



Flood Risk Management (Scotland) Act 2009

Flooding in Scotland: A consultation on Potentially
Vulnerable Areas and Local Plan Districts

Response to the consultation

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Executive summary

This document summarises the responses SEPA received to the consultation 'Flooding in Scotland: A consultation on Potentially Vulnerable Areas and Local Plan Districts'. The document also provides an overview of the consultation process and a summary of action taken by SEPA in response to the views expressed. The consultation was part of work to prepare Scotland's first National Flood Risk Assessment as required by the Flood Risk Management (Scotland) Act 2009. It was an important step in defining how the National Flood Risk Assessment is used to identify Potentially Vulnerable Areas and Local Plan Districts. It was also an important opportunity to gather views on proposals for local advisory groups. In the consultation we asked questions on:

- The threshold for defining significant flood risk;
- Areas identified that have significant flood risks (Potentially Vulnerable Areas);
- Proposals for Local Plan Districts, based on the SEPA consultation in 2010;
- The remit, membership, procedures and boundaries for local advisory groups.

A total of 63 written responses were received. We are grateful to individuals and organisations for considering the proposals and providing feedback. Responses were varied with some providing detailed comments on Potentially Vulnerable Areas and Local Plan Districts and others providing brief and focused input on a single theme.

SEPA has already undertaken a number of actions based on information and responses provided during the consultation. The views expressed and actions taken are summarised below.

Identification of Potentially Vulnerable Areas

There was a very good level of support (73% of respondents) for the threshold SEPA used to define significant flood risk. This threshold is the trigger used to identify Potentially Vulnerable Areas based on the National Flood Risk Assessment. The proposed threshold means that around 90% of flooding impacts are captured within Potentially Vulnerable Areas. The significance threshold will result in a comprehensive planning system (i.e. one where the majority of impacts can be assessed and a wide range of measures appraised). Most respondents believed that this approach is the most suitable with regard to determining strategic direction and targeting resources.

Following on from this, there was general agreement with the proposed Potentially Vulnerable Areas, with respondents challenging only 25 out of 268 (9%) of the proposed areas. A total of 32 new areas were suggested by respondents to be included as potentially vulnerable. Seven respondents raised concerns that the use of catchment units to identify risk can be misleading, while two respondents queried how the assessment of risk to environmental receptors had been assessed. Several respondents commented that clear communication of the outputs of the National Flood Risk Assessment will be vital. Designating large areas as potentially vulnerable may be alarming to the general public, while conversely those that are not within a Potentially Vulnerable Area may have concerns about being excluded from the flood risk management planning process.

Following the consultation, SEPA has made changes to the National Flood Risk Assessment based on data and information provided by respondents, as well as further liaison with key stakeholders. We have also continued to refine and improve the datasets and methodology underlying the National Flood Risk Assessment. Overall, this process has resulted in the removal of 62 catchment units that are now no longer designated as a Potentially Vulnerable Area and the inclusion of 66 new catchment units. Through this refinement process and input of local knowledge, the National Flood Risk Assessment now provides an even greater understanding of flood risk across Scotland. SEPA will now submit a revised set of 243 Potentially Vulnerable Areas to Scottish Ministers for approval.

SEPA will also consider how it uses catchment units to represent the results of the National Flood Risk Assessment, and also carefully consider the key messages around the publication of Potentially Vulnerable Areas in December 2011.

Local Plan District boundaries

A majority of respondents (57%) agreed that the amendments made to the boundaries of the Local Plan Districts were an appropriate response to the consultation exercise held in 2010.

Respondents generally welcomed the reduction in the number of proposed districts from 20 to 14 and commented that this will permit more efficient targeting of resources. Of the responsible authorities who did not support the proposed amendments, the majority only queried the border of the districts in specific locations rather than indicating broad rejection. The exception to this were Inverclyde Council and East Lothian Council who wished to see much smaller Local Plan Districts closely matched to their own boundaries. Most of the other concerns with the Local Plan District boundaries were in relation to the large size of the proposed Highland and Argyll Local Plan District. However, both Argyll and Bute Council and Highland Council supported the creation of this Local Plan District, and the opportunities it provides for joint working and sharing of services.

SEPA will now submit the 14 Local Plan Districts to Scottish Ministers for approval. We will also continue to work with the Scottish Government to identify opportunities for further alignment of boundaries for the two planning processes.

Proposals for local advisory groups

There was a strong level of support for the proposed remit, membership and procedure of local advisory groups. Only three respondents did not agree with the proposals. Despite good support for these proposals, a number of respondents expressed concerns that, due to the size of the Local Plan Districts, groups may have difficulty providing advice on local priorities.

The proposal for the use of Area Advisory Group boundaries as the basis for creating local advisory groups was also generally supported, with many respondents acknowledging the importance of establishing close links between river basin and flood risk management planning. Most of those that opposed the proposed use of Area Advisory Group boundaries, believed that local advisory groups should more closely align with Local Plan Districts.

Following the consultation, SEPA will now work with local authorities and Scottish Water to provide further clarification on the remit and membership of the local advisory groups. We will publish a statement on the next steps in the flood risk management planning process in December 2011 (alongside the final National Flood Risk Assessment) and aim to set up the local advisory groups in early 2012.

What will happen next?

This consultation exercise has been an important part of a process for identifying Potentially Vulnerable Areas and Local Plan Districts. A revised set of Potentially Vulnerable Areas amended as appropriate using the views expressed during the consultation and the proposed 14 Local Plan Districts will now be submitted to Scottish Ministers for approval. Following this step, a final set of Potentially Vulnerable Areas and Local Plan Districts will be published by SEPA and the Scottish Government in December 2011, alongside a revised National Flood Risk Assessment that incorporates much of the local information and data supplied during the consultation. SEPA will continue to work in partnership with responsible authorities and other stakeholders as we each take on our responsibilities to plan for and lessen the harmful impacts that flooding can have.

1 Introduction

'Flooding in Scotland: A consultation on Potentially Vulnerable Areas and Local Plan Districts' opened on 15 June 2010 and ran for a period of two months. This document provides a summary of the consultation exercise, a summary of the views expressed by respondents, and the action taken by SEPA in response to those views. We would like to thank those organisations and individuals that responded to the consultation document or otherwise participated in the consultation process.

The consultation was part of work to prepare Scotland's first National Flood Risk Assessment as required by the Flood Risk Management (Scotland) Act 2009 (the FRM Act). Everyone in Scotland has a part to play in the future of flood risk management, be it through personal preparedness or through statutory duties and powers provided to organisations through the FRM Act. Success will depend on working together through co-operation and partnership. The purpose of the consultation was to incorporate local information and data within the National Flood Risk Assessment and to ensure that the flood risk management planning proposals are widely supported.

The consultation document included proposals in three key areas:

- identification of Potentially Vulnerable Areas;
- Local Plan District boundaries;
- proposals for local advisory groups.

The proposals put forward by SEPA in the consultation document were developed in partnership with other organisations through the work of the Scottish Advisory and Implementation Forum for Flooding (SAIFF). SAIFF is a partnership between the Scottish Government, Scottish public bodies and stakeholders to support the development of policy and guidance required to implement the FRM Act. Details of SAIFF can be found on the Scottish Government website.

Summary of the actions taken by SEPA to publicise and consult on Potentially Vulnerable Areas, Local Plan Districts and local advisory groups

Two days prior to the consultation formally opening, SEPA provided Scottish Water and every local authority in Scotland an embargoed copy of the consultation. In addition, we directly consulted Scottish Natural Heritage, National Park Authorities and every Category 1 emergency responder. SEPA also sent copies of the consultation document to all members of the National Flood Management Advisory Group and Cross Border Advisory Group¹. Details of the consultation were advertised in the 'The Herald' on the 15 June 2011. We included copies of the consultation and supporting information on the SEPA website and in our regular communications with stakeholders.

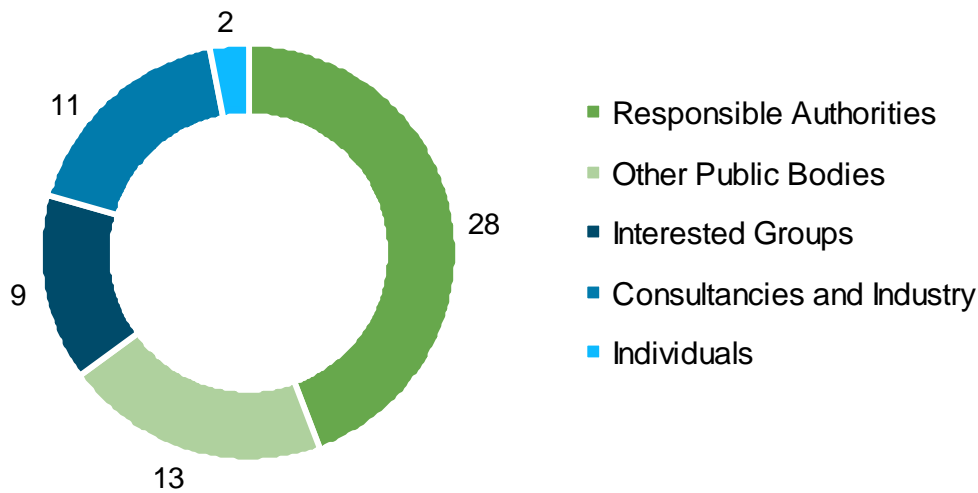
In the weeks immediately prior to the consultation, SEPA also held a series of four workshops with local authorities to explain the outputs of the National Flood Risk Assessment and provide local authority officials an opportunity to check and validate the output in each council area. These events also provided an early opportunity to explain the type of local information and data that SEPA were seeking as part of the consultation process.

SEPA received a total of 63 responses to the consultation. To facilitate the analysis of responses, respondents were grouped into categories. Figure 1 shows the breakdown of respondents by each

¹ A group established to enable relevant public bodies in England and Scotland to coordinate assessment of flood risk in cross-border areas.

category. These included 28 responses from responsible authorities² (27 from local authorities and 1 response from Scottish Water), 13 from other public bodies, 11 from consultancies and industry, 9 from interested groups, and 2 from individuals. A list of organisations that responded to the consultation is provided in Annex 1.

Figure 1: Respondent categories



Some common themes have emerged in the views expressed, as well as a range of opinion on various topics that SEPA will take into account. The views expressed and actions that SEPA will take in response are summarised in the next section of this document. Where data has been provided in support of proposed amendments to Potentially Vulnerable Areas, this has been incorporated into a review of the outputs from the National Flood Risk Assessment.

² Responsible authorities are named in the FRM Act as Local Authorities and Scottish Water. Scottish Ministers may designate additional responsible authorities as required. Together with SEPA and Scottish Ministers, they have specific duties set out in Section 1 of the FRM Act.

2 Analysis of responses

A large number of comments were received. Some were complex and included detailed comments on Potentially Vulnerable Areas, while others were brief and focused on a single theme. All responses were reviewed and analysed to identify common themes and catalogue the views expressed. SEPA has proposed a set of actions in response to issues raised. These actions are described after a summary of the views expressed in response to each consultation question.

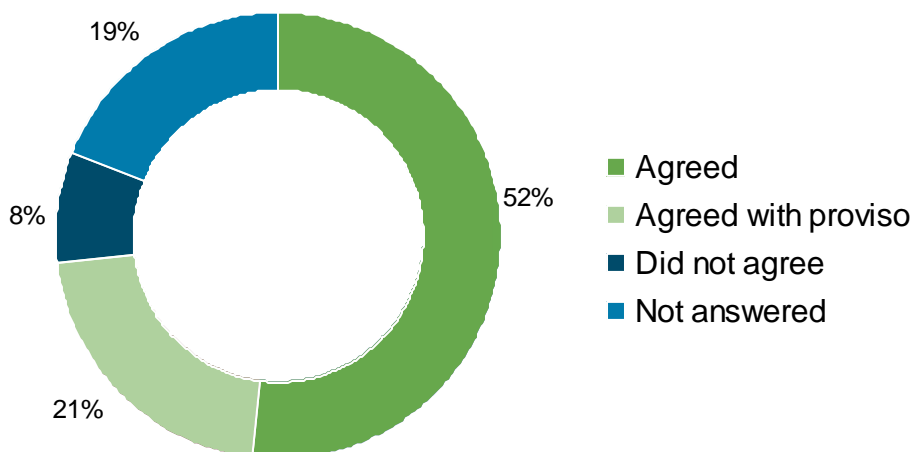
The full list of consultation questions is provided below.

Key area of proposal	Consultation question
Identification of Potentially Vulnerable Areas	1. Do you support the setting of a significance threshold that will capture the majority of flood impacts and subsequent action in a comprehensive planning system (i.e. based around the Medium risk level)?
	2. Are there areas identified as Potentially Vulnerable Areas following this assessment that you believe should not be designated as at significant risk of flooding?
	3. Are there areas NOT identified as Potentially Vulnerable Areas following this assessment that you believe should be designated as at significant risk of flooding?
Local Plan District boundaries	4. Do you agree that the amendments made to the boundaries of the Local Plan Districts are an appropriate response to the consultation exercise held in 2010? If not, what changes would you suggest and why?
Local advisory groups	5. Do you agree with the broad remit, membership and procedure of the local advisory groups?
	6. Do you support the use of the Area Advisory Group boundaries established under the Water Framework Directive as the basis for establishing local advisory groups as required in section 50 of the FRM Act? If not, what alternative arrangement would you suggest and why?

Consultation question 1: setting a significant flood risk threshold

Do you support the setting of a significance threshold that will capture the majority of flood impacts and subsequent action in a comprehensive planning system (i.e. based around the Medium risk level)?

Overview of responses



A large majority of respondents (73%) to this question were in overall agreement with SEPA's approach to setting a threshold for significant flood risk that captures the majority of flood impacts within Potentially Vulnerable Areas. Most respondents felt that this approach is the most suitable with regard to determining strategic direction and targeting resources.

While there was very good support for this approach, a large number of respondents commented that it will be important not to forget about those sites that remain at risk but are not located within a Potentially Vulnerable Area. For example, some respondents requested reassurance that areas not identified as potentially vulnerable would not be excluded from detailed assessments and flood protection works and asked SEPA to provide further clarification on this issue.

Detailed comments

Detailed comments included:

- Many respondents acknowledged the requirement for a proportionate approach to future flood risk management and considered the medium threshold to be the most appropriate for the purposes of targeting resources and funding to those areas where measures will achieve the greatest benefit.
- Two respondents (Northern Constabulary and Transport Scotland) thought that the threshold should be higher so as to focus limited resources on those areas where measures can achieve maximum benefit.
- Three respondents (Association of British Insurers, Northumberland County Council and City of Edinburgh Council) thought that the threshold should be lower and that a medium threshold may discriminate against small areas at high risk and result in such areas being ignored.
- Around 10% of respondents commented that adopting catchment units, as the basis for classifying risk and identifying where a planned response to flooding should be co-ordinated, has resulted in areas being designated as potentially vulnerable when they are not. This was most frequently highlighted in relation to some islands where it was felt that it

has resulted in an unrealistic proportion of an island being designated as a Potentially Vulnerable Area (eg. Orkney Islands and Shetland Islands).

- Concerns were raised about the way the outputs from the National Flood Risk Assessment may be used by the insurance industry. Some respondents stated that there is a need to emphasise to the insurance industry that not all properties within a Potentially Vulnerable Areas will be at risk.
- The funding implications associated with setting a threshold to capture the majority of flood impacts were highlighted by some respondents. Several respondents also commented that while the 'Medium' threshold was appropriate for the identification of Potentially Vulnerable Areas, future investment should be prioritised according to the benefit and cost it will deliver in terms of risk reduction.
- Another common view expressed was that clear communication of the outputs of the National Flood Risk Assessment will be vital. Designating large areas as potentially vulnerable may be alarming to the general public.
- The continued need for home owners to take responsibility for their own land and property was highlighted by a number of respondents.

Sample responses

"We agree that since a proportionate response is necessary due to limited resources, the proposal to recommend a significance threshold based on the 'Medium' risk level does not seem unreasonable."

"Adopting the 'Medium' risk level is a proportionate response which does not result in an excessive or inefficient use of resources. It is however important not to overlook the provision of risk reduction measures for small clusters of properties which fail to reach the "medium" threshold."

"...it must be explicit that communities too small to register as medium risk, particularly in rural, semi-rural or coastal areas, are not excluded from measures to reduce risk."

"The measures which have the greatest benefit/cost ratio should be tackled first."

"Setting any significance threshold has national resource implications, so by adopting a medium risk threshold, the funding implications associated with what this means should be highlighted at an early stage through political channels at national and local levels."

"That there are areas within the PVAs identified as a risk which are not, may be misinterpreted by planning authorities and insurance companies."

"...(the) Council supports the use of the medium risk level nationally, however feel when this is applied to our Local Plan District it has resulted in an unrealistic proportion of Shetland being classed as Potentially Vulnerable Areas."

SEPA response to question 1

SEPA welcomes the strong support for the approach taken to define significant flood risk. We are pleased to note that only five out of 63 respondents disagreed with this approach to identifying

Potentially Vulnerable Areas. We will now use this threshold as the basis for identifying Potentially Vulnerable Areas in our recommendations to Scottish Ministers.

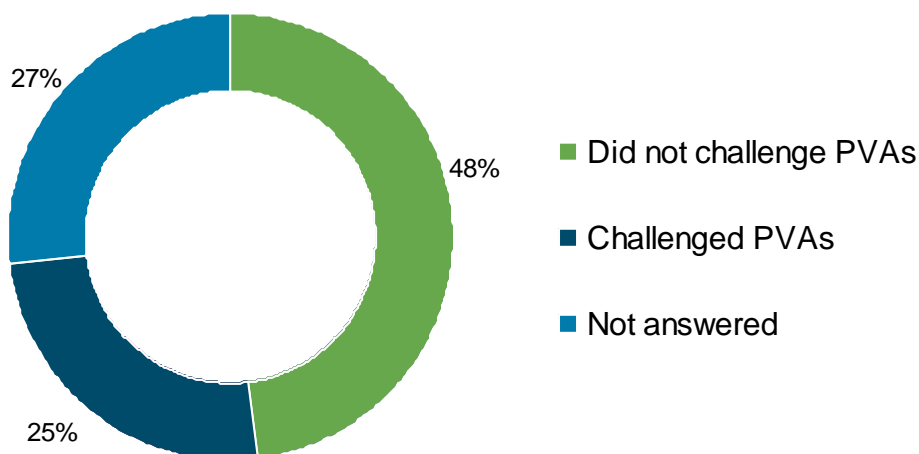
We accept there are communication issues with using catchment units to represent Potentially Vulnerable Areas. We are working to address these through amendments to the representation of catchment units on maps and key messages around their publication. However, we still consider the catchment unit approach to be essential in identifying the area wherein a planned response to flood risk needs to be co-ordinated. The catchment units also allow us to make links easily to the modelling and assessment of how flood waters operate and help to co-ordinate our work with River Basin Management Planning.

We appreciate people outside of Potentially Vulnerable Areas may feel excluded from this process. However, it is important to recognise that this step of identifying Potentially Vulnerable Areas relates to SEPA's function as a national body to invest resources in mapping and appraisal work. There will be a small degree of locally significant flooding that falls outwith these areas, and there is clear provision within the FRM Act to enable Local Flood Risk Management Plans to identify and address these problems. It should be noted that the duties on SEPA, local authorities and Scottish Water to reduce overall flood risk and to raise awareness of flood risk also still apply outside of Potentially Vulnerable Areas.

Consultation question 2: challenges to Potentially Vulnerable Areas

Are there areas identified as Potentially Vulnerable Areas following this assessment that you believe should not be designated as at significant risk of flooding?

Overview of responses



A quarter of respondents were of the view that one or more areas identified as potentially vulnerable were not at significant risk of flooding. The majority of these respondents were responsible authorities (63%). However, only seven respondents identified specific areas which they considered should not be designated as Potentially Vulnerable Areas. These respondents challenged a total of 25 out of 268 (9%) of all Potentially Vulnerable Areas. A further seven respondents made the more general comment that the use of catchment units had resulted in large areas being identified as at risk when they are not. Two respondents considered that the approach to the assessment of flood risk to the environment and cultural heritage may have resulted in some incorrectly designated areas.

Six respondents provided additional data in support of their proposed amendments. This data included information on historic flood events, flood protection schemes and associated flood studies and models, and Strategic Flood Risk Assessments.

Detailed comments

Detailed comments included:

- The reasons given by respondents for challenging the designation of Potentially Vulnerable Areas included:
 - new flood prevention schemes in existence;
 - modelled flood extents considered to be excessive;
 - results contrary to Strategic Flood Risk Assessments carried out for the area;
 - impact on cultural heritage overestimated;
 - weighted annual average damages overestimated.
- Three respondents emphasised the significance of the identification of Potentially Vulnerable Areas to civil contingencies assessments and the Community Risk Register. Clarification of the proposed linkage between these processes was requested.

- Scottish Environment LINK, RSPB Scotland and Scottish Natural Heritage sought further information on how the vulnerability of protected environmental sites was assessed.
- Several respondents stated that they agreed with the designation of a Potentially Vulnerable Area, but believed that the area should be extended to encompass an adjoining catchment unit which they considered also to be at risk.

Sample responses

“I question the designation of large parts of Shetland and Orkney, and also remote areas of Lochaber and the Small Isles, as being potentially vulnerable. Many of these areas are uninhabited and therefore the impacts of any flooding events are insignificant.”

“We think the way in which features of protected sites have been scored has resulted in some areas being incorrectly designated as a Potentially Vulnerable Area.”

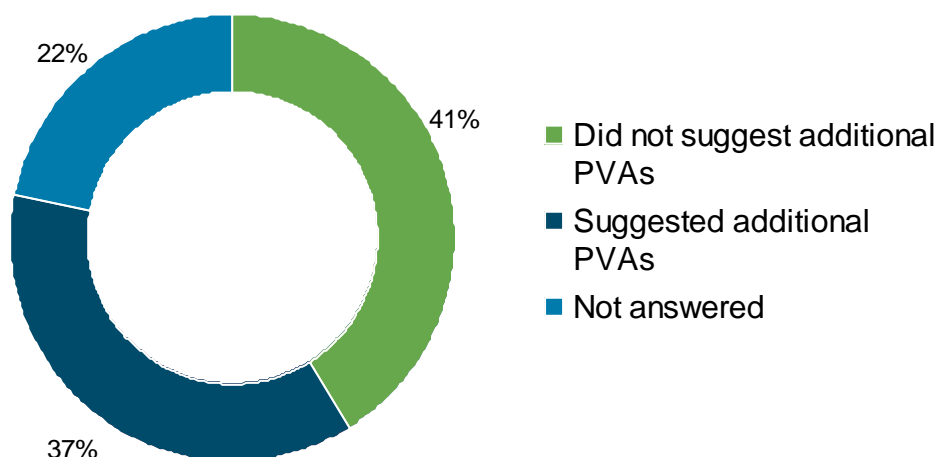
“The Potentially Vulnerable Areas identified seem consistent with our own experience of this area and we would agree with the boundaries.”

“...we do note the very high number of them (Potentially Vulnerable Areas) in Central Scotland and the resource implications of that for us.”

Consultation question 3: additional Potentially Vulnerable Areas

Are there areas NOT identified as Potentially Vulnerable Areas following this assessment that you believe should be designated as at significant risk of flooding?

Overview of responses



A total of 23 respondents suggested additional areas should be included as Potentially Vulnerable Areas. Out of those 23, a total of 16 respondents were specific about the areas they considered should be designated. The remaining seven respondents made more general comments on broad areas that they believed should include Potentially Vulnerable Areas, but did not provide sufficient information to enable SEPA to identify the specific catchment units.

Of the 16 respondents that suggested specific additional areas as potentially vulnerable, only three provided additional data in support of their proposed amendments. This data included information on historic flood events, flood protection schemes and associated flood studies and models, restrictive structures and planned future developments.

Detailed comments

Detailed comments included:

- The reasons given by respondents for proposing that areas be designated as Potentially Vulnerable Areas included:
 - area at significant risk of coastal flooding;
 - weighted annual average damages underestimated;
 - Strategic Flood Risk Assessment indicates area at significant risk;
 - new flood outlines available which indicate area at significant risk;
 - historic flood events;
 - community facilities at risk;
 - protected environmental or cultural heritage site at risk of flooding;
 - mine water rebound.
- Several respondents raised concerns that the assessment of risk to the environment considers only protected sites, and requested clarification as to how SEPA will assess risk to non-protected sites.
- Four respondents made comments on the effect of climate change on the risk of coastal flooding. For example, the Royal Yachting Association emphasised the need to consider the impact of climate change on storm surges and wave height, while Scottish Environment LINK and RSPB Scotland requested confirmation that future assessments of areas

susceptible to climate-induced coastal change will be comprehensive and not restricted to Potentially Vulnerable Areas.

- Several respondents identified flood defences that have been omitted from the National Flood Risk Assessment or queried the existence of flood defences detailed in the datasheets. Scottish Environment LINK and RSPB Scotland also requested clarification as to how SEPA has considered the current state of coastal flood defences.
- Perth and Kinross Council, Scottish Environment LINK, and RSPB Scotland highlighted the need for flood risk management plans to consider future local development.

Sample responses

“There are no areas which Glasgow City Council believe to have been omitted from being classified “Not identified as Potentially Vulnerable.” However it would be beneficial to have some detailed discussions in the future to refine the long-term outputs from the data sheets.”

“We are concerned that risk of current coastal flooding and predicted sea level rise has not been properly taken into account in this assessment.”

“There are many areas not identified, however it would serve better that these areas be identified within the Local Plans as they relate to small settlements etc., hence have a lower scoring and risk rating.”

“With the application of the medium risk or above threshold, the majority of areas are covered. There are, however a few localised areas of coastline not covered which are at risk from coastal inundation.”

“As some archaeological sites have not been included in the assessment process, there are likely to be areas that should be identified as PVAs but that have not been detected in the current assessment.”

“There are a number of areas NOT identified as Potentially Vulnerable Areas that are at significant risk of flooding. These are shown on the detailed drawings provided with the Orkney Strategic Flood Risk Assessment. The areas include a number of settlements on the North and South Isles and a water treatment works on the Mainland.”

SEPA response to views expressed on proposed Potentially Vulnerable Areas

Building on the strong support expressed for our approach to defining significant risk in response to question 1, SEPA is encouraged that only 9% of the proposed Potentially Vulnerable Areas were directly challenged by respondents. We also welcome the views expressed that the National Flood Risk Assessment is broadly reflective of local knowledge of flood risk in Scotland. It is our opinion that the amendments made to the draft National Flood Risk Assessment fulfil its purpose of providing Scotland with a strategic, high-level appreciation of risk from all sources of flooding. The opportunity for organisations and individuals to identify areas which they consider to be at significant risk which are not currently designated as potentially vulnerable is an important part of refining the outputs of the National Flood Risk Assessment. We therefore welcome the proposals for additional Potentially Vulnerable Areas, particularly those which are supported by reliable local information.

Following the consultation, SEPA has made changes to the National Flood Risk Assessment and Potentially Vulnerable Areas in the following ways:

- To take account of consultation responses;
- As a result of further liaison with key stakeholders;
- Through continued refinements to the National Flood Risk Assessment datasets and methodology.

Changes arising from consultation responses

SEPA received a range of additional data and information from respondents. As part of the consultation exercise, we set out the format and type of information that we would be able to incorporate within the National Flood Risk Assessment. The information that was deemed reliable, and supplied in an appropriate format, has been incorporated within the revised outputs and updated Potentially Vulnerable Areas. This included new information on flood extents (i.e. flood outlines from local authorities that are more refined than the current Indicative River and Coastal Flood Map (Scotland)³ and historic flood events.

A total of 13 of the 25 catchment units designated at significant risk that were challenged by respondents were downgraded and are now no longer included within Potentially Vulnerable Areas. The main reason for these areas being downgraded was the provision of new pluvial or fluvial flooding data. The remaining 12 catchment units that respondents proposed be downgraded were reviewed but still considered to be correctly designated. For most of these catchment units, insufficient evidence had been provided by the respondent to support any amendment to their designation.

Of the 32 areas respondents suggested be upgraded and treated as at significant flood risk, 26 catchment units have been added to Potentially Vulnerable Areas. The remaining six were reviewed but considered to have been correctly assessed as not at significant risk of flooding. For most of these areas insufficient evidence had been provided by the respondent to support any amendment. Potentially Vulnerable Areas will be reviewed and updated during the next flood risk management planning cycle. If new evidence comes to light suggesting a significant flood risk during that review process, these areas will be reconsidered at that point.

Changes arising from further liaison with key stakeholders

The initial application of a vulnerability score to environmental receptors was considered by some respondents to result in an oversensitive assessment of impact. Similarly the initial application of a vulnerability score to cultural assets was also noted by some respondents to produce areas where risk was overestimated. Consequently, SEPA has carried out additional work with Scottish Natural

³ For more information on the Indicative River and Coastal Flood Map (Scotland) see: http://www.sepa.org.uk/flooding/flood_map.aspx

Heritage and Historic Scotland to review the vulnerability of the environment and cultural heritage receptors to flooding. This reassessment has resulted in the removal of eight catchment units from Potentially Vulnerable Areas and the addition of five new catchment units.

Continued refinements to the National Flood Risk Assessment

Our understanding of the impacts of flooding is continually developing as datasets and methodologies are refined. Since the consultation closed, improvements have been made to how catchment units are identified, in particular in coastal areas. In addition, changes have been made to ensure the translation of information from the underlying 1km² grid assessment to the catchment units does not result in misrepresentation of where receptors are located with respect to catchment boundaries.

A number of minor changes have also been made to the National Flood Risk Assessment methodology in order to refine areas, where new information has been developed or where peer review of the process has recommended a refinement. These amendments have included minor alterations to the calculation of the social flood vulnerability index and the assessment of risk from pluvial flooding. The assessment of economic impacts within the National Flood Risk Assessment has also been amended in line with updates provided by the Flood Hazard Research Centre for the Multi-coloured Handbook⁴.

As a result of these enhancements to the National Flood Risk Assessment, 41 catchment units were removed from Potentially Vulnerable Areas and 35 catchment units have been added.

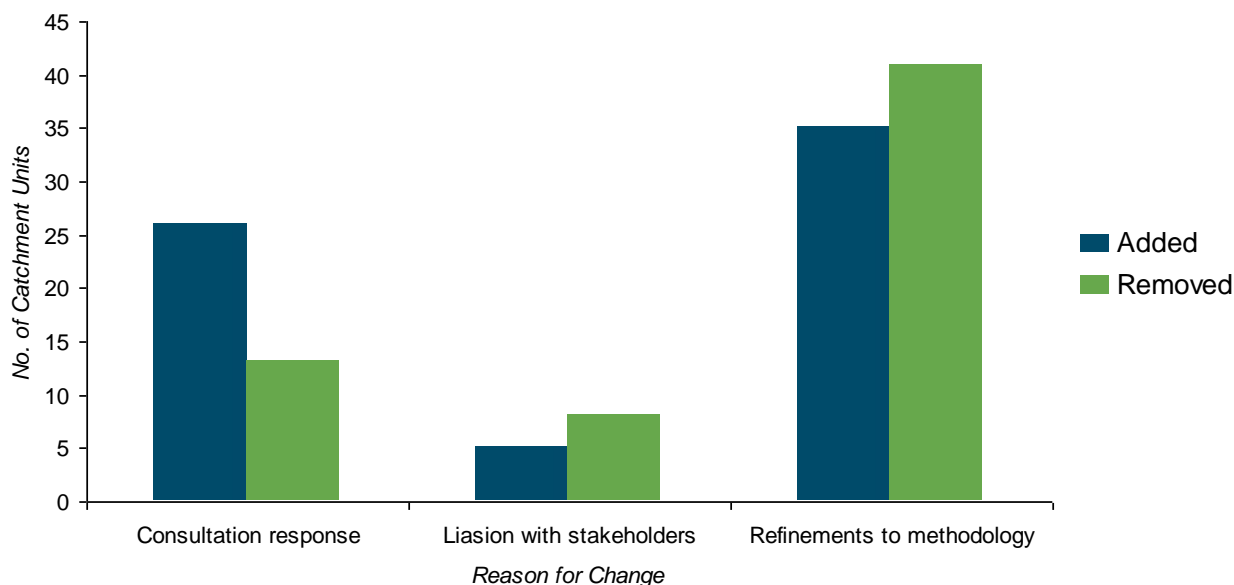
Summary of changes to catchment units

Based on the changes described above, a total of 62 catchment units have been removed from the original 470 that were included in areas designated as potentially vulnerable. The majority of these have been removed due to refinements in the National Flood Risk Assessment data and methodology. These catchment units cover a total area of 1,800 km², and contain approximately 600 properties at risk of flooding.

In contrast, a total of 66 new catchment units have been added to areas designated as potentially vulnerable. The majority of these (26) were added due to consultation responses and refinements to the National Flood Risk Assessment (35). The new catchment units included within Potentially Vulnerable Areas cover a total area of 1,750 km², and contain approximately 2,800 properties at risk of flooding.

⁴ The Multi-Coloured Handbook is recommended for benefit assessment as part of flood and coastal erosion risk management appraisal. It was developed jointly by the Flood Hazard Research Centre and the Environment Agency of England and Wales.

Figure 3: Number of catchment units added or removed from Potentially Vulnerable Areas



Annex 2 provides further details of the changes made to catchment units as a result of the consultation exercise and continued refinements to the National Flood Risk Assessment.

Summary of changes to Potentially Vulnerable Areas

Potentially Vulnerable Areas are made up of one or more catchment units. Therefore the changes to catchment units described above do not necessarily equate to a reduction or increase in the total number of Potentially Vulnerable Areas. Rather changes made to the catchment units added or removed from Potentially Vulnerable Areas will affect the total area designated, and the number of people and properties included within designated areas.

Following the process described above a total of 243 Potentially Vulnerable Areas will be submitted to Scottish Ministers for approval. They cover a total area of 13,800 km², and include approximately 116,000 properties at risk of flooding. This compares with 268 Potentially Vulnerable Areas in the original consultation, which covered approximately 13,850 km², and 114,000 properties at risk.

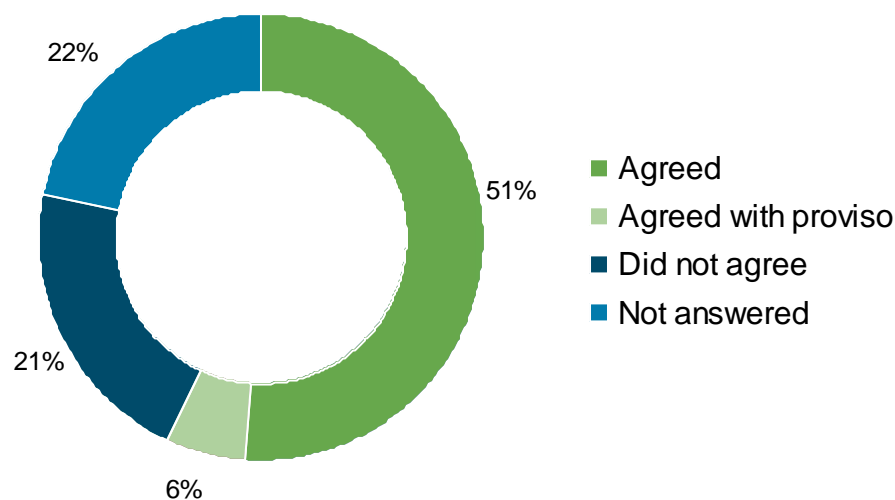
Details of the final set of Potentially Vulnerable Areas submitted to Scottish Ministers are available on SEPA's website at the following location:

www.sepa.org.uk/flooding/flood_risk_management/consultations/flooding_in_scotland.aspx

Consultation question 4: boundaries of Local Plan Districts

Do you agree that the amendments made to the boundaries of the Local Plan Districts are an appropriate response to the consultation exercise held in 2010? If not, what changes would you suggest and why?

Overview of responses



The majority of respondents (57%) were in overall agreement with the amendments SEPA made to the Local Plan District boundaries following the consultation exercise held in 2010. Respondents welcomed the reduction in the number of proposed districts from 20 to 14, stating that they felt this would permit more efficient targeting of resources.

A total of 13 respondents did not support the proposed amendments to the Local Plan District boundaries. Most of these respondents raised concerns about the large size of the proposed Highland and Argyll Local Plan District and about the boundaries of the Findhorn, Nairn and Speyside Local Plan District.

Detailed comments

Detailed comments included:

- A number of respondents, but no responsible authorities, raised concerns that the Highland and Argyll Local Plan District was too large. Some of these respondents requested clarification as to what steps SEPA would take to ensure efficient planning and stakeholder engagement across the area.
- Argyll and Bute Council agreed in principle with the boundaries of the Highland and Argyll Local Plan District. Highland Council thought that it would be most appropriate to merge this Local Plan District with the Findhorn, Nairn and Speyside Local Plan District so as to better ensure the sharing of resources. Northern Constabulary also suggested that the River Nairn catchment as a minimum should be moved into the Highland and Argyll Local Plan District.
- Forestry Commission Scotland raised a concern that there are still too many Local Plan Districts and that these are not practicable in terms of the resourcing commitments it would demand. Conversely, Tingle Consulting Ltd and North Ayrshire Council thought that there should be more Local Plan Districts, covering smaller areas so as to avoid bureaucracy and better facilitate planning and agreement of measures at the local level.

- Three respondents (Edinburgh City Council, Forestry Commission Scotland and Scottish Natural Heritage) thought that the Forth Local Plan District and Forth Estuary Local Plan District could be merged to form one district. Scottish Natural Heritage believed that this would better facilitate collaborations on coastal flooding.
- Scottish Borders Council suggested that the Eye Water catchment be moved from the Forth Estuary Local Plan District into the Tweed Local Plan District in order to better align the local administrative arrangements governing this catchment.
- Inverclyde Council stated that, in order to avoid domination by larger councils, they would prefer a Local Plan District covering only Inverclyde.
- Aberdeenshire Council, Aberdeen City Council and Moray Council suggested that the Aberdeenshire and Aberdeen City Local Plan District be renamed the North East Local Plan District.
- East Lothian Council suggested that, since the rivers in East Lothian discharge into the sea rather than the Forth Estuary, it would be appropriate to have a Local Plan District covering solely the East Lothian coastline.
- A number of respondents commented that care should be taken to ensure that terminology is consistent and not confusing to the general public. For example, the term 'Local Plan Districts' very closely reflects the terminology used in land-use planning. Some respondents also commented that the use of the term 'strategy' is not stipulated in the FRM Act and that the content of these strategies will require further clarification.

Sample responses

“The development of Local Plan Districts (LPD) on the basis of hydrometric areas is a logical approach and the reduction in total number of LPD will assist some local authorities in the administration of the Act.”

“We warmly welcome the reduction in the number of Local Plan Districts in response to the previous consultation exercise and we agree that the boundaries seem sensible. However, the Highland and Argyll LPD is particularly large and we ask SEPA what steps it will take to ensure efficient planning and stakeholder engagement across the area.”

“Inverclyde Council have concerns that the larger Councils within this group will dominate proceedings which may be to the financial detriment to Inverclyde.”

“The Council has no significant objection to the proposed redesignation of the LPD boundaries in the vicinity, but as the catchments within the Council area are relatively discrete and have issues and risks which are distinct from that affecting neighbouring areas, the Council remains concerned that its ability to resolve local scale problem should not be unduly hampered.”

“...there is potential for confusion by using the terminology 'Local Plan Districts' as this very closely reflects the terminology of land-use planning eg. District Local Plan – a term dictated by statute.”

SEPA response to question 4

We are pleased that the majority of respondents supported our amendments to the Local Plan Districts, in particular the reduction in number from 20 to 14. We particularly welcome the level of support amongst local authorities. While seven local authorities did not support all the proposed boundaries, we feel only the issues raised by Inverclyde Council and East Lothian Council are significantly at odds with the overall approach. We do not feel it would be appropriate to create separate Local Plan Districts covering these council areas, as it would increase the burden on other stakeholders who have an important role in advising and approving Local Flood Risk Management Plans. We also feel it would inhibit the consideration of wider coastal and catchment flooding issues within these areas and reduce the opportunity for local authorities to use resources efficiently and share services in the production of plans.

We accept that the Highland and Argyll Local Plan District has a large geographical coverage. This Local Plan District was formed following our consultation in 2010, in particular the views expressed by the local authorities in this area. Given that both local authorities have shown a willingness to work together, and that the boundaries align well with river basin planning areas, we are of the opinion that this Local Plan District should not be split into smaller areas. The Local Plan District, albeit large, is in proportion to other Local Plan Districts in terms of number of people at risk and estimated economic impacts.

We have decided against merging the Forth and Forth Estuary Local Plan Districts to form a larger unit. SEPA can manage the co-ordination required across these areas in our strategic role. We also feel that the number of local authorities that would be involved in a single Forth Local Plan District would unnecessarily increase the difficulty of reaching agreement on the content of a Local Flood Risk Management Plan.

With respect to the request from Scottish Borders Council for the inclusion of the Eye Water catchment within the Tweed Local Plan District, we will consider this at the next opportunity to review the wider River Basin District Boundaries (which are aligned with the River Basin Planning process). The Tweed Local Plan District forms part of the wider Solway-Tweed River Basin District for European Commission reporting purposes. In order to include the Eye Water within the Tweed Local Plan District, the boundaries for the Solway-Tweed and Scotland River Basin Districts would require revision, with approval from Scottish Ministers.

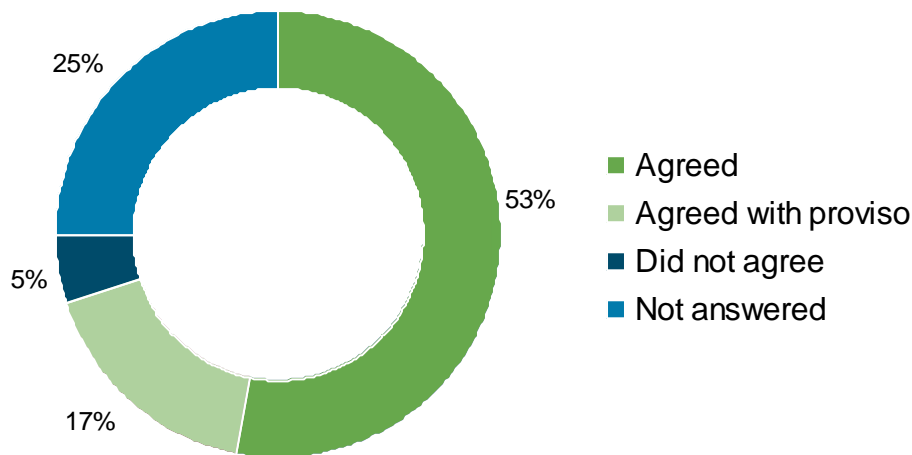
In summary, based on the strong support for the amendments made in response to the consultation in 2010, we will submit the proposed 14 Local Plan Districts to Scottish Ministers for approval and use during the first flood risk management planning cycle (2015 to 2021). Based on the extensive feedback received from stakeholders during two consultations, we are confident these Local Plan Districts represent the most appropriate scale for the production of Local Flood Risk Management Plans. Details of the Local Plan Districts can be found on SEPA's website at:

www.sepa.org.uk/flooding/flood_risk_management/consultations/flooding_in_scotland.aspx

Consultation question 5: proposals for remit, membership and procedure of local advisory groups

Do you agree with the broad remit, membership and procedure of the local advisory groups?

Overview of responses



The majority of respondents (70%) were in overall agreement with the broad remit, membership and procedure of the local advisory groups. Only three respondents did not agree with the proposals.

Despite strong support for the proposals, a number of respondents expressed concerns that, due to the size of the Local Plan Districts, groups may have difficulty providing advice on local requirements and priorities. Concerns were also raised by the national park authorities and by some national bodies about the number of meetings they would be expected to attend.

Detailed comments

Detailed comments included:

Membership

- There were many proposals for the composition of the local advisory groups. These included representation from the insurance industry, consultancy, academia, the private sector, land and property surveyors, local area house builders committees as well as sport recreation and tourist interest groups. In addition, a number of local flood action groups, resident or community groups expressed interest in sitting on local advisory groups themselves.
- Scottish and Southern Energy and Scottish Power suggested that membership of the groups should include energy infrastructure providers such as the owners of the energy networks.
- Three respondents suggested that the local advisory group membership be partly drawn from the existing Area Advisory Group membership, so as to facilitate links with river basin management planning.

- Scottish Environment LINK and several of the local authorities suggested that it would be beneficial to have more than one local authority representative on the local advisory groups, for example, one representative from each of the core functions within the council.

Remit

- Several respondents requested better clarification of the remit of the local advisory groups. For example, Dumfries and Galloway Council and Glasgow City Council requested clarification as to whether the groups will approve, or be advised of, the content of Local Flood Risk Management Plans.
- The Chief Fire Officers Association Scotland and Northern Constabulary highlighted the need to avoid duplication and overlap in the work and remit of the local advisory groups and Strategic Coordinating Groups.
- Falkirk Council and Dumfries and Galloway Council requested clarification as to whether local advisory groups will be able to advise on the development of Scottish Water's Quality and Standards investment programme.
- Several respondents requested clarification on the role of the Flood Liaison and Advice Groups once the local advisory groups are established. Some respondents thought that the Flood Liaison and Advice Groups would no longer be needed while one respondent considered the use of these groups to be preferable to establishing local advisory groups.

Procedure

- Stirling Council and East Renfrewshire Council emphasised the importance of promoting public openness and trust in the local advisory groups.
- Clackmannanshire Council and East Dunbartonshire Council commented that it would be beneficial for SEPA to chair local advisory group meetings. Conversely, the City of Edinburgh Council thought that it would be more appropriate for the lead local authority to take on this role.

Sample responses

“Inverclyde Council agrees in principle with the proposals in the consultation. However, problems might occur when agreeing on local requirements and priorities given the size of Local Plan District and the number of different Local Authorities that will each have their own requirements and priorities.”

“... it is very important that local advisory groups have input from infrastructure providers – especially in relation to electricity transmission and distribution requirements.”

“The approach appears manageable but there are many groups, and related meetings required. It would be useful to review the arrangement at an appropriate juncture to assess whether communication is effective or could be improved with a revised arrangement.”

“The Council considers that Scottish Borders representation on the local advisory group should include the Planning Authority and consequently there would no longer be a requirement for a Flood Liaison and Advice Group (FLAG).”

“Suggest that Local Advisory Groups be at least partly drawn from existing AAG membership particularly in areas where AAG process has been most effective.”

SEPA response to question 5

SEPA welcomes the overwhelming support for the broad remit, membership and procedures for Local Advisory Groups, with only three respondents not in agreement. On this basis, we will progress the establishment of the groups along the lines outlined in the consultation document, taking account of the views expressed.

Before establishing the local advisory groups, SEPA will provide further clarification on the remit of the groups, in particular their role in providing advice to SEPA and the responsible authorities on the contents of flood risk management plans. The groups are not intended to facilitate joint decision making between SEPA and the responsible authorities (this will be achieved through the establishment of partnerships for the relevant public bodies in each Local Plan District). They are also not intended to duplicate the important work on emergency response provided by the Strategic Coordinating Groups. The procedures will also be amended so that lead local authorities can also initiate meetings of the Local Advisory Groups.

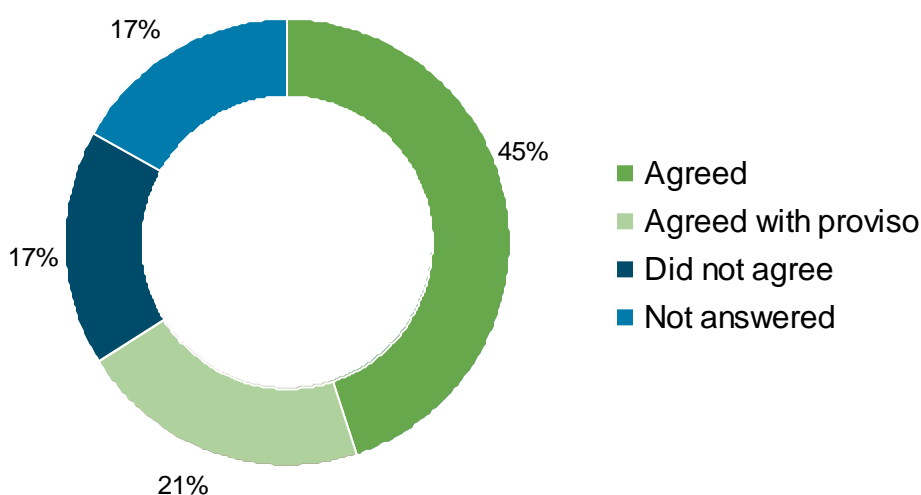
We welcome the suggestions for additional membership, and will work with local authorities and Scottish Water over the coming months to establish the initial membership of each group. The groups themselves, once established, will also be asked to comment on their membership.

We have received a range of views on the roles of Flood Liaison and Advice Groups (FLAGs) in the new flood risk management planning process. Due to the lack of national coverage of FLAGs and their wide and varied remit, we remain firmly of the opinion that they are not suitable to be used as local advisory groups under the FRM Act. We will work with local authorities to provide guidance on the role of active FLAGs and how they could interact with local advisory groups and partnerships established under the FRM Act.

Consultation question 6: proposals for local advisory group boundaries

Do you support the use of the Area Advisory Group boundaries established under the Water Framework Directive as the basis for establishing local advisory groups as required in section 50 of the FRM Act? If not, what alternative arrangement would you suggest and why?

Overview of responses



The majority of respondents (66%) were in overall agreement with the use of the Area Advisory Group boundaries, established to support River Basin Management Plans, as the basis for establishing local advisory groups. Many of these respondents acknowledged the importance of establishing close links between river basin management planning and flood risk management planning, and saw this approach as one of the means of supporting the achievement of multiple benefits.

While supporting this proposal, several respondents stated that local advisory group and Area Advisory Group meetings should be organised in tandem so as to facilitate efficient use of time and resources by members.

A total of 11 respondents did not agree with these proposals, nine of whom were local authorities. The majority of those that opposed the use of the Area Advisory Group boundaries, as the basis for establishing local advisory groups, thought that it would be more appropriate to align them with Local Plan Districts.

Detailed comments

Detailed comments included:

- Argyll and Bute Council, Moray Council and Highland Council favoured forming a local advisory group that covered the Highland and Argyll Local Plan District and Findhorn, Nairn and Speyside Local Plan District. Moray Council also proposed inclusion of the area covered by the Aberdeenshire and Aberdeen City Local Plan District. This they considered would promote a common approach, encourage dialogue towards sharing services and avoid the need to attend separate meetings.
- Aberdeenshire Council had no objection to using Area Advisory Group boundaries as the basis for establishing local advisory groups, but stated that they would be prepared to be involved in establishing a larger group covering more than one Local Plan District if it provides a more efficient arrangement.

- All of the island councils (Shetland Islands, Orkney Islands and Comhairle nan Eilean Siar) thought that each of their council areas should have its own local advisory group and thus align with the Local Plan District boundaries.
- Moray Council and Highland Council suggested that it may be appropriate to have an advisory group covering all the islands to save on resources, reduce meetings and ensure commonality of approach.
- Clackmannanshire Council expressed a concern that estuarine issues could dominate at local advisory group meetings if the Forth Area Advisory Group boundary is used, and that a balanced agenda would need to be ensured to address all the issues raised.
- A number of concerns were expressed with regard to the use of the Clyde Area Advisory Group as the basis for establishing the local advisory group covering both the Clyde and Loch Lomond Local Plan District and the Ayrshire Local Plan District. South Lanarkshire Council, South Ayrshire Council, North Ayrshire Council and Argyll and Bute Council all suggested that it would be more appropriate to align local advisory groups with the Local Plan Districts. Glasgow City Council also expressed concerns that the use of the Clyde Area Advisory Group boundary would result in excessive administrative burdens upon responsible authorities.
- Falkirk Council suggested it may be beneficial to modify some of the Area Advisory Group boundaries in order to better align these with the Local Plan Districts.
- Loch Lomond and the Trossachs National Park Authority suggested that there may be some merit in establishing a specific group covering the boundary of the national park.

Sample responses

“East Dunbartonshire Council supports the use of the Area Advisory Group boundaries established under the Water Framework Directive, as the basis for establishing local advisory groups as required in section 50 of the FRM Act, as this will not only reduce the impact on flooding but improve the quality of the water environment by achieving the objectives of the River Basin Management Plan.”

“Orkney Islands Council considers it should have its own Area Advisory Group to minimise administration costs and as it has no physical links with other Local Plan Districts.”

“SEPA should take on board the lessons learned from the RBMP process.”

“the Comhairle is of the opinion that the Local Plan District for the Outer Hebrides should have a Local Advisory Group with the same geographical boundary.”

“We welcome the proposal to use the WFD AAG boundaries when establishing local flood advisory groups. However... we seek clarification as to how meetings will be arranged for the Highland and Argyll Local Plan District given that this encompasses three different AAGs.”

“We urge SEPA to take every step to ensure effective stakeholder engagement of these groups and to consider the logistics of meetings in order to facilitate attendance.”

“...it is not clear in practice how the 10 Area Advisory Group boundaries will map to the final Local Plan Districts.”

SEPA response to question 6

SEPA welcomes the support for the proposal to establish local advisory groups using the boundaries for Area Advisory Groups established under the Water Framework Directive. Given the close alignment between the Local Plan Districts and Area Advisory Groups, this will allow the local advisory groups to engage effectively in the process of producing Local Flood Risk Management Plans, as well as creating the important links to river basin management planning.

However, we are conscious of the nine local authorities who did not agree with this proposal. We will look at these concerns on a case-by-case basis and work with the local authorities to establish advisory groups that closely align with the Area Advisory Groups, but also allow effective engagement with local stakeholders. We will also work with the Scottish Government to address the remaining discrepancies between the Area Advisory Group boundaries and the proposed Local Plan Districts in time for the first flood risk management planning cycle (2015 to 2021).

3 Conclusion

'Flooding in Scotland: A consultation on Potentially Vulnerable Areas and Local Plan Districts' was an important part of the National Flood Risk Assessment and of future steps to target efforts to plan and invest in reducing impacts in areas more vulnerable to flooding. We therefore welcome the level and wide range of responses received. The main points SEPA has taken from this exercise, together with the actions we have undertaken, are summarised below:

- There was a high level of support for the adoption of a significance threshold that captures the majority, but not all, of flood impacts. We believe that adopting this threshold will enable us to most efficiently determine strategic direction and target resources.
- We welcome the agreement by respondents that 91% of Potentially Vulnerable Areas have been correctly designated. Where amendments have been proposed, we are grateful to respondents who provided data in support of these proposed amendments. This information has formed an important part of changes made to the National Flood Risk Assessment following the consultation. Through this refinement process and input of local knowledge, the National Flood Risk Assessment now provides an enhanced understanding of flood risk across Scotland and clearly fulfils its intended purpose of providing a strategic screening of impacts from all sources of flooding in Scotland. We will now submit a revised set of 243 Potentially Vulnerable Areas to Scottish Ministers for approval.
- We note and acknowledge the concerns raised by a number of respondents that those who are not within a Potentially Vulnerable Area, but still at risk, may be excluded from future investment. However, the duty on responsible authorities to reduce and raise awareness of overall flood risk will continue to apply to all areas at risk. There will also be scope within Local Flood Risk Management Plans to identify and address locally significant flooding.
- We also acknowledge the concerns raised by some respondents regarding communication issues associated with using catchment units to represent Potentially Vulnerable Areas. While we still consider the catchment unit approach to be the most appropriate to plan and co-ordinate a response to managing flood risk, we will continue to work to address these issues through further consideration of how we represent catchment units on maps and key messages around their publication.
- We are pleased that the majority of respondents supported our amendments to the Local Plan Districts, particularly the reduction in number from 20 to 14. We will now submit the 14 Local Plan Districts, as contained in the consultation, to Scottish Ministers for approval.
- We are also pleased that proposals for the remit, membership and procedure of local advisory groups were strongly supported by respondents. We will therefore proceed with the establishment of these groups in line with these proposals, while also taking into consideration comments made by respondents such as those relating to membership.
- We also welcome the support for proposals to establish local advisory groups using boundaries established through River Basin Management Plans. We believe that the use of these boundaries will enable these groups to engage effectively in the process of producing plans as well as creating strong links with river basin management planning. We note that several local authorities did not support the use of these boundaries. We will continue to liaise with local authorities to finalise arrangements for local advisory groups and, in doing so, make sure that we address their concerns.

Annex 1: list of respondents

Respondent	Respondent category
Aberdeen City Council	Responsible authority
Aberdeenshire Council	Responsible authority
Angus Council	Responsible authority
Anonymous	Interested Group
Argyll and Bute Council	Responsible authority
Argyll Area Advisory Group	Interested group
Association of British Insurers	Consultancies and industry
British Ports Association	Consultancies and industry
British Waterways Scotland	Other public body
Cairngorms National Park Authority	Other public body
Carronvale Tenants and Residents Association	Interested group
Chief Fire Officers Association Scotland	Other public body
Clackmannanshire Council	Responsible authority
Comhairle nan Eilean Siar	Responsible authority
COSLA	Other public body
Cromarty Firth Fisheries	Interested group
David Crichton	Individual
Dumfries and Galloway Council	Responsible authority
East Dunbartonshire Council	Responsible authority
East Lothian Council	Responsible authority
East Renfrewshire Council	Responsible authority
EnviroCentre	Consultancies and industry
Falkirk Council	Responsible authority
Fife Council	Responsible authority
Forestry Commission Scotland	Other public body
Freuchie Flood Action Group	Interested group
Glasgow City Council	Responsible authority
Highland Council	Responsible authority

Homes for Scotland	Consultancies and industry
Inverclyde Council	Responsible authority
Loch Lomond and the Trossachs National Park Authority	Other public body
Moray Council	Responsible authority
NHS Greater Glasgow and Clyde	Other public body
NHS Lanarkshire	Other public body
North Ayrshire Council	Responsible authority
North Lanarkshire Council	Responsible authority
Northern Constabulary	Other public body
Northumberland County Council	Other public body
Orkney Islands Council	Responsible authority
Peebles Community Council	Interested group
Perth and Kinross Council	Responsible authority
Peter Wright	Individual
Renfrewshire Council	Responsible authority
Royal Haskoning	Consultancies and industry
Royal Institute of Chartered Surveyors	Consultancies and industry
Royal Yachting Association Scotland	Interested group
RSPB Scotland	Interested group
Scotland Gas Networks	Consultancies and industry
Scottish and Southern Energy	Consultancies and industry
Scottish Borders Council	Responsible authority
Scottish Environment LINK	Interested group
Scottish Natural Heritage	Other public body
Scottish Power	Consultancies and industry
Scottish Property Federation	Consultancies and industry
Scottish Water	Responsible authority
Shetland Islands Council	Responsible authority
South Ayrshire Council	Responsible authority
South Lanarkshire Council	Responsible authority
Stirling Council	Responsible authority
Strathclyde Police	Other public body

The City of Edinburgh Council	Responsible authority
Tingle Consulting Ltd	Consultancies and industry
Transport Scotland	Other public body

Annex 2: Details of catchment units added or removed from Potentially Vulnerable Areas

Table 1 – Catchment units added to Potentially Vulnerable Areas

Catchment Unit Reference	Previous NFRA rating	New NFRA rating	New PVA number	Summary of change
Liaison with stakeholders				
203	Low	Medium	08/03	Upgrade due to presence of flood protection scheme and review of historic flood events
1722	Low	Medium	11/11	Upgrade due to review of historic flood events
2088	Low	Medium	02/08	Upgrade due to review of risk to cultural heritage
2365	Low	Medium	05/11	Upgrade due to review of risk to environment and amendment to catchment unit boundary
8999	Low	Medium	02/01	Upgrade due to review of risk to cultural heritage
Consultation response				
197	Low	Medium	08/08	Upgrade due to review of historic flood events
200	Low	Medium	08/03	Upgrade due to review of historic flood events
396	Low	Medium	08/17	Upgrade due to review of historic flood events
460	Low	Medium	07/19	Upgrade due to review of historic flood events
516	Low	Medium	10/13	Upgrade due to review of historic flood events
570	Low	Medium	09/01	Upgrade due to review of historic flood events
604	Low	Medium	10/27	Upgrade due to change to translation of grid to catchment unit and review of historic flood events
619	Low	Medium	10/27	Upgrade due to review of risk to transport links and environment
748	Low	Medium	13/02	Upgrade due to review of historic flood events
956	Low	Medium	13/04	Upgrade due to review of historic flood events
966	Low	Medium	13/04	Upgrade due to review of historic flood events
1058	Low	Medium	07/19	Upgrade due to review of historic flood events
1068	Low	Medium	13/13	Upgrade due to review of historic flood events
1236	Low	High	11/10	Upgrade due to change to flood outline and amendment to catchment unit boundary
1484	Low	Medium	14/09	Upgrade due to review of historic flood events
2191	Low	Medium	05/04	Upgrade due to review of historic flood events
2413	Low	Medium	05/12	Upgrade due to review of historic flood events
2423	Low	Medium	05/12	Upgrade due to review of historic flood events
2427	Low	Medium	05/13	Upgrade due to review of historic flood events
2431	Low	Medium	01/01	Upgrade due to review of historic flood events and amendment to catchment unit boundary
2757	Low	Medium	05/10	Upgrade due to review of historic flood events and amendment to catchment unit boundary

Catchment Unit Reference	Previous NFRA rating	New NFRA rating	New PVA number	Summary of change
3082	Low	Medium	06/02	Upgrade due to review of historic flood events
3189	Low	Medium	01/01	Upgrade due to review of historic flood events
3202	Low	Medium	05/04	Upgrade due to review of historic flood events
7004	Low	Low	05/04	Upgrade due to review of historic flood events
7018	Low	Medium	06/01	Upgrade due to review of historic flood events
Refinements to methodology				
301	Low	Medium	08/06	Upgrade due to change to translation of grid to catchment unit and review of historic flood events
399	Low	Medium	08/16	Upgrade due to review of historic flood events
428	Low	Medium	08/14	Upgrade due to review of historic flood events
488	Low	Medium	10/04	Upgrade due to review of historic flood events
518	Low	Medium	10/13	Upgrade due to review of historic flood events and Weighted Annual Average Damages and risk to human health
568	Low	Medium	09/01	Upgrade due to review of historic flood events
625	Low	Medium	01/13	Upgrade due to review of risk to human health
738	Low	Medium	05/08	Upgrade due to review of risk to human health and Weighted Annual Average Damages
788	Low	Medium	13/04	Upgrade due to review of risk to human health and Weighted Annual Average Damages and amendment to catchment unit boundary
794	Low	Medium	13/04	Upgrade due to presence of flood protection scheme and amendment to catchment unit boundary
839	Low	Medium	13/08	Upgrade due to review of risk to human health
853	Low	Medium	05/08	Upgrade due to review of Weighted Annual Average Damages
1033	Low	Medium	08/01	Upgrade due to review of historic flood events and Weighted Annual Average Damages and amendment to catchment unit boundary
1165	Low	Medium	11/17	Upgrade due to review of historic flood events and Weighted Annual Average Damages
1167	Very low	Medium	11/20	Upgrade due to review of historic flood events
1261	Low	Medium	11/03	Upgrade due to review of historic flood events
1293	Low	Medium	01/34	Upgrade due to change to translation of grid to catchment unit and amendment to catchment unit boundary
1409	Low	Medium	12/14	Upgrade due to review of historic flood events and Weighted Annual Average Damages
1433	Low	Medium	12/16	Upgrade due to review of historic flood events
1456	Low	Medium	14/06	Upgrade due to review of historic flood events
1487	Very low	Medium	14/07	Upgrade due to review of historic flood events
2021	Low	Medium	06/21	Upgrade due to change to translation of grid to catchment unit

Catchment Unit Reference	Previous NFRA rating	New NFRA rating	New PVA number	Summary of change
2086	Low	Medium	05/05	Upgrade due to change to translation of grid to catchment unit
2266	Low	Medium	05/09	Upgrade due to presence of flood protection scheme
2539	Low	Medium	06/11	Upgrade due to review of historic flood events
2559	Low	Medium	06/21	Upgrade due to review of historic flood events
2818	Low	Medium	01/05	Upgrade due to review of risk to human health and amendment to catchment unit boundary
3211	Low	Medium	07/03	Upgrade due to review of historic flood events
3315	Very low	Medium	14/20	Upgrade due to review of historic flood events
3328	Low	Medium	14/08	Upgrade due to amendment to catchment unit boundary
3855	Low	Medium	10/10	Upgrade due to review of risk to cultural heritage
4101	Low	Medium	01/37	Upgrade due to review of historic flood events
9090	Low	Medium	01/01	Upgrade due to review of historic flood events and risk to cultural heritage
10592	Low	Medium	10/22	Upgrade due to change to translation of grid to catchment unit
10610	Low	High	11/14	Upgrade due to presence of flood protection scheme and amendment to catchment unit boundary

Table 2 – Catchment units removed from Potentially Vulnerable Areas

Consultation Reference	Previous PVA number	Previous NFRA rating	New NFRA rating	Summary of change
Consultation Response				
08/10/01	08/10	Medium	Very low	Downgrade due to flood protection scheme in existence
08/09/01	08/09	Medium	Low	Downgrade due to review of risk to cultural heritage
08/15/01	08/15	Medium		Downgrade due to review of risk to transport links
14/07/01	14/07	Medium	Low	Downgrade due to review of risk to transport links
14/09/01	14/09	Medium	Very low	Downgrade due to review of risk to transport links and cultural heritage
14/11/01	14/11	High	Very low	Downgrade due to review of historic flood events
01/42/01	01/42	Medium	Low	Downgrade due to review of risk to transport links, cultural heritage and environment.
14/26/01	14/26	High	Very low	Downgrade due to change to translation of grid to catchment unit
10/28/01	10/28	Medium	Low	Downgrade due to review of risk to cultural heritage and environment
10/28/01	10/28	Medium	Low	Downgrade due to review of risk to cultural heritage and environment
04/02/01	04/02	Medium	Low	Downgrade due to review of risk to cultural heritage
04/01/01	04/01	Medium	Low	Downgrade due to review of risk to cultural heritage
04/05/01	04/05	Very High	Low	Downgrade due to change to catchment units
Liaison with stakeholders				
07/15/04	07/15	Medium	Very low	Downgrade due to review of risk to cultural heritage
07/15/04	07/15	Medium	Very low	Downgrade due to review of risk to cultural heritage
07/15/04	07/15	Medium	Low	Downgrade due to review of risk to cultural heritage
07/15/04	07/15	Medium	Low	Downgrade due to review of risk to cultural heritage
01/49/01	01/49	Medium	Low	Downgrade due to review of risk to environment
01/50/01	01/50	Medium	Very low	Downgrade due to review of risk to environment
01/50/01	01/50	Medium	Low	Downgrade due to review of risk to environment
01/40/02	01/40	High	Very low	Downgrade due to review of risk to transport links
Refinements to methodology				
08/04/02	08/04	High	Low	Downgrade due to change to translation of grid to catchment unit
07/16/01	07/16	Medium	Low	Downgrade due to change to translation of grid to catchment unit
13/08/04	13/08	Medium	Low	Downgrade due to review of risk to environment
11/12/01	11/12	Medium	Low	Downgrade due to review of risk to cultural heritage
11/12/02	11/12	Medium	Low	Downgrade due to review of risk to cultural heritage

Consultation Reference	Previous PVA number	Previous NFRA rating	New NFRA rating	Summary of change
01/38/01	01/38	Very high	Low	Downgrade due to review of historic flood events
06/08/01	06/08	Medium	Very low	Downgrade due to change to translation of grid to catchment unit
08/03/01	08/03	Very high	Low	Downgrade due to change to translation of grid to catchment unit
10/14/01	10/14	Medium	Low	Downgrade due to review of risk to cultural heritage
14/23/01	14/23	High	Low	Downgrade due to change to translation of grid to catchment unit
12/16/01	12/16	Medium	Very low	Downgrade due to review of risk to transport links
01/45/01	01/45	Medium	Low	Downgrade due to review of risk to transport links
01/46/01	01/46	Medium	Low	Downgrade due to review of risk to transport links
11/05/01	11/05	Very high	Low	Downgrade due to review of risk to transport links
01/21/01	01/21	Medium	Low	Downgrade due to review of risk to transport links
01/25/01	01/25	Medium	Low	Downgrade due to review of risk to cultural heritage
01/27/01	01/27	High	Very low	Downgrade due to change to catchment units
01/23/01	01/23	Medium	Low	Downgrade due to review of risk to transport links and cultural heritage
08/17/01	08/17	Medium	Low	Downgrade due to review of risk to transport links
08/17/01	08/17	Medium	Low	Downgrade due to review of risk to transport links
01/27/01	01/27	High	Low	Downgrade due to change to translation of grid to catchment unit
01/29/02	01/29	Medium	Low	Downgrade due to review of risk to transport links
07/10/02	07/10	Very high	Very low	Downgrade due to change to catchment units
01/31/02	01/31	Medium	Low	Downgrade due to review of risk to transport links and cultural heritage
01/31/02	01/31	Medium	Low	Downgrade due to review of risk to transport links and cultural heritage
01/29/03	01/29	Medium	Low	Downgrade due to review of risk to transport links
01/32/01	01/32	Medium	Low	Downgrade due to review of risk to transport links
07/01/02	07/01	High	Low	Downgrade due to change to catchment units
01/40/03	01/40	Medium	Low	Downgrade due to review of risk to transport links
01/35/01	01/35	High	Very low	Downgrade due to review of risk to human health
01/36/02	01/36	Very high	Low	Downgrade due to review of risk to human health and changes to translation of grid to catchment unit
06/23/04	06/23	High	Low	Downgrade due to change to translation of grid to catchment unit
01/43/01	01/43	Medium	Low	Downgrade due to review of risk to transport links
05/01/02	05/01	Medium	Low	Downgrade due to review of risk to environment
05/01/02	05/01	Medium	Low	Downgrade due to review of risk to environment

Consultation Reference	Previous PVA number	Previous NFRA rating	New NFRA rating	Summary of change
06/07/01	06/07	Medium	Low	Downgrade due to change to catchment units
01/04/01	01/04	High	Very Low	Downgrade due to change to catchment units
01/06/01	01/06	High	Low	Downgrade due to review of risk to road and change to translation of grid to catchment unit
02/04/01	02/04	Medium	Very low	Downgrade due to review of risk to human health
02/02/01	02/02	Medium	Low	Downgrade due to review of risk to transport links
03/05/01	03/05	Very high	Low	Downgrade due to change to translation of grid to catchment unit