

# PERTH AND KINROSS COUNCIL

## Environment Committee

21 January 2015

### The Flood Risk Management (Scotland) Act 2009 Public Consultation Arrangements

#### Report by the Executive Director (Environment)

Under the Flood Risk Management (Scotland) Act 2009 the Council has a duty to publish and consult on a draft of the supplementary part of its Local Flood Risk Management Plan which is due to be published in June 2016. This report outlines the proposals for a joint public consultation in co-operation with SEPA, Scottish Water and other local authorities. The report also seeks the Committee's approval of the proposed short list of measures to manage flood risk in Perth, Almondbank and Coupar Angus.

#### 1. BACKGROUND / MAIN ISSUES

- 1.1 The Flood Risk Management (Scotland) Act 2009 (the 2009 Act) has introduced a more modern, coordinated and sustainable approach to flood risk management at both national and local levels.
- 1.2 Although the public authorities are expected to take a proactive role in managing and, where achievable, lowering flood risk, the primary responsibility for avoiding or managing flood risk still remains with land and property owners. The 2009 Act does not alter this. Individuals, businesses and communities must, therefore, play a critical role in making themselves more resilient and helping to reduce the impact of flooding.
- 1.3 The 2009 Act sets out a framework designed to reduce flood risk across Scotland over time. Local authorities, SEPA and Scottish Water have duties to work together to produce a national flood risk assessment, flood risk and hazard maps, Flood Risk Management Strategies and Local Flood Risk Management Plans. This process of risk assessment, mapping and planning is to be repeated every six years.

#### Update on the Flood Risk Management (FRM) Planning Process

- 1.4 The general progress made on the FRM process was reported to the Environment Committee on 12 November 2014 (Report 14/483).
- 1.5 At that time the majority of the characterisation reports, initial objectives and short list of measures had been approved with the exception of those for the Potentially Vulnerable Areas (PVA's) covering Perth, Almondbank, Coupar Angus and Bankfoot. Some issues had been noted over the river flood maps produced by SEPA for these areas.

- 1.6 SEPA have since updated the river flood maps for Perth, Almondbank and Coupar Angus. As a result there have been some minor changes to the characterisation reports for the Scone area. The flood map for Bankfoot will be reviewed by SEPA after the publication of the final FRM Strategies in 2015.
- 1.7 In accordance with the approval levels agreed by the Environment Committee on 20 November 2013 (Report No 13/544), the latest versions of the characterisation reports for the PVA's covering Perth, Scone, Almondbank and Coupar Angus have been reviewed and signed off by technical officers. The characterisation reports can be viewed at the following link:

[www.pkc.gov.uk/article/10241](http://www.pkc.gov.uk/article/10241)

- 1.8 Similarly the latest versions of the initial objectives were also approved by the Environment Service Senior Management Team on 9<sup>th</sup> October 2014. The initial objectives can be viewed at the following link:

[www.pkc.gov.uk/article/10241](http://www.pkc.gov.uk/article/10241)

#### Public Consultation Arrangements

- 1.9 The 2009 Act requires that the draft FRM Strategies and the corresponding supplementary parts of the Local FRM Plans be put to public consultation by 22 December 2014. SEPA and the lead local authorities are required to coordinate their consultation arrangements during the production of these documents.
- 1.10 The proposed initial arrangements for the phased public consultation in December 2014 and March 2015 were reported to the Environment Committee on 12 November 2014 (Report 14/483).
- 1.11 As the process to develop the FRM Strategies and Local FRM Plans is running behind programme, the public consultation will be delivered through a phased approach. The first phase commenced on 22 December 2014 and the second on 2 March 2015. The consultation will close on 2 June 2015. The Scottish Ministers have now given their approval to this approach.
- 1.12 As the lead local authority for the Tay District, the Council has a duty to publish and consult on a draft of the supplementary part of the Local Flood Risk Management Plan. This will comprise a set of characterisation reports which describe the existing flood risk and the corresponding objectives and short list of measures to manage that risk. The key documents to be consulted on are:
- Phase 1 - Characterisation reports;
  - Phase 2 - Initial objectives;  
Short list of measures to reduce flood risk, and;  
Implementation arrangements.

- 1.13 The consultation is a web based exercise and will be carried out jointly with SEPA and the other responsible authorities.
- 1.14 Phase 1 of the consultation only includes the characterisation reports which will be provided for information only. There will not be an opportunity to make comment until Phase 2 commences on 2 March 2015. During Phase 2, more information will be made available and there will be full opportunity to make comment.
- 1.15 The responses will inform the final FRM Strategies and Local FRM Plans due for publication in December 2015 and June 2016 respectively.

## **2. PROPOSALS**

### Short List of Measures

- 2.1 Details of the proposed short list of measures for Perth, Scone, Almondbank and Coupar Angus are included in Appendix A.
- 2.2 It should be noted that it will not possible to carry out all of the identified measures to reduce flood risk within the resources available to the Council at this time. Any measures will be undertaken in order of priority taking into account the likely risk of flooding and available funding. No additional capital funding has been received in relation to these duties, and on that basis any measures that the Council can undertake will be limited.

### Current Public Consultation Arrangements

- 2.3 As noted above, the 2009 Act required that draft FRM Strategies and the corresponding supplementary parts of Local Flood Risk Management Plans be put to public consultation by 22 December 2014.
- 2.4 Under Section 35 of the 2009 Act, the Council, as the lead local authority for the Tay district, must publicise this consultation and the opportunity to make representations on the material presented.
- 2.5 The joint web-based public consultation will be publicised by the following means:
- (i) Articles have been placed in the October and December 2014 issues of PKC News.
  - (ii) Notices will be placed in the *Courier and the Edinburgh Gazette*.
  - (iii) Letters will be issued to each community council that falls within a PVA to notify them of the consultation and how to access it;
  - (iv) The Council's web site will be updated to include a link to the online platform that will host the consultation;
  - (v) Announcements will be posted on social media (the Perth & Kinross Council Facebook and Twitter pages).

- 2.6 The online platform 'Citizen Space' will be used to host the consultation. This software was specifically developed for this type of consultation and will be used to display the consultation materials and manage the collection of responses and their analysis. SEPA will administer the consultation throughout and have successfully used this platform for consultation exercises in the past. Lead local authorities will have read-only access to any feedback received from respondents and will be required to share the information with the other members of their Local Plan District (LPD) Partnerships.
- 2.7 During Phase 2, the format of the consultation will allow respondents to comment on the information that applies to the overall LPD and also directly to their local area. A postcode search function will be available to enable this. An example of the full consultation layout that will be operational during phase 2 is shown in Appendix B.
- 2.8 Draft consultation questions have been developed (Appendix C) to stimulate a response. Respondents will be asked to answer these and will be given an opportunity to make comment.
- 2.9 As noted at 1.12, Phase 2 of the public consultation will include the initial objectives and short list of measures and will also seek views on whether respondents agree with the draft implementation part of the Local FRM Plan. This draft implementation plan will take the form of tables summarising any on-going and confirmed measures, i.e. measures that are either already underway or where funding has been confirmed for the first 6 year cycle, e.g. a confirmed flood scheme with grant funding. The tables will also summarise the short list of potential measures to allow the public consultation to support the process of identifying preferred measures. However it should be noted that it may not be possible to implement any of the preferred actions due to project lead in times and funding constraints.
- 2.10 There will be a section within the public consultation on potential measures for areas that are at risk of flooding but are outwith the identified PVA's, in recognition that some local authorities may wish to include this within their Local FRM Plans. This is likely to apply only to significant measures, on-going studies and plans where funding has already been committed.

### **3. CONCLUSION AND RECOMMENDATION(S)**

- 3.1 This report provides a further update on progress towards the publication of SEPA's Flood Risk Management Plans in December 2015 and the Council's Local Flood Risk Management Plans in June 2016.
- 3.2 The report notes that the characterisation reports and initial objectives have been agreed for the PVA's covering Perth, Scone, Almondbank and Coupar Angus and seeks the Committee's approval of the proposed short list of measures for these areas.
- 3.3 The report also describes the current proposals for the phased public consultation in December 2014 and March 2015.

### 3.4 The Committee is asked to:

- (i) Note the further progress on the flood risk management planning process set out by the 2009 Act.
- (ii) Note that the characterisation reports and initial objectives for Perth, Scone, Almondbank and Coupar Angus have been agreed.
- (iii) Approve the proposed short list of measures for Perth, Scone, Almondbank and Coupar Angus (Appendix A).
- (iv) Note the current proposed arrangements for the phased public consultation in December 2014 and March 2015.

#### Author(s)

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#### Approved

Name	Designation	Date
Jim Valentine	Executive Director (Environment)	12 December 2014

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## 1. IMPLICATIONS, ASSESSMENTS, CONSULTATION AND COMMUNICATION

<b>Strategic Implications</b>	<b>Yes / None</b>
Community Plan / Single Outcome Agreement	<b>Yes</b>
Corporate Plan	<b>Yes</b>
<b>Resource Implications</b>	
Financial	<b>Yes</b>
Workforce	<b>Yes</b>
Asset Management (land, property, IST)	<b>None</b>
<b>Assessments</b>	
Equality Impact Assessment	<b>Yes</b>
Strategic Environmental Assessment	<b>Yes</b>
Sustainability (community, economic, environmental)	<b>Yes</b>
Legal and Governance	<b>Yes</b>
Risk	<b>None</b>
<b>Consultation</b>	
Internal	<b>Yes</b>
External	<b>Yes</b>
<b>Communication</b>	
Communications Plan	<b>Yes</b>

### 1. Strategic Implications

#### Community Plan / Single Outcome Agreement

- 1.1 The proposals relate to the delivery of the Perth and Kinross Community Plan/Single Outcome Agreement by reducing flood risk to our residential and business communities in a sustainable manner.

#### Corporate Plan

- 1.2 The Council's Corporate Plan 2013 – 2018 lays out five outcome focussed strategic objectives which provide clear strategic direction, inform decisions at a corporate and service level and shape resources allocation. They are as follows:
- (i) Giving every child the best start in life;
  - (ii) Developing educated, responsible and informed citizens;
  - (iii) Promoting a prosperous, inclusive and sustainable economy;
  - (iv) Supporting people to lead independent, healthy and active lives and;
  - (v) Creating a safe and sustainable place for future generations.
- 1.3 This report contributes to objectives (ii), (iii), (iv) and (v).

## **2. Resource Implications**

### Financial

- 2.1 It should be noted that the potential measures included on the short list will not be implemented at this time. The potential measures will be subject to further assessment and will not be finalised until the Council's Local FRM Plan is published in June 2016. Hence there are no immediate resource implications arising directly from the recommendations in this report.
- 2.2 However the flood risk management planning process will have future financial implications. The Local FRM Plans will include an implementation part which will indicate who will be responsible for the proposed measures to reduce flood risk, as well as how they will be programmed and funded by the responsible authorities over the six year cycle.
- 2.3 It is not yet clear how the Scottish Government will allocate funding to the measures identified in the plans. Clearly the issue of funding support from central government will continue to have a significant bearing on when the Council will be able to deliver measures to reduce flood risk in the future.
- 2.4 In the meantime, the final measures set out in the Council's future Local FRM Plans will have to be prioritised and will only be implemented as available resources allow.

### Workforce

- 2.5 There are no workforce implications arising directly from the recommendations in this report.

### Asset Management (land, property, IT)

- 2.6 The proposals in this report have no asset management implications.

## **3. Assessments**

### Equality Impact Assessment

- 3.1 Under the Equality Act 2010, the Council is required to eliminate discrimination, advance equality of opportunity, and foster good relations between equality groups. Carrying out Equality Impact Assessments for plans and policies allows the Council to demonstrate that it is meeting these duties. The Equality Impact Assessment undertaken in relation to this report can be viewed clicking [here](#).
- 3.2 The function, policy, procedure or strategy presented in this report was considered under the Corporate Equalities Impact Assessment process (EqIA) with the following outcome.

- 3.3 Following an assessment using the Integrated Appraisal Toolkit, it has been determined that the proposal is assessed as **relevant** with the following positive outcomes expected following implementation:
- This proposal has the same impact for all equality groups as the proposed flood risk management measures will reduce the risk of flooding to residents and businesses with consequent benefits for all (a safer environment, avoidance of economic flood damages, improved health & wellbeing, etc.).
  - The effects and aftermath of flooding could have a greater impact on mobility impaired, sight impaired or blind people, learning disabled people, children, the elderly and infirm, pregnant women or nursing mothers in relation to adverse psychological, physical and health impacts. The various measures to reduce flood risk described in the report will reduce or remove these impacts.
  - Providing the opportunity for all equality groups to comment on all aspects of flood risk and the various potential measures to reduce that risk within a specific area will allow particular concerns to be raised and incorporated within the final FRM Plans.
- 3.4 The majority of respondents will be able to access the public consultation via the Citizen Space web site however, under Sections 35 and 53 of the 2009 Act, the Council has a duty to encourage appropriate participation by providing alternative arrangements such as hard copies of the consultation materials and feedback forms. These will be placed in the main Perth and Area offices.
- 3.5 SEPA have also carried out an Equality and Human Rights Impact Assessment (EqIA) on the use of the Citizen Space consultation tool. Hard copies of the phase 2 consultation will also be made available at SEPA's main offices. Copies in braille or in other languages can be provided upon request. Any hard copy survey responses will be input to the Citizen Space system by SEPA to facilitate response analysis and the hard copy retained for audit purposes.

#### Strategic Environmental Assessment

- 3.6 The Environmental Assessment (Scotland) Act 2005 places a duty on the Council to identify and assess the environmental consequences of its proposals.
- 3.7 There are likely to be significant environmental effects associated with the Tay Local FRM Plan and the other three Local FRM Plans that the Council will contribute to. As a consequence an environmental assessment is necessary. SEPA have commenced an environmental assessment for their FRM Strategies and their scoping report has already been completed. Following a review of this assessment, it has been confirmed that this will cover the Local FRM Plans and that no further assessment is likely to be required at this time.



A screening decision is being sought by a member of the Tay Estuary and Montrose Basin LPD Partnership to confirm this. This position will also be kept under review as the Local FRM Plans are developed.

### Sustainability

3.8 Under the provisions of the Local Government in Scotland Act 2003 the Council has to discharge its duties in a way which contributes to the achievement of sustainable development. Under the Climate Change (Scotland) Act 2009 the Council also has a duty relating to climate change and, in exercising its functions must act:

- in the way best calculated to deliver the Act's emissions reduction targets;
- in the way best calculated to deliver any statutory adaptation programmes; and
- in a way that it considers most sustainable.

3.9 Following an assessment using the Integrated Appraisal Toolkit, it has been determined that the proposals being consulted on are likely to contribute **positively** to the following corporate sustainable development principles:

(i) Climate Change:-

- Efficient use of resources now and in the future in the built environment and service provision (e.g. energy efficiency, land, water resources, flood defence, waste minimisation) (Principle 2).
- Mitigation and adaptation to manage the impact of climate change & reduce the production of greenhouse gases (Principle 3).

**Justification:** Implementation of measures is aimed at mitigating effects of increased flood risk brought about by climate change.

(ii) Community:-

- A sense of civic values, responsibility and pride (Principle 20)
- Creating a sense of place (e.g. a place with a positive 'feeling' for people, and local distinctiveness) (Principle 22)

**Justification:** The proposed measures are intended to reduce the flood risk to communities and will be subject to public consultation.

(iii) Equality & Diversity:-

Refer to Item 3.3 (above).

3.10 Following an assessment using the Integrated Appraisal Toolkit, it has been determined that the proposals being consulted on are likely to contribute **negatively** to the following corporate sustainable development principles:

(i) Consumption & Production:-

- Efficient use of resources now and in the future in the built environment and service provision (e.g. energy efficiency, land, water resources, flood defence, waste minimisation) (Principle 2)
- Mitigation and adaptation to manage the impact of climate change & reduce the production of greenhouse gases (Principle 3)

**Justification:** The implementation of measures, e.g. new flood defences, may require short term increase in energy consumption during construction.

**Mitigation:** The efficient use of resources is to be considered on an individual project basis.

3.11 However, under the 2009 Act, the Council has a duty to manage flood risk in a sustainable way and to act in the best way calculated to contribute to the achievement of sustainable development. The measures that will be identified in the Council's future Local FRM Plans will comply with this requirement.

#### Legal and Governance

3.12 The Head of Legal Services and the Head of Democratic Services have been consulted on this report.

3.13 The legal basis for the proposals set out in this report is the Flood Risk Management (Scotland) Act 2009.

#### Risk

3.14 The risks associated with any measures to manage flooding will be identified and managed through individual projects.

### **4. Consultation**

#### Internal

4.1 The Head of Legal Services, the Head of Democratic Services and the Head of Finance have been consulted in the preparation of this report.

4.2 The Council's Communications, Legal and IT teams have been consulted on the use of Citizen Space to ensure that it conforms to the Council's policies and procedures.

## External

- 4.3 The proposed format of the web based public consultation and the Citizen Space platform together with the proposed flood risk management measures have been developed and agreed in principle at Local Plan District Partnership meetings by SEPA, Scottish water and the relevant local authorities.
- 4.4 Consultation will be carried out with relevant external stakeholders on any individual proposals.

## **5. Communication**

- 5.1 The key outputs described in this report will subject to a phased public consultation between December 2014 and June 2015. This will be a joint web based consultation using the Citizen Space platform.
- 5.2 A Communications Project Group has been established by the Tay and Forth LPD Partnerships. The group will be chaired by the Council with the purpose of co-ordinating the communications activities across these districts
- 5.3 Communication with relevant external stakeholders will take place on any individual measures proposed to reduce flood risk in the future.

## **2. BACKGROUND PAPERS**

The following background papers, as defined by Section 50D of the Local Government (Scotland) Act 1973 (and not containing confidential or exempt information) were relied on to a material extent in preparing the above report;

PKC – Environment Committee – 27 January 2010, Flood Risk Management (Scotland) Act 2009 (Report No. 10/51)

PKC – Environment Committee – 20 November 2013, Progress Report, Flood Risk Management (Scotland) Act 2009 (Report No. 13/544)

PKC – Environment Committee – 12 November 2014, Flood Risk Management (Scotland) Act 2009, Short List of Potential Measures to Manage Flood Risk (Report No. 13/544)

## **3. APPENDICES**

- |              |   |
|--------------|---|
| Appendix A – | Proposed Short List of Flood Risk Management Measures (Perth, Scone, Almondbank & Coupar Angus) |
| Appendix B – | Layout and format of Citizen Space consultation pages   |
| Appendix C – | Draft Consultation Questions  |



Objective	Category	Action	River
Avoid	Flood Protection Schemes	Maintain Existing Flood Protection Schemes	x
	Relocation	Relocation of properties/infrastructure away from flood risk areas	✓
	National Planning Policies	Scottish Planning Policy (SPP)	✓
		Planning Advice Notes (PANs)	✓
	Local Planning Policies	Specific policies/guidance in LDP's in addition to National Planning Policy	✓
		Use of Strategic Flood Risk Assessment to inform local development plans	✓
Protect (Natural Flood Management)	Runoff Control	Woodland planting (conifer, native, broadleaf)	✓
		Land Management, including: soil and bare earth improvements, changing agricultural field drainage	✓
		Cross slope woodlands (shelter belts)	✓
		Creation / restoration of wetlands and ponds	✓
		Upland drain blocking	✓
		Gully woodland planting	✓
	River/floodplain restoration	Floodplain reconnection	✓
		Placed large woody debris and boulders	✓
		Floodplain woodland	✓
		Riparian woodland	✓
		Reach restoration – (e.g. re-meandering)	✓
		Creation of washlands (off-line storage)	✓
	Sediment Management	Sediment removal or other in-channel management	✓
		Sediment traps	✓
		Bank restoration (e.g. riparian planting, green bank restoration)	✓
Protect (Engineering)	Storage	Flood storage online	✓
		Flood storage offline	✓
	Conveyance	Increased conveyance through channel modification – deepening / widening / two-stage channel	✓
		Relief / diversion channel / bypass tunnel / culvert	✓
		Realign channel	X
		Culvert modification	X
		Removal of hydraulic constrictions	✓
		Bridges modification	✓
	Control Structures	Sluice gate / penstock / flap valve	X
		Weir	X
		Trash screens	X
		Pumping stations	X
	Direct Defences	Embankment	✓
		Wall	✓
		Adaptable wall (can be added to)	✓
		Demountable / temporary defences	✓
	Sustainable Urban Drainage	SUD measures (identified through Surface Water Management Plan)	N/A
Prepare	Watercourse Maintenance	Routine and event specific watercourse maintenance	✓
		Event triggered watercourse maintenance	✓
	Property Level Protection	Property Level Protection	✓
		Resilient property design (retrofit)	✓
	Flood Forecasting & Warning	Flood forecasting and alerts	✓
		Flood Warning schemes	✓
	Self Help	Business Continuity Planning	✓
		Flood Insurance	✓
		Community Flood Action Groups (including resilient community plans)	✓
		Awareness Raising	✓
	Emergency Plans	Emergency Response Plans	✓
	Site Protection plans	Site protection plans	✓
	Improved Understanding	Modelling and other assessments to improve knowledge of flood hazards	✓

**Short List of Measures to Manage Flood Risk**  
**PVA 08/10 – Almondbank**

Objective	Category	Action	River
Avoid	Flood Protection Schemes	Maintain Existing Flood Protection Schemes	✓
	Relocation	Relocation of properties/infrastructure away from flood risk areas	✓
	National Planning Policies	Scottish Planning Policy (SPP)	✓
		Planning Advice Notes (PANs)	✓
	Local Planning Policies	Specific policies/guidance in LDP's in addition to National Planning Policy	✓
		Use of Strategic Flood Risk Assessment to inform local development plans	✓
Protect (Natural Flood Management)	Runoff Control	Woodland planting (conifer, native, broadleaf)	✓
		Land Management, including: soil and bare earth improvements, changing agricultural field drainage	✓
		Cross slope woodlands (shelter belts)	✓
		Creation / restoration of wetlands and ponds	✓
		Upland drain blocking	✓
		Gully woodland planting	✓
	River/floodplain restoration	Floodplain reconnection	X
		Placed large woody debris and boulders	X
		Floodplain woodland	X
		Riparian woodland	X
		Reach restoration – (e.g. re-meandering)	X
		Creation of washlands (off-line storage)	X
	Sediment Management	Sediment removal or other in-channel management	✓
		Sediment traps	✓
		Bank restoration (e.g. riparian planting, green bank restoration)	✓
Protect (Engineering)	Storage	Flood storage online	✓
		Flood storage offline	✓
	Conveyance	Increased conveyance through channel modification – deepening / widening / two-stage channel	X
		Relief / diversion channel / bypass tunnel / culvert	X
		Realign channel	X
		Culvert modification	✓
		Removal of hydraulic constrictions	✓
		Bridges modification	✓
	Control Structures	Sluice gate / penstock / flap valve	X
		Weir	X
		Trash screens	X
		Pumping stations	X
	Direct Defences	Embankment	✓
		Wall	✓
		Adaptable wall (can be added to)	✓
		Demountable / temporary defences	✓
	Sustainable Urban Drainage	SUD measures (identified through Surface Water Management Plan)	N/A
Prepare	Watercourse Maintenance	Routine and event specific watercourse maintenance	✓
		Event triggered watercourse maintenance	✓
	Property Level Protection	Property Level Protection	✓
		Resilient property design (retrofit)	✓
	Flood Forecasting & Warning	Flood forecasting and alerts	✓
		Flood Warning schemes	✓
	Self Help	Business Continuity Planning	✓
		Flood Insurance	✓
		Community Flood Action Groups (including resilient community plans)	✓
		Awareness Raising	✓
	Emergency Plans	Emergency Response Plans	✓
	Site Protection plans	Site protection plans	✓
	Improved Understanding	Modelling and other assessments to improve knowledge of flood hazards	✓

**Short List of Measures to Manage Flood Risk**  
**PVA 08/11 – Scone**

Objective	Category	Action	River
Avoid	Flood Protection Schemes	Maintain Existing Flood Protection Schemes	X
	Relocation	Relocation of properties/infrastructure away from flood risk areas	✓
	National Planning Policies	Scottish Planning Policy (SPP)	✓
		Planning Advice Notes (PANs)	✓
	Local Planning Policies	Specific policies/guidance in LDP's in addition to National Planning Policy	✓
		Use of Strategic Flood Risk Assessment to inform local development plans	✓
Protect (Natural Flood Management)	Runoff Control	Woodland planting (conifer, native, broadleaf)	X
		Land Management, including: soil and bare earth improvements, changing agricultural field drainage	X
		Cross slope woodlands (shelter belts)	X
		Creation / restoration of wetlands and ponds	X
		Upland drain blocking	X
		Gully woodland planting	X
	River/floodplain restoration	Floodplain reconnection	✓
		Placed large woody debris and boulders	X
		Floodplain woodland	✓
		Riparian woodland	✓
		Reach restoration – (e.g. re-meandering)	X
		Creation of washlands (off-line storage)	X
	Sediment Management	Sediment removal or other in-channel management	✓
		Sediment traps	✓
		Bank restoration (e.g. riparian planting, green bank restoration)	✓
Protect (Engineering)	Storage	Flood storage online	X
		Flood storage offline	X
	Conveyance	Increased conveyance through channel modification – deepening / widening / two-stage channel	X
		Relief / diversion channel / bypass tunnel / culvert	X
		Realign channel	X
		Culvert modification	✓
		Removal of hydraulic constrictions	✓
		Bridges modification	✓
	Control Structures	Sluice gate / penstock / flap valve	X
		Weir	X
		Trash screens	X
		Pumping stations	X
	Direct Defences	Embankment	✓
		Wall	✓
		Adaptable wall (can be added to)	✓
		Demountable / temporary defences	✓
	Sustainable Urban Drainage	SUD measures (identified through Surface Water Management Plan)	N/A
Prepare	Watercourse Maintenance	Routine and event specific watercourse maintenance	✓
		Event triggered watercourse maintenance	✓
	Property Level Protection	Property Level Protection	✓
		Resilient property design (retrofit)	✓
	Flood Forecasting & Warning	Flood forecasting and alerts	X
		Flood Warning schemes	X
	Self Help	Business Continuity Planning	✓
		Flood Insurance	✓
		Community Flood Action Groups (including resilient community plans)	✓
		Awareness Raising	✓
	Emergency Plans	Emergency Response Plans	✓
	Site Protection plans	Site protection plans	✓
	Improved Understanding	Modelling and other assessments to improve knowledge of flood hazards	✓

**Short List of Measures to Manage Flood Risk**  
**PVA 08/12 – Perth to Kinfauns (North of A90)**

Objective	Category	Action	River
Avoid	Flood Protection Schemes	Maintain Existing Flood Protection Schemes	✓
	Relocation	Relocation of properties/infrastructure away from flood risk areas	✓
	National Planning Policies	Scottish Planning Policy (SPP)	✓
		Planning Advice Notes (PANs)	✓
	Local Planning Policies	Specific policies/guidance in LDP's in addition to National Planning Policy	✓
		Use of Strategic Flood Risk Assessment to inform local development plans	✓
Protect (Natural Flood Management)	Runoff Control	Woodland planting (conifer, native, broadleaf)	N/A
		Land Management, including: soil and bare earth improvements, changing agricultural field drainage	N/A
		Cross slope woodlands (shelter belts)	N/A
		Creation / restoration of wetlands and ponds	N/A
		Upland drain blocking	N/A
		Gully woodland planting	N/A
	River/floodplain restoration	Floodplain reconnection	N/A
		Placed large woody debris and boulders	N/A
		Floodplain woodland	N/A
		Riparian woodland	N/A
		Reach restoration – (e.g. re-meandering)	N/A
		Creation of washlands (off-line storage)	N/A
	Sediment Management	Sediment removal or other in-channel management	N/A
		Sediment traps	N/A
		Bank restoration (e.g. riparian planting, green bank restoration)	N/A
Protect (Engineering)	Storage	Flood storage online	N/A
		Flood storage offline	N/A
	Conveyance	Increased conveyance through channel modification – deepening / widening / two-stage channel	N/A
		Relief / diversion channel / bypass tunnel / culvert	N/A
		Realign channel	N/A
		Culvert modification	N/A
		Removal of hydraulic constrictions	N/A
		Bridges modification	N/A
	Control Structures	Sluice gate / penstock / flap valve	N/A
		Weir	N/A
		Trash screens	N/A
		Pumping stations	N/A
	Direct Defences	Embankment	N/A
		Wall	N/A
		Adaptable wall (can be added to)	N/A
		Demountable / temporary defences	N/A
	Sustainable Urban Drainage	SUD measures (identified through Surface Water Management Plan)	N/A
Prepare	Watercourse Maintenance	Routine and event specific watercourse maintenance	✓
		Event triggered watercourse maintenance	✓
	Property Level Protection	Property Level Protection	✓
		Resilient property design (retrofit)	✓
	Flood Forecasting & Warning	Flood forecasting and alerts	✓
		Flood Warning schemes	✓
	Self Help	Business Continuity Planning	✓
		Flood Insurance	✓
		Community Flood Action Groups (including resilient community plans)	✓
		Awareness Raising	✓
	Emergency Plans	Emergency Response Plans	✓
	Site Protection plans	Site protection plans	✓
	Improved Understanding	Modelling and other assessments to improve knowledge of flood hazards	✓



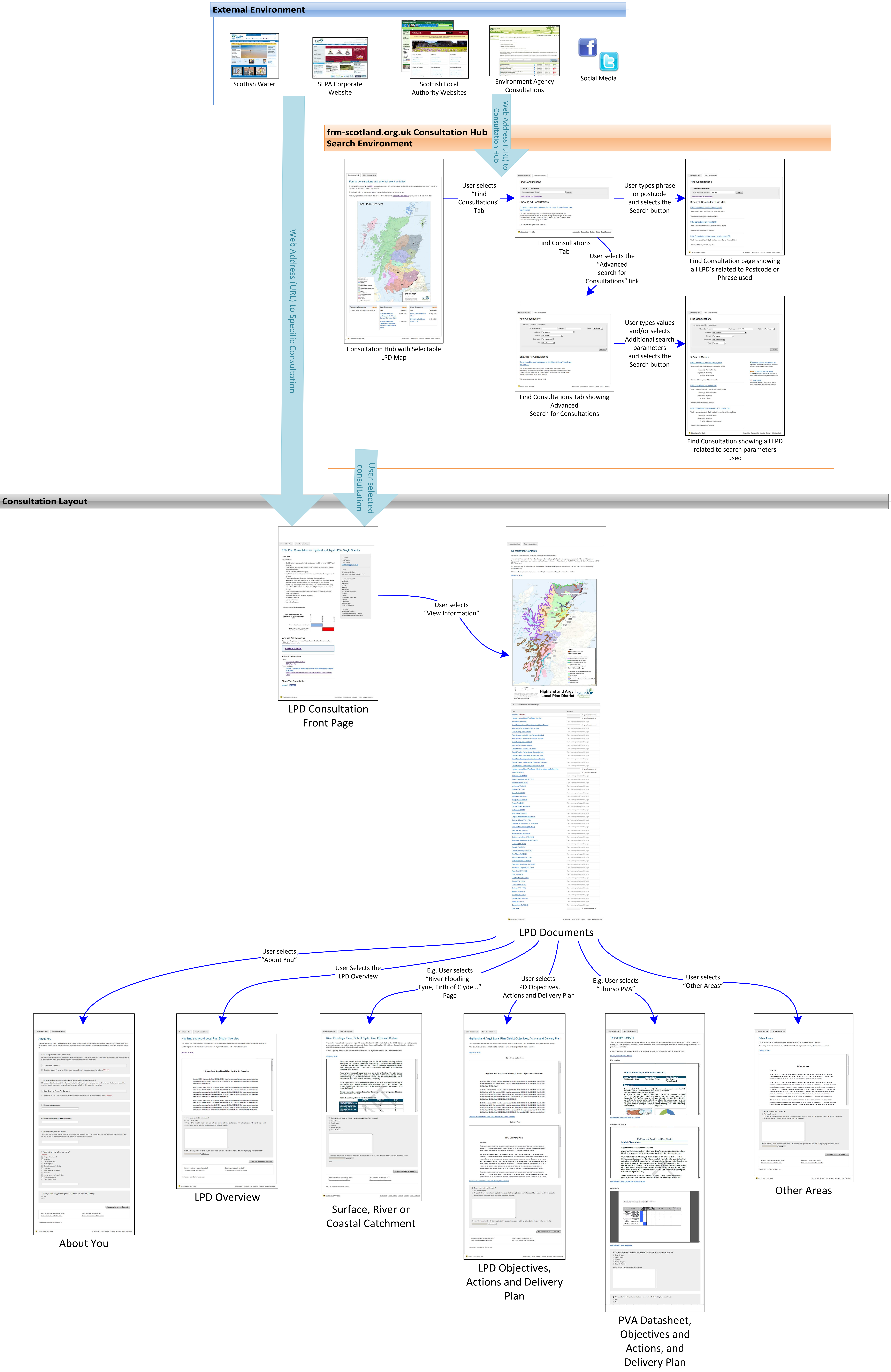
**Short List of Measures to Manage Flood Risk**  
**PVA 08/13 – Perth**

Objective	Category	Action	River	Coastal
Avoid	Flood Protection Schemes	Maintain Existing Flood Protection Schemes	✓	✓
	Relocation	Relocation of properties/infrastructure away from flood risk areas	✓	✓
	National Planning Policies	Scottish Planning Policy (SPP)	✓	✓
		Planning Advice Notes (PANs)	✓	✓
	Local Planning Policies	Specific policies/guidance in LDP's in addition to National Planning Policy	✓	✓
		Use of Strategic Flood Risk Assessment to inform local development plans	✓	✓
Protect (Natural Flood Management)	Runoff Control	Woodland planting (conifer, native, broadleaf)	✓	N/A
		Land Management, including: soil and bare earth improvements, changing agricultural field drainage	✓	N/A
		Cross slope woodlands (shelter belts)	✓	N/A
		Creation / restoration of wetlands and ponds	✓	N/A
		Upland drain blocking	✓	N/A
		Gully woodland planting	✓	N/A
	River/floodplain restoration	Floodplain reconnection	X	N/A
		Placed large woody debris and boulders	X	N/A
		Floodplain woodland	X	N/A
		Riparian woodland	X	N/A
		Reach restoration – (e.g. re-meandering)	X	N/A
		Creation of washlands (off-line storage)	X	N/A
	Sediment Management	Sediment removal or other in-channel management	✓	N/A
		Sediment traps	✓	N/A
		Bank restoration (e.g. riparian planting, green bank restoration)	✓	N/A
	Wave attenuation	Beach Recharge Schemes	N/A	X
		Shingle Re-Profiling	N/A	X
		Sand Dune Restoration	N/A	X
		Coastal Vegetated Shingle Restoration	N/A	X
		Machair Restoration	N/A	X
	Surge attenuation	Creation/ restoration of intertidal area including mudflats and saltmarsh, and regulated tidal exchange	N/A	X
Protect (Engineering)	Storage	Flood storage online	X	N/A
		Flood storage offline	X	N/A
	Conveyance	Increased conveyance through channel modification – deepening / widening / two-stage channel	X	N/A
		Relief / diversion channel / bypass tunnel / culvert	X	N/A
		Realign channel	X	N/A
		Culvert modification	X	N/A
		Removal of hydraulic constrictions	X	N/A
		Bridges modification	X	N/A
	Control Structures	Sluice gate / penstock / flap valve	X	N/A
		Weir	X	N/A
		Trash screens	X	N/A
		Pumping stations	X	N/A
	Installation / modification of coastal control structures	Revetments	N/A	X
		Groynes	N/A	X
		Breakwaters	N/A	X
		Artificial reefs and detached breakwaters	N/A	X
		Gates and Tidal Barriers	N/A	X
	Direct Defences	Embankment	✓	X
		Wall	✓	X
		Adaptable wall (can be added to)	✓	X
		Demountable / temporary defences	✓	X
	Sustainable Urban Drainage	SUD measures (identified through Surface Water Management Plan)	N/A	N/A

**Short List of Measures to Manage Flood Risk**  
**PVA 08/13 – Perth**

Prepare	Watercourse Maintenance	Routine and event specific watercourse maintenance	✓	N/A
		Event triggered watercourse maintenance	✓	N/A
	Property Level Protection	Property Level Protection	✓	✓
		Resilient property design (retrofit)	✓	✓
	Flood Forecasting & Warning	Flood forecasting and alerts	✓	X
		Flood Warning schemes	✓	X
	Self Help	Business Continuity Planning	✓	✓
		Flood Insurance	✓	✓
		Community Flood Action Groups (including resilient community plans)	✓	✓
		Awareness Raising	✓	✓
	Emergency Plans	Emergency Response Plans	✓	✓
	Site Protection plans	Site protection plans	✓	✓
	Improved Understanding	Modelling and other assessments to improve knowledge of flood hazards	✓	✓









DRAFT

August 2014

**About you**

Q1: Do you agree for your responses to be shared between SEPA and local authorities?

-Yes

-No

Q2: Please provide your name.

Q3: Please provide your organisation name (if relevant).

Q4: Please provide your email address

*(This is optional, but if you enter your email address then you will be able to return to edit your consultation at any time until you submit it. You will also receive an acknowledgment email when you complete the consultation)*

Q5: Which category best reflects your interest?

-Responsible authority

-Other public body

-Interest/community group

-Consultancy and/or industry

-Academia

-Individual

-Other, please state

**Local Plan District overview**

Q6: Does this section adequately provide an overview of flooding in the Local Plan District?

Strongly agree  
disagree

Mostly agree

Neither

Mostly disagree

Strongly

**River, coastal and surface water flooding**

Q7: Do you agree or disagree with the information provided on river/coastal/surface water flooding?

Strongly agree  
disagree

Mostly agree

Neither

Mostly disagree

Strongly

-Option to provide further information

**PVA datasheets****Characterisation**

Q8: Do you agree or disagree that flood risk is described correctly in this Potentially Vulnerable Area?

Strongly agree  
disagree

Mostly agree

Neither

Mostly disagree

Strongly

-Option to provide further information

Q9: Have all major floods been reported for this Potentially Vulnerable Area?

-Yes

- No
- No comment
- Option to provide further comment and upload information (dates, photos etc.)

### **Objectives**

Q10: Do you agree or disagree that the objectives address the flood risk described in this Potentially Vulnerable Area?

Strongly agree      Mostly agree      Neither      Mostly disagree      Strongly disagree

- Option to provide further information
- Please provide any additional comments you have on the objectives, clearly stating which objective(s) you are referring to

Q11: Are there additional objectives you think are required to address the flood risk in this Potentially Vulnerable Area?

- Yes (please explain your reasoning below)
- No
- Option to provide further information

### **Actions**

Q12: Do you agree or disagree that the range of actions in this Potentially Vulnerable Area will meet the objectives?

Strongly agree      Mostly agree      Neither      Mostly disagree      Strongly disagree

- Option to provide further information
- Please provide any additional comments you have on the actions, clearly stating which action(s) you are referring to

Q13: Do you agree or disagree with the indicative six year delivery cycle(s) to which actions are ascribed?

Strongly agree      Mostly agree      Neither      Mostly disagree      Strongly disagree

- Option to provide further information

Q14: Are there other actions you think are required to address the flood risk in this Potentially Vulnerable Area?

- Yes
- No
- No comment
- Option to provide further information

### **Delivery plan**

Q15: Overall, do you agree or disagree with the delivery plan to manage flood risk in this Potentially Vulnerable Area?

Strongly agree      Mostly agree      Neither      Mostly disagree      Strongly disagree

Q16: Do you agree or disagree with the prioritisation for the delivery of the actions?

Strongly agree      Mostly agree      Neither      Mostly disagree      Strongly disagree

-Option to provide further information (please clearly state which action(s) you are referring to)

Q17: Do you agree or disagree with the proposed funding arrangements?

Strongly agree      Mostly agree      Neither      Mostly disagree      Strongly disagree

-Option to provide further information (please clearly state which action(s) you are referring to)

Q18: Do you agree or disagree with who is responsible for delivery?

Strongly agree      Mostly agree      Neither      Mostly disagree      Strongly disagree

-Option to provide further information (please clearly state which action(s) you are referring to)

-Please list other organisation(s) you believe need to be involved in the delivery of flood risk management in this area? (clearly stating particular action(s) if applicable)

### **Other areas**

#### **Other actions**

Q19: Do you agree or disagree with the other actions listed here?

Strongly agree      Mostly agree      Neither      Mostly disagree      Strongly disagree

Q20: Are there comments you would like to make in regard to the timing and/or funding of actions in non-Potentially Vulnerable Areas?

-Option to provide more information (if referring to a particular action(s) please clearly which one(s))

#### **Land use planning**

Q21: Do you agree or disagree with the information provided on land use planning?

Strongly agree      Mostly agree      Neither      Mostly disagree      Strongly disagree

-Option to provide further information

#### **Flood warning**

Q22: Do you agree or disagree with the information provided on flood warning?

Strongly agree      Mostly agree      Neither      Mostly disagree      Strongly disagree

-Option to provide further information

