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Wales

Teifi and North Ceredigion Management Catchment Summary

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1. Background to the management catchment summary

This management catchment summary supports the 2015 updated Western Wales **River Basin Management Plans (RBMP)**. Along with detailed information on the **Water Watch Wales (WWW)** website, this summary will help to inform and support delivery of local environmental improvements to our groundwater, rivers, lakes, estuaries and coasts. Information on **WWW** can be found in Section 6.

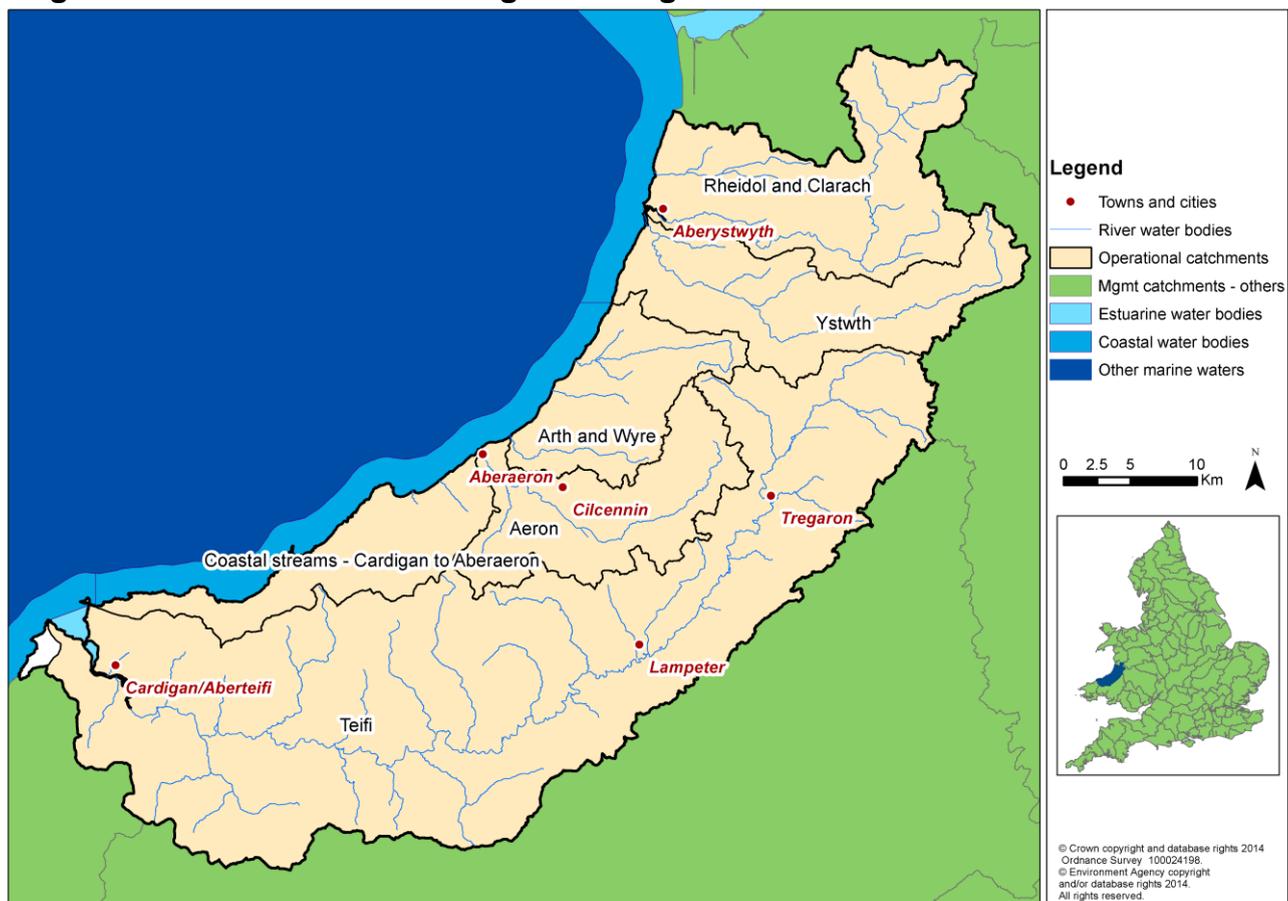
Natural Resources Wales has adopted the ecosystem approach from catchment to coast. This means being more joined up in how we manage the environment and its natural resources to deliver economic, social and environmental benefits for a healthier, more resilient Wales. It means considering the environment as a whole, so that all those with an interest in the catchment weigh up the evidence and set priorities for the many competing demands on our natural resources in a more integrated way and achieve our shared ambition for the place.

The Water Framework Directive (WFD) provides a major overarching framework for river basin management. The Floods Directive sets out a strategic approach to flood risk management planning. An updated Flood Risk Management Plan (FRMP) has been produced in parallel to the 2015 updated **Western Wales RBMP Summary**. The FRMP details how we propose to manage flood risk across the river basin district by prioritising those communities that are most at risk of flooding and detailing the measures we intend to take to manage their risk.

The FRMP and the RBMP together will shape important decisions, direct investment and action, and deliver significant benefits to society and the environment.

2. The Teifi and North Ceredigion Management Catchment

Figure 1. Teifi and North Ceredigion Management Catchment



The area covered by this management catchment summary includes the catchment areas of the rivers Rheidol, Ystwyth, Clarach, Aeron and Teifi. The area stretches from Ceibwr Bay, west of Cardigan, in the south-west to the feeder streams of Nant-y-Moch Reservoir in the north, and encompasses the western fringes of the Cambrian Mountains. The larger urban areas are the coastal towns of Cardigan and Aberystwyth and Lampeter, 10 miles inland on the Teifi.

The river catchments are varied and quite distinctive. The Rheidol and Ystwyth rise in the Cambrian Mountains and descend through rocky valleys, tracts of coniferous forest and, in the case of the Rheidol, a series of mountain lakes and reservoirs, before meandering through the glacial gravels, deciduous woodland and low lying pasture of the floodplain to the sea. The Rheidol is a regulated, heavily modified river, as part of the Rheidol hydro-electric scheme, with a single major tributary, whereas the Ystwyth is flashy and has numerous small tributaries. The Aeron has its source at Llyn Eiddwen and flows for some 17km to the sea at Aberaeron. The Clarach has the typical features of an upland river with exposed boulders, rapids and waterfalls in the upper reaches while in the lower reaches the river is characterised by riffles and pools. The Teifi, at 122km, is one of the longest rivers in South West Wales. Its source is Llyn Teifi in the Cambrian Mountains at an altitude of 455m AOD from where it descends steeply through moorland and forestry to the geologically and ecologically important basin of Cors Caron. The river continues through rural areas largely supporting dairy and mixed stock farms. Rocky, tree-lined sections are a feature of the catchment and a number of impressive gorges, particularly at Maesyrcugiau, Alltycafau,

Henllan and Cilgerran, add significant environmental and landscape value. The falls on the Teifi at Cenarth are a spectacular attraction under high flows, and are famous as a location for watching salmon leaping and eelers migrating.

The area is generally sparsely populated, but much of the historic development has occurred on the flat land adjacent to watercourses and the coast. It is therefore at risk from flooding and has experienced flooding in the past. Flood defences have been constructed at a number of sites and these defences now form an important part of the urban infrastructure. The Teifi valley is mainly rural with agriculture and forestry accounting for the majority of land usage. Large dairy units predominate in the lower reaches of the Teifi, with mixed dairy and livestock rearing present in the middle reaches. In the upper area, the poorer soil conditions restrict agriculture to livestock rearing on rough grazing and improved pastures.

There is little significant industry in the area, as it is largely agricultural. Dairy farming predominates on the coastal plain, while the uplands favour sheep rearing and forestry. A large part of the area is susceptible to acidification of surface water due to local geology and soils having poor buffering capacity. Most industrial activity is situated around Aberystwyth and Aberaeron, such as small timber treatment plants, quarries and industrial estates. The topology of the area, with steep valleys lends itself to hydroelectric generation. The Rheidol hydropower plant is the largest of its kind in England and Wales made up of an interconnected group of reservoirs, dams, pipelines, aqueducts and power stations, covering an area of 162 square kilometres, and an annual energy production of about 85 GWh. Government incentives to encourage the installation of renewable energy systems to meet the EU target of producing 15% of the UK's energy from renewables by 2020 has seen the installation of a number of small hydropower schemes, especially in the north of the county along with several water bottling plants. Any new installation must be carefully assessed to ensure it is compliant with legislation and that there are no detrimental impacts to the local environment.

Historically, industrial activity was more extensive and included metal mine works which extracted lead, copper, zinc and silver. These abandoned metal mines are largely located in the north of the area and the upper Teifi and these left a legacy of spoil tips, contaminated land and metalliferous contamination of watercourses, which impacts river quality. The mines do however have special ecological and historical interest in their own right so restoration schemes need to be carefully planned to balance all interests.

The Teifi supports a nationally important salmon and sea trout (sewin) fishery, which includes one of the few remaining coracle fisheries in the UK. Sea trout are the predominant migratory salmonid, with a large number of salmon also reported. Currently the Teifi salmon stock is assessed as 'Probably at Risk' in 2015 and forecast to remain 'Probably at Risk' in 2020. Sea trout are assessed as 'Probably not at Risk'¹.

The Rheidol, Ystwyth and Aeron also support salmon, sea trout and brown trout. There are also a number of thriving still water fisheries that have developed for trout and coarse fish. Commercial fishing for sea fish such as herring and bass, takes place and crab and lobster potting is practised along the coast.

¹ A more comprehensive annual report on the status of salmon stocks and fisheries in England and Wales - including compliance with Conservation Limits – has been produced jointly by Cefas, the Environment Agency and Natural Resources Wales for 2015; see: <https://www.gov.uk/government/publications/salmon-stocks-and-fisheries-in-england-and-wales-in-2015> and <https://www.gov.uk/government/publications/assessment-of-salmon-stocks-and-fisheries-in-england-and-wales>

Angling and tourism are increasingly important sources of income to the area, with visitors being attracted by the high quality of the landscape and countryside and the 13 EU designated bathing waters dotted along the coastline of Cardigan Bay, where bottlenose dolphins, porpoises and grey seals may be spotted. According to the Ceredigion County Council STEAM report tourism was worth £298 million to the local communities in 2011. The Teifi is a particularly beautiful river and is designated as a Special Area of Conservation. It flows through Cors Caron, a lowland raised bog with a distinctive plant community and aquatic invertebrates unique to the area.

In February 2014, a Teifi and North Ceredigion management catchment workshop was held at Aberystwyth University. During this event the benefits of the catchment were captured. These included:

- Tourism
- Hydropower opportunities
- Culture and heritage features
- Natural beauty and landscape
- Biodiversity, wildlife and habitats
- Recreation and leisure opportunities
- Internationally recognised conservation features

We continue to work in collaboration with a range of partners and sectors in innovative ways so that we can achieve even more together. A flavour of some of the projects that have been delivered within this management catchment over the last 3 years together with projects in development are included as case studies through this document.

For further information on projects please refer to [WWW](#).

Case study – Salmonid Habitat Restoration Project

Afonydd Cymru with Teifi Rivers Trust received funding from Natural Resources Wales' 2012/13 Living Wales Fund to deliver 5 Habitat Restoration schemes along the Cerdin, a tributary of Afon Teifi in the Llandysul area.

The Cerdin was identified as having a moderate classification under the Water Framework Directive because of low densities of salmonids and issues with diffuse agricultural pollution. Along this stretch cattle access to the river contributed to poaching and increased sedimentation. By providing controlled stock access to keep the cattle to a defined area and reducing time spent in the river the project aimed to fence along identified sections, add crossing points, drinking bays and swing gates.

Since the instalment of the habitat schemes the river bank has had an opportunity to naturally regenerate reducing the likelihood of bank erosion during high flows and helping reduce sedimentation which will keep more of the river's gravel beds free of sediment and available to spawning fish and therefore increasing the chances for salmonid spawning success. All of this was achieved with the help of Dr Ian Thomas and considerable effort from the Teifi Rivers Trust volunteers.



2.1 Key facts ²

We use the term water bodies to help understand and manage the water environment. A water body is part, or the whole, of a river, lake, estuary, ground water or coastal water.

² There are differences in water bodies and protected area numbers compared to the first cycle plans and second cycle plans. This is due to changes in the water body network as well as refinement of the mapping methodologies and rules between water bodies, management catchments and protected areas.

The number and type of water bodies in the management catchment is shown in the table below.

Table 1. Number and type of water bodies in the catchment

Number of water bodies	Natural	Artificial	Heavily Modified	Total
River*	60	0	2	62
Lake	5	0	2	7
Coastal	1	0	0	1
Estuarine	1	0	1	2
Groundwater	2	0	0	2
Total	69	0	5	74

*River water bodies includes canals and surface water transfers

There are areas in the catchment where the water environment is recognised as being of particular importance, including rare wildlife habitats, bathing waters or areas around drinking water sources. These areas are known collectively as protected areas and are detailed in the table below.

Table 2. Protected areas in the management catchment

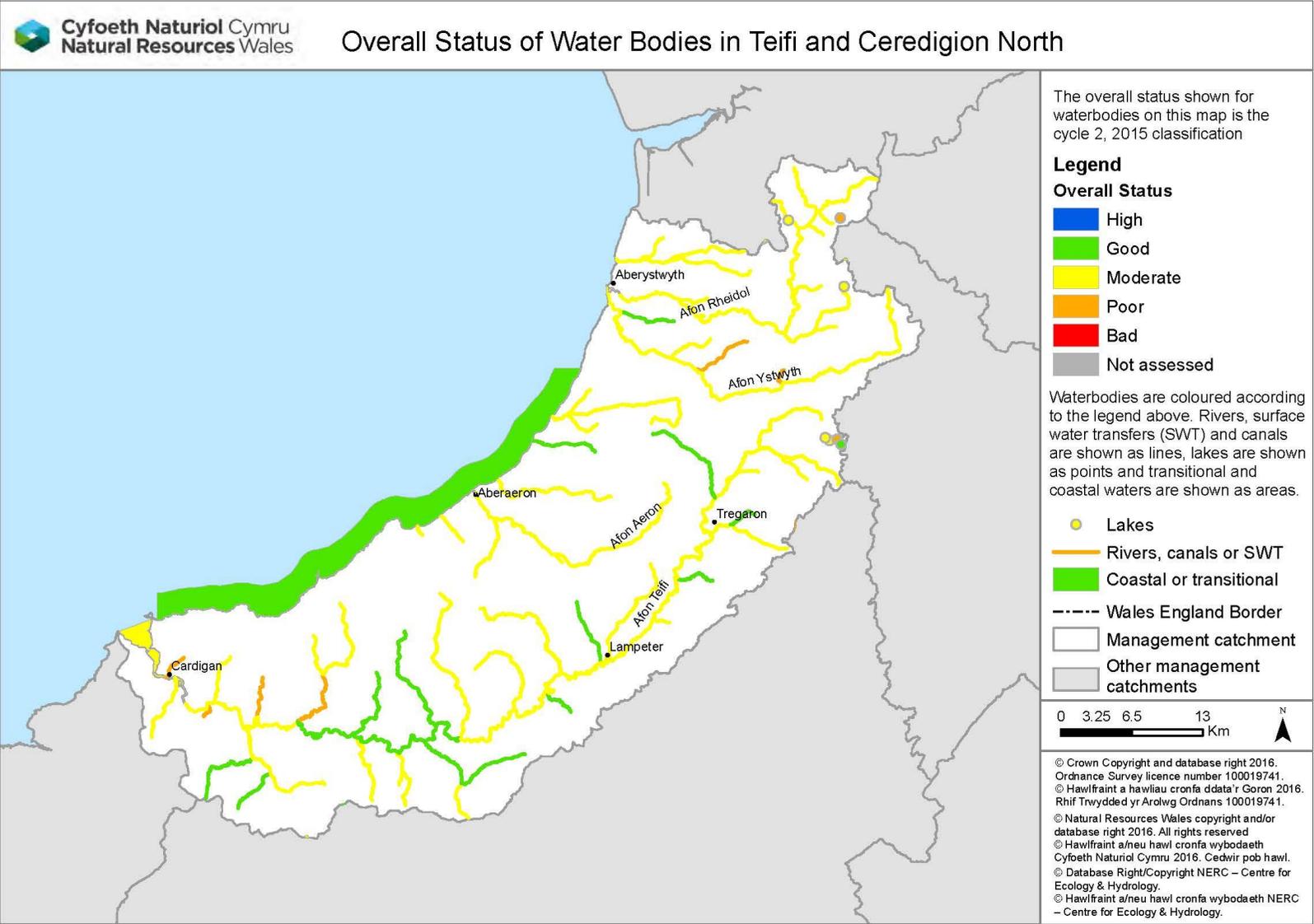
Protected Area	Number
Bathing Waters	12
Drinking Water Protected Areas	8
Natura 2000 and Ramsar sites	10
Nitrate Vulnerable Zones	0ha
Shellfish Waters	0
Urban Waste Water Treatment Directive - Sensitive areas	0

3. Current Status of the water environment

We assess the condition of water bodies through monitoring which produces an annual classification. The current status for each water body is shown in figure 2. Note, since 2009, we have updated some of the systems we use to classify water bodies, including changes to some standards and water body boundaries.

Within this management catchment 22% of surface water bodies are at good overall classification status, 67% at moderate and 11% at poor overall status. There are no water bodies at high or bad overall status.

Figure 2. The current status of the Teifi and North Ceredigion Management Catchment (2015 classification)



Case study – Lampeter Dulas Fish Easement Project

The Afon Dulas is a substantial tributary located on the Teifi catchment. The Teifi supports an internationally re-known rod fishery for migratory salmonids. The Dulas is an important spawning tributary, flowing into the main River Teifi at Lampeter. Prior to the works, a disused railway bridge on the Afon Dulas at Olmarch, posed an almost total barrier to salmon, sewin and eels seeking to ascend the Dulas. The culvert obstruction is likely to have been a factor contributing to the reach being classified as 'Poor' under the Water Framework Directive (WFD).

The fish easement works, involve raising the downstream water level by means of 3 block stone pre-barrages formed into an upstream crescent shape to centralise flow. Each weir has a dropped stone in the centre to provide an obvious route for fish passage.

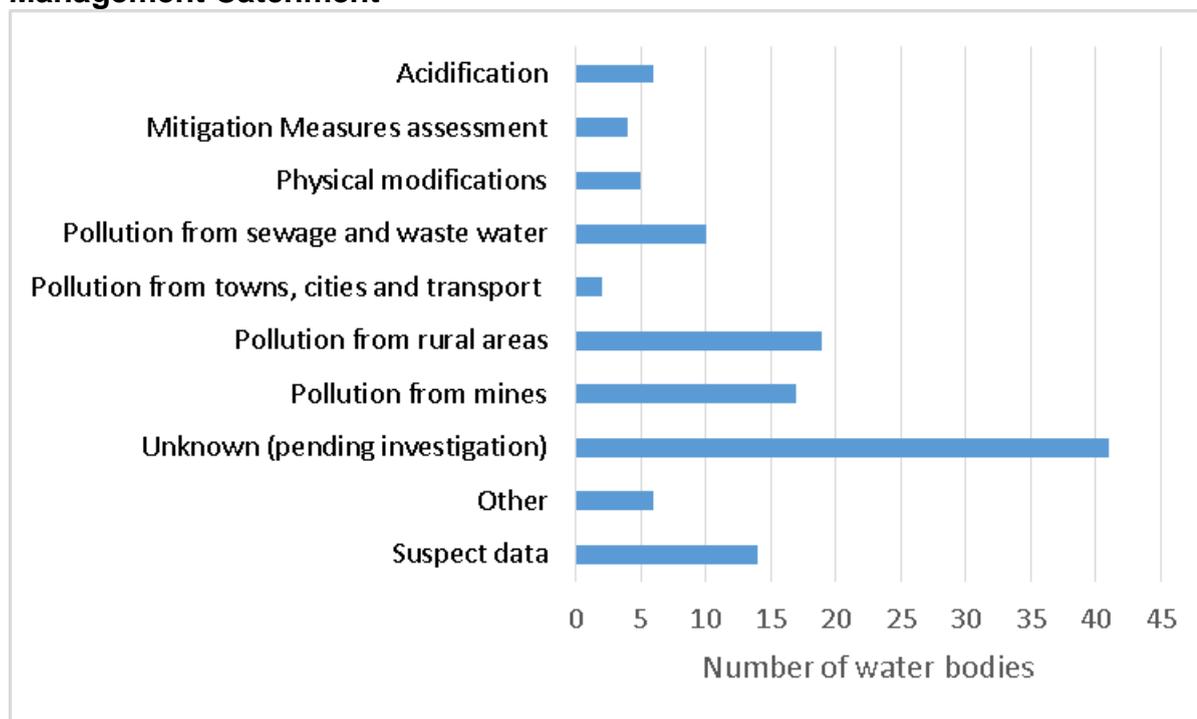
The combined effect of the weirs was to raise the tail water by 750mm, allowing fish to pass upstream without hindrance. By improving connectivity to a network of smaller tribs, spawning and juvenile habitat of approximately 4km has been made more accessible above the culvert. This project will help towards the Natural Resources Wales meeting its WFD objectives.



4. The main challenges

We have carried out a programme of investigations to better understand the causes as to why water bodies are failing to meet the required standards. The results of our findings are summarised in Figure 3. The reasons for not achieving good status are listed under the Surface Water Management Issues (SWMI) in line with the updated RBMP. The graph below shows the number of water bodies listed under each SWMI to give an indication of the main issues in the management catchment, each water body may have more than one reason for not achieving good status.

Figure 3. Reason for not achieving good status in the Teifi and North Ceredigion Management Catchment



Our investigations have identified 16 river water bodies that are failing because of **abandoned metal mines**, these include water bodies in the Teifi, Ystwyth, Rheidol and Clarach catchments and another 10 that are very likely to be failing. **Agriculture and rural land management** is a reason for failure on 10 water bodies including Teifi, Melindwr, Aeron and Carrog and is very likely to be a reason for failure on 12 others. **Artificial barriers** which prevent fish migrating and reaching their spawning grounds are the reason for failure in two rivers including the Clettwr and Piliau and are very likely to be a reason for failure in the Arberth, Dulas and Mydyr.

Acidification from air pollution is a reason for failure in The Teifi Pools and in eight river water bodies in the uplands of the Ystwyth and Rheidol. There are three water bodies in the Rheidol where coniferous forestry is a reason for failure because the plantations exacerbate acidification. **Discharges from wastewater treatment works** are identified as a reason for failure on four water bodies including the Drywi. Other rivers in the Teifi and Rheidol catchments are very likely to have this as a reason for failure. **Unsewered domestic wastewater** (septic tanks) have been identified on four water bodies including the Carrog, Camddwr and Ystwyth. This is a problem particular to this area of Wales where many

villages and properties are not on the sewer network The Rheidol is a heavily modified water body and the surface water abstraction for hydropower is a confirmed reason for failure for the Castell and Hengwm.

4.1 Feedback on challenges

We need to work together to ensure the overall aims of the Water Framework Directive are met, in order to work together effectively we need to agree on the issues and solutions. The following section includes some of the issues that were raised as part of the catchment workshop and the RBMP consultation; however it is not a full list.

- Flooding.
- Forestry – acidification.
- Rural land management and diffuse pollution from agriculture.
- Pollution from abandoned mines.
- Diffuse pollution from urban areas.
- Re-introduction of the European Beaver, *Castor fiber*.
- Marine litter
- Decline in aquatic habitats and species

Case study – Himalayan balsam eradication project on the Ystwyth.

A project to eradicate Himalayan balsam from the upper and mid sections of the Ystwyth is now in its 6th year, and considerable success has been achieved thus safeguarding the habitat at Grogwynion SAC and SSSI sites as well as restoring native flora on the undesignated sections of river. The programme is gradually working downstream with a view to achieving total eradication of Himalayan balsam on the Ystwyth in the future. In addition, since 2012 the control of Japanese knotweed has also been included in the project.

In conjunction with the removal of Himalayan balsam and Japanese knotweed, the project also involves raising awareness of these plants and their adverse impacts by encouraging the local communities to look for it, report it and help control it. This is being progressed by the production of posters, leaflets and press releases.

5. Objectives and measures

This section outlines what we are aiming to achieve and the measures that need to be put in place. We aim to develop a single integrated programme of measures by 2021 that meets Water Framework Directive objectives, including:

- **Prevent deterioration in status**

Water body status will not be allowed to deteriorate from the current reported status.

- **Achieve the objectives for protected areas**

Achieve the standards set by the relevant directive under which they were designated. For water dependent Natura 2000 sites we will aim to achieve conservation objectives, achieving good status by 2021 is a milestone towards this objective.

- **Aim to achieve good overall status for surface and ground waters**

Implement measures to achieve good overall status where they are technically feasible and not disproportionately costly.

5.1 Measures

We have reviewed the reasons why water bodies are failing to achieve objectives and identified required measures. Measures are divided into two groups:

National measures apply to the whole of Wales, or the United Kingdom. In general these set the legislative, policy or strategic approach. Examples include a national ban on using a particular chemical or a national strategy for prioritising and funding the remediation of abandoned mines. A list of planned national measures is available in the updated RBMP and Water Watch Wales,

Local measures are specific to the river basin district or a part of it. For example, the removal of invasive plants along a length of designated river or a local campaign targeting misconnections across an industrial estate. Many of the actions listed will also have multiple benefits. For example, sustainable urban drainage (SuDs) schemes help to reduce urban pollution, sewage pollution and changes to water levels. The table below summarises the types of local measures required for the management catchment, including those identified for protected areas.

The high level categories describe the types of action required and broadly the options that are available, including voluntary and regulatory measures. At the local scale some of the options described might not be considered appropriate. There is overlap between some categories. The table also shows the number of water bodies that require the measure type, the water body numbers in this table should be used as a guide to show the significance of the issue in the catchment, and these numbers will change through the course of the 6 year programme. Up to date Reasons for Not Achieving Good (RNAGs) data is available on WWW and should be referred to before scoping local measures.

Table 3. Summary of required local measures in the management catchment.

Measure	Description	No. of water bodies
Acidification restoration	Emissions controls and upland restoration: blocking drainage, restoring blanket bog, within forestry plantation blocking forest drains and establishing native trees within the riparian zone, liming options. Some overlap with "address air pollution".	3

.Measure	Description	No. of water bodies
Address air pollution	Emissions controls to reduce nitrogen and acidic deposition. Some overlap with "acidification restoration".	41
Address point source pollution	Investigate and regulate pollution from point sources. Overlaps with "reduce pollution from sewage discharges" and "other waste water discharges".	36
Complete first cycle investigation	All ongoing WFD investigations from first cycle programme.	2
Drainage and water level management	Investigate and implement changes to land drainage regimes and structures to restore water levels.	3
Improve fish passage and habitat	Remove or modify barriers to fish passage	35
Improve flows and water levels	Reduce impacts of regulated flows and abstractions, restore more natural flow regimes, implement options to improve water levels, such as water efficiency and recycling measures, alternative sources and supplies.	36
Manage invasive non-native species	Eradication and/or management of invasive non-native species in line with current national invasive species Action Plans. Includes biosecurity good practice, such as "CHECK-CLEAN-DRY" and Be Plant Wise.	36
Mine water and contaminated land remediation	Coal and metal mine, and contaminated land remediation - including passive and active mine water treatment, capping of spoil, removal of wastes to landfill, and channel diversion	10
Mitigate impacts of flood and coastal defences	Reduce impacts of flood defence structures and operations - improve connectivity, habitat, and morphology by implementing options through capital and maintenance programmes, such as soft engineering, opening culverts, upgrading tidal flaps, changing dredging and vegetation management. Includes the national habitat creation programme to address coastal squeeze.	2
Mitigate impacts of shipping, navigation and dredging	Assess and implement options for adapting dredging regimes and reducing the impacts of physical modifications.	3
New Investigation	Includes investigations for all new failures, deterioration, and drinking water protected areas.	60
Other sustainable land and marine management practices	Includes measures to mitigate impacts from construction and maintenance of	2

.Measure	Description	No. of water bodies
	infrastructure, including within military training sites.	
Reduce impacts of other physical modifications	Improve connectivity, habitat and morphology through soft engineering and restoration techniques.	1
Reduce pollution from other waste water discharges	Reduce pollution from other (non-sewage) point sources, both regulated and unregulated. Investigate and implement basic pollution prevention measures, including provision of up to date advice and guidance, such as correct handling and storage of chemicals and waste, management of trade effluent, and regulation.	1
Reduce pollution from septic tanks	Target actions to ensure septic tanks are maintained correctly. Where necessary issue formal works notices to owners to relocate or replace tanks and soakaways.	4
Reduce pollution from sewage discharges	Reducing pollution from continuous and intermittent discharges, includes additional treatment at sewage treatment works (e.g. phosphate stripping), investigating and tackling sewer blockages, and implementing sustainable drainage to reduce surface water drainage to sewers.	5
Specific habitat and feature works	Restoration and/or conservation of specific habitat and features, including natural (e.g. caves, geological outcrops) and human structures (e.g. bridges, ruins).	3
Sustainable access and recreation management	Reduce the impacts of erosion, disturbance and damage from both water-based and terrestrial access, including tackling illegal off-roading.	4
Sustainable agricultural practices	Implement basic and additional measures such as correct management of slurry, silage, fuel oil, and agricultural chemicals; clean and dirty water separation; nutrient management planning; buffer strips and riparian fencing; cover crops and soil management. In N2k sites changes to grazing regimes may be required, includes scrub management. Within NVZs comply with storage and spreading regulations.	49
Sustainable fisheries management	Includes measures for both freshwater and marine fisheries to reduce and mitigate impacts	1
Sustainable woodland and forestry management	Restore the riparian zone, disconnect forest drains, monitor the effectiveness of the 5	12

.Measure	Description	No. of water bodies
	principle risks associated with forestry and use forestry and woodland to reduce diffuse pollution.	
Tackle misconnections and urban diffuse pollution	Investigate and solve misconnections to surface water drains (at residential and commercial properties) and implement sustainable drainage schemes (SuDs) to reduce diffuse pollution.	1
Waste management	Includes appropriate management of spoil and sludge, illegal fly-tipping and litter	4

Details for specific local measures can be found on WWW, some examples of actions already under way include:

- Schemes to improve fish passage and habitat.
- We are reviewing discharge permits and abstraction licenses to reduce the impact on the water environment.
- Local authorities are working with us to find and resolve misconnections.
- Natural Resources Wales is improving forest management to reduce the impact of acidification and protect rivers from sediment and remove barriers to fish migration.
- Agricultural visits to provide advice and guidance. Our agricultural Catchment Officers work alongside landowners to improve land management for the benefit of the water environment.
- Minewater remediation schemes are, and will be key measures in the Teifi, Ystwyth, Rheidol and Clarach catchments.

5.2 Feedback on priorities and solutions

Concerns on current status raised as part of the consultation and at the workshop have been highlighted in Section 3, solutions and priorities were also discussed. Of the issues raised the following were flagged as priorities:

- **Flooding.**
Suggested solutions: Slow rate of upland drainage (e.g. Pumlumon 'living landscapes' project and Teifi Wildwood project which includes bog habitat regeneration and ditch blocking); embargo on further floodplain development; use floodplain for habitat creation and flood storage. Natural Flood Management.
- **Forestry – acidification.**
Suggested solutions: Liming of soil, upland lakes and rivers, as appropriate; more deciduous woodland planting.
- **Rural land management / diffuse pollution.**
Suggested solutions: Greater provision of suitable width buffer strips and green corridors; modelling run-off to identify beneficial tree-planting areas; improve policy relating to Glastir; illustrate financial savings of best practise where possible to incentivise; training volunteers for walkover surveys.
- **Abandoned mine pollution.**
Suggested solutions: Pragmatic view by regulators of standards achievable, given funding available; further research to better understand water chemistry and conservation interests.

- **Urban diffuse pollution.**
Suggested solutions: Reduction in impermeable surfacing; increased urban tree-planting; improve SUDS awareness and design integration; better regulatory tools.
- **European Beaver re-introduction.**
Suggested solutions: Controversial topic requiring solid evidence base to allay concerns over appropriate management.
- **Marine litter**
Suggested solutions: Better use of Regulations – polluter pays principle. Marine protection zones.
- **Decline in aquatic habitats and species**
Suggested solutions: restoration of peat bogs and ditch blocking to reduce sediment load, riparian habitat restoration to act as buffer strip from land runoff and help prevent erosion.

5.3 Target areas for 2015-21

We have worked across Natural Resources Wales to develop an affordable programme of local and national measures, based upon our current understanding of existing resources. Our focus is:

- Preventing deterioration in all water bodies
- Within the Western Wales RBD - improving compliance with good overall status in 21 water bodies that are currently moderate/poor, and also improving 4 poor water bodies to moderate.
- Targeting measures locally in an integrated way to deliver environmental improvements in WFD water bodies and Protected Areas, including areas protected for water habitats and species.
- Identifying where element level improvements will be achieved during the second cycle, but where further measures will be required to deliver an overall ecological status change.
- Developing our approach to natural resource management by working at a local catchment level and capturing the wider benefits delivered through WFD.

Table 4. Water bodies in the Teifi and North Ceredigion management catchment NRW will target to achieve an improvement in status by 2021

Water body ID	Name	Target status	Details
GB110062043510	Fflur - headwaters to confluence with Teifi	Good by 2021	For further information on the target water bodies please refer to WWW
GB110062039130	Hirwaun - headwaters to confluence with Teifi	Moderate by 2021	
GB110063041450	Aeron - confluence with Gwili to tidal limit	Good by 2021	
GB110063041520	Wyre Fach - headwaters to confluence with Wyre		
GB110063041530	Wyre - headwaters to tidal limit		

Investigations programme

All water bodies for which the cause of adverse impact is as yet unknown require investigation. This applies in the case of both failing water bodies and those that have deteriorated over the first cycle.

Natura 2000 programme – actions underway/planned

The RBMP programme of measures must include any measures necessary to achieve compliance with standards and objectives for Natura 2000 (N2K) sites listed in the register of protected areas.

The list below is a summary of sites where Prioritised Improvement Plans (PIP) measures are planned /underway. It does not summarise all the required actions.

(Further information can be obtained by contacting NRW:

enquiries@naturalresourceswales.gov.uk)

The number of planned actions is low partly because it is difficult to assess what might be funded beyond 2015/16. Our ambition for the second cycle will develop as opportunities/resources become available. We have identified a further 19 priority actions in the Teifi and North Ceredigion Management Catchment which can be taken forward when opportunities arise.

We have also worked with stakeholders to develop and plan a number of strategic actions to support delivery of N2K objectives. These are included within the updated Programme of Measures

The table below shows the Natura 2000 sites that have actions that are planned or underway, further information on the actions can be found on the **WWW** website.

Table 5. List of N2K sites with measure planned or underway

N2k site	Planned	Underway
Afon Teifi / River Teifi		3

Flood Risk Management Plan Actions

Further information on local measures is available in the catchment summary section of the updated FRMP.

Know Your River – Salmon and Sea Trout Catchment Plan

NRW collects a range of specific salmonid data for management purposes and this is presented in the local Salmon and Sea Trout Catchment Summaries. Salmonid specific tools, measures and data acquisition such as electrofishing results, declared catches and annual salmon egg deposition estimates are used to guide ongoing investment in fish passage and habitat restoration schemes. The summaries are updated annually and ensure that there is effective prioritisation in waterbodies to improve salmonid fisheries. The planned actions are always delivered in association with partners and contribute to enhancement and protection of this valuable resource in Wales. Further information can be obtained by contacting NRW: enquiries@naturalresourceswales.gov.uk)

Water company programme

Within the 2015 RBMP; there are a number of measures required of Water Companies. A funding allocation for these measures was included in company business plans submitted to Ofwat for the 2015-20 period. Natural Resources Wales and the Environment Agency have recently published a revised National Environment Plan detailing all water company measures. The National Environment Programme details improvements required to comply with all water quality legislation.

An outline of the measures included within this management catchment can be found in the table below, further information can be found on the **WWW** website.

Table 6. Water company investigations and improvement schemes

Water body ID	Name	Outcome
GB110062043540	Teifi - headwaters to confluence with Meurig	No deterioration scheme
GB110062039170	Arberth - headwaters to confluence with Teifi	Investigation to be carried out, where water company assets contribute to failure to achieve GES
GB110062039110	Ceri - headwaters to confluence with Teifi	
GB110062039250	Brefi - headwaters to confluence with Teifi	
Multiple	Nant y Moch and others	Investigations into risks to drinking water quality
GB651009030000	Cardigan Bay Central	Investigations into impact from assets on designated bathing beaches.

5.4 Alternative objectives

We have identified 41% of water bodies where because of the nature of the problem or the required measures we propose an extended deadline or less stringent objective (less than good). In each case we have provided a justification.

Table 7. Alternative objectives and justifications

Alternative objective	Justifications	Number of water bodies	Water body
Extended deadline	Cause of adverse impact unknown	17	Piliau - headwaters to confluence with Teifi Mwldan
			Gido - headwaters to tidal limit
			Mydyr - headwaters to confluence with Aeron
			Drywi - headwaters to tidal limit
			Arth - headwaters to tidal limit
			Aeron - headwaters to confluence with Gwili
			Mynach - headwaters to confluence with Rheidol
			Castell - headwaters to confluence with Rheidol

Alternative objective	Justifications	Number of water bodies	Water body
			Llechwedd Mawr - HW to Nant y Moch reservoir Cwmnewydion - headwaters to conf with Ystwyth Magwr - headwaters to confluence with Ystwyth Llanfihangel - headwaters to conf with Ystwyth Nant-y-moch Reservoir Llyn Llygad Rheidol Llynnoedd Ieuan Pond y Gwaith
	Ecological recovery time	5	Mynach - headwaters to confluence with Rheidol Rheidol - conf with Llechwedd-mawr to conf with Castell Llechwedd Mawr - HW to Nant y Moch reservoir Hengwm - headwaters to Nant y Moch reservoir Ystwyth - headwaters to conf with Cwmnewydion
Less stringent objective	Background conditions	2	Mynach - headwaters to confluence with Rheidol Llechwedd Mawr - HW to Nant y Moch reservoir
	Unfavourable balance of costs and benefits	4	Melindwr - headwaters to confluence with Rheidol Bow Street Brook - headwaters to conf with Clarach Hirwaun - headwaters to confluence with Teifi Llyn Hir
	No known technical solution is available	2	Teifi and Coastal Ceredigion North Ceredigion Rheidol Area

5.5 Opportunities for partnerships

There are several external funding opportunities, which could support projects that contribute towards Water Framework Directive outcomes. Each fund has its own priorities, budgetary allocation and application process. Types of funding for consideration include:

- Lottery funding – such as Heritage Lottery Fund, Postcode Lottery and BIG Lottery Fund which have a range of programmes from £5000 up to £millions.
- Charities, trusts & foundations – there are many of these operating and they often have a specific focus – either geographically or topically and will support local charities and projects.
- Businesses and sponsorship opportunities – including making the most of the Welsh carrier bag charge!

- Public bodies – local authorities, Welsh Government, UK Government and NRW may have annual funding opportunities or one-off competitions for their priority areas.
- Crowd funding – gathering support from a wide range and number of funders, often including individuals and usually using the internet to raise awareness for a specific project needing funds.
- Trading – increasingly funders are looking to support organisations with longer term sustainability in mind so developing trading opportunities can be something to consider too.

Your local County Voluntary Council and Wales Council for Voluntary Action will have up to date information on opportunities such as these as well as a host of other support available.

6. Water Watch Wales

During the implementation phase of the 2009 RBMP many of our partners and stakeholders requested access to data and information to assist them in helping to deliver local environmental improvements. Many stakeholders felt that the first plan was difficult to navigate and access information at a local scale. Consequently with both the support and input from the river basin district liaison panels a web based tool has been developed called **Water Watch Wales**. This is an interactive spatial web-based tool that provides supporting information and data layers.

We will continue to develop this tool and see it as a critical link between the more strategic RBMP and local delivery. It enables the user to access information on:

- classification data at the water body scale
- reasons for not achieving good status
- objectives
- measures/actions, including protected area information
- partnership projects

Data can be retrieved in a number of formats (spreadsheets and summary reports). A user guide together with frequently asked questions is included with the tool and can be accessed from a link on the home page.

Link to home page: waterwatchwales.naturalresourceswales.gov.uk



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