



**Cyfoeth
Naturiol**
Cymru
**Natural
Resources**
Wales

Statement of Particulars

Western Wales Flood Risk Management Plan

FINAL

22 September 2015

Our purpose is to ensure that the natural resources of Wales are sustainably maintained, used and enhanced, now and in the future

We will work for the communities of Wales to protect people and their homes as much as possible from environmental incidents like flooding and pollution. We will provide opportunities for them to learn, use and benefit from Wales' natural resources

We will work for Wales' economy and enable the sustainable use of natural resources to support jobs & enterprise. We will help businesses and developers to understand and consider environmental limits when they make important decisions.

We will work to maintain and improve the quality of the environment for everyone. We will work towards making the environment and natural resources more resilient to climate change and other pressures.

1. Introduction

The Environmental Assessment of Plans and Programmes Regulations (Strategic Environmental Assessment (SEA) Regulations) requires that a Statement of Particulars is made available as soon as reasonably practicable after the adoption of the plan. This statement must demonstrate:

1. How environmental considerations have been integrated into the Western Wales Flood Risk Management Plan (FRMP) (**Section 2** of this document);
2. How the Environmental Report has been taken into account (**Section 3**);
3. How opinions expressed in response to the consultation on the Environmental Report have been taken into account (**Section 4**);
4. The reasons for choosing the Western Wales FRMP, as adopted, in the light of the other reasonable alternatives dealt with (**Section 5**); and
5. The measures that are to be taken to monitor the significant environmental effects of the implementation of the FRMP (**Section 6**).

Flood risk management plans

The European Floods Directive, transposed into law for England and Wales through the Flood Risk Regulations 2009 require the production of flood risk management plans (FRMPs) on a 6 yearly cycle.

The draft Western Wales FRMP sets out proposed measures for managing flood risk in those communities considered at greatest risk of flooding. This was published between 10th October 2014 and 31st January 2015. The environmental report documenting the SEA that was undertaken of the draft plan was published alongside it.

The FRMP objectives in Wales are:

1. Reduce the risk of harm to life from flooding to people and communities from main rivers, reservoirs and the sea.
2. Increase resilience of services, assets and infrastructure to the current and future risk of flooding
3. Improve understanding of current and future flood risk so that decisions are based upon the best available information.
4. Improve community awareness and resilience to current and future flood risk.

5. Work with others to provide an effective and sustained response to flood events.
6. Allocate funding and resources for all sources of flooding on a risk basis.
7. Incorporate natural resource management into the delivery of flood risk management.
8. Seek opportunities to deliver RBMP measures through Flood Risk Management (FRM).

2. How environmental considerations have been integrated into the Western Wales Flood Risk Management Plan?

The purpose of Natural Resources Wales is to ensure that the natural resources of Wales are sustainably maintained, enhanced and used, now and in the future. As a result, Natural Resources Wales adopts a number of practices to ensure that flood risk management work is sustainable. This delivers joint benefits for the people and environment of Wales and contributes towards a more flood resilient Wales now and for the future.

The Western Wales FRMP has been developed to describe the measures we propose to take to manage the risk of flooding to people, the environment and economic activity across the Western Wales River Basin District. This in itself is beneficial, however, in doing so there is the potential for wider environmental effects. The FRMP documents our commitment to undertake SEA and Environmental Impact Assessment (EIA) of our plans, strategies and projects where applicable and necessary. This ensures we minimise environmental impact and maximise delivery of environmental benefits. We endeavour to manage flood risk through non-physical measures first and foremost. For example understanding risk through investigation and modelling, warning, informing and only consider physical intervention when the risk is understood and needed to help protect people and property.

We proactively work to deliver directly, or with partners, Biodiversity Action Plan habitat and intertidal habitats to mitigate or compensate impacts caused by existing and future defences. This is undertaken through our National Habitat Creation Programme which is a statutory requirement under the Habitats Regulations and Water Framework Directive.

Environmental considerations were integrated throughout the development of the Plan through the SEA process. The alignment of river basin management planning and flood risk management planning programmes and study areas has allowed consideration of how the plans interact and how Natural Resources Wales can work to deliver multiple benefits in the most efficient way, throughout the six year planning cycle.

The River Basin Management Plan (RBMP) for Western Wales (2nd Cycle) has been developed to the same timescales as the FRMP. The RBMP describe the pressures facing the water environment, sets objectives for rivers, lakes, estuaries, coastal and ground waters to cover the period 2015-2021, and defines the priority measures needed to improve the environment, the benefits those actions could achieve and who is best placed to deliver them. The measures seek to address the significant water management issues. The Floods Directive identifies that FRMPs and RBMPs are elements of integrated river basin management and that *“the two processes should therefore use the mutual potential for common synergies and benefits, having regard to the environmental objectives of Directive 2000/60/EC (Water Framework Directive), ensuring efficiency and wise use of resources”*.

In order to aid integration of the Western Wales RBMP and FRMP, both plans set out a number of National Measures. These will help ensure that the two plans are linked and ensure that the FRMP considers the measures required to improve the water environment when undertaking flood risk management activities. It is proposed that these National Measures will be delivered, where possible, by flood risk management projects, operations and plans. The measures are set out below and demonstrate Natural Resources Wales' commitment to integrated natural resource management through our activities.

Flood Risk Management National Measures for RBMP & FRMP Integration

- 1. Identify opportunities to improve the water environment through existing programmes of work and scheme designs for Flood Risk Management.** Potential synergies and conflicts between RBMP measures and FRMP measures in specific communities at risk have been identified and will be incorporated into the Communities at Risk Register (the system for prioritising flood risk management actions in Wales) to identify where multiple benefits can be delivered through projects. These measures are

those that have been set out in the RBMP as necessary for waterbodies to achieve good ecological status or potential. We have selected those that are either potentially deliverable through FRM operations or projects or could have benefit to FRM, for example:

- i. Appropriate coastal process and sediment management
- ii. Mitigate impacts of flood and coastal defences
- iii. Mitigate impacts of navigation and dredging
- iv. Sustainable land management / agricultural practices
- v. Improve fish passage and habitat
- vi. Manage invasive non-native species (INNS)
- vii. Sustainable access and recreation management

At a project level, the options appraisal and design will consider how these measures can be incorporated or how FRM can work with, or influence others to deliver multiple benefits.

- 2. NRW will seek opportunities and influence others to utilise natural flood risk management measures where appropriate.** FRM will work with the Area Natural Resource Management teams in the development of the Area Based Statements to ensure flood risk is integral in the consideration of Natural Resource Management, including identifying opportunities to deliver Natural Flood Risk Management. FRM will support the work of others to identify opportunities and implement measures to secure flood risk benefits as part of planned programmes of work/projects.
- 3. Implement managed realignment and intertidal habitat creation through the National Habitat Creation Programme (NHCP).** We will continue with this programme of work, delivering coastal compensation habitat to offset predicted losses brought about through coastal squeeze, as identified in the SMP2's.
- 4. In waterbodies designated as heavily modified due to flood and coastal protection, mitigation for NRW owned assets and activities will be reviewed and delivered on a prioritised basis.**
- 5. Contribute to the achievement of the WFD objective and favourable conservation status at priority Water Level Management sites.** We will continue working with protected sites colleagues and land owners in the delivery of Water Level Management Plans.

6. Contribute to research and development to identify best practice for managing hydromorphological pressures in the water environment.

It is also important to recognise how RBMP measures can benefit FRM and work together to optimise this. For example, RBMP measures to reduce diffuse pollution pathways (i.e. control entry to water environment) by surface run-off and drainage management, will have obvious benefits to flood risk management. Other examples include improvement to the condition of riparian zone and/or wetland habitats by habitat improvements and fencing, or development and implementation of sediment management strategies or agricultural pollution prevention work.

3. How the Environmental Report has been taken into account.

It is important that any plan takes into account the environmental circumstances in which it is to be implemented. This is to ensure that unintended negative effects are avoided, as well as to identify the potential for delivery of multiple benefits.

The Environmental Report that was made available for public consultation alongside the draft plan documented the potential positive and negative effects of the proposed plan measures and identified mitigation and opportunities for delivery of multiple benefits through FRM operations.

The summary of the likely significant effects of the plan on the wider environment and the mitigation proposed in the Environmental Report are summarised in Table 3.1.

Table 3.1

Ecosystem Service	Effect of Plan	Description of effect	Mitigation for negative effects
Provisioning Services			
Food (e.g. crops, fruit, fish)	Minor Negative	Local effects from potential agricultural land-take as a result of construction and /or realignment of defences. This must be considered against potential benefits where flood risk management	All flood risk management schemes will need to comply with European regulations to allow fish and eel passage. Opportunities for schemes to

		measures protect agricultural land. There are potential negative effects on fisheries habitat caused by protection measures.	improve fish habitats and passage, in line with RBMP recommendations, will be sought. This mitigation will be delivered at a project level.
Regulating Services			
Water Regulation (e.g. flooding)	Minor Positive	Across the River Basin District (RBD) there would be locally significant positive effects from the reduction in flood risk to people and property. This will be as a result of implementation of actions in communities most at risk.	
Soil and Erosion Regulation	Minor Positive	Across the RBD as a result of reductions in the risk of extensive storm damage and erosion from flood events and also from changes to dredging and de-shoaling regimes.	
Cultural Services			
Cultural Heritage	Minor negative	From the potential for measures to disturb buried, unknown archaeology and the effect on known features of cultural heritage and landscapes. This is a precautionary assessment given the high degree of uncertainty as to the design of measures and should also be considered against the protection afforded to cultural heritage assets from ongoing, agreed and proposed measures.	Through the EIA process, individual schemes will, at the earliest stage identify any designated or non-designated heritage assets, including the risk of unknown buried archaeology. This will establish the potential for adverse effects as well as opportunities for enhancement; inform scheme options and detailed design; and identify an appropriate mitigation strategy.
Recreation & Tourism (including accessible blue and green space)	Minor negative	There is potential for local effects on recreation and tourism in the delivery of flood alleviation schemes due to potential loss of recreational or amenity land, disruption to public rights of way and changes in water	Through the EIA process we will involve relevant interest groups at an early stage at the project level to identify possible impacts and agree scheme specific mitigation. Opportunities for schemes to

		levels that could affect water-based activities.	improve public access, interpretation and footpath and cycling networks, and enhance recreational and amenity land will be sought.
Aesthetic Value (e.g. landscape, seascape, tranquillity)	Minor negative	There is potential for local effects subject to the location, type and design of flood risk management schemes.	Through the EIA process we will undertake early consultation with relevant landscape interests and, where necessary, will undertake landscape and visual impact assessments to inform scheme design and mitigation.
Supporting Services			
Provision of Habitat	Minor negative	Ongoing and agreed measures being delivered under the draft second generation Shoreline Management Plan are supported by compensatory habitat delivery projects under the National Habitat Creation Programme. Proposed measures have the potential to have local effects subject to the location, type and design of flood risk management schemes.	The mitigation approach for potential negative effects on habitats and species will involve early consultation with nature conservation interests to identify and assess at the project level any potential impacts (including designated sites of nature conservation interest and protected species) and agree scheme specific mitigation. Early engagement with nature conservation interests will enable opportunities to be identified for habitat creation, improving habitat diversity and the condition and connectivity of sites, and for improving fish and eel passage and other habitats for protected species.

The process of undertaking the SEA for both RBMPs and FRMPs was aligned which promoted integrated planning and meant that the SEA was able to influence the plan.

As a result of Natural Resources Wales undertaking environmental assessment of our operations and plans at the appropriate scale, and our implementation of the national measures described above; the FRMP has given due regard to environmental considerations. Negative effects will be minimised and the delivery of multiple benefits promoted.

4. How opinions expressed in response to the consultation on the Environmental Report have been taken into account

Formal consultation was undertaken at scoping stage with publication of the scoping report to inform the scope of the SEA. We also engaged with the Strategic Assessment Team of Natural Resources Wales and Cadw as Statutory Consultees in the SEA process, throughout the development of the plan.

A detailed summary of the responses received to the consultation on the Environmental Report is in Annex 1. This sets out each response received, summarises the comments made and sets out the actions we have and are taking to address the comments. A summary of the comments received to the specific SEA questions we asked, and the actions we are taking are set out below.

Respondents were concerned at the lack of a Habitats Regulations Assessment (HRA) being published alongside the draft plan to inform the Environmental Report and development of the plan. We agree that the HRA should have taken place alongside the preparation of the draft plan. However, limited resources and pressures on programme did not allow this. The HRA was however, undertaken alongside and influenced the preparation of the final plan. We consulted Natural Resources Wales (Strategic Assessment Team) on the draft HRA and took their comments into account in the finalising of the HRA. The agreed HRA will be made available to inform the approval of the plan and will be published alongside the final plan.

There was concern that the proposals for monitoring the significant effects of the plan were too focussed on River Basin Management Plan monitoring, which would not pick up wider effects on environmental receptors. In response to this comment we have considered in

greater detail the monitoring we propose to undertake of the significant effects of the plan and this is documented in Section 6 below.

Some respondents requested greater clarity on the avoidance, reduction and mitigation of effects on specific receptors, other respondents were confident that mitigation measures would be picked up at the project level through EIA. We have set out our commitment to undertake environmental assessment of our projects under Natural Resources Wales policy and in section 3 above.

Comments were received regarding delivery of Natural Flood Risk Management (NFRM), flood attenuation and storage. The SEA can only assess the measures that are proposed by the plan itself. We consider all of these options at a project level and the integration of environmental impact assessment in the technical and economic business cases for projects aims to influence option selection. We will undertake EIA at a project level under the relevant legislation and under Natural Resources Wales policy. As a result of the consultation responses and Natural Resources Wales' remit to consider Natural Resource Management in undertaking its operations, we have set out National FRM Measures in the Final FRMP, including seeking opportunities and influencing others to utilise natural flood risk management measures where appropriate.

5. The reasons for choosing the Western Wales FRMP, as adopted, in the light of the other reasonable alternatives dealt with.

The 2012 consultation into the proposed approach to FRMPs across England and Wales set out three options for developing the flood risk management plans:

- Option A. LLFAs prepare FRMPs for flood risk areas covering local sources of flood risk. Natural Resources Wales prepares FRMPs for main river, the sea and reservoirs.
- Option B. A consolidated FRMP is produced by Natural Resources Wales in partnership with others by bringing together information from separate plans.
- Option C. A FRMP is developed in partnership through one integrated process covering all sources of flood risk.

NRW published the proposed way forward in June 2013, taking account of the feedback from the consultation. The preferred approach to FRMPs was option B, a consolidated FRMP. This was our preferred approach and intention. However, once the LLFAs considered the timescales involved, they realised they would be unable to meet the timescales to consolidate with NRW. As a consequence, all LLFA's with flood risk areas opted to produce independent plans (option A). We aspire to option C in future cycles.

Measures from existing plans

A large proportion of the flood risk management plan is directly drawn from plans that are covered by previous consultations and strategic environmental assessments (Catchment Flood Management Plans, Shoreline Management Plans, Dyfi Tidal Strategy and Clwyd Tidal Strategy). These plans considered alternatives at the time and at their appropriate scale and so have not been reviewed again within the FRMP and thus the FRMP SEA.

Measures in the FRMP

The measures in the FRMP set out the future management needs across the catchment, shoreline and local sources of flood risk. At this scale they tend to set preliminary actions for the future investigation and development of business case appraisals and options. Further planning processes and supporting environmental assessments will focus on alternatives at the project level.

6. The measures that are to be taken to monitor the significant environmental effects of the implementation of the FRMP

This section sets out the monitoring that we propose to understand the significant effects of the plan in practice. The monitoring is focussed on those services where there are potentially significant effects (See Table 3.1). The indicators have to be practical, cost-effective and strategic, and must identify the effects of the plan itself, rather than on wider trends. Effects of significant individual projects will be monitored according to environmental action and/or monitoring plans devised during project level environmental impact assessment.

Table 6.1 Proposed sources of information for monitoring significant effects on the environment.

Ecosystem Service	Effect of Plan	Proposed Monitoring Indicator	Source
Provisioning Services			
Food (e.g. crops, fruit, fish)	Minor Negative	Amount and productivity of agricultural land.	At a project level loss of or change in land use would be recorded and mitigated or compensated for as required. WG ¹ documents annual figures on the number of livestock and area and type of agricultural land across Wales. This data could be used to demonstrate strategic trends.
		Fisheries classification of waterbodies	Ecological status of waterbodies – reported through the RBMPs.
Regulating Services			
Water Regulation (e.g. flooding)	Minor Positive	Number of people and properties at risk of flooding.	Natural Resources Wales monitoring & modelling data sets.
Soil and Erosion Regulation	Minor Positive	Hydromorphology of waterbodies. Degree of naturalness to support achievement of Good ecological status or potential.	Ecological status of waterbodies – reported through the RBMPs.
Cultural Services			
Cultural Heritage	Minor negative	Status of listed and non-listed historic features.	Project level EIA will identify potential effects on listed and non-listed historic features and will influence design to avoid, reduce or mitigate impacts. Cadw undertake a monitoring and management programme for state owned features.
		Unknown buried archaeological features or areas of archaeological potential to be monitored at individual project level.	Close liaison with Welsh Archaeological Trusts during project appraisal and design. Provide copies of reports (e.g. Desk Based Studies, Investigative Reports, Watching Brief Reports etc.) to

¹ Farming Facts and Figures Wales 2015, Welsh Government.

			Welsh Archaeological Trusts following project delivery.
Recreation & Tourism (including accessible blue and green space)	Minor negative	Area of loss of recreational or amenity land, disruption to public rights of way and changes in water levels that could affect water-based activities.	User numbers for coastal path & visitors to National Nature Reserves (visitor counters at certain locations) Visitor numbers to National Parks. Opportunities for schemes to improve public access, interpretation and footpath and cycling networks, and enhance recreational and amenity land will be documented in the environmental outcomes.
Aesthetic Value (e.g. landscape, seascape, tranquillity)	Minor negative	There is potential for local effects subject to the location, type and design of flood risk management schemes.	Through the EIA process we will undertake early consultation with relevant landscape interests and, where necessary, will undertake landscape and visual impact assessments to inform scheme design and mitigation.
Supporting Services			
Provision of Habitat	Minor negative	Compensatory habitat delivery projects under the National Habitat Creation Programme.	Intertidal habitat delivered against monitoring of loss of habitat due to sea level rise. Undertaken through Natural Resources Wales' National Habitat Creation Programme.
		Biodiversity Action Plan habitat delivery	BAP habitat delivery through FRM funded projects. Natural Resources Wales performance indicator.
		Favourable conservation status of European Sites	Natural Resources Wales monitoring of the conservation status of European Sites. Natural Resources Wales performance indicator
		Proposed measures have the potential to have local effects subject to the location, type and design of flood risk management schemes.	Project level EIA will monitor effects on habitats and species and implement mitigation, compensation and monitoring, where necessary.

Many existing programmes of monitoring will be reviewed on a regular basis by statutory reporting. However, the monitoring recommended to demonstrate the effects of

implementation of the FRMP will be reviewed in the baseline scoping for the SEA of the second cycle of Plans to be published in 2021.



Annex 1: Summary of Consultation Responses and Actions Taken.

Organisation responding	Response to SEA	Action taken
Natural Resources Wales – SAT	Concern that concentration of monitoring through the RBMP may not be adequate to identify unforeseen effects on other receptors e.g. European protected sites & species, land & seascape, cultural heritage etc.	We have added further details to the proposed monitoring of the significant effects. These are documented in Section 6 of this document.
Natural Resources Wales - SAT	HRA should be undertaken iteratively with the plans development. Inappropriate to approve or finalise the FRMP until all relevant assessment processes are complete	We agree that the HRA should take place alongside the preparation of the plan. Limited resources and pressures on programme did not allow this. The HRA has been undertaken alongside the prioritisation of measures and waterbodies to ensure that it influenced this process. The HRA has been produced in consultation and agreement with Natural Resources Wales (SAT) and was in place prior to finalising and approving the plan.
Natural Resources Wales -SAT	HRA reliance on conclusions of outdated and/or low quality HRA processes may not be appropriate. Clarification requested on how in combination effects with other plans and projects is being considered when relying on pre-existing HRAs	HRA's for ongoing and agreed measures were approved at the time of plan and project approval. We do not propose to revisit these but have taken into account these assessments in the consideration of their in combination effects with proposed measures. This is documented in the HRA.
Natural Resources Wales -SAT	Clarify what is considered a land use planning measure & consider their cumulative effects with other FRMP measures & with other relevant plans & programmes	A land use planning measure is one of the prevention measures proposed by the plan. These aim to prevent flood risk: <ol style="list-style-type: none">1. By avoiding construction of houses and industries in present and future flood-prone areas;2. By adapting existing receptors to the risk of flooding; and ensure that future developments take flood risk into account;3. By promoting appropriate land-use

Cadw	Declined to respond	
Welsh Local Government Association	It is our understanding that Protection measures (especially capital schemes) will have a full EIA. We are therefore confident that any extra mitigation measures necessary will be picked up at this stage.	Protection measures will be subject to EIA under relevant legislation & Natural Resources Wales policy. No action required.
Confor	There may be opportunities, by retention and slow release of rainfall where it falls, for (re) afforestation of the uplands. The Pontbren Project is a very small scale example in the Severn catchment	Following on from consultation responses on the draft FRMP and the Environmental Report, we have developed National FRM Measures. One of these is to progress opportunities for natural Flood Risk Management. Please refer to the Final FRMP document for further details.
Energy UK	Protection of energy infrastructure such as power stations under the heading 'material assets' should be a key 'effect' of the FRMP. We are concerned that in Table 3.1 the definition of material assets as being related to transport infrastructure is too narrow. However, we agree with the sense of the 'material asset' discussion regarding appropriate flood risk reduction to infrastructure when required.	Table 3.1 is in relation to the Plan & Policies review and refers to the Wales Transport Strategy which was reviewed. There is no energy infrastructure national plan to include in this review, however, infrastructure generally (energy, road, rail, housing, industrial, etc) are a consideration in the allocation of FRMP measures and in the SEA. No action required.
RWE Innogy UK Ltd	Opportunities around new or improved flood attenuation and increased storage have not been covered in the SEA.	The SEA can only assess what is proposed by the plan. FRMP protection measures include different types of "assessments", we cannot second guess the outcome of such assessments but on a project basis this would include consideration of upstream storage or attenuation. No action required.
Coed Cadw	<p>The conclusion drawn is that the impact on flood risk management measures will have a 'minor negative effect' on provisioning services (agriculture /fisheries) recreation and tourism, landscape and provision of habitat.</p> <p>No consideration has been given to the wider benefits of working with natural process at a catchment scale in relation to flood risk management. The targeted planting of trees as part of such an approach supports sustainable agriculture and fisheries, enhances biodiversity and landscape and publicly accessible woodland contributes to local tourism and promotes health and well-being.</p> <p>Regarding the perceived negative effect on agriculture, the Woodland Trust is collating evidence that suggests that planting woods, hedgerows and buffer strips on farms can have a significant impact on farm productivity, whether arable or livestock. We would be happy to share this work with the Environment Agency, Natural Resources Wales and other partners.</p>	<p>The SEA is based on the effects of the proposed FRMP measures which are very location specific and are aimed at reducing the risk of extreme events in the highest risk areas.</p> <p>The role of afforestation and land management techniques is important at a strategic scale in providing small scale FRM benefits and wider environmental benefits. Following on from consultation responses on the draft FRMP and the Environmental Report, we have developed National FRM Measures. One of these is to progress opportunities for natural Flood Risk Management. Please refer to the Final FRMP document for further details.</p>

Ceredigion County Council	<p>There is the potential for the negative effects of agricultural land-take to be off- set by protection of other agricultural land, together with enhancement of non- agro-ecosystems through appropriate implementation of the Plan.</p> <p>Whilst reference has been made to short-term negative impacts within the Water Regulation, Recreation & Tourism, Aesthetic Value and Provision of Habitat ecosystem services, the potential enhancements in the longer term that could be delivered through appropriate implementation of the plan by fully addressing those issues during individual scheme development could be given additional consideration.</p>	Avoidance, reduction & mitigation measures will be considered through the EIA at a project level. No action required.
Ceredigion County Council	All Local Authorities within the Plan area have completed Local Flood Risk Management Strategies for their respective areas, and consideration should be given to the findings contained within the individual Strategic Environmental Assessments which accompany those Strategies within this Environmental Report.	Not included in PPP review as they are a local level plan and the PPP just considered national & regional plans. No action taken.
Ceredigion County Council	Greater emphasis should be given to potential enhancements within the Recreation & Tourism and Aesthetic Value sections in order to further mitigate the impact of the implementation of the Plan.	We will seek to identify & deliver multiple benefits through the emerging projects.