



Calopteryx splendens (Tristan Hatton-Ellis, CNC)

Living Waters for Wales

Supporting information for
Wales' Challenges & Choices consultation

Introduction

Healthy catchments provide clean water for consumption, agriculture and industry; they protect property and people from flood and coastal erosion risk; they provide recreation opportunities and support tourism; they provide habitat for fish, other wildlife and plants; they make Wales a better place to live and work today and for future generations.

Restoring our water environment and securing the ecosystem services it provides for the people of Wales are Welsh Government priorities. Natural Resources Wales (NRW) will lead this effort by taking an integrated ecosystem approach to managing land, water and living resources to achieve the sustainable use of the natural environment.

The creation of NRW is an opportunity to review our approach to delivering the Water Framework Directive (WFD) in Wales. This updated version of Living Waters for Wales (LWW) begins to explain how we aim to take an ecosystem approach to deliver the requirements of WFD and restore catchments and the related water environment.

Our goal is not simply to deliver the WFD, but to integrate planning and delivery of objectives for Protected Areas - these are those sites and objectives designated under other European legislation (e.g. Habitats & Birds Directives, Bathing Waters, Nitrates, Shellfish Waters, Freshwater Fish, Urban Waste Water, Article 7 Drinking Waters). For example, the actions required to achieve favourable conservation status under the Habitats Directive, or improve the quality of bathing waters, or reduce drinking water treatment costs are in some cases the same, or complementary, to the actions required to meet WFD Good Ecological Status. We will also aim to coordinate and link WFD planning and delivery with our implementation of the Floods Directive.

How will sustainable improvements be delivered?

NRW will work with others to embed the ecosystem approach and integrated catchment management. This will secure the services provided by healthy aquatic ecosystems and deliver greater benefits for the people and wildlife of Wales.

NRW are delivering an ongoing programme of investigations to identify the reasons water bodies fail to meet their objectives, and developing information to better understand the key pressures that threaten our ecosystems, such as invasive non-native species. We are working with co-deliverers to ensure our evidence base is robust and that we develop and target cost-effective solutions.

We must all take action to improve the water environment in Wales. Land managers, farms, businesses, industry, water companies, local authorities, planners, governmental bodies, non-governmental organisations, and individuals must commit to fundamentally changing our relationship with water and the environment it supports.

Where possible, existing mechanisms will deliver improvements. For example, our Restoring Sustainable Abstraction programme is identifying and addressing the impact of abstractions on WFD objectives. Public Authorities are required to have regard to measures and objectives within the River Basin Management Plans (RBMPs). This means embedding them within strategic and operational work programmes.

Restoring the water environment in Wales will take decades, we need to monitor and report our progress regularly. To do this we report annually on the state of the water environment.

What is Living Waters for Wales?

The release of this version of LWW is timed to support the 'Challenges and Choices' consultation on the Significant Water Management Issues for Wales' three WFD River Basin Districts (i.e. Western Wales, Dee and Severn) on 22 June 2013.

LWW is a 'live' document that is regularly updated. It has been developed with contributions from members of Wales' River Basin District liaison panels and Welsh Government's WFD stakeholder forum,

and is informed by the first NRW Business Plan, which outlines the emerging priorities for our first Corporate Plan.

This version begins by summarising updated WFD 'reasons for failure' data from our ongoing investigations programme. It provides information on the strategic and local measures to address the top 10 reasons for failure. It concludes by presenting maps highlighting the spatial relationship between WFD water bodies and Protected Areas, and provides a summary of requirements for the Floods Directive.

LWW document is not part of the formal consultation.

What next?

Please contribute to make the second cycle of River Basin Management Plans more ambitious, and turn our shared ambition into collective action.

You can respond to the Challenges & Choices consultations through our website

If you have any questions about this document or the consultation please email:

jill.brown@cyfoethnaturiolcymru.gov.uk

Or you can contact our Customer Contact Centre on 0300 065 3001.

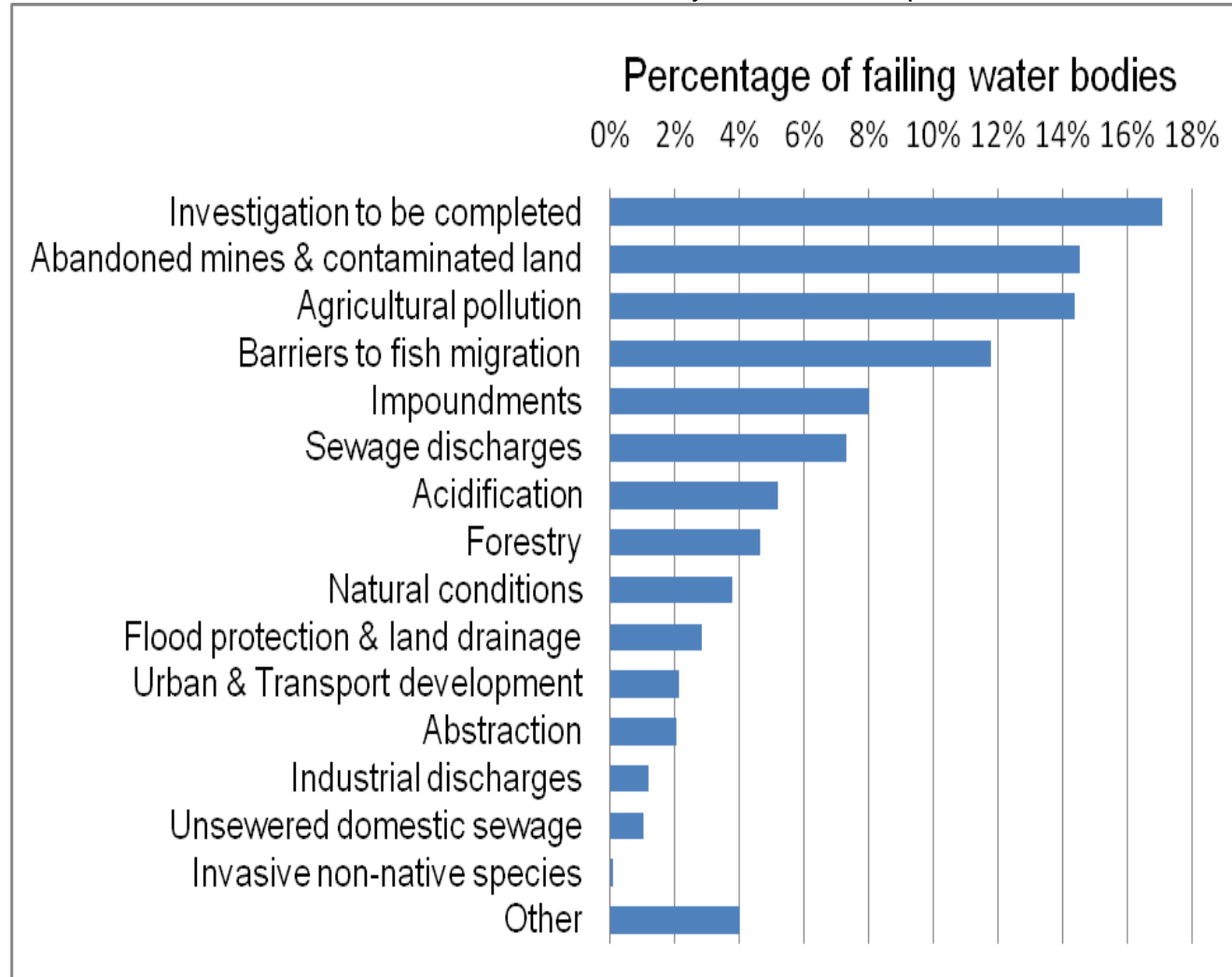
What information is provided in Living Waters for Wales?

We will refresh information in this document as progress is made in developing our evidence base and delivering environmental improvements.

An overview of the main issues impacting aquatic ecosystems in Wales This information is based on evidence collated from our Reasons For Failure investigations (February 2013).	Page 5
Summaries for each of the top 10 issues. Each page includes: <ul style="list-style-type: none">• a description of the issue, including the percentage of failing water bodies affected• a map showing the failing water bodies affected by the issue• a vision for achieving sustainable improvements• the local and strategic solutions and the roles of different organisations• how much progress we think can be made in delivering solutions and improvements by 2015.	Pages 6 to 16
An overview of No Deterioration, Protected Areas and the Floods Directives.	Pages 17 to 23

Reasons for Failure in Wales

63% (672 of 1075) of water bodies are failing
- a water body can have multiple reasons for failure



This summary is based on data from February 2013. It includes Reasons for Failure data from 2009 onwards for all types of water body (i.e. rivers, lakes, transitional, coastal and ground waters).

- Determining **water body status** and reasons for failure is complex and our understanding changes through time. Even water body numbers and boundaries change as we learn more.
- We monitor different '**elements**' (e.g. fish) for different water bodies. When an element '**score**' is lower than expected, that element causes the water body to fail.
- We then collect **evidence** to determine why the element is failing- these are the 'Reasons for Failure'. A water body can fail for more than one element, and an element can fail for more than one reason.
- Our level of understanding determines our **certainty** about a Reason for Failure: 'Confirmed' = compelling evidence, 'Probable' = reasonable evidence, 'Suspected' = suggestive evidence.
- We also consider the **severity** for the Reason for Failure-whether we think it is having a major or minor impact on the failing element.
- **This figure includes a category for 'ongoing investigations' and data for all levels of certainty and severity. It includes few data for coastal /transitional waterbodies. It provides a general overview of the issues affecting the water environment in Wales.**

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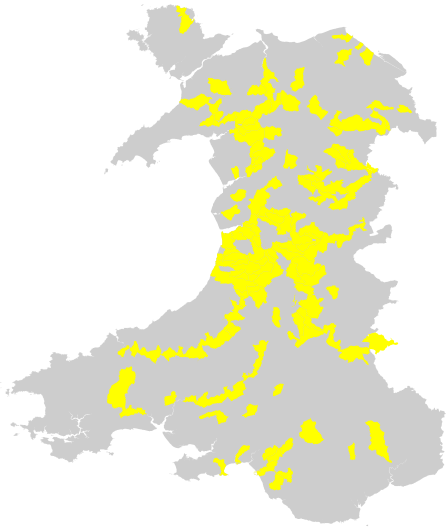
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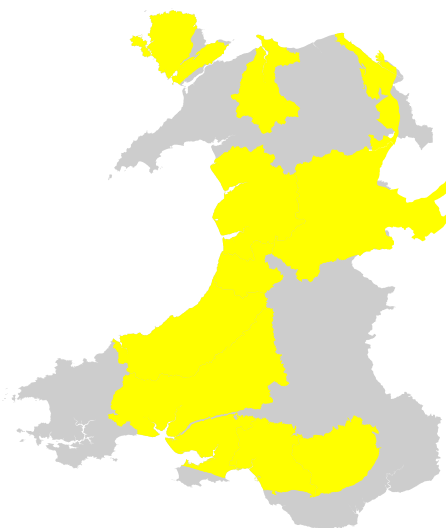
1. Abandoned mines & contaminated land

Nearly 15% of failures are related to diffuse and point source pollution from abandoned mines and contaminated land.

Map of surface water failures



Groundwater failures



What do we want to achieve?

We want to mitigate the impacts of contaminated land and abandoned mines on the water environment through a strategic work programme across Wales. It will take decades to address all the issues and we will prioritise actions that deliver the best ecological, social and economic outcomes for society's investment.

What are the local solutions?

- The Coal Authority is delivering the coal minewater prevention and remediation programme.

- NRW is working with third sector organisations to deliver small-scale remediation projects, and to provide pollution prevention guidance for abandoned mines to landowners and users.
- NRW and the Coal Authority are working together to deliver remediation projects at priority sites.
- Local Planning Authorities and developers are ensuring that the risks posed to groundwaters from land contamination are mitigated and remediation is put in place where necessary.
- NRW is providing support and guidance to Local Authorities at area contaminated land forums.

What are the strategic solutions?

- NRW is developing pollution prevention guidance for abandoned mines.
- NRW is delivering the Metal Mines Strategy for Wales, which identifies priority sites for remediation and develops proposals to secure funding.
- The Coal Authority and NRW are working in partnership to deliver the non- coal mines programme.
- NRW is working with The Environment Agency and academic partners to develop sustainable remediation techniques.
- NRW is facilitating the Welsh Land Contamination Working Group to develop and disseminate best practice guidance and training.

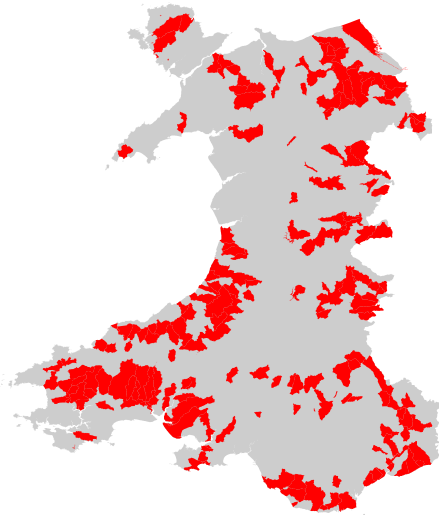
How far will we get by 2015

- Two minewater remediation schemes will be delivered, and improvements to an existing scheme will be made to prevent deterioration.
- By 2015 the Metal Mine Strategy for Wales will be updated to set future remediation ambition for the 2nd RBMP.

2. Agricultural Pollution

Approximately 14% of failures are related to agricultural activities, including livestock poaching, erosion of river banks and fields, run-off from grassland and arable fields, tracks and the farm yard, and the poor management of slurry.

Map of surface water failures



Groundwater failures



What is the outcome we need to achieve?

We want to strengthen regulatory, financial and operational mechanisms that support a sustainable agriculture sector that protects the water environment and helps deliver the full range of ecosystem services that provide financial, social and ecological benefits to Wales.

What are the local solutions?

- NRW and Rural Inspectorate for Wales are working together to conduct targeted farm visits.
- NRW, Farming Connect, Farming Unions and Third Sector Organisations are delivering targeted local advice campaigns to promote good land management practices including: improved slurry

management, the creation of mid-slope and riparian buffer strips, better stock management, woodland restoration and wetland creation.

- NRW responds to pollution incidents and take necessary regulatory actions (e.g. compliance with the Silage, Slurry & Agricultural Fuel Oil Regulations and Nitrate Vulnerable Zones).

What are the strategic solutions?

- NRW is working with Welsh Government to influence Common Agricultural Policy (CAP) reform and identify opportunities arising from potential changes to cross compliance.
- NRW is working with Welsh Government to identify interventions that will allow the next Rural Development Plan to support sustainable agriculture and improve the water environment.
- NRW is working with Welsh Government to consider how 'general binding rules' might help the agriculture sector adopt sustainable land management practices that protect the water environment.
- NRW is working with Farm Assurance and key buyers to develop Environmental Management Systems (EMS) for farms.
- NRW is developing advice & guidance to minimise the impacts of farm tracks & livestock poaching.
- Farming Unions, NRW and others are developing a coordinated approach to delivering advice campaigns.
- Welsh Government is targeting Glastir incentives to deliver improvements in failing water bodies.

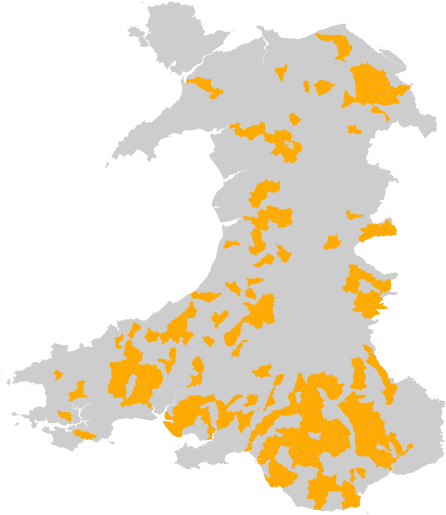
How far will we get by 2015?

- The agricultural sector will have a better understanding of how their activities impact on the water environment and take opportunities to deliver solutions.
- Rural land managers will be incentivised to deliver the full range of ecosystem services (e.g. clean water, reduced flood risk, habitat for fish and wildlife) associated with sustainable agriculture and healthy water environments.
- Welsh Government's woodland creation target of 5,000ha/year will be aligned to support strategic woodland management that benefits the water environment and delivers ecosystem services.

3. Artificial barriers to fish migration

Nearly 12% of failures are related to physical modifications to rivers, such as weirs, bridge footings and culverts that interfere with fish and eel migration.

Map of surface water failures



What do we want to achieve?

We want to remove artificial structures that impede fish migration along the length of rivers and streams, from source to sea. Where the removal of a structure is deemed too expensive or inappropriate, we want to put in place fish passage solutions that help mitigate the impacts.

What are the local solutions?

- NRW and Third Sector Organisations, such as the Rivers Trusts and angling clubs, are working together to identify and prioritise barriers for removal or fish passage solutions.
- NRW is implementing the Eels (England and Wales) Regulations 2009 Statutory Instrument, which requires eel passage and screening

solutions for publicly and privately owned assets, including impoundments and abstractions, across Wales.

- NRW is working with Hydro-electric Power (HEP) developers to minimise the impacts of schemes on fish migration and to identify opportunities where schemes can improve fish passage.
- Local Planning Authorities are ensuring planning applications that include impoundments, such as HEP proposals, take into consideration the WFD and other relevant legislation.

What are the strategic solutions?

- NRW is prioritising its assets, such as flow gauging stations and culverts, that impede fish or eel migration and delivering solutions through capital expenditure programmes.
- NRW is identifying un-owned structures that impede fish migration and working with partners to secure funding to deliver solutions.
- New Fish Passage Regulations being discussed in Parliament would give NRW additional powers, and others additional responsibility, to resolve fish passage issues on existing and new structures.

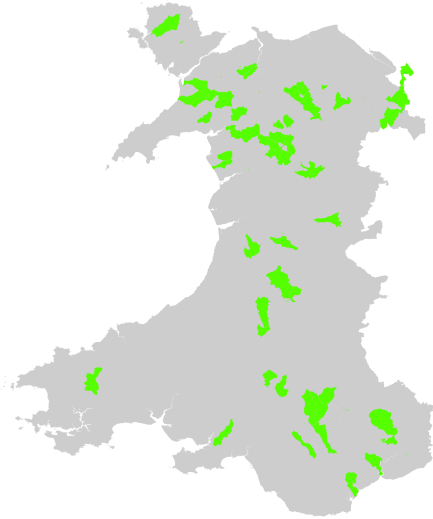
How far will we get by 2015?

- NRW and Rivers Trusts will deliver the Salmon 4 Tomorrow programme. NRW alone will deliver 24 fish passage and habitat improvement projects improving access to over 500km of river.
- NRW will deliver eel passage (and screening) solutions at priority structures.
- Partners will work together to develop fish passage project proposals for future funding rounds.

4. Impoundments

Approximately 8% of failures are related to weirs and dams that impound and regulate the flow of rivers. These structures can change both the physical form of the river channel and banks, and river flows, impacting water bodies both up and downstream.

Map of surface water failures



What do we want to achieve?

We need to ensure impoundments and associated abstractions are managed to minimise their impact on the water environment. We need to reduce the need for new impoundments by reducing water use, and where they are required ensure their environmental impacts are minimised.

What are the local solutions?

- NRW is working with impoundment owners and operators to assess impacts and possible mitigation measures such as: removing redundant structures, re-engineering structures to allow more natural sediment transport patterns, altering water release patterns to improve the downstream habitat, and restoring in channel habitat to mitigate the impacts of impoundments.

What are the strategic solutions?

- NRW and water companies are identifying opportunities to remove or alter impoundments and adjust operations to reduce their impact on the water environment. Impoundment owners and operators are identifying actions to progress, and where appropriate seek funding for mitigation measures (e.g. through water company asset management plans)

How far will we get by 2015?

- NRW will have worked with impoundment owners to identify possible changes to structures and their operation and assessed the feasibility, costs and benefits and impact on use of implementing changes.
- NRW will have identified where further investigation is required to assess the environmental impacts of impoundments and possible mitigation measures.

5. Sewage discharges

Approximately 7% of failures are related to pollution from sewage discharges. Organic and chemical pollution from continuous discharges (e.g. sewage treatment works) and combined sewer overflows (which discharge during heavy rainfall events) both contribute to this issue.

Map of surface water failures



What do we want to achieve?

All sewerage systems are maintained and improved so they operate effectively and their impacts on the water environment are minimised. Solutions to combined sewage overflow problems that incorporate ecosystem service delivery are embedded in sustainable development planning across Wales (e.g. Water Sensitive Urban Design). Public awareness is increased to reduce the introduction of harmful substances (e.g. paint, oil, etc.) into sewage systems.

What are the local solutions?

- NRW, water companies and other permit holders are working together to ensure discharges do not compromise water quality objectives and that solutions help deliver water quality dependent ecosystem services.
- NRW, Local Authorities and water companies are working with householders and businesses to address misconnections that release untreated waste water to the environment.
- LPAs are working with NRW to ensure planning applications do not negatively impact required water quality outcomes.
- Water companies are delivering actions that improve sewage effluent discharges as part of their Asset Management Programmes.
- WSUD approaches are reducing surface run off and the frequency and severity of combined sewer overflow events.

What are the strategic solutions?

- NRW is ensuring that discharge consents have conditions which protect the water environment and related ecosystem services.
- NRW is working with water companies to ensure that investment programmes deliver required environmental benefits.
- LPAs are working with water companies and NRW to implement sustainable development plans that account for sewerage pressures.
- LPAs are working with developers, sewerage undertakers and NRW so Local Development Plans (LDPs) ensure there is sufficient sewer and environmental capacity to accommodate development.
- Water companies are working to develop and deliver catchment management options that improve water quality improvements and deliver additional ecosystem services.
- WG is working to develop a regulatory framework that encourages sustainable, innovative solutions to waste water management.

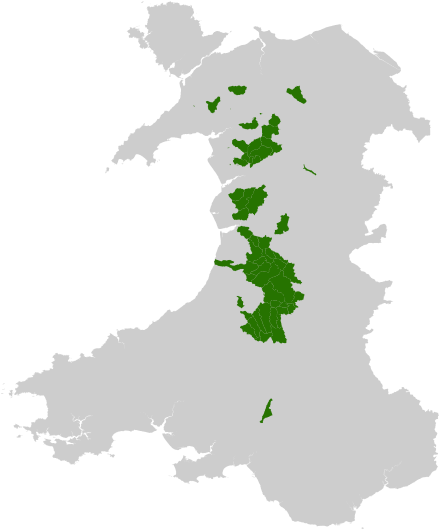
How far will we get by 2015?

- By 2015 Dwr Cymru Welsh Water and Severn Trent asset management plans will have improved water quality in 181 km of river and hundreds of km² of coastal water in Wales.
- The 2015-20 asset management plans will delivery additional WFD outcomes related to sewage discharges.

6. Acidification

Approximately 5% of failures are related to acidifying pollutants reaching sensitive soils. Closed canopy afforestation and changes to drainage have increased the risk and scale of the impacts associated with acidification.

Map of surface water failures



What do we want to achieve?

We want land use practices to contribute to sustainable, long term increases in water pH in areas where natural ecological processes are compromised by acidification. We will continue to regulate emissions of acidifying pollutants to allow the water environment to recover.

What are the local solutions?

- NRW is placing appropriate limits on air emissions from sites covered by the Environmental Permitting Regulations.
- NRW is working with partners and Universities to identify impacted sites and carry out long term monitoring to understand recovery.
- NRW will manage its land holdings in a manner that supports natural recovery of areas affected by acidification.
- NRW and Rivers Trusts will review and adopt learning from the systematic review on the effectiveness of liming to ensure such interventions deliver sustainable environmental improvements.

What are the strategic solutions?

- NRW, forest owners, managers and operators follow guidelines for managing forestry in acidified catchments (Forest & Water Guidelines 5th edition).
- NRW is working with Welsh Government, industry, third sector organisations and scientific bodies to develop a clear strategy for acidification in Wales.
- NRW is working with researchers to communicate relevant evidence and potential solutions, and to identify and fill evidence gaps.
- NRW is developing a new acidification risk assessment to inform the second RBMPs.

How far will we get by 2015?

- NRW will work with others to develop an evidence based strategy for delivering sustainable improvements in catchments impacted by acidification during the second RBMPs.

7. Forestry

Nearly 5% of failures are related to forestry activities. Whilst woodlands provide an array of benefits to the water environment, and the restoration of stream side native woodlands is a priority, commercial forestry activities can harm the water environment. In addition to acidification (issue 6), the main impacts of forestry are diffuse pollution (sediment run off during harvesting and planting), road culverts that interfere with fish migration, and the potential impacts of using cypermethrin for pest management.

Map of surface water failures



What do we want to achieve?

Forestry management benefits the water environment and delivers ecosystem services such as reduced diffuse pollution, reduced flood flows, clean drinking water, habitat for fish and wildlife, and shade to mitigate the impacts of climate change.

What are the local solutions?

- NRW and private forestry operators are taking actions to reduce the risk of pollution.
- NRW and private forestry operators are delivering solutions where their activities and infrastructure interfere with fish migration or increase the effects of acidification, for example forest drains are directly connected to watercourses.
- NRW, the forestry sector and third sector organisations are planting trees to restore native woodlands that benefit the water environment (e.g. strategic upland shelter belts and riparian zone woodlands).

What are the strategic solutions?

- NRW, forest owners, managers and operators are adhering to the 5th Edition of the Forest & Water Guidelines, including the practice guide for managing forestry in acid sensitive catchments.
- The forestry sector is expanding native broadleaf planting in riparian areas as part of forest design plans.
- Welsh Government is targeting Glastir Woodland Management incentives to deliver improvements to the water environment.
- NRW is reviewing advice on the planning and design of forest tracks and drains.

How far will we get by 2015?

- NRW will develop an action plan for priority sites on the Welsh Government Woodland Estate and those receiving woodland grants.
- NRW will develop a strategy with the forestry sector for the managing the five principal risks of commercial forestry (acidification, sedimentation, pesticides, barriers to fish migration and inappropriate riparian management).

8. Flood Protection & Land Drainage

Nearly 3% of failures are related to land drainage and structures and activities intended to protect people and property from flooding. Examples include flood walls, elevated banks, dredging channels, riparian zone vegetation removal and draining land for agricultural use.

Map of surface water failures



What do we want to achieve?

We want to continue developing a holistic, ecosystem approach to flood risk management that protects people and property, and also provides economic, social and environmental benefits. Where appropriate we want to reduce flood risk using interventions that benefit the water environment and deliver complementary ecosystem services such as recreation opportunities, improved water quality, and habitat for fish and wildlife, but we realise that this will not be possible everywhere. Examples include wetland and wet woodland creation, upland restoration to reduce runoff, urban green spaces that reduce surface flooding, and reconnecting rivers with their floodplains.

What are the local solutions?

- NRW and other owners and operators are assessing flood protection structures and land drainage activities to identify opportunities to mitigate impacts and deliver benefits.
- Lead Local Flood Authorities (LLFAs) and NRW are ensuring proposed flood protection structures and operations do not lead to deterioration and where appropriate incorporate mitigation measures.
- NRW is working with Internal Drainage Boards (IDBs), LLFAs, LPAs and National Parks to adapt land drainage and development activities to minimise impacts and deliver benefits.
- LPAs and National Parks are the decision makers who, in conjunction with the advice of NRW and other organisations, ensure inappropriate development does not occur in flood risk areas including natural flood plains.

What are the strategic solutions?

- NRW, LPAs, LLFAs and land owners are ensuring managed realignments of flood defences deliver environmental improvements where appropriate (e.g. saltmarsh and wetland creation).
- Future SuDS (Sustainable Drainage Schemes) Approval Bodies will deliver solutions that reduce surface water runoff and associated flood risks and improve water quality.
- NRW is working with Welsh Government to advise land owners and IDBs on sustainable land drainage and upland management.
- Welsh Government's IDB review and agri-environment funding is supporting land management activities that reduce flood risk and benefit the water environment.
- We will deliver our Flood and Coastal Risk Management functions in a manner that contributes to the holistic management of our natural resources reflecting the ecosystem approach where we can.

How far will we get by 2015?

- NRW and other owners will have worked together to understand the reasons for failure and will be progressing identification of possible changes to flood protection and land drainage structures.

9. The built environment: urban & transport development

Approximately 2% of failures are related to the built environment, which includes physical modifications of channels and banks (e.g. concrete banks and culverts), sewage misconnections, and diffuse pollution from roads, industrial and domestic infrastructure. Failures for this issue can overlap with those due to artificial barriers (issue 3) and flood protection (issue 8).

Map of surface water failures



What do we want to achieve?

We want to minimise the negative impact of historic and future development on the water environment. We want to put the ecosystem approach and ecosystem services at the centre of urban planning. By using sustainable drainage systems, restoring riparian corridors, providing public green spaces, raising awareness and changing behaviour, we will work together to benefit the water environment to improve the quality of life in the urban areas of Wales.

What are the local solutions?

- NRW is supporting LAs, communities and third sector organisations to restore urban rivers by removing redundant weirs, planting riparian trees, and creating 'green' space (e.g. Greener Grangetown).
- A range of groups are delivering targeted campaigns to business and industry to promote behaviours and actions that improve the water environment (e.g. Clear Streams Swansea).
- LAs, local communities and Welsh Water are resolving diffuse pollution and misconnection issues.
- LPAs are taking regard of River Basin Management Plans in their planning decisions to protect and enhance the water environment.
- Government Agencies at all levels are working together with developers to help them embed ecosystem service delivery into the planning and design of the built environment (e.g. incorporating sustainable drainage schemes to reduce urban run off and improve water quality).
- NRW is supporting third sector delivery of awareness building and behavioural change projects (e.g. Keep Wales Tidy's Yellow Fish Campaign)

What are the strategic solutions?

- NRW is working with Welsh Government and others to promote and embed the use of Water Sensitive Urban Design (WSUD) into planning policy and devolved building regulations.
- The development of SUDS approval boards will help provide consistent advice for planning activities.
- NRW are working with the Welsh Local Government Association (WLGA) to develop WFD guidance for LAs.

How far will we get by 2015?

- We will have taken opportunities to work in partnership with LAs, planners, developers, water companies, land managers (e.g. housing associations), communities and others to develop and deliver innovative solutions within the built environment.
- We will have developed case studies and evidence to inform and promote Water Sensitive Urban Design within Wales.

10. Surface Water Abstractions

Approximately 2% of failures are related to abstraction of water for domestic use, agriculture, industry and navigation.

Map of surface water failures



What do we want to achieve?

We want to ensure current and future abstraction licences protect the water environment. We want to deliver interventions (e.g. in-channel habitat improvement) that mitigate the impacts of abstraction on the water environment. We want to improve water use efficiency to reduce the need for additional abstraction in the future.

What are the local solutions?

- NRW is identifying sites impacted by abstraction and changing licence conditions as part of the Restoring Sustainable Abstraction programme.
- NRW is working with abstractors to achieve as much improvement as possible at sites where the ecological benefits of the proposed solutions do not justify the required investment.
- NRW is using the best available evidence to ensure new abstraction licences protect the water environment.
- Water users adopt water efficiency measures and where appropriate (e.g. rain water harvesting).
- DCWW is encouraging water efficiency measures through information campaigns and by providing free installation of water meters for domestic users.

What are the strategic solutions?

- Water companies are working with NRW and OFWAT to secure funding for required licence changes through the Price Review process.
- NRW is working with the Welsh Government to bring currently exempt abstraction activities under regulatory control.
- Welsh Government's forthcoming Water Strategy will provide strategic direction for coordinated action to reduce water consumption in Wales.

How far will we get by 2015?

- NRW will have investigated all water bodies failing due to abstraction. The identified solutions will be prioritised for delivery during the second cycle of RBMPs.
- NRW will have changed all abstraction licences where there is risk of damage at Habitats Directive sites.

Overview of No Deterioration, Protected Areas and Floods Directive

No Deterioration

Protecting the water environment from deterioration is one of the Water Framework Directive's (WFD) key principles. To achieve this we are developing our understanding of the significant pressures that are acting now and may act in the future. Invasive non-native species (INNS) are an example of a significant pressure in Wales, for which we need to build our evidence of impacts now and potential impacts in the future. During the development of the second RBMPs we will identify the actions we need to take to minimise the risk of deterioration.

Protected Areas

The (WFD) is one of several European Directives which sets objectives for protecting and restoring aquatic ecosystems, and securing water related ecosystem services. The sites designated under these Directives are referred to as Protected Areas. WFD Article 4.2 states "*where more than one... objective... relates to a given body of water, the most stringent shall apply.*"

The European Commission has recognised the need to better integrate the planning and delivery of these Directives. The formation of NRW and Welsh Government's focus on the ecosystem approach to sustainable development provides an ideal opportunity to meet this challenge in Wales.

For each Protected Area a map shows the coincident WFD water bodies. In the maps WFD water bodies are colour coded by status:

green = Good Ecological Status/Potential

red = less than Good

The maps do NOT show whether a Protected Area is meeting its specific objectives.

These maps help highlight the opportunities and challenges for integrating planning and delivery of Protected Areas in Wales.

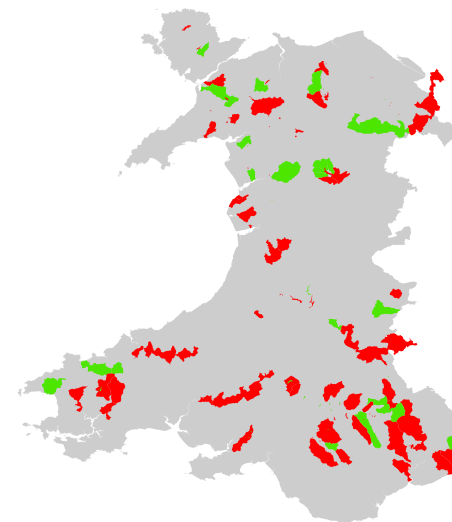
Achieving integrated planning and delivery across complementary Directives will take time. With its small size and the formation of a single environmental body, Wales has an opportunity to 'lead Europe' in integrated delivery. We will all need to work together to achieve this goal.

Drinking Water Protected Areas (WFD Article 7)

Article 7 of WFD establishes Drinking Water Protected Areas (DrWPAs) to ensure drinking water quality, to avoid deterioration in water quality, and to reduce the level/cost of purification treatment required in producing drinking water.

In Wales 144 WFD water bodies coincide with DrWPAs; 92 of these water bodies are failing Good Ecological Status/Potential.

Status of WFD water bodies located in DrWPAs

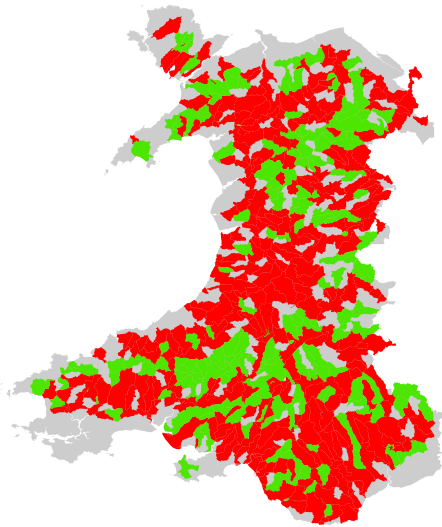


Freshwater Fish Directive (FFD)

The FFD establishes Freshwater Fish Waters (FFWs) to protect or improve the quality of freshwaters for fish that are important components of native biodiversity or judged to be desirable for water management purposes. The FFD will be repealed in 2013, at which point designated FFWs must be afforded the same level of protection as given by the FFD.

In Wales 540 WFD water bodies coincide with FFWs, 338 of these water bodies are failing Good Ecological Status/Potential.

Status of WFD water bodies located in FFWs



Shellfish Water Directive

The SWD establishes Shellfish Waters (SWs) to protect and, where needed, improve the quality of water in order to support shellfish (bivalve and gastropod molluscs) life and growth and contribute to related products directly edible by humans. Compliance is achieved by meeting guideline water quality standards. The SWD will be repealed in 2013, at which point designated SWs must be afforded the same level of protection as given by the SWD.

In Wales 25 WFD water bodies coincide with SWs; 15 of these water bodies are failing Good Ecological Status/Potential.

Status of WFD water bodies located in SWs

Bathing Waters Directive (BWD)

The current BWD establishes Bathing Waters (BWs) to protect the environment and human health whilst bathing. From 2015, the objective of the revised BWD will be to preserve, protect and improve the quality of the environment and to protect human health by complementing the WFD. The revised BWD will have more stringent requirements.

In Wales 109 WFD water bodies coincide with BWs; 83 of these water bodies are failing Good Ecological Status/Potential.

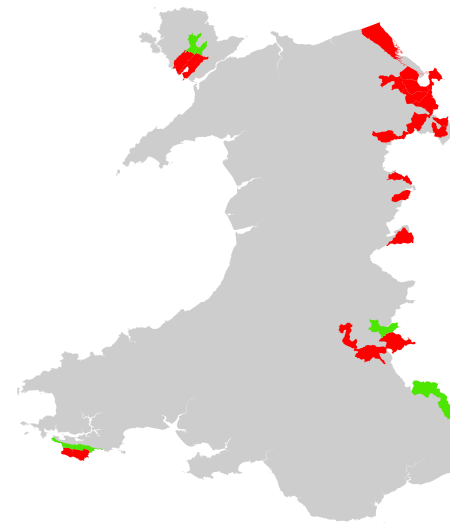
Status of WFD water bodies in/adjacent to BWs

Nitrates Directive (ND)

The objectives of the ND are to reduce water pollution caused by nitrates from agricultural sources and prevent further pollution. Where necessary, the ND established Nitrate Vulnerable Zones (NVZs) comprising all land draining into 'polluted waters, in which agricultural practices (e.g. slurry spreading rates) must be modified to reduce the nitrate losses to the environment.

In Wales 25 WFD water bodies coincide with NVZs; 19 of these water bodies are failing Good Ecological Status/Potential.

Status of WFD water bodies in NVZs



Urban Waste Water Treatment Directive (UWWTD)

The objectives of the UWWTD is to protect the environment from the adverse effects of urban waste water discharges from sewerage and other industrial sources. The Directive establishes Nutrient Sensitive Areas (NSAs) where there is evidence of eutrophication or surface water abstractions are affected by elevated nitrate concentrations. Designation requires actions be taken to reduce and/or prevent further pollution caused by nutrients. NSA objectives are achieved by ensuring discharges from sewage treatment plants meet the standards of the Directive.

In Wales 19 WFD water bodies coincide with NSAs; 15 of these water bodies are failing Good Ecological Status/Potential.

Status of WFD water bodies in NSAs



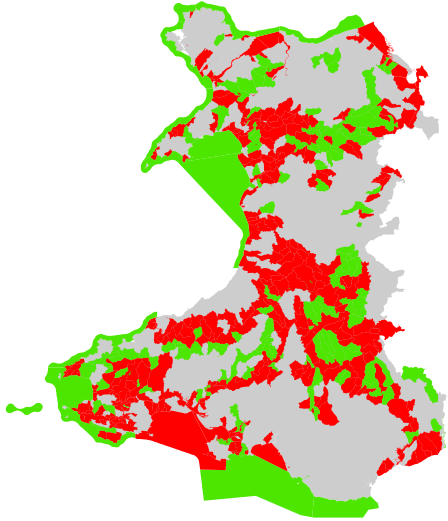
Habitats and Birds Directives

The Habitats and Birds Directives form the backbone of the EU's approach to protecting Europe's most valuable species and habitats. The Protected Areas designated under these directives form the Natura 2000 (N2k) network. They are the central tool for bringing protected species and habitats into a favourable conservation status. Both these directives and the WFD aim at ensuring healthy aquatic ecosystems, while at the same time ensuring a balance between water/nature protection and the sustainable use of nature's natural resources.

NOTE: There are many synergies for how these directives are implemented and the WFD has a specific requirement to deliver action on water dependant N2K sites. The following section outlines the relevance of the Habitats and Birds Directives in the context of WFD and RBMP Annex D actions/measures.

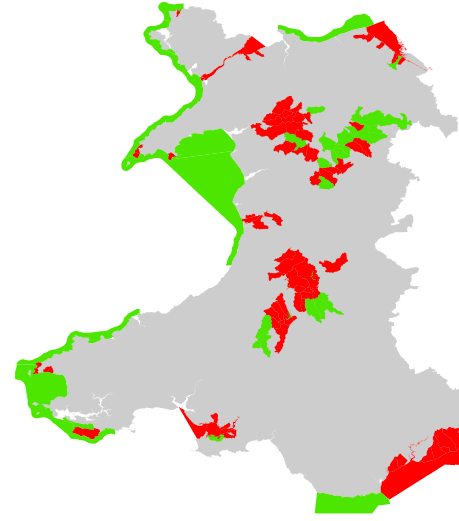
In Wales 520 WFD water bodies coincide with N2k (Habitats) sites; 348 of these water bodies are failing Good Ecological Status/Potential.

Status of WFD water bodies in water dependent N2K (Habitats) sites



In Wales, 139 WFD water bodies coincide with N2k (Birds) sites, 97 of these water bodies are failing Good Ecological Status/Potential.

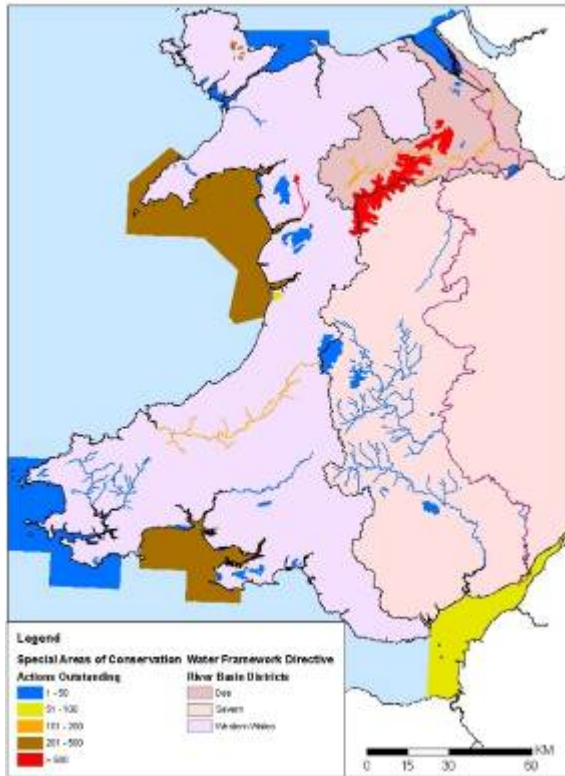
Status of WFD water bodies in N2K (Birds) sites



Progress delivering Natura 2000 (N2k) actions during the first RBMPs

Currently 65 of 76 Special Areas of Conservation and 4 out of 8 Special Protected Areas with water dependent features have WFD 'Annex D' actions 'underway' or 'complete' that will maintain them or bring them into recovering or favourable condition. This equates to 23% (by area) of Welsh N2K protected areas.

Map of N2K sites **not** in favourable condition



What do we want to achieve?

Bring N2K sites into favourable condition by identifying and reducing impacts from water pollution, invasive species, flood risk management, land use and other activities.

What are the local solutions?

- Many of the solutions to improve WFD water body status will contribute to improving the condition of N2K sites.
- Engaging local partners through workshops and other mechanisms will help clarify and prioritise any additional specific local N2K actions.
- NRW officers, LAs, local communities, third sector and other groups to identify collaborative project opportunities | delivering multiple outcomes for the WFD Annex D actions that have been identified.
- NRW operational teams and partners ensure proposed Annex D actions are appropriate, planned, delivered and then reported in accordance with WFD reporting requirements.

What are the strategic solutions?

- Many proposed solutions for WFD water bodies will support actions needed to improve N2K sites. NRW and other partners need to coordinate planning and delivery of strategic solutions that they are responsible for. As examples, NRW is working with Welsh Government and others to resolve strategic air quality and diffuse pollution issues as a way to deliver relevant WFD Annex D actions/measures within in the three Welsh RBMPs.
- NRW will work with and help others - particularly WG and local authorities – to deliver the substantial N2K actions allocated to them.
- NRW will create appropriate data management support tools to help key partners quickly understand what they need to do and to track and report delivery progress.
- Identify current funding mechanisms (e.g. including RDP and other EU programmes) that partners can use and develop new innovative funding approaches to support delivery projects and actions.

How far will we get by 2015?

- All delivery partners understand, have prioritised and delivered actions that relate to water dependant N2k sites as set out as WFD Annex D actions/measures within in the three Welsh RBMPs
- Our ambition is that all NRW WFD measures that have been 'made operational' are completed by 2015.

The Floods Directive

The Floods Directive requires all member states to establish planning cycles for flood risk management that align with those pre-established for the Water Framework Directive. The Flood Risk Regulations implement the Floods Directive requirements so that NRW and Lead Local Flood Authorities (LLFAs) are required by law to prepare Flood Risk Management Plans (FRMPs) by December 2015. NRW are required to prepare FRMPs for all of Wales covering flooding from main rivers, the sea and reservoirs. For this first cycle of planning, LLFAs are only required to prepare FRMPs in Flood Risk Areas, where the risk of flooding from local sources (e.g. surface water) is identified as significant in accordance with Government guidance. NRW are also required to review the LLFA FRMPs before co-ordinating and publishing all the plans at the same spatial scale as RBMPs (i.e. River Basin Districts).