan cycle**

Many actions contained in the plan are to undertake studies that will assess the need for further actions to be implemented in future plans. 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. This introduces a deadline date by when such actions need to be detailed and submitted by responsible authorities for consideration as actions in the Plan from 2022-28. The deadline date for submission of these actions to SEPA has been set as December 2019. The actions submitted will then be assessed and prioritised against the flood risk objectives, and consulted upon ahead of the publication of the next cycle of Flood Risk Management Strategies in December 2021 and Local Flood Risk Management Plans in June 2022. Any actions that miss this deadline may be delayed for consideration in the next cycle, from 2028-34.

### **Arrangements planned to deliver the remaining actions**

The actions in the Plan will continue to be delivered over the remainder of the 2016 to 2022 period. This will be as per the published Plan, subject to revisions in delivery dates as detailed in the 'Assessment of the progress of actions' section of this INTERIM REPORT.

In general, the vast majority 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.

## **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:

[Perth and Kinross Council](#)

## **Conclusions**

To be completed by Lead Local Authority

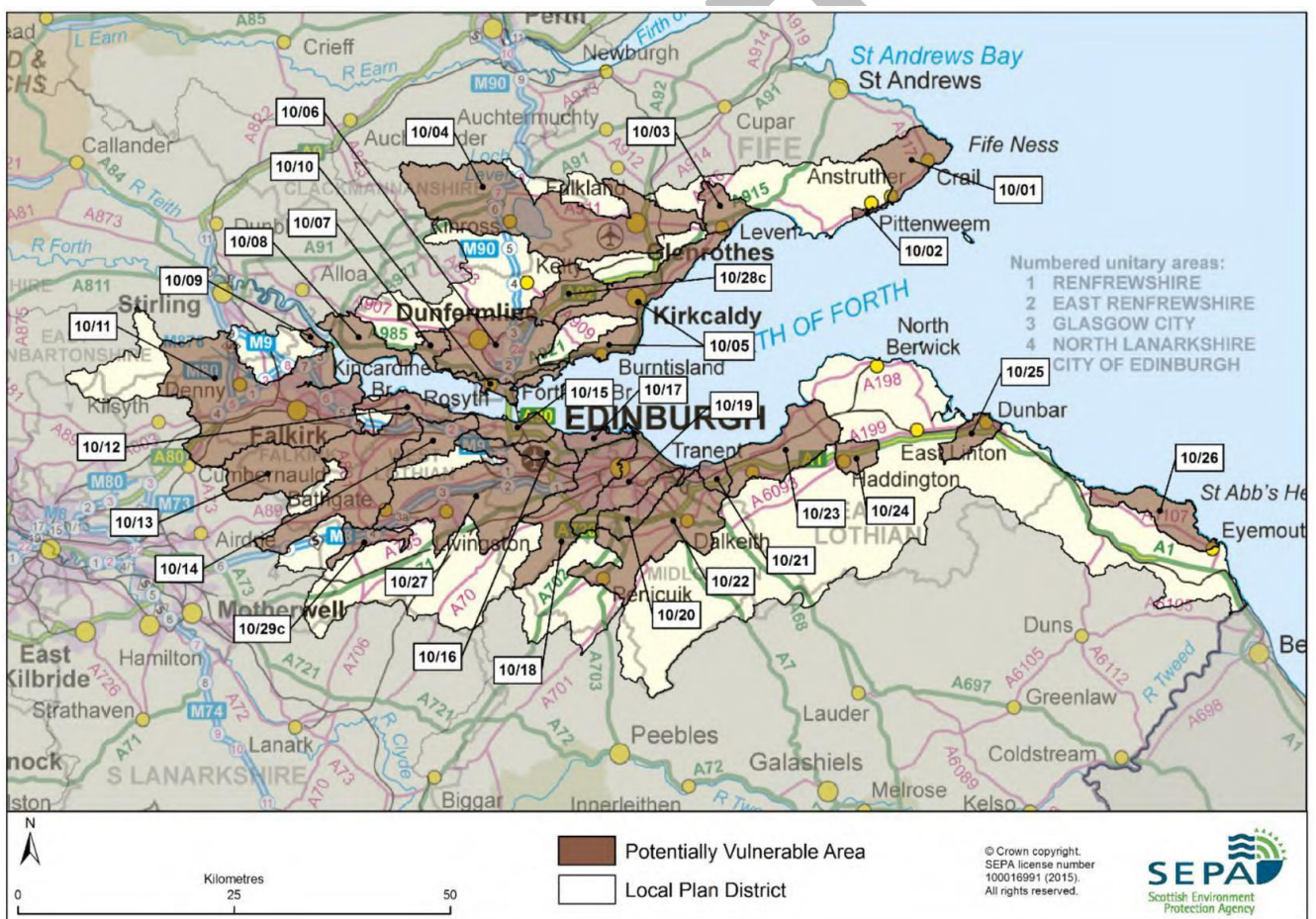
DRAFT

# Assessment of progress

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 Forth Estuary LPD and actions that are specific to each of the 29 Potentially Vulnerable Areas (as defined under Section 13 of the Act) in the Forth Estuary LPD, which are shown below in Figure 1.

Figure 1: Forth Estuary Local Plan District with Potentially Vulnerable Areas identified



Reproduced from Forth Estuary Flood Risk Management Strategy, SEPA (December 2015).

The actions that apply to individual PVA across the Forth Estuary LPD are shown overleaf in Figure 2. 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 is on programme and within budget.
- **AMBER** – Action is behind programme and / or over budget, but the key dates are anticipated still to be met.
- **RED** – Action is behind programme and / or over budget with key dates unlikely to be met and / or the output is unlikely to achieve what was anticipated by the LFRMP.

DRAFT



PVA	Flood protections scheme/works	Natural flood management works	New flood warning	Flood protection study	Natural flood management study	Surface water plan/study	Strategic mapping and modelling	Maintain flood protection scheme*	Maintain flood warning	Flood forecasting	Property level protection scheme	Community flood action groups	Self help	Awareness raising	Maintenance	Site protection plans	Emergency plans/response	Planning policies
10/01 Crail							G		G	G			G	G	G		G	G
10/02 Pittenwem							G		G	G			G	G	G		G	G
10/03 Leven	G		G			G	G		G	G			G	G	G		G	G
10/04 Kinross, Milnathort, Glenrothes and Kinglassie	A		G	G		A	G	G		G		N/A	G	A	G		G	G
10/05 Kirkcaldy, East Wemyss and Methil	G			A		G	R	G	G	G			G	G	G		G	G
10/06 Inverkeithing, Rosyth, Dunfermline and Wellwood				G		G	R	G		G			G	G	G		G	G
10/07 Cairneyhill		G		G		G	G	G	G	G			G	G	G		G	G
10/08 Hawkhill, Kincardine, Kennet Pans and Culross	A			A			A	G	G	G			G	G	G		G	G
10/09 Airth			G	G			R			G			G	G	G		G	G
10/10 North Queensferry and Inverkeithing						G	R	G	G	G			G	G	G		G	G
10/11 Falkirk, Grangemouth, Laurieston, Denny, Redding, Dunipace, Cumbernauld, Carron and Stenhousemuir	G		G	G		G	A	G	G	G		G	G	G	G		G	G
10/12 Bo'ness						G	A	G	G	G			G	G	G		G	G
10/13 Linlithgow Bridge, Bathgate, Whiteside and Slamannan				R	A	G	R	G		G			G	G	G		G	G
10/14 Philipstoun							R			G			G	G	G		G	G
10/15 South Queensferry							R			G			G	G	G		G	G
10/16 Crammond Bridge						A	G		G	G			G	G	G		G	G
10/17 Granton				G		G	A	G	G	G			G	G	G		G	G

PVA	Flood protections scheme/works	Natural flood management works	New flood warning	Flood protection study	Natural flood management study	Surface water plan/study	Strategic mapping and modelling	Maintain flood protection scheme*	Maintain flood warning	Flood forecasting	Property level protection scheme	Community flood action groups	Self help	Awareness raising	Maintenance	Site protection plans	Emergency plans/response	Planning policies
10/18 Water of Leith catchment	R					G	R	G	G	G			G	G	G		G	G
10/19 Braid Burn catchment						G	A	G	G	G			G	G	G		G	G
10/20 Niddrie and Burdiehouse Burn catchment				G		G	G	G		G			G	G	G		G	G
10/21 Musselburgh	A				G	G	A		G	G		G	G	G	G		G	G
10/22 Lasswade, Penicuik, Dalkeith and Musselburgh	A			G	G	G	A	G	G	G		G	G	G	G		G	G
10/23 Cockenzie and Port Seton, Longniddry and Prestonpans				G			R	G	G	G		G	G	G	G		G	G
10/24 Haddington	G						G		G	G		G	G	G	G		G	G
10/25 Dunbar and West Barns				A			A		G	G		G	G	G	G		G	G
10/26 Berwickshire Coast				G			A	G		G		G	G	G	G		G	G
10/27 South Gyle, Broxburn and Bathgate	A					G	R	G		G			G	G	G	G	G	G
10/28c Cowdenbeath			G	G		G				G			G	G	G		G	G
10/29c Whitburn				G						G			G	G	G		G	G

Figure 2: Summary of progress of actions to manage flood risk in the Potentially Vulnerable Areas of the Forth Estuary

## Progress with LPD-wide Actions

This section sets out an assessment of the progress towards implementing actions that apply across the whole of the Forth Estuary LPD over the six-year Plan, which is presented in Figure 3 overleaf.

Action	Status	Description	Delivery Lead	Progress in Delivery, including key deliverables and dates	Planned Actions to complete/ address delay
<b>Flood forecasting (100990009)</b>	<b>G</b>	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	In place	
<b>Self help (100990011)</b>	<b>G</b>	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 Initiatives, and ensuring that properties and businesses are insured against flood damage.	Community	Ongoing with input from SEPA, Local Authorities and the Scottish Flood Forum. The Scottish Flood Forum, as well as working on specific community projects, undertake more strategic community Engagement including, setting up and attending property level protection exhibitions, aiding selection of products, providing home assessments and appropriate and relevant information to enable members of the public to	This is an on-going community/individual led activity which local authorities, SEPA and the Scottish Flood Forum continue to support.

				<p>make informed decisions. The Scottish Flood Forum also has ongoing community property level protection training and Flood Warden and resilience group promotion. Local authorities are supporting communities, individuals and the Scottish Flood Forum to become resilient through promotion of Floodline, providing advice on flood risk and advocating property level protection. For example, Perth and Kinross Council supports communities to become more resilient to emergency situations, including flood events. Communities have been engaged through the Community and Business Resilience Group, led by the Council.</p>	
<b>Awareness raising (100990013)</b>	<b>G</b>	<p>SEPA and the responsible authorities have a duty to raise public awareness of flood risk. Improved awareness of flood risk and actions that prepare individuals, homes and businesses for flooding can reduce the overall impact. SEPA will undertake flood risk education and awareness raising activities. In addition, SEPA will, where possible, engage with Local Authorities and community resilience groups by participation in property level protection events delivered by the Scottish Flood</p>	<b>Responsible Authorities</b>	<p>Generic awareness raising is carried out through Council websites and social media. Awareness raising activity has also be coordinated with community resilience groups, where they exist. Councils can use SEPA flood Alerts as a targeted</p>	<p>With LA support awareness raising through community meetings, flood scheme/study public meetings, CC and Local Members input as well as through public meetings associated with</p>

		<p>Forum. 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.</p> <p>For new flood protection schemes, SEPA will support the local authority's communications and engagement activities with media activity, local public awareness events and education engagement with schools. SEPA will also deliver joint communications with local authorities for Floodline customers in any newly protected flood warning area.</p> <p>To support the delivery of the new SEPA flood warning scheme, SEPA will carry out a local launch event and engage directly with residents in the area. This will be supported by local and national media communications. SEPA will also support and participate in local public awareness events, in partnership with the local authority, community council or other local representative organisations, including schools.</p> <p>Local authorities will raise awareness when developing discrete proposals.</p> <p>Scottish Water will support SEPA and responsible authorities with their 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 Scottish Water web site</p>		<p>timing to deliver flood awareness information.</p>	<p>specific flood resilience schemes, will continue. These activities will be coordinated with SEPA and the Scottish Flood Forum</p>
<p><b>Maintenance</b> <b>(100990007)</b></p>	<b>G</b>	<p>Local authorities have a duty to assess watercourses and carry out clearance and repair works where such works would substantially reduce flood risk. They produce schedules of clearance and repair works and make these available for public inspection. Scottish</p>	<p><b>Responsible Authorities and land/asset managers</b></p>	<p>Cyclic Inspection, clearance and maintenance regimes in place across the Forth Estuary LPD covering</p>	<p>Local Authorities will continue to inspect and assess watercourses and revise maintenance</p>

		<p>Water will undertake risk based inspection, maintenance and repair on the public sewer network. Asset owners and riparian landowners are responsible for the maintenance and management of their own assets including those which help to reduce flood risk. Section 18 and 59 of the Flood Risk Management (Scotland) Act 2009 place duties of watercourse assessment, clearance and repair on local authorities. In addition, local authorities may also be responsible for maintenance of existing flood protection schemes or defences.</p>		<p>watercourses, trash screens, gullies and other assets/structures where there is an identified risk. The frequency of these regimes is largely dependent on risk, and is reviewed on an on-going basis. Reactive assessments are maintenance visits carried out when issues have been highlighted or during times of flooding. Where a flood risk is identified, and clearance and repair works would substantially reduce that flood risk, then those works are included on the relevant Council's clearance and repair schedule and carried out.</p>	<p>schedules to reduce flood risk.</p>
<p><b>Emergency plans/response (100990014)</b></p>	<b>G</b>	<p>Providing an emergency response to flooding is the responsibility of many organisations, including local authorities, the emergency services and SEPA. Effective management of an emergency response relies on emergency plans that are prepared under the Civil Contingencies Act 2004 by Category 1 and 2 Responders. The emergency response by these organisations is coordinated through regional and local resilience partnerships. This response may be supported by the work of voluntary organisations. Emergency response plans are applicable for all types of flooding. They set out the steps to be taken during flooding in order to maximise safety and minimise impacts where possible. Under the Civil Contingencies Act, Category 1 Responders have a duty to maintain emergency plans.</p>	<p><b>Category 1 and 2 Responders</b></p>	<p>Ongoing</p>	<p>Plans are under constant review and scrutiny using table top exercises.</p>

		Emergency plans may also be prepared by individuals, businesses, organisations or communities. Scottish Water is a Category 2 responder under the Civil Contingencies Act 2004 and will support regional and local resilience partnerships as required.			
<b>Planning Policy (100010001)</b>	<b>G</b>	<p>The Scottish Planning Policy (SPP) and accompanying Planning Advice Notes set out Scottish Ministers' priorities for the operation of the planning system and for the development and use of land. In terms of flood risk management, the SPP supports a catchment scale approach to sustainable flood risk management and aims to develop the resilience of our cities and towns; encourage sustainable land management in our rural areas; and to address the long term vulnerability of parts of our coasts and islands. Under this approach, new development in areas with medium to high likelihood of flooding should generally be avoided. For further information on the national planning policies see Annex 3. SEPA has a statutory role in relation to the provision of flood risk advice to planning authorities. This role is expressed in Section 72 of the Flood Risk Management (Scotland) Act 2009. SEPA also has a duty to co-operate with planning authorities in the preparation of development plans. When consulted in relation to planning applications for development or site allocations in development plans, and where the planning authority considers there may be a risk of flooding, SEPA will provide advice. The advice provided by SEPA will be with respect to the risk of flooding and on the basis of the relevant information it holds which is suitable for planning purposes. It will also be in line with the principles and duties set out in the FRM Act. Further information about how SEPA engage in the planning system, including guidance on flood risk and planning, is available on SEPA website <a href="http://www.sepa.org.uk/environment/land/planning/">http://www.sepa.org.uk/environment/land/planning/</a>. Current national planning policies, the Scottish Planning Policy and accompanying Planning Advice notes</p>	<b>Planning Authority And Responsible Authorities</b>	Local Development Plans are reviewed regularly.	



		<p>restrict development within the floodplain and limit exposure of new receptors to flood risk. Planning authorities are responsible for implementing this policy guidance when preparing Local Development Plans and when considering individual planning applications. In addition to national policies, local planning policies may place further requirements within their area of operation to restrict inappropriate development and prevent unacceptable risk. Scottish Water is a statutory consultee within the planning legislation. They 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.</p>			
--	--	--	--	--	--

Figure 3: Summary of progress with LPD-wide actions

## Progress with PVA-specific Actions

This section sets out an assessment of the progress towards implementing actions that are specific to each of the 29 PVAs as shown in Figure 2. Assessments of the progress of actions within each PVA are presented.

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.

# Kinross, Milnathort, Glenrothes and Kinglassie (Potentially Vulnerable Area 10/04)

Local Plan District	Local authority	Main catchment
Forth Estuary	Fife Council and Perth and Kinross Council	Kinross, Milnathort, Glenrothes and Kinglassie



© Crown copyright. SEPA licence number 100016991 (2015). All rights reserved. *Reproduced from Forth Estuary Flood Risk Management Strategy, SEPA (December 2015).*

## Summary of Progress for Kinross, Milnathort, Glenrothes and Kinglassie

There are approximately 210 residential properties and 150 non-residential properties at risk of flooding. The Annual Average Damages are approximately £1,200,000. Further information can be found in LFRMP under PVA 10/04.

Since publication of the LFRMP in June 2016 SEPA are on programme to implement a flood warning scheme for Kinross by May 2021. Scottish Water has completed works on the sewer network serving Milnathort. Perth and Kinross Council are also progressing further study work for the Milnathort Surface Water Flood Protection Scheme to take cognisance of Scottish Water's work. A Surface Water Management Plan will also be developed as part of this work. Scottish Water have also completed a S16 Assessment of the Kinross sewer network

PVA	Flood protection Scheme/Works	Natural flood management works	New flood warning	Flood protection study	Natural flood management study	Surface water plan/study	Strategic mapping and modelling	Maintain flood protection scheme*	Maintain flood warning	Flood forecasting	Property level protection scheme	Community flood action groups	Self help	Awareness raising	Maintenance	Site protection plans	Emergency plans/response	Planning policies
10/04	A		G	G		A	G	G		G		N/A	G	A	G		G	G

Summary of progress of actions to manage flood risk in the Kinross, Milnathort, Glenrothes and Kinglassie (PVA 10/04)

Action	Status (Red; Amber; Green)	Description	Delivery Lead	Planned Dates	Progress in Delivery, including key deliverables and dates	Revised dates and planned actions to complete / address delay
<b>Flood Protection Scheme/Works (100080006)</b>	A	A flood protection scheme has been proposed for Milnathort to address surface water flooding. The scheme would consist of pumping stations and provide a 1 in 100 year (plus climate change) standard of protection.	Perth and Kinross Council	2016-2019	Work to progress the Milnathort Surface Water Flood Protection Scheme commenced in November 2018. The contract was awarded to Sweco UK Ltd. This is later than the programmed commencement date of 2016/17.	The outline design of the flood protection scheme, which will review recent works carried out by Scottish Water to reduce sewer flood risk and assess whether there is still a need for a flood scheme has commenced. The expected completion is now in the 2020/21 financial year.
<b>Flood Protection Scheme/Works (100110006)</b>	A	A flood protection scheme has been proposed for South Kinross to address flooding from the South Queich, Gelly Burn and Clash Burn. The scheme would consist of flood	Perth and Kinross Council	2017-2021	Contract documents are currently being prepared to engage a consultant to take the South Kinross Flood	The outline design of the South Kinross Flood Protection Scheme is currently programmed to commence in the 2018/19

		defence walls and provide a 1 in 200 year (plus climate change) standard of protection.			Protection Scheme forward in the 2018/19 financial year. This is later than the programmed commencement date of 2017/18	financial year. Expected completion is now in the 2021/22 financial year.
<b>New Flood Warning (100990010)</b>	G	Providing an emergency response to flooding is the responsibility of many organisations, including local authorities, the emergency services and SEPA. Effective management of an emergency response relies on emergency plans that are prepared under the Civil Contingencies Act 2004 by Category 1 and 2 Responders. The emergency response by these organisations is coordinated through regional and local resilience partnerships. This response may be supported by the work of voluntary organisations. Emergency response plans are applicable for all types of flooding. They set out the steps to be taken during flooding in order to maximise safety and minimise impacts where possible. Under the Civil Contingencies Act, Category 1 Responders have a duty to maintain emergency plans. Emergency plans may also be	SEPA	May 2021	Kinross on schedule	

		prepared by individuals, businesses, organisations or communities. Scottish Water is a Category 2 responder under the Civil Contingencies Act 2004 and will support regional and local resilience partnerships as required.				
<b>Flood Protection Study (100120005)</b>	G	An Integrated Catchment Study looking at surface water management in Glenrothes is scheduled to start in 2017. This study may identify future study needs that would be taken forward in the second flood risk management cycle.	Fife Council with Scottish Water		In Scottish Water Q&S 4a	
<b>Surface Water Plan/Study (100040018)</b>	A	The Leven and eastern Methil area will be covered by a surface water management plan or plans (SWMP) that set objectives for the management of surface water flood risk and identify the most sustainable actions to achieve the objectives. Scottish Water will provide local knowledge and understanding of the sewer network. This includes Scottish Water corporate data (as applicable) and, where available, outputs of Section 16 or integrated catchment studies, to assist with the surface water management	Fife Council	Complete 2021		

		planning process.				
<b>Surface Water Plan/Study (100040019)</b>	A	<p>An integrated catchment study covering the Leven Valley catchment will be carried out to improve knowledge and understanding of the interactions between the above ground and below ground drainage network e.g. the sewer network, watercourses and (where applicable) the sea.</p> <p>This will improve the understanding of local surface water flood risk.</p> <p>The stated timescales and funding arrangements between Scottish Water and Fife Council will take the studies through the Scoping and Modelling phases to define the significant flooding issues in the catchment. After this has been completed, it is expected that the integrated catchment study partnerships will remain in place and will progress to develop solutions to the significant flooding issues.</p>	Scottish Water in partnership with local authorities	Complete 2021	In approved Q&S 4a Programme	
<b>Surface Water Plan/Study (100080018)</b>	A	Milnathort will be covered by a surface water management plan that sets objectives for the management of surface water flood risk and identify the most sustainable actions to achieve the	Perth & Kinross Council	2016-2019	The Milnathort surface water management plan was awarded to Sweco UK Ltd in November 2018 to take forward in the	The surface water management plan has commenced, with completion now expected in the 2020/21 financial year.

		<p>objectives. Perth &amp; Kinross Council had previously engaged consultants, Atkins, to produce the Milnathort Surface Water Investigation study which was completed in 2011. This study recommended a surface water flood protection scheme (involving drainage measures, underground storage and pumping stations). The proposed scheme will provide a 1:100 year standard of protection against surface water flooding, and will include an additional allowance for climate change. This action will be implemented through the Milnathort Surface Water Flood Protection Scheme Action (ID) 100080006. Scottish Water will provide local knowledge and understanding of the sewer network.</p> <p>This includes Scottish Water corporate data (as applicable) and, where available, outputs of Section 16 or integrated catchment studies, to assist with the surface water management planning process.</p>			<p>2018/19 financial year. This is later than the programmed commencement date of 2016/17. This action is being implemented through the Milnathort Surface Water Flood Protection Scheme Action ID 100080006.</p>	
<b>Surface Water Plan/Study (101030018)</b>	<b>A</b>	<p>The Glenrothes and Markinch areas will be covered by a surface water management plan or plans (SWMP) that set objectives for the</p>	Fife Council	Complete 2021		



		management of surface water flood risk and identify the most sustainable actions to achieve the objectives. Scottish Water will provide local knowledge and understanding of the sewer network. This includes Scottish Water corporate data (as applicable) and, where available, outputs of Section 16 or integrated catchment studies, to assist with the surface water management planning process.				
<b>Surface Water Plan/Study (101030019)</b>	<b>A</b>	An integrated catchment study covering the Leven Valley catchment will be carried out to improve knowledge and understanding of the interactions between the above ground and below ground drainage network e.g. the sewer network, watercourses and (where applicable) the sea. This will improve the understanding of local surface water flood risk. The stated timescales and funding arrangements between Scottish Water and Fife Council will take the studies through the Scoping and Modelling phases to define the significant flooding issues in the catchment. After this has been	Scottish Water in partnership with local authorities	Complete 2021	In approved Q&S 4a Programme	

		completed, it is expected that the integrated catchment study partnerships will remain in place and will progress to develop solutions to the significant flooding issues.				
<b>Strategic mapping and modelling (100990019)</b>	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 in the Kinross, Leven Valley and Milnathort sewer catchments to improve knowledge and understanding of flood risk in this area, as required under Section 16 of the Flood Risk Management (Scotland) Act 2009.	Scottish Water	Complete 2020	Kinross and Milnathort S16 Assessments complete.  Leven Valley in approved Q&S 4a Programme	
<b>Maintain Flood Protection Scheme (100100017)</b>	G	Perth and Kinross Council continue to maintain the existing flood protection schemes along the Back Burn in Milnathort. These include the Milnathort Flood Protection Schemes completed in 2006 and 2010.	Perth and Kinross Council	Ongoing	Perth and Kinross Council carries out routine inspections of the existing flood defences in Milnathort. Maintenance works are carried out as required.	Routine inspections will continue to be carried out as part of the Council's statutory duties.

<b>Flood forecasting (100990009)</b>	G	<p>Link to Scottish Flood Forecasting Service</p> <p>Refer to description in Figure 3; page 20</p>	SEPA	Ongoing	In place	
<b>Community Flood Action Groups (100100012)</b>	N/A	A community resilience group operated in this area and was supported by Perth and Kinross Council to develop community resilience plans. This action has been included in SEPA's Flood Risk Management Strategy however, this community action group has now ceased its activities.	Community	N/A	There are no operational community resilience groups in Milnathort or Kinross.	N/A
<b>Self help (100990011)</b>	G	<p>Raising community awareness of self help measures available to protect property</p> <p>Refer to description in Figure 3; page 20</p>	Community	Ongoing	No additional Self Help activities have been carried out in this PVA, beyond those already described in Figure 3 of this report.	Refer to the planned actions described in Figure 3 of this report.
<b>Awareness raising (100990013)</b>	A	<p>Raising Community Awareness of flood risk</p> <p>Refer to description in Figure 3; page 20</p>	Responsible Authorities	Ongoing	Ongoing in Fife Council	Awareness raising through community meetings, flood study public meetings, Community Council and Local Members input as well as through Emergency resilience Team within Fife Council.

					No additional awareness raising activities have been carried out in this PVA, beyond those already described in Figure 3 of this report.	Further to the planned actions described in Figure 3 (LPD wide actions) of this report, Perth and Kinross Council plan to carry out awareness raising in conjunction with the flood schemes in Milnathort and South Kinross (Action ID's 100080006 & 100110006)
<b>Maintenance (100990007)</b>	G	Maintenance at locations where flood risk has been identified  Refer to description in Figure 3; page 20	Fife Council and Perth and Kinross Council, asset / land managers	Ongoing	No additional maintenance activities have been carried out in this PVA, beyond those already described in Figure 3 of this report.	Refer to the planned actions described in Figure 3 of this report.
<b>Emergency plans/response (100990014)</b>	G	Raise awareness of plans and actions in place for flood incidents  Refer to description in Figure 3; page 20	Category 1 and 2 Responders	Ongoing	Fife Council updated Flood Emergency Plan published Nov 2016.  Perth and Kinross council further developed its Flooding Emergency Response Plan in October 2017. The Plan is designed to ensure that	Fife Council's Flood Emergency Plan is due for update Nov 2018.  Perth and Kinross Council will continue to implement the Flooding Emergency Response Plan when required. Where no incidents have occurred within a 12 month

					contingency measures are in place for a coordinated and flexible response to flooding incidents to mitigate the effects of flooding emergencies on people, property and infrastructure.	period a table top exercise will be conducted to test the response plan. This exercise may include consideration of flooding incidents, severe weather, widespread flooding, storm events, etc.
<b>Planning Policy (100010001)</b>	<b>G</b>	LPD reflects flood risk  Refer to description in Figure 3; page 20	Planning Authority	Ongoing	Fife Council Planning Policy amended in Strategic plan to ensure Flooding considered at outset in line with current SPP. Planning Policy in place to ensure FRA SuDs and any other relevant information provided at submission of Planning Application, otherwise application returned as incomplete.  The current Perth and Kinross Local Development Plan	Perth & Kinross Council will publish LDP2 and revised Supplementary Guidance on Flooding and Drainage.  Following consultation on the Perth and Kinross

					<p>(LDP1) contains planning policy and development allocations which ensure that new development at medium to high risk of flooding is avoided (unless flood protection measures to the appropriate standard (1:200 years) already exist and are maintained, are under construction, or are a planned measure in a current flood risk management plan). SEPA and Perth and Kinross Council's flooding team input to the planning application process as necessary to implement flood risk policy and ensure there is an appropriate assessment and mitigation of flood risk as detailed development proposals come</p>	<p>Proposed LDP2, the Council considered the representations made to the Proposed Plan and approved responses to these representations at a special Council meeting in August 2018. The Proposed Plan was then submitted to Scottish Ministers for examination on 14 September 2018. The Reporter will examine the unresolved issues. Following amendment of the LDP2 in line with the Reporter's recommendations (unless there are reasonable and justifiable grounds for not accepting some of the recommendations), the Council will adopt LDP2. This is anticipated to be July 2019.</p> <p>The existing Supplementary Guidance (SG) on Flood Risk and Flood Risk Assessments (Developers Guidance note on Flooding and Drainage) is also currently being reviewed and will be revised</p>
--	--	--	--	--	--	--

					<p>forward. The Council's flooding team has reviewed 872 planning applications since the start of the 2016/17 financial year as a consultee in the planning process. The Council's flooding team has also provided additional advice on flood risk management to the Planning Authority outwith these formal consultations. The Council is reviewing LDP1, which was adopted in February 2014 to produce LDP2. LDP1 includes the policies and development allocations against which the planning applications for development are considered. Key milestones in its review have included</p>	<p>and consulted on in January 2019 with a view to adoption alongside LDP2. The main aspects that are being updated are the guidance on climate change; the requirements for sustainable urban drainage systems (SuDS) and the ongoing maintenance responsibilities, including information on potential maintenance agreements with Scottish Water under Section 7 of the Sewerage (Scotland) Act.</p>
--	--	--	--	--	--	--

					<p>publication and consultation on the Main Issues Report (consulting on key issues and changes from the adopted LDP1) in December 2015 and the publication and consultation on the LDP2 Proposed Plan (the settled view of the Council) in December 2017. To inform this process, the Council has undertaken a Strategic Environmental Assessment (SEA) and prepared an Environmental Report to identify, describe and evaluate the likely significant effects on the environment. The SEA includes the consideration of flood risk in site assessment</p>	
--	--	--	--	--	---	--



					and policy work, and involved engagement with SEPA and the Council's flooding team.	
--	--	--	--	--	---	--

DRAFT

## Other actions

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