Strategic Environmental Assessment of the Flood Risk Management Strategies

Post Adoption Statement

December 2015

Contents

SEA Post Adoption Statement Cover Note

PART 1

To: SEA.gateway@scotland.gsi.gov.uk

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PART 2

A post-adoption SEA statement is attached for the PPS entitled:

Flood Risk Management Strategies

The Responsible Authority is:

Scottish Environment Protection Agency

PART 3

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Acronyms

FRMS	Flood Risk Management Strategy
PVA	Potentially Vulnerable Area
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SEPA	Scottish Environment Protection Agency
SNH	Scottish Natural Heritage
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
UNESCO	United Nations Educational, Scientific and Cultural Organization

1. Introduction

1.1. The Flood Risk Management Strategies

The Flood Risk Management (Scotland) Act 2009 introduced a new plan-led approach to flood risk management in Scotland. The legislation aims to reduce overall flood risk in the most sustainable manner.

SEPA, in collaboration with partners, has produced Flood Risk Management Strategies to set out the future direction and priorities for managing flooding. The strategies:

- Identify the hazards and risk of flooding from rivers, the sea and surface water;
- Set objectives for managing flood risk;
- Select the most appropriate combination of actions to meet the objectives;
- Prioritise the delivery of actions.

Key facts about the Flood Risk Management Strategies are stated in table 2.1.

The strategies will be supplemented by Local Flood Risk Management Plans produced by lead local authorities that describe the delivery and funding arrangements for the agreed priorities. Flood Risk Management Strategies and Local Flood Risk Management Plans are at the heart of our coordinated efforts to tackle flooding in Scotland.

1.2. Strategic Environmental Assessment

As part of the preparation of the Flood Risk Management Strategies, SEPA has undertaken a Strategic Environmental Assessment (SEA). SEA is required by the Environmental Assessment (Scotland) Act 2005 and is a systematic method for considering the likely environmental effects of certain plans, programmes and strategies.

SEA aims to:

- Integrate environmental factors into the preparation of and decision-making for plans, programmes and strategies;
- Improve plans, programmes and strategies and enhance environmental protection;
- Increase public participation in decision making;
- Facilitate openness and transparency of decision-making.

Note that this SEA only considers the environmental effects of the Flood Risk Management Strategies and not the Local Flood Risk Management Plans. Further environmental assessment (SEA or Environmental Impact Assessment (EIA)) will

take place where required as part of more detailed flood risk management plans and projects.

Table 2.1: Key facts about the Flood Risk Management Strategies

Responsible Authority	Scottish Environment Protection Agency (SEPA)
Title	Flood Risk Management Strategies
Purpose	To provide strategic direction for the sustainable management of flood risk
What prompted the Flood Risk Management Strategies	The Flood Risk Management (Scotland) Act 2009, which transposes the EU Directive (2007/60/EC) on the assessment and management of flood risks
Date adopted	22 December 2015
Period covered	3 planning cycles (2015 – 2021; 2021 – 2027; 2027 and beyond)
Frequency of updates	Every 6 years
Area covered	Scotland, consisting of 14 Local Plan Districts
Publication	The Flood Risk Management Strategies along with the SEA Environmental Report and SEA post-adoption statement are available on SEPA's website: http://www.sepa.org.uk/environment/water/flooding/ The documents can also be inspected free of charge (or a copy obtained for a reasonable charge) at a number of SEPA offices. The office locations and opening hours can be obtained by contacting SEPA using the details below.
Contact	SEPA Strathallan House Castle Business Park Stirling FK9 4TZ Tel: 03000 99 66 99 Web: www.sepa.org.uk/contact/ Email: flooding@sepa.org.uk

1.3. SEA activities to date

Screening and scoping
SEPA determined that the Flood Risk Management Strategies fall within the scope of the Environmental Assessment (Scotland) Act 2005. We included the screening determination within our scoping report, which was published for consultation from 13 November to 20 December 2013.

We received 11 responses to the scoping report consultation, with the responses indicating broad support for our proposed approach. We received a small number of specific suggestions for improving our approach and took these into consideration when producing the Environmental Report.

Environmental report
We prepared an Environmental Report, which identified, described and evaluated the likely significant effects of the Flood Risk Management Strategies and their reasonable alternatives. We carried out a public consultation on the draft Flood Risk Management Strategies and Environmental Report in two phases:

- From 22 December 2014 background information on current and future flood risk was available;
- From 2 March 2015 further information on how flooding should be managed, coordinated, funded and delivered was available, along with the Environmental Report.

The consultation provided an early and effective opportunity for all interested parties - including individuals, community groups, businesses, statutory consultees and other organisations - to offer views on any aspect of the draft Flood Risk Management Strategies and the Environmental Report.

The consultation closed on 2 June 2014. We received five responses to the consultation on the Environmental Report and 220 responses to the consultation on the draft Flood Risk Management Strategies. A small number of comments received in response to the Flood Risk Management Strategies consultation were also relevant to the Environmental Report: these comments have been included in this post adoption statement.

Some of the key points raised in response to the Environmental Report consultation relate to:

- The assessment of cross border impacts;
- The assessment and mitigation of impacts on environmental designated sites;
- The assessment of coastal restoration actions.

These points are discussed in section 2.2 of this post adoption statement.

The key points raised in response to the Flood Risk Management Strategies consultation are summarised in a consultation digest (available on the SEPA website in December 2015). The digest describes how SEPA has taken account of these comments when finalising the Flood Risk Management Strategies.

Post adoption statement (this document)

The purpose of this post adoption SEA statement is to:

- State how environmental considerations have been integrated into the Flood Risk Management Strategies;
- State how the Environmental Report has been taken into account;
- State how the opinions expressed in the consultation on the draft Flood Risk Management Strategies and Environmental Report have been taken into account;
- State the reasons for choosing the Flood Risk Management Strategies as adopted, in light of the other reasonable alternatives considered;
- Identify the measures to be taken for preventing, reducing and offsetting any significant negative effects;
- Identify the measures that are to be taken to monitor any significant environmental effects of the implementation of the Flood Risk Management Strategies.

2. The environmental effects of the Flood Risk Management Strategies

2.1. How environmental considerations have been integrated into the Flood Risk Management Strategies

The Flood Risk Management Strategies have integrated environmental considerations into the assessment of flood risk, setting objectives, and appraising and selecting actions.

Assessment of flood risk to the environment and cultural heritage
In 2011, SEPA carried out a National Flood Risk Assessment that identified flood risk to the environment and cultural heritage, as well as to human health and economic activity. From this assessment, we identified priority areas where the risks of flooding were agreed to be nationally significant: these areas are known as Potentially Vulnerable Areas (PVAs).

Following the identification of Potentially Vulnerable Areas, we carried out a more detailed assessment of flood risk by using a greater range of information on flooding and on receptors at risk. We assessed the flood risk to designated environmental and cultural heritage sites by considering the exposure and vulnerability of Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Sites of Special Scientific Interest (SSSIs), UNESCO World Heritage Sites, Battlefields, Inventory of Gardens and Designed Landscapes, Scheduled Monuments and A-Listed buildings, as agreed with Scottish Natural Heritage and Historic Scotland.

Setting objectives and selecting actions
In the Flood Risk Management Strategies, we have set objectives and selected a wide range of actions to reduce overall flood risk. As part of this, we have set objectives and, where relevant, identified actions to manage flood risk to designated environmental and cultural heritage sites. These objectives and actions have been discussed with local authorities and local advisory groups, and agreed with Scottish Natural Heritage and Historic Scotland.

To help select actions for inclusion in the Flood Risk Management Strategies, we carried out a strategic assessment of the environmental impacts of potential actions, as published in the Environmental Report (see section 1.3 above).

We then carried out a more detailed appraisal of the costs, benefits and adverse effects of potential actions, including consideration of the environmental impacts of each action. This more detailed appraisal of environmental impacts was informed by

the findings of the Environmental Report. It considered the direct and indirect impacts of actions on:

- Designated environmental sites, including SACs, SPAs and SSSIs;
- Designated cultural heritage sites: UNESCO World Heritage Sites, Battlefields, Inventory of Gardens and Designed Landscapes, Scheduled Monuments and A-Listed buildings;
- River basin management planning and contribution to meeting Water Framework Directive objectives;
- Natural processes, such as patterns of erosion and sediment deposition;
- Climate change impacts.

The appraisal method was peer reviewed and agreed with the Scottish Government and responsible authorities. For more information, see the SEPA flood risk management appraisal method statement (available on the SEPA website from December 2015).

The information on the costs, benefits and adverse effects was used to inform the selection and prioritisation of actions (see section 2.3 below).

Habitats Regulations Appraisal

We carried out a Habitats Regulations Appraisal to ensure that the Flood Risk Management Strategies will not adversely affect the integrity of SACs and SPAs. Mitigation statements have been included in the Flood Risk Management Strategies where required.

Working in partnership

Throughout the development of the Flood Risk Management Strategies, we have worked in close partnership with responsible authorities.

Scottish Natural Heritage, Historic Scotland and other stakeholders have been involved in the preparation of the draft plans through national and local advisory groups, forums, and have provided detailed input and advice for specific aspects of the plans.

Cross border coordination and input from the responsible authorities in England was facilitated by the Cross Border Advisory Group. This group has a statutory responsibility to advise the relevant authorities in the Solway and Tweed Local Plan Districts on the preparation of their Flood Risk Management Strategies and Plans, including assessment of the potential for actions implemented on one side of the border to affect the other side of the border. Analysis undertaken by the group concluded that there was limited potential for cross border impacts.

2.2. How opinions expressed in the consultation have been taken into account

This section summarises the key points expressed in response to the Environmental Report consultation and describes how we have taken these opinions into account. A full list of comments and our responses can be found in appendix 1.

Environmental designated sites: assessment and mitigation
Scottish Natural Heritage highlighted the need for the SEA to take account of the effects of the Flood Risk Management Strategies on SSSIs, as well as SACs and SPAs. The Environmental Report identified where particular types of actions might affect protected sites and named some of the individual sites. More information on the sites that might be affected can be found in the Flood Risk Management Strategies.

As proposed in the Environmental Report, we have subsequently carried out a Habitats Regulations Appraisal, which has examined the connectivity between proposed actions and European sites (SACs and SPAs) and applied mitigation to ensure the Flood Risk Management Strategies will not adversely affect the integrity of these sites. The mitigation statements have been included in the Flood Risk Management Strategies.

Natural England recommended that any actions which do not adequately protect SSSIs or consider the impacts of development on them should be removed or modified. We note this advice and in the Flood Risk Management Strategies we have identified those actions that might have effects on SSSIs. We cannot mitigate negative effects (or promote positive ones) at this strategic stage of planning as identification of effects requires further detail on the type, location, design and implementation of actions. Both SEPA and local authorities have duties to protect SSSIs, and these duties will be applied to more detailed stages of planning including licence applications. Measures to mitigate adverse effects on SSSIs should therefore be considered as part of feasibility studies and scheme design. This has been added to the table of mitigation measures in section 3.1 below.

Natural England also recommended that we include an indicator to monitor the impacts of the Flood Risk Management Strategies on European Sites and SSSIs. We have considered this advice but it is not feasible to carry out this monitoring at a strategic level as we cannot meaningfully link changes in site condition (from Scottish Natural Heritage's site condition monitoring data) to actions in the Flood Risk Management Strategies. SEPA's Water Framework Directive monitoring, however, will help to inform us of pressures on water-dependent European sites.

Coastal restoration actions

Scottish Natural Heritage provided comments on the assessment of coastal restoration actions:

- Actions such as nourishment/recharge of beaches and/or dunes with sediment usually require extraction of donor sediment from nearby subtidal habitats. This can have adverse effects on biodiversity, coastal processes and flood risk;
- More generally, the use of the word restoration was thought to imply returning the coast to an undisturbed state but Scottish Natural Heritage felt that in many cases the actions may disrupt natural coastal evolution and could have negative effects on protected sites.

We agree with the comments related to beach recharge and have added acknowledgment of this potential adverse impact to the descriptions of these actions in the Flood Risk Management Strategies. The impacts arising from the extraction of intertidal sediment will need to be assessed again at the project level.

We also note the advice on the coastal restoration actions more generally, and the potential negative effects of these actions on protected sites. We have acknowledged in the Environmental Report that coastal restoration could have potential negative (as well as positive) effects on protected sites, although this related primarily to concerns over short term disturbance of sediment or disturbance from construction.

Coastal restoration in the context of the Flood Risk Management Strategies does not refer to returning the coast to an undisturbed state but to working with natural coastal processes to improve the condition of coastal features impacted by human activities. All coastal actions would be supported by extensive assessment of natural site conditions, including sediment dynamics, so as to ensure actions do not oppose or restrict natural processes.

Cross border effects

Historic England and Natural England both provided opinions on the assessment of cross border effects:

- Historic England felt that the environmental baseline did not make a proper consideration of the historic environment, in this case the Esk River in the Solway. As a result, Historic England was unable to confirm whether or not the conclusions of the environmental assessment are correct;
- Natural England noted that the assessment of the historic environment does not consider all types of heritage as defined in England by the National Planning Policy Framework;
- Natural England felt the Environmental Report should recognise that some actions may have cross border impacts; for example, coastal defence structures could affect sediment budgets and impact on wildlife sites further

away. Similarly, river actions could have downstream effects on protected sites;
- Natural England also commented that engineered actions within Scotland could have an effect on the setting of protected or otherwise important landscapes.

In the Environmental Report, we considered the cross border effects in the Solway and Tweed Local Plan Districts and we re-iterate and expand on the assessment below. Note that effects will need to be examined again at project level when more detail is available on the type, location and scale of actions.

For the Solway Local Plan District, we considered the potential for cross border effects in appendix A18 of the Environmental Report. Our assessment was in line with the finding of the Cross Border Advisory Group (see section 2.1 above) which concluded that there was very limited potential for actions in the Scottish part of this district to have effects on the English side of the border. This is primarily due to the distance of proposed actions from England. We recognised the potential negative effects of coastal defences on coastal processes and protected sites, and also identified potential negative effects on landscape. Although not specifically mentioned in the Environmental Report, this could include the Solway Coast Area of Outstanding Natural Beauty. There are, however, no coastal defences proposed in the Solway Estuary in the first flood risk management planning cycle (2015 – 2021).

We have reviewed our assessment of the potential effects of actions in the River Esk and maintain our conclusion that the actions are unlikely to have any significant environmental effects across the border in England. (Any natural flood management and river defences in the Liddel Water at Newcastleton (PVA 14/03) would be approximately 3.5km upstream of the border; any river defences along the River Esk and Wauchope Water at Langholm (PVA 14/04) would be approximately 10km upstream of the border; there are no structural actions in PVA 14/09).

For the Tweed Local Plan District, we considered the potential for cross border effects in appendix A17 of the Environmental Report. The potential actions were in the middle and upper catchment of the Tweed (there are no structural actions in PVA13/06 or 13/09) and we did not anticipate any significant cross border effects. Our assessment was in line with the finding of the Cross Border Advisory Group (see section 2.1 above), which concluded that there was very limited potential for actions in the Scottish part of this district to have effects on the English side of the border. As with the Solway Local Plan District, this is primarily due to the distance of proposed actions from England.

In the Environmental Report, we also identified potential negative effects of river defences on urban landscape in the Tweed Local Plan District. We do not anticipate any effects on the landscapes of the Northumberland National Park or the North

Northumberland Heritage Coast (as queried by Natural England in their consultation response).

Changes to the environmental assessment
Since the publication of the Environmental Report, we have added new flood risk management actions to a small number of Potentially Vulnerable Areas. We have reviewed the significant environmental effects of these actions and, given the strategic nature of the assessment, they do not alter the assessment published in the Environmental Report. Appendix 2 provides further information on these actions.

2.3. The reasons for choosing the Flood Risk Management Strategies in light of reasonable alternatives

The Flood Risk Management Strategies contain objectives and actions to reduce overall flood risk. We considered a wide range of technically feasible actions, which we consulted on from March – June 2015 (see section 1.3). The final actions were selected based on a range of factors including:

- The efficacy of the action: for example, actions were excluded if information indicated they would not be effective at meeting the flood risk management objectives – such as insufficient area available for intertidal restoration.
- The feasibility of the action: In some cases, more detailed information indicated that the action would not be feasible given the current land cover or land use; for example, further reduction of runoff may not be feasible in broadleaved woodland habitat;
- The relative costs and benefits of the action. For example, some actions were excluded where the actions were clearly not cost beneficial;
- Contribution of the action to existing or planned activities: for example, actions that are part of planned flood protection schemes were retained for inclusion in the Flood Risk Management Strategies.

In many cases, the actions that have been selected are further studies, which will examine the potential for flood protection and natural flood management and the impacts on the environment in more detail.

3. Mitigating and monitoring of environmental effects

3.1. Mitigation of significant negative environmental effects

Table 3.1 summarises the significant environmental problems that could result from the implementation of the Flood Risk Management Strategies and states measures for the prevention, reduction and offset of significant adverse effects. These measures are recommendations that will need to be taken forward at more detailed levels of flood risk management planning, such as at feasibility studies and design stages. Other organisations, particularly local authorities, will be leading on more detailed stages of planning.

Table 3.1: Measures for the prevention, reduction and offsetting of any significant negative effects of the Flood Risk Management Strategies

SEA objective	Potential significant negative effects[1]	Mitigation measures and recommendations
Population and human health: *Protect human health, reduce health inequalities and promote healthy lifestyles*	No significant adverse effects	
Biodiversity, fauna and flora: *Conserve and where appropriate enhance species, habitats and biodiversity, and habitat connectivity*	Storage, conveyance and control actions, river defences, and coastal defences could damage ecosystems such as wetlands and native floodplain woodlands and coastal habitats that are already fragmented / degraded.	Potential negative effects can be mitigated by local authorities (or other responsible authorities) through the identification of impacts, sympathetic design and timing of works to avoid or minimise the effects on habitats and wildlife. Sympathetic design should seek to minimise disruption to natural processes and systems, and look for opportunities to enhance the environment and improve biodiversity[2]. Consultation with relevant organisations such as Scottish Natural Heritage and Natural England recommended.

1 See the Environmental Report for further discussion of both positive and negative effects.
[2] Hendry, K., Clough, S. C., and Hubble, M. O.: Chapter 4 Fluvial Ecology; in *Environment Agency Fluvial Design Guide*: evidence.environment-agency.gov.uk/FCERM/en/FluvialDesignGuide.aspx [accessed 04/09/2014].

SEA objective	Potential significant negative effects[1]	Mitigation measures and recommendations
	All structural actions could have significant negative effects on designated nature conservation sites, for example, by altering patterns of river flow or coastal processes or through disturbance.	Potential negative effects on European sites (SACs and SPAs) have been assessed by SEPA as part of the Habitats Regulations Appraisal for the Flood Risk Management Strategies and mitigation applied where required. At more detailed levels of planning, Habitats Regulations will also apply during which the responsible authority will need to take steps to ensure there are not significant negative effects on European sites. Measures to mitigate adverse effects on SSSIs should be considered by local authorities (or other responsible authorities) as part of feasibility studies and scheme design. Responsible authorities should discuss potential impacts with Scottish Natural Heritage (and where appropriate Natural England) during feasibility studies and design stages. This is particularly important at early stages where European sites could be affected.
Soil: *Protect and where appropriate enhance the function and quality of the soil resource*	Storage, conveyance and control actions can alter natural processes and lead to increased erosion of carbon rich soils or agricultural land	Modelling of natural processes can help to better predict and mitigate potential negative effects: this should be addressed by local authorities (or other responsible authorities) during feasibility studies and detailed design stages.
Water: *To prevent deterioration, protect and where appropriate enhance the water environment*	Storage, conveyance and control actions, river defences, and coastal defences could lead to potential degradation of beds and banks of rivers and the coastline.	The potential negative effects can be mitigated by minimising habitat loss and including habitat creation in flood risk management schemes. Negative effects should be addressed by local authorities (or other responsible authorities) during feasibility studies and detailed design stages.

SEA objective	Potential significant negative effects[1]	Mitigation measures and recommendations
		Actions that can affect the freshwater environment (such as river defences or storage actions) are regulated by SEPA under the Water Environment (Controlled Activities) (Scotland) Regulations 2011, which aim to protect the water environment. Mitigation is considered as part of the authorisation process. Some actions, particularly those deemed as development, are regulated under the land use planning system: environmental effects will be addressed under this system through project level Environmental Impact Assessments.
Climatic factors: *Contribute to mitigation of and adaptation to climate change*	Storage, conveyance and control actions, river defences, and coastal defences could lead to potential loss or degradation of habitats (e.g. wetlands, woodlands, coastal) that help to mitigate and adapt to a changing climate.	The potential negative effects can be mitigated by minimising potential habitat loss and including habitat creation in flood risk management schemes. Negative effects should be addressed by local authorities (or other responsible authorities) during feasibility studies and detailed design stages.
Material assets: *Contribute to protecting property and infrastructure* *Minimise waste and energy consumption and promote resource efficiency*	No identified negative effects. Effects on waste, energy and resource efficiency uncertain at this stage.	Opportunities to minimise waste and resource use should be examined by local authorities (or other responsible authorities) during feasibility studies and detailed design stages.

SEA objective	Potential significant negative effects[1]	Mitigation measures and recommendations
Cultural heritage: *Protect and where appropriate enhance the character, diversity and special qualities of cultural heritage and the historic environment*	No significant negative effects identified (although assessment is uncertain as effects depend strongly on the type of action and its location).	Potential negative effects can be mitigated by local authorities (or other responsible authorities) through the identification of any heritage assets (including archaeology) and the early engagement of relevant organisations (including Historic Scotland and Historic England) during feasibility studies and detailed design stages.
Landscape: *Protect and where appropriate enhance the character, diversity and special qualities of landscapes*	Coastal defences (and also storage, conveyance and control actions, and river defences) could lead to landscape degradation.	Potential negative effects should be addressed by local authorities (or other responsible authorities) early during feasibility studies and detailed design stages. Consultation with Scottish Natural Heritage (and Natural England where appropriate), National Park Authorities and affected communities is recommended.

3.2. Monitoring

Section 19 of the Environmental Assessment (Scotland) Act 2005 requires the Responsible Authority (SEPA) to monitor significant environmental effects of the implementation of the Flood Risk Management Strategies. This must be done in such a way as to also identify unforeseen adverse effects and to take appropriate remedial action.

The monitoring must inform on the effects of the Flood Risk Management Strategies themselves rather than wider trends. The water environment is extensively monitored by SEPA and we will take advantage of existing activities rather than undertake any new monitoring. The SEA monitoring activities are set out in table 3.2. The effects of individual projects will be monitored according to plans devised as part of project level environmental impact assessment.

Table 3.2: SEA monitoring programme

What is being monitored	Data source, frequency of monitoring	Timescale and responsibility
Flood risk to people and properties, cultural heritage and designated environmental sites	SEPA National Flood Risk Assessment and baseline flood risk data updated every 6 years	SEPA, as part of the National Flood Risk Assessment update in 2018 and as part of work towards the publication of the Flood Risk Management Strategies in 2021
Status of the water environment	WFD classification data; monitored via the river basin management plans (6 yearly publication cycle)	SEPA, as part of the third river basin management plans in 2021

Appendix 1: Opinions expressed to the consultation on the Environmental Report

A1. Who responded?

We received five responses to the consultation:
Scottish Natural Heritage (via email)
Historic Scotland (via email)
Natural England (via email)
Fort Glenmoriston Community Council (via Citizen Space)
Community council member (via Citizen Space)

We also received comments on the SEA from Historic England and Scottish Natural Heritage as part of their responses to the consultation for the Flood Risk Management Strategies. We have included these comments in the summary below.

We asked a number of questions to help guide the consultation response, but these questions were only answered by the two individual respondents. We have placed the other responses under the relevant questions to help guide analysis.

A2. Environmental baseline: Do you think that we have accurately described the relevant aspects of the current state of the environment?

Respondent	Comment	SEPA response	SEPA action
Fort Glenmoriston community council	No: - More data on coastal birds might be informative.	Data on coastal birds would be too detailed for this strategic level assessment.	No change to the Flood Risk Management Strategy (FRMS).
Fort Glenmoriston community council	**Local Plan District 01 Highland and Argyll** Seems very thorough but wonder whether more data about coastal birds and changes in their habitats would be informative as well.		
Scottish Natural Heritage (SNH)	**Local Plan District 01 Highland and Argyll** Protected sites list • Claish Moss and Kentra Moss SAC / Kentra Bay and Moss SSSI (PVA01/26) are not listed	We note this information. There are no structural actions for PVA 01/26 in the draft or final FRMS. No assessment required for this PVA.	No change to FRMS.

Respondent	Comment	SEPA response	SEPA action
	– A significant proportion of this site is covered by the PVA • Claish Moss and Kentra Moss habitats: o Blanket bog - favourable o Depressions on peat substrates - favourable • Kentra Bay and Moss SSSI habitats: o Blanket bog – unfavourable o Upland oak woodland – unfavourable o Bryophytes – unfavourable (bryophytes are part of the blanket bog feature) o Lichen – unfavourable o Saltmarsh – unfavourable o Mudflats – favourable o Maritime cliff – favourable o Vascular plants - favourable Pressures identified for these sites are mostly grazing issues and non-natives and water management, so there may be an opportunity here to improve the blanket bog feature by blocking drains. • Sound of Arisaig SAC is listed but is not in the PVA. Habitat condition is: o Subtidal		

Respondent	Comment	SEPA response	SEPA action
	sandbanks – favourable maintained o It is not designated for maerl beds or eel grass		
SNH	**Local Plan District 01 Highland and Argyll** • Ben Nevis SAC /SSSI o SSSI - Native pinewood is also in unfavourable condition o SAC – wet heath, species rich grassland, mountain willow scrub, dry heaths, blanket bog, alpine heaths, alpine grasslands are all unfavourable Pressures identified for these sites are mostly over grazing and recreational damage.	We note the updated information. Ben Nevis SAC (and possibly SSSI) may be affected by any actions that arise out of the flood protection study proposed for the River Nevis (PVA 01/25). Impacts on SAC recognised in the Habitats Regulations Appraisal and mitigation statement. Impacts on SSSI recognised in the FRMS environmental impacts section.	No change to FRMS.
SNH	**Local Plan District 01 Highland and Argyll** • Glen Coe SAC/SSSI o Misspelt in the document as Glencoe o SAC – unfavourable for some upland habitats • Sunart SAC/SSSI o SSSI – is notified for eelgrass, egg wrack and rocky shore which are all in favourable condition o SSSI - Oak	Glen Coe (PVA 01/28) – actions proposed for this PVA have potential effects on Glen Etive and Glen Fyne SPA only; no effects likely on Glen Coe SAC/SSSI. Sunart (PVA 01/26) – no actions proposed in this PVA in the final FRMS so no effects on this SAC/SSSI	No change to FRMS.

Respondent	Comment	SEPA response	SEPA action
	woodland , lichens and bryophytes in unfavourable condition o SAC – wet heath, oak woodland, ash woodland and dry heaths in unfavourable condition Pressures identified for these sites are mainly over-grazing; however, for reefs (favourable) we have noted water-dependent pressures, relating to recreation, aquaculture and morphological alterations.		
SNH	**Local Plan District 01 Highland and Argyll** Provisioning services This section should include Loch Sunart (PVA 01/26) and Loch Eil (PVA 01/23) in key areas for fin and shell fish farming. There is a large finfish shore based farm at Lochailort (PVA 01/22).	Provisioning services were not described for these PVAs as: - No actions proposed for PVA 01/26 or 01/22. - No coastal actions proposed for 01/23.	No change to FRMS
SNH	**Local Plan District 04 Shetland** Under Provisioning Services, it is true that farming is mainly concerned with raising sheep, but only about half of these are Shetland sheep – the rest are larger breeds and Shetland cross-breeds.	We note this; it does not affect the assessment.	No change to FRMS.
SNH	**Local Plan District 04 Shetland** On page 6 under Provisioning services, it says that sheep are kept mainly for their wool. This is not the case. Sheep are kept mainly for store lamb production (i.e. lambs that are sent south for fattening). The wool is a by-product and has very little value.	We note this; it does not affect the assessment as both wool and meat are considered provisioning services.	No change to FRMS.

Respondent	Comment	SEPA response	SEPA action
SNH	**Local Plan District 06 North East** In the Environmental Report, Page 5 of annex 10 refers to inappropriate woodland expansion onto upland heath and loss of open moorland. This seems to be in the context of designated sites. We do not believe that this is an issue in the Dee catchment, where a lack woodland cover is more likely to be an issue.	Noted.	No change to FRMS.
SNH – from FRMS consultation response	**Local Plan District 03 Orkney** In the SEA report, the statement (p4 Appendix 7) in relation to Central Sanday SSSI that 'The sand dunes and machair (supralittoral sediment) are in unfavourable condition' while technically correct is misleading in this context as it was vegetation targets, rather than geomorphology targets, that failed (and the geomorphology feature is in favourable condition). This misunderstanding is repeated in the assessment table, 'Much of Sanday is protected for habitats such as sand dunes and machair. Some of this is in unfavourable condition so could be significantly improved through [coastal] restoration'. Also it is stated that 'Sanday is an SPA with a conservation objective to reduce the decline of the common seal'; common seal is a feature of the Sanday SAC (not East Sanday Coast SPA).	We note the additional information and corrections. There are no structural actions proposed in final FRMS for Sanday, so no update to assessment is required.	No change to FRMS
SNH	**Local Plan District 04 Shetland** Page 4 lists Shetland as having 12 SACs, 11 SPAs and 77 SSSIs. The correct figures are 12, 12 and 78. There is also one	The numbers of sites was determined by the boundary of the Local Plan District, which excludes some	No change to FRMS

Respondent	Comment	SEPA response	SEPA action
	candidate SAC (Pobie Bank Reef) and a Ramsar site.	of the offshore sites including Pobie Bank Reef. This information does not affect the assessment.	
SNH	**Local Plan District 07 Tay Estuary and Montrose Basin** Designated sites • Montrose basin – not all features are favourable – greylags are unfavourable. The SSSI is also designated for saltmarsh, mudflats and geology. • No mention of Ramsar sites • Firth of Tay and Eden Estuary – Monifieth Bay SSSI needs added (sanderling is the feature) • Eden estuary sand dunes identified as vulnerable to erosion. Should include Broughty Ferry sand dunes and Montrose beach sand dunes too	Ramsar sites were not specifically considered in the assessment as they are also either SACs or SPAs, and many are also SSSIs. Other comments noted; does not affected assessment.	No change to FRMS.
SNH	**Local Plan District 07 Tay Estuary and Montrose Basin** Under Ecosystem services A11.3.2 – provisioning services - mentions estuarine and coastal habitats provide nurseries for juvenile marine fish. Sparling is a sub-feature of the SAC (as it is a nationally rare population) and therefore should be mentioned. Sub-features also include: extensive reedbeds, saltmarsh, sparse beds of eelgrass Zosetera augustifolia, Zostera noltii, Blue mussel reefs Mytilus edulis, and extensive mudflats.	We note the additional features of the SAC. This information does not change the assessment.	No change to FRMS.

A3. SEA objectives and assessment: Do you think that our objectives and assessment method have enabled us to adequately assess the potential significant environmental effects of the proposed actions?

Respondent	Comment	SEPA response	SEPA action
Fort Glenmoriston community council	Yes	Noted.	No change to FRMS.
Natural England	Table 4.2: Biodiversity, fauna and flora: The SEA objective is to '*Conserve and where appropriate enhance species, habitats and biodiversity, and habitat connectivity'.* It is not clear where the difference lies between species and habitats and 'biodiversity'. In addition, the reference to '*enhance species'* is confusing (as is the reference to '*improve protected species'* in the following column). It may be clearer to have an objective to 'protect and enhance internationally, nationally and locally designated wildlife sites' and further objectives to 'protect and enhance protected habitats and populations of protected species' and 'protect and enhance the wider biodiversity resource and improve habitat connectivity' In relation to the '*Do the Flood Risk Management Strategies..*' column it is recommended that there is a specific question related to 'protect and enhance internationally and nationally designated sites?'	The wording was agreed with the consultation authorities at the Scoping Stage. We appreciate there are alternative words that could be used for the objectives, but it would not alter the assessment findings.	No change to FRMS.
Historic England – from the FRMS consultation response	The description of the areas [in the FRMS/ SEA] appears to lack a proper consideration of the historic environment, in this case the Esk River in the Solway area. Due to this lack of assessment, it will be difficult to ascertain what impact	We note the advice from Historic England. The SEA is focused on significant environmental effects and we do not anticipate any	Discuss in post adoption statement. No change to FRMS.

Respondent	Comment	SEPA response	SEPA action
	any of the proposed measures might have on the historic environment. As a result, due to a lack of sufficient information we are therefore unable to confirm whether or not the conclusions of the environmental assessment are correct for a particular locality (the Esk River in the Solway Plan area).	significant effects on the historic environment in the River Esk. Therefore we did not consider it necessary to describe the historic environment in the River Esk in England. The consideration of these cross border effects is discussed in more detail in the main body of the post adoption statement.	
Historic England – from the FRMS consultation response	Within the SEA, it appears that the definition of cultural heritage (which will be used as the basis to inform the assessment process and consideration of flood risk measures) does not consider all types of heritage assets as defined in England by the National Planning Policy Framework (NPPF). This includes both designated assets, such as World Heritage Sites, Conservation Areas, Scheduled Monuments, Battlefields, Registered Parks and Gardens, and non-designated assets such as locally listed buildings and archaeology. In addition, consideration should be given to the concept of 'significance' as set out in the NPPF which underpins the constructive management of heritage assets and the wider historic environment. Understanding cultural heritage from this perspective helps ensure that the FRMS for Scotland is in line with the relevant English national policy and management practices appropriate for the	We note the advice from the Historic England. As discussed above, we do not anticipate any significant effects on the historic environment in the River Esk. Therefore we did not consider it necessary to describe the historic environment in the River Esk in England. We also note the advice on the environmental objective. The wording on the environmental objectives was agreed with the consultation authorities at the Scoping Stage.	Discuss in post adoption statement. No change to FRMS.

Respondent	Comment	SEPA response	SEPA action
	historic environment within Cumbria, which may be affected by measures set out in the strategy. This should be further reflected within the relevant environmental objective. It is important to ensure that the baseline information used to inform the assessment process is up to date and relevant. This includes capturing all heritage assets, understanding their contribution to the wider environment as expressed in their significance and the national policy and legislative framework for management of the historic environment.		

A4. Reasonable alternatives: Are there any actions that should be considered as 'reasonable alternatives' that we have not identified and should be considered as part of the SEA process?

Respondent	Comment	SEPA response	SEPA action
Fort Glenmoriston community council	No. Think should also consider the impact of forestry operations on flooding. Am not sure whether SEPA are consulted about them. Local experience is that where trees are being removed on steep hillsides insufficient thought seems to be given to how that impacts on drainage and water flow. If not already in place could the licence required for tree felling include consultation with SEPA on impact on water flow, drainage etc.?	Forestry Commission Scotland regularly liaises with SEPA's planning service. The UK Forestry Standard Guidelines for Forests and Water also include guidelines regarding clear felling in areas of high flood risk.	No change to FRMS
Community council member (for	One point that must be considered is what action should be carried out to help householders affected	The FRMSs include actions to support householders in	No change to FRMS

Respondent	Comment	SEPA response	SEPA action
North East Local Plan District)	by local flooding. This flooding could be due to run off or poor drainage in the area. The weather or extra new housing in the area could be making the problem worse. The action should be civil engineering work carried out by the council to cure the problem. eg field drains etc. Or professional civil engineering advice to the householder	terms of property level protection, self help, flood warnings etc.	

A5. Environmental assessment: Do you think that we have accurately assessed the potential significant environmental effects of the proposed actions?

Respondent	Comment	SEPA response	SEPA action
Natural England	3.2. Boundary, flora and fauna: It should be recognised that some actions may have cross border impacts. For example, the provision of coastal defence structures could affect sediment budgets, impacting on important wildlife sites further to the south. Similarly, physical interventions within Potentially Vulnerable Areas (PVAs) close to the border could also impact on sites further south i.e. actions within PVAs 13/06 (Coldstream) and 13/09 (Kelso) have the potential for downstream impacts on the Tweed Catchment Rivers - England: Lower Tweed And Whiteadder Site of Special Scientific Interest (SSSI) and River Tweed Special Area of Conservation (SAC).	Cross border impacts were considered in the two appendices for the Tweed and the Solway Local Plan Districts. Note there are no structural actions in PVAs 13/06 and 13/09. We have clarified the potential for cross border impacts in the main body of the post adoption statement.	Discussed in post adoption statement. No change to FRMS.
Natural England	3.2. Biodiversity, flora and fauna: It would be beneficial to detail the hierarchy of protected sites i.e. international (Special Protection Areas, Special Areas of Conservation and Ramsar Sites), national (Sites of Special Scientific Interest) and local.	We note this suggestion. It would not alter the assessment process or the findings.	Discussed in post adoption statement. No change to FRMS.

Respondent	Comment	SEPA response	SEPA action
Natural England	3.8. Landscape: Actions within Scotland (particularly engineered solutions) could have an effect on the setting of protected or otherwise important landscapes. This is in the context where the Northumberland National Park, Solway Coast Area of Outstanding Natural Beauty (AONB) and North Northumberland Heritage Coast all adjoin the Scottish Border.	We note these comments and in the assessment of coastal defences for the Solway Local Plan Districts we have recognised potential negative effects on landscape. We have clarified the potential for cross border impacts in section 2.2 above.	Discussed in post adoption statement. No change to FRMS.
Historic Scotland	I found that the ER sets out clearly the scope and findings of this assessment and I am satisfied that the findings in relation to the historic environment are reasonable.	Noted.	No change to the FRMS
SNH	The SEA needs to consider fully the effect of flood risk management measures on Sites of Special Scientific Interest (SSSIs) as well as sites designated under European Directives. For example, Table 6.1 refers to Habitats Regulations Appraisal. Habitats Regulations Appraisal applies to European sites but not to SSSIs.	We note the comment. The potential effects on SSSIs are considered strategically in the assessment. The FRMS contains more detail for specific actions and sites. SEPA has carried out a Habitats Regulations Appraisal to ensure that the FRMS do not have adverse effects on the integrity of European sites.	Described approach in post adoption statement. No change to the FRMS
SNH	For Natura Sites (Special Areas of Conservation and Special Protection Areas), a Habitats Regulations Appraisal will need to be undertaken	Habitats Regulations Appraisal undertaken and	No change to FRMS.

Respondent	Comment	SEPA response	SEPA action
	on the Strategies and also on the Local Flood Risk Management Plans. SNH welcomes early discussion of proposals that may affect designated sites so that adverse effects on sites can be avoided.	consulted on and mitigation statements will be included in the FRMS.	
SNH	Table 5.8 assesses effects of Coastal Defences on the Water objective as Mixed, partly because replacement defences set back further from the shore are considered positive. This measure would in fact be a classic case of managed coastal realignment (allowing the sea to occupy the land between the old and new defences) and therefore belongs within Coastal Restoration (Surge Attenuation).	Our assumption on the definition of coastal defence is that the primary driver is protection from flood risk, and would not necessarily include coastal restoration. We also cannot differentiate at this strategic scale between defences on the shore and those set further back as these decisions will be made following further study. Therefore, we have retained the actions classed as coastal defences in one category.	No change to FRMS.
SNH	With regard to the Climatic Factors objective, Table 5.7 takes climate change adaptation into account but Table 5.8 does not. This is an important inconsistency, as the coastal defences assessed in Table 5.8 typically 'lock in' a fixed level of adaptation (design to a particular flood event), and are therefore negative compared with the typically more flexible natural flood management measures	We agree that coastal defences usually lock in to a fixed level of adaptation, although depending on design some can be subsequently adapted in future. Coastal defences are therefore assessed as mixed with respect to climatic factors.	No change to FRMS.

Respondent	Comment	SEPA response	SEPA action
SNH – from FRMS consultation response	In many of the Local Plan Districts, wave dissipation actions include nourishment/recharge of beaches and/or dunes with sediment. This measure will very often involve proposals to obtain the donor sediment from the low intertidal or shallow subtidal in the vicinity. It is important that this is acknowledged in the Strategies and assessed in the SEA. The potential adverse effects on biodiversity, active coastal processes, and even coastal flood risk if sediment extraction allows greater wave attack inshore, will be significant factors in choosing and setting priorities for natural flood management measures.	We agree that sediment extraction can have potential adverse effects. These effects will need to be considered as part of the more detailed planning as the type, location and scale of actions are determined.	Discussed in the post adoption statement and in the FRMS.
SNH – from FRMS consultation response	The word 'restoration', widely used in the Strategies for coastal natural flood management (and appearing in the SEA as the Coastal Restoration category), implies returning the coast to an undisturbed state. In fact, such measures will in many instances disrupt (near-) natural coastal evolution. In many places this will be exactly what is wanted, but it should not be viewed as simply a benign 'restoration', and could in addition threaten protected sites that depend on natural evolution, e.g. many SSSIs designated for active coastal landforms, dune habitats or saltmarsh. Beach nourishment/recharge to counter erosion is an important example.	The restoration actions are likely to lead to positive effects, although we acknowledge the potential negative impacts from actions such as beach recharge (see above).	See above.
SNH – from FRMS consultation response	It would be helpful if the potential actions within the PVAs could refer to strategic environmental impacts that the SEA has identified. For example, the SEA has assessed that Coastal Defences could have significant adverse effects on protected coastal habitats through increased erosion	Wider impacts will be included in the final FRMS. The impacts identified in the Environmental Report have been used to help identify more specific	Wider impacts of actions have been included in final FRMS.

Respondent	Comment	SEPA response	SEPA action
	and disruption of natural processes. The Airth PVA 10/09 states, for example, that within Airth there is potential to construct direct defences, but with no mention of mitigation.	impacts of actions in the FRMS.	
SNH	**Local Plan District 01 Highland and Argyll** The SEA (Table A5.7) picks up on potential adverse effects of Coastal Restoration on the Biodiversity objective. However, the Significant Negative assessment seems not to consider the potential benefits to coastal habitats, which is inconsistent with other Local Plan Districts.	The coastal restoration actions for this Local Plan District were assessed as having a potentially adverse effect as the actions are related to shingle and beach re-profiling, which are unlikely to have may positive effect on the biodiversity objective. No change to assessment.	No change to assessment or to FRMS.
SNH	**Local Plan District 01 Highland and Argyll** We welcome the listing in the SEA of the main protected sites potentially affected by Coastal Defences. However this is not repeated for some other Local Plan Districts.	Given the high level of uncertainty in the types and locations of actions at the consultation stage, we did not list all the protected sites that might be affected. More information on the sites that might be affected is contained in the FRMS.	No change to FRMS.
SNH	**Local Plan District 01 Highland and Argyll** Tables A9.3, A5.4, A5.5, A5.6, A5.7, A5.8, Biodiversity, flora and fauna -No mention of impacts to SSSIs	The tables identify only significant effects. Non-significant effects on protected sites are described more generally in the accompanying text.	Approach to assessing SSSIs described in post adoption statement. No change to FRMS.

Respondent	Comment	SEPA response	SEPA action
SNH	**Local Plan District 01 Highland and Argyll** Commentary on Potential significant effects [run off reduction] Paragraph 5 -There will be limited opportunities to benefit the blanket bog feature of Ben Nevis SAC	No natural flood management actions in the final FRMS for this site.	No change to FRMS.
SNH – from FRMS consultation response	**Local Plan District 03 Orkney** The active landform interest of Central Sanday SSSI could be affected not only by coastal defence Actions (although this is less likely for very local interventions) but also by the proposed natural flood management Actions. Natural coastal instability is inherent in the protection provided to the island by the SSSI's soft coastal landforms. The unfavourable status of the SSSI habitats arises inland through grazing impacts, rather than at the coastal edge, and is not likely to be 'significantly improved through' coastal restoration measures. The wholly positive assessment in the SEA (Table A7.3) should be re-visited.	No structural actions proposed in the final FRMS for Sanday; no update to information required.	No change to FRMS.
SNH – from FRMS consultation response	**Local Plan District 06 North East** Run-off reduction is only being considered for 3 out of 23 PVAs. This may be rather low, particularly in view of how much of the area is cultivated and the additional benefits (additional to flood reduction) to be gained from this action. By contrast storage conveyance and control is proposed for 11 PVAs and river defences proposed for 12. Both of these are predicted to have negative impacts on biodiversity and water including 'significant negative effects on the River Dee SAC'. Coastal defences are proposed for 5 PVAs and it is concluded that this will have no significant effects on	The majority of the flood protection and natural flood management actions in this Local Plan District will be progressed as studies. These studies will determine appropriate actions for further investigation. Potential negative effects on the SAC were identified in the SEA Environmental	No changes to FRMS.

Respondent	Comment	SEPA response	SEPA action
	biodiversity, flora and fauna. However, table A10.8 in the Environmental Report suggests that design should aim to minimise negative effects on this receptor, which implies there are some negative effects, and also suggests that Habitats Regulations Appraisal will be needed in relation to SACs/SPAs	Report and have been addressed through HRA. Negative effects were identified in the Environmental Report but these were not considered to be significant.	
SNH – from FRMS consultation response	**Local Plan District 10 Forth Estuary** The SEA acknowledges potential negative effects of Coastal Defence Actions on habitat interests of the Firth of Forth SSSI. However, on the Fife coast, there could also be impacts on shore outcrops forming the SSSI's geological interests. These could be direct (e.g. structures obscuring outcrops) or indirect (natural flood management measures altering sedimentation which could obscure outcrops).	We note the advice from SNH. In the Environmental Report, we have identified potential negative effects on coastal processes and coastal habitats (which includes littoral and supra littoral rock, as detailed in table A4:1 in the Environmental Report) although we recognise we did not specifically discuss protected geological features of the SSSI. In the FRMS, we have acknowledged the potential direct impacts of coastal defences on the Firth of Forth SSSI.	No change to FRMS.
SNH – from FRMS consultation response	**Local Plan District 14 Solway** PVAs 14/21 and 14/24 both include proposed Coastal Restoration Actions but this is not acknowledged in Table A18.1 of the SEA. In both cases there is potential for Wave Dissipation actions to damage geological SSSI interests if changes to sedimentation	The Environmental Report omitted the coastal restoration for these PVAs (PVA 14/21: Wave attenuation and intertidal restoration at Southerness.	Addressed in the post adoption statement. Potential effects on SSSIs are recognised in

Respondent	Comment	SEPA response	SEPA action
	cause obscuring of shore outcrops (Southerness & Kirkbean GCR sites, and Isle of Whithorn Bay SSSI respectively).	PVA 14/24: Wave attenuation at Isle of Whithorn; wave attenuation at Garlieston). These actions are now part of a shoreline management plan (see appendix 2 of the post adoption statement).	the FRMS.

A6. Mitigation: Do you think that we have proposed appropriate mitigation of the significant negative environmental effects?

Respondent	Comment	SEPA response	SEPA action
Fort Glenmoriston community council	Yes.	Noted.	No action required.
SNH	As a form of mitigation (Table 6.1), 'sympathetic design' could be usefully clarified. For example, it should include keeping any disruption to natural coastal processes within the natural variability of the coastal system affected.	Added clarification of sympathetic design to the post adoption statement.	Added clarification of sympathetic design to the post adoption statement. No change to FRMS.
Natural England	Table 6.1: Biodiversity, fauna and flora: Any actions which will have a likely significant effect on a European Site and/or an adverse effect on site integrity of a European Site should be removed or modified to prevent such effects.	Dealt with by Habitats Regulations Appraisal. Included in the mitigation table and explained how incorporated into FRMS.	Add mitigation to post adoption statement. No change to FRMS.
Natural England	Table 6.1: Biodiversity, fauna and flora Any actions which do not adequately protect SSSIs or consider the impacts of development on them should be removed or modified.	The post adoption statement describes how we have assessed SSSIs and how these impacts will be assessed and mitigated at more detailed planning	Add mitigation for SSSIs to post adoption statement. No change to FRMS.

Respondent	Comment	SEPA response	SEPA action
		stages and through licence applications.	
SNH	**Local Plan District 01 Highland and Argyll** Tables A9.3, A5.4, A5.8 Landscape -Should include consultation with SNH	Include recommendation for consultation with SNH and Natural England for any landscape changes.	Addition to mitigation measures in post adoption statement. No change to FRMS.
SNH	**Local Plan District 01 Highland and Argyll** Run off reduction actions Table A9.3 Biodiversity, flora and fauna Potential adverse impacts from loss of other qualifying habitats through over-planting – recommend discussion with SNH Landscape -Recommend discussion with SNH, planting trees can change landscape character	Include recommendation for consultation with SNH and Natural England for any landscape changes and impacts on European sites.	Addition to mitigation measures in post adoption statement. No change to FRMS.
SNH	**Local Plan District 01 Highland and Argyll** River and Floodplain restoration actions Table A5.4 Biodiversity, flora and fauna Potential negative impacts through loss of other qualifying habitats from restoration work. Discussion is required with SNH during feasibility and design stages. This is particularly important at early stages where Natura features could be affected.	Added as a mitigation measure in the post adoption statement.	Added to table of mitigation measures in post adoption statement. No change to FRMS.

A7. Monitoring: Are there any other ways in which we could monitor the significant environmental effects of the Flood Risk Management Strategies?

Respondent	Comment	SEPA response	SEPA action
Fort Glenmoriston community council	See above re being involved with licences for tree felling.	See above.	No change to FRMS.
Natural England	6.2 Monitoring: It is recommended that there is an indicator to ensure the impacts of the plan's policies on European Sites and SSSIs are included in proposals to monitor the plan.	It is not feasible to carry out this monitoring at a strategic level as we cannot meaningfully link changes in a site condition (from site condition monitoring data) to actions in the Flood Risk Management Strategies. See section 2.2 in post adoption statement.	No change to FRMS.

Appendix 2: New actions in Potentially Vulnerable Areas

Local Plan District	Potentially Vulnerable Area(s)	Action	Comments
Highland and Argyll	01/20	Storage, conveyance and control	Storage opportunities on small burns are being considered. There are no anticipated effects on designated environmental sites and there are potential but unknown impacts on cultural heritage sites. No change to overall assessment.
Tay	08/04	River and floodplain restoration	A study will look at opportunities for river and floodplain restoration and sediment management in this Potentially Vulnerable Area. There are potential effects on the River Tay SAC (addressed in the Habitats Regulation Appraisal), and potential effects on the Den of Alyth SSSI. The effects could be positive or negative. No change to overall assessment.
Tay	08/13	River defences	A study will look at opportunities for river defences in this PVA. There are potential effects on the ecology of the River Tay SAC (addressed in the Habitats Regulation Appraisal) and potential effects on cultural heritage sites. The effects could be positive or negative. No change to overall assessment.
Forth Estuary	10/07 and 10/08	River defences	Studies will look at opportunities for river defences in these two Potentially Vulnerable Areas. There are potential effects on environmental protected sites and on cultural heritage sites: the effects could be positive or negative. There are potential negative effects on landscape in urban areas. No change to overall assessment.
Ayrshire	Coastal PVAs	Coastal restoration and coastal defences	A shoreline management plan will examine coastal flooding and related processed around the Ayrshire coastline, and may identify opportunities for coastal restoration and coastal defences. This action replaces many of the coastal flood protection and

Local Plan District	Potentially Vulnerable Area(s)	Action	Comments
			natural flood management studies that were proposed in the draft Flood Risk Management Strategies for this Local Plan District. There are unlikely to be any effects on European sites, but there are potential effects on a number of SSSIs and cultural heritage sites: effects could be positive or negative. No change to overall assessment.
Ayrshire	12/04	Storage, conveyance and control	There is potential loss of semi natural habitat and changes to river morphology from these actions. There are no identified environmental or cultural heritage sites that are likely to be affected. No change to overall assessment.
Solway	14/17	River defences	A study will examine opportunities for defences on burns. There are potential effects on the Cree Estuary SSSI, but this will need to be examined at project level. No change to overall assessment.
Solway	14/22	Run off reduction and river and floodplain restoration	A study will examine opportunities for run off reduction and river and floodplain restoration on the small tributaries of the River Dee. There are potential effects on a European site (addressed through Habitats Regulation Appraisal), SSSIs and cultural heritage sites: effects could be positive or negative. No change to overall assessment.
Solway	Coastal PVAs	Coastal restoration and coastal defences	A shoreline management plan will examine coastal flooding and related processed around the Solway coastline, and may identify opportunities for coastal restoration and coastal defences. This action replaces many of the coastal flood protection and natural flood management studies that were proposed in the draft Flood Risk Management Strategies for this Local Plan District. There are potential effects on European sites (addressed through Habitats Regulation Appraisal), SSSIs and cultural heritage sites: effects could be positive or negative. No change to overall assessment.