

Site Improvement Plan

River Wye

Site Improvement Plans (SIPs) have been developed for each Natura 2000 site in England and for most sites which straddle the border between England and Wales. This plan has been drawn up as part of the Improvement Programme for England's Natura 2000 sites (IPENS) in conjunction with the LIFE Natura 2000 Programme for Wales. Natura 2000 sites is the combined term for sites designated as Special Areas of Conservation (SAC) and Special Protected Areas (SPA). This work has been financially supported by LIFE, a financial instrument of the European Community.

The plan provides a high level overview of the issues (both current and predicted) affecting the condition of the Natura 2000 features on the whole site (in both England and Wales), and outlines the priority measures required to improve the condition of the features. It does not cover issues where remedial actions are already in place or ongoing management activities which are required for maintenance.

The SIP consists of three parts: a Summary table, which sets out the priority Issues and Measures; a detailed Actions table, which sets out who needs to do what, when and how much it is estimated to cost; and a set of tables containing contextual information and links. Once this current programme ends, it is anticipated that Natural England and others, working with landowners and managers, will all play a role in delivering the priority measures to improve the condition of the features on these sites.

The SIP for this cross-border site between England and Wales is based on Natural England and Natural Resources Wales's current evidence and knowledge, and are live, and not legal documents; they will be updated to reflect changes in our evidence/knowledge and as Actions get underway. The information in the SIP will be used to update both England and Wales's contributions to the UK's Prioritised Action Framework (PAF).

The SIPs are not formal consultation documents, but if you have any comments (relating to areas within England and/or Wales) about the SIP or would like more information please email us at IPENSLIFEProject@naturalengland.org.uk, or contact Natural England's Responsible Officer for the site via our enquiry service 0300 060 3900, or enquiries@naturalengland.org.uk

To contact Natural Resources Wales telephone 0300 065 3000, or email enquiries@naturalresourceswales.gov.uk

This Site Improvement Plan covers the following Natura 2000 site(s)

UK0012642 River Wye SAC

Site description

The River Wye SAC covers 250km of relatively natural and unmodified main river with a near-natural fluvio-geomorphological regime. The upland reaches, from the source in Powys, has a bryophyte dominated vegetation which progresses into extensive water crowfoot *Ranunculus* beds in the lowland reaches in England.

The lower 23km is transitional habitat to the confluence with the Severn Estuary. The river supports a number of internationally important migratory fish, including Atlantic Salmon, Lamprey and Shad species. Otters are widespread.

Plan Summary

This table shows the prioritised issues for the site(s), the features they affect, the proposed measures to address the issues and the delivery bodies whose involvement is required to deliver the measures. The list of delivery bodies will include those who have agreed to the actions as well as those where discussions over their role in delivering the actions is on-going.

Priority & Issue	Pressure or Threat	Feature(s) affected	Measure	Delivery Bodies
1 Water Pollution	Pressure/Threat	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1092 White-clawed (or Atlantic stream) crayfish, S1095 Sea lamprey, S1096 Brook lamprey, S1099 River lamprey, S1102 Allis shad, S1103 Twaite shad, S1106 Atlantic salmon, S1163 Bullhead, S1355 Otter	Reduce the inputs of sediment, nutrients and other pollutants and follow Defra's Codes of Good Practice	Defra, Environment Agency, Herefordshire Council, Local Authorities, Natural England, Severn Trent Water Ltd, Welsh Water Dwr Cymru, National Farmers' Union (NFU), Natural Resources Wales, The Coal Authority, Wye and Usk Foundation, Welsh Assembly, Powys County Council, Cargills
2 Physical modification	Pressure/Threat	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1095 Sea lamprey, S1096 Brook lamprey, S1099 River lamprey, S1102 Allis shad, S1103 Twaite shad, S1106 Atlantic salmon, S1163 Bullhead, S1355 Otter	Implement the River Restoration Plans	Environment Agency, Natural England, Welsh Water Dwr Cymru, Natural Resources Wales, Wye and Usk Foundation
3 Invasive species	Pressure/Threat	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1092 White-clawed (or Atlantic stream) crayfish, S1102 Allis shad, S1103 Twaite shad	Reduce and contain invasive non-native species (INNS)	Environment Agency, Herefordshire Council, Natural England, Natural Resources Wales, Wye and Usk Foundation, Monnow Rivers Association

4 Hydrological changes	Pressure/ Threat	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1092 White-clawed (or Atlantic stream) crayfish, S1095 Sea lamprey, S1096 Brook lamprey, S1099 River lamprey, S1102 Allis shad, S1103 Twaite shad, S1106 Atlantic salmon, S1163 Bullhead, S1355 Otter	Promote sensitive catchment management and sustainable drainage systems	Environment Agency, Forestry Commission, Natural England, Landowner(s), Natural Resources Wales, Wye and Usk Foundation, Coed Cymru
5 Forestry and woodland management	Pressure/ Threat	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1095 Sea lamprey, S1096 Brook lamprey, S1099 River lamprey, S1102 Allis shad, S1103 Twaite shad, S1106 Atlantic salmon, S1163 Bullhead, S1355 Otter	Adopt forestry, tree, woodland and deadwood management practices following the UK Forestry Standard and Biosecurity strategy	Environment Agency, Forestry Commission, Natural England, Wildlife Trust, Natural Resources Wales, Wye and Usk Foundation, Private forestry company(ies)
6 Fisheries: Freshwater	Pressure	S1095 Sea lamprey, S1096 Brook lamprey, S1099 River lamprey, S1102 Allis shad, S1103 Twaite shad, S1106 Atlantic salmon, S1163 Bullhead	Promote fisheries management that will enhance SAC features	Environment Agency, Natural England, Natural Resources Wales, Wye and Usk Foundation
7 Fisheries: Fish stocking	Pressure/ Threat	S1095 Sea lamprey, S1096 Brook lamprey, S1099 River lamprey, S1102 Allis shad, S1103 Twaite shad, S1106 Atlantic salmon, S1163 Bullhead	Gradually phase out fish stocking	Environment Agency, Natural Resources Wales
8 Water abstraction	Pressure/ Threat	S1092 White-clawed (or Atlantic stream) crayfish, S1095 Sea lamprey, S1096 Brook lamprey, S1099 River lamprey, S1102 Allis shad, S1103 Twaite shad, S1106 Atlantic salmon, S1163 Bullhead, S1355 Otter	Improve the resilience of the river's water resources through mitigation and adaptation measures in drought plans	Canal and River Trust, Defra, Environment Agency, Forestry Commission, Herefordshire Council, Natural England, Severn Trent Water Ltd, Welsh Water Dwr Cymru, Natural Resources Wales, Wye and Usk Foundation
9 Public Access/Disturbance	Threat	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1092 White-clawed (or Atlantic stream) crayfish, S1095 Sea lamprey, S1096 Brook lamprey, S1099 River lamprey, S1102 Allis shad, S1103 Twaite shad, S1106 Atlantic salmon, S1163 Bullhead, S1355 Otter	Assess and mitigate the impact of river users on river habitat and species	Environment Agency, Natural England, Natural Resources Wales
10 Air Pollution: impact of atmospheric nitrogen deposition	Threat	H7140 Very wet mires often identified by an unstable `quaking` surface	Investigate the impact of aerial nitrogen deposition on transition mire habitat	Environment Agency, Local Authorities, Natural Resources Wales

11 Inappropriate scrub control	Pressure/ Threat	H7140 Very wet mires often identified by an unstable `quaking` surface	Implement a programme of scrub control	Natural Resources Wales
12 Undergrazing	Pressure/ Threat	H7140 Very wet mires often identified by an unstable `quaking` surface	Implement an appropriate grazing regime	Natural Resources Wales
13 Transportation and service corridors	Pressure/ Threat	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1092 White-clawed (or Atlantic stream) crayfish, S1095 Sea lamprey, S1096 Brook lamprey, S1099 River lamprey, S1102 Allis shad, S1103 Twaite shad, S1106 Atlantic salmon, S1163 Bullhead, S1355 Otter	Manage Network Rail's assets so as to safeguard the SAC	Network Rail

Issues and Actions

This table outlines the prioritised issues that are currently impacting or threatening the condition of the features, and the outstanding actions required to address them. It also shows, where possible, the estimated cost of the action and the delivery bodies whose involvement will be required to implement the action. Lead delivery bodies will be responsible for coordinating the implementation of the action, but not necessarily funding it. Delivery partners will need to support the lead delivery body in implementing the action. In the process of developing the SIPs Natural England has approached the delivery bodies to seek agreement on the actions and their roles in delivering them, although in some cases these discussions have not yet been concluded. Other interested parties, including landowners and managers, will be involved as the detailed actions are agreed and delivered. Funding options are indicated as potential (but not necessarily agreed or secured) sources to fund the actions.

1 Water Pollution

Water quality is important for all SAC species and habitats, e.g. high water quality is vital to the breeding success of Salmon. Point sources of concern are relatively localised e.g. mining waste, raised metals concentrations and phosphates. Sedimentation and diffuse pollution are key issues in the catchment including upland acidification (affecting river pH values). Implementation of a Diffuse Water Pollution Plan and Nutrient Management Plan is necessary. Pesticides have been a concern historically e.g. pyrethroids, cypermethrin and metaldahydes. Current and future changes in cropping patterns across the catchment could cummulatively impact on the water quality, predominantly through diffuse pollution e.g. planting maize to feed biodigesters, siting of potato fields, irrigation needs, levels of poultry manure. The promotion of sustainable farming practice throughout the catchment is required to help address this.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1A	Finalise and implement actions from Nutrient Management Plan.	£1,000,000	2014-27	Integrated Nutrient Management Plan: Nutrient Reduction Management Plan	Environment Agency, Natural England, Water Framework Directive (WFD), Natural Resources Wales	Environment Agency	Herefordshire Council, Natural England, Welsh Water Dwr Cymru, Natural Resources Wales, Wye and Usk Foundation, Powys County Council

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1B	Reduce diffuse agricultural pollution by revision and implementation of the Diffuse Water Pollution Plans (separate England and Wales plans).	£2,000,000	2014-27	Diffuse Water Pollution Plan	Environment Agency, Natural England, Water Framework Directive (WFD), Natural Resources Wales	Natural England	Environment Agency, Natural Resources Wales
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1C	Review legislative framework surrounding rural diffuse pollution.	Not yet determined	2014-27	Mechanism not identified / develop mechanism	Not yet determined	Welsh Assembly	Defra
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1D	Investigate the requirement for additional phosphate (P) removal at Prestigne and other sewage treatment works. Where appropriate, implement the reductions necessary.	Not yet determined	2015-27	Water Industry Asset Management Plan (AMP): Implement Investigation	AMP process	Not yet determined	Environment Agency, Severn Trent Water Ltd, Welsh Water Dwr Cymru, Natural Resources Wales

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1E	Investigate sources of metals in the upper Wye catchment, assess their impact on the SAC and identify remedial actions.	Not yet determined	2015-17	Investigation / Research / Monitoring	Water Framework Directive (WFD), Natural Resources Wales	Natural Resources Wales	Local Authorities, The Coal Authority
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1F	Investigate the potential of classifying Poultry manure as a controlled waste.	£5,000	2015-20	Investigation / Research / Monitoring	Not yet determined	Not yet determined	Defra, Natural Resources Wales
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1G	Improve advice and practice of poultry manure use within the catchment. Provide advice on new poultry developments, and insist on Manure and Nutrient Management Plans for farms receiving poultry manure.	Not yet determined	2015-17	Regulation: Environmental Permits	n/a	Environment Agency	Natural England, Cargills

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1H	<p>Site-specific Nutrient Management Plans to be produced</p> <ol style="list-style-type: none"> 1. where wastes (digestate from anaerobic digesters, sewage sludge) are spread. 2. for farms under a deployment or exemption and 3. in catchments sensitive to nutrient inputs (Nitrate Vulnerable Zones and P failures). A process for permissions is required. 	Not yet determined	2015-20	Regulation: Other	Rural Development Programme (RDPE), Natural Resources Wales	Natural Resources Wales	Environment Agency, Natural England, Private company(ies)
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1I	Increased targeting of the Glastir advanced scheme to reduce diffuse pollution.	Not yet determined	2014-27	Rural Development Programme for Wales: Glastir	Rural Development Plan for Wales (RDPW)	Welsh Government Glastir	n/a
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1J	Provide sound practical advice on best agricultural practice across the catchment to improve water quality.	£1,500,000	2014-21	Advice	Rural Development Programme (RDPE), Wye and Usk Foundation	Natural England	Defra, National Farmers' Union (NFU), Natural Resources Wales, Wye and Usk Foundation

2 Physical modification

This is a relatively near natural river system and needs to be maintained as such. Small scale development has occurred throughout the river and is impacting on hydromorphology and character. Ongoing work to the riverbank eases public access but causes localised erosion issues. A series of weirs on the Lugg affect the natural hydromorphology. River Restoration Plans have been prepared for the Wye and Lugg and these need to be implemented. Gravel input from the upper catchment is reduced due to the Elan Reservoirs, and low bankside tree cover may minimise the input of large woody debris necessary within a healthy river system.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
2A	Implement the NE, EA and NRW River Restoration Plans.	£1,500,000	2015-27	River Restoration Plan: Restoration Project	Developer, Environment Agency, Natural England, Rural Development Programme (RDPE), Grant in aid, Flood and Coastal Erosion Risk Management (FCERM) 2015-21, Natural Resources Wales	Environment Agency/ Natural England	Natural Resources Wales
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
2B	Consider opportunities for river accessibility. Investigate and pilot access designs, monitor erosion impacts and also education opportunities related to potential damage and construction methods.	£100,000	2018-20	Partnership agreement	Not yet determined	Environment Agency	Natural England

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
2C	Instigate measures to address the gravel/sediment starvation on the Elan tributary.	£30,000	2018-21	Habitat creation / restoration strategy: Habitat restoration	Not yet determined	Wye and Usk Foundation	Welsh Water Dwr Cymru, Natural Resources Wales

3 Invasive species

Himalayan Balsam, Japanese Knotweed, Giant Hogweed and hybrids are present throughout the catchment and these require control. In addition a management strategy is required for Signal crayfish which are also present within the catchment and SAC. To prevent other invasive species, for example, killer/demon shrimps reaching the catchment, a biosecurity strategy is required.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
3A	Implement best practice biosecurity measures and raise awareness amongst river users and land managers.	£10,000	2014-21	Advice: Education & awareness raising	Not yet determined	Natural Resources Wales	Environment Agency, Natural England, Wye and Usk Foundation

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
3B	Coordinate and implement an invasives species control programme for invasive terrestrial features.	£125,000	2014-21	Invasive Control Plan: Invasive Species Control Programme	Environment Agency, Natural England, Rural Development Programme (RDPE), Landfill tax, Natural Resources Wales, Rural Development Plan for Wales (RDPW)	Wye and Usk Foundation	Environment Agency, Herefordshire Council, Natural England, Wildlife Trust, Natural Resources Wales, Monnow Rivers Association

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
3C	Coordinate and implement an invasives species control programme for invasive aquatic species. Potential target sites for Signal crayfish include: Hindwell Brook and pools; Garren Brook; Knobbly Brook, and pools such as at Hampton Court, Derw pools, Pant Lyn, Painscastle and Rhos Goch. Investigate the use of 'ark' sites to improve/ safeguard native populations.	£250,000	2014-21	Invasive Control Plan: Invasive Species Control Programme	Environment Agency, Natural England, Rural Development Programme (RDPE), Landfill tax, Natural Resources Wales, Rural Development Plan for Wales (RDPW)	Not yet determined	Environment Agency, Natural England, Natural Resources Wales
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
3D	Continue to support the scheme to reintroduce White Clawed Crayfish to the Llyfni and Irfon. Investigate use of Ark sites	£15,000 per year	2017-21	Invasive Control Plan: Other	Not yet determined	Natural Resources Wales	n/a

4 Hydrological changes

Urban drainage and new development can affect the hydrology. Poor siting of infrastructure causes excessive (and silt laden) run-off. e.g. new windfarm or forestry track. Woody debris in the river system is of benefit to fish but is limited by lack of tree cover. Bankside grazing generally limits tree cover which, with other factors such as climate change, could lead to an associated water temperature increase over time. Cattle and sheep have free access to the river, throughout the year, in many places so extensification of grazing stock would be beneficial. The planting of tree belts and strategic use of appropriate fencing on vulnerable land will help improve runoff.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
4A	Mitigate the impact of increased run-off on steeper land by encouraging the planting of strategically located tree planting belts and strategic use of appropriate fencing to reduce erosion from stock.	£750,000	2014-20	Advice	Rural Development Programme (RDPE), Water Framework Directive (WFD), New Environmental Land Management Scheme (NELMS)	Natural England	Environment Agency, Forestry Commission, Natural Resources Wales, Wye and Usk Foundation, Coed Cymru
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
4B	Regenerate bankside trees by fencing out selected areas and encourage extensification of riparian areas including large areas of dense scrubby vegetation suitable for otter breeding. As part of this consider: <i>Phytophthora</i> disease; the need to retain deadwood for protected species, and the implications for the veteran tree network.	Not yet determined	2016-21	Rural Development Programme for Wales: Glastir	Rural Development Plan for Wales (RDPW)	Welsh Government Glastir	Landowner(s), Natural Resources Wales, Wye and Usk Foundation, Coed Cymru

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
4C	In the lower reaches fencing is inappropriate on the wide floodplains so encourage extensification of riparian areas including large areas of dense scrubby vegetation suitable for otter breeding. As part of this consider: <i>Phytophthora</i> disease; sensitive bankside tree management to create a diverse age structure; the need to retain deadwood for protected species, and the implications for the veteran tree network.	£500,000	2016-21	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Natural England	Forestry Commission, Landowner(s), Wye and Usk Foundation
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
4D	Undertake an investigation to determine why there is a lack of woody debris in the Wye and provide recommendations on how to improve the situation.	Not yet determined	2014-21	Investigation / Research / Monitoring	Not yet determined	Natural Resources Wales	Forestry Commission, Natural England
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
4E	Undertake an investigation into the effects of forestry, land use, and infrastructure (roads, drainage) on catchment run-off and sediment. Establish the scale of any sediment issues by looking at suspended sediment, sediment, flow rates and catchment response.	Not yet determined	2014-21	Investigation / Research / Monitoring	Not yet determined	Natural Resources Wales	Environment Agency, Forestry Commission, Natural England

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
4F	Undertake habitat creation and restoration works to mitigate and offset the loss of habitat and connectivity caused by hydrological change	Not yet determined	2014-27	Habitat creation / restoration strategy: Other	Not yet determined	Natural Resources Wales	Environment Agency, Natural England, Wye and Usk Foundation

5 Forestry and woodland management

Gauging appropriate management levels is difficult but there is a need to balance management and risks with fisheries management, navigation and flood risk management. Tree cover is highly variable across the catchment. Clearfell/management of upland conifer plantations can lead to sediment and nitrate release which is a concern. A floodplain forest LIFE partnership bid to improve management of Upper Wye (Wales) is being developed. In addition the Lower Wye (England) would benefit from further tree planting.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
5A	Ensure best practice and code of conduct is followed in the clearance of conifer/woodland plantations in the catchment (principally in the Upper Wye).	Not yet determined	2014-21	Advice	LIFE, Rural Development Plan for Wales (RDPW)	Natural Resources Wales	Forestry Commission, Private forestry company(ies)
5B	Restore floodplain woodland in the Upper Wye. Promote a similar scheme in the Lower Wye.	£2,000,000	2014-18	Partnership agreement	EU Life	Natural Resources Wales	Environment Agency, Forestry Commission, Natural England, Wildlife Trust, Wye and Usk Foundation

6 Fisheries: Freshwater

The management of banks and vegetation by river users is not always compatible with the SAC features e.g. digging steps and mowing banks. In channel management of gravels may impact the river habitat. Angling is managed via bylaws e.g. compulsory catch and release of salmon year round on the Wye and Shad fishing is not permitted. The potential to license those that hire boats may help highlight environmental considerations.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
6A	Promote positive riverside management.	£10,000	2015-21	Advice: Education & awareness raising	Environment Agency	Environment Agency	Natural England, Natural Resources Wales, Wye and Usk Foundation

7 Fisheries: Fish stocking

Fish stocking is continuing at present. Fish hatcheries are being phased out by National Resources Wales (NRW).

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
7A	Ensure that Natural Resources Wales (NRW) policy on phasing out fish stocking is implemented.	Not yet determined	2014-20	Regulation: Fish Stocking Consent, (Incl Electric)	Not yet determined	Natural Resources Wales	Environment Agency

8 Water abstraction

Water flow does not follow the near natural pattern because of the effects of Elan reservoirs and the releases made from the dams. Work is underway (UWAG) to assess and agree a revised set of reservoir release rules that will require changes to the operating agreement. More natural flushing and migration flows are proposed. There is a potential impact on hydro-morphology and ecology due to regular higher than natural flows. There is a need to integrate environmental requirements with the need for public water supply and agriculture. Necessary changes will be made to both river regulation and abstraction licences to ensure that the best use of water resources is made to balance these needs. In the River Lugg catchment, licences are already being varied to ensure low flows are protected. Winter storage reservoirs for agriculture are encouraged and the Environment Agency is awaiting Defra guidance on the regulation of trickle irrigation.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
8A	Reach agreement on and implement the changes recommended by the Usk and Wye Abstraction Group to deliver the requirements of the Review of Consents process.	Not yet determined	2014-15	Regulation: Other - obtain appropriate permissions	Not yet determined	Natural Resources Wales	Canal and River Trust, Environment Agency, Natural England, Severn Trent Water Ltd, Welsh Water Dwr Cymru, Wye and Usk Foundation

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
8B	Improve the resilience of the water resources in the face of likely climate change (by feeding mitigation and adaptation measures into drought plans).	Not yet determined	2015-20	Regulation: Other - obtain appropriate permissions	Not yet determined	Environment Agency	Forestry Commission, Natural England, Natural Resources Wales
8C	Reduce abstractions related to trickle-down irrigation to sustainable levels.	Not yet determined	2015-20	Regulation: Other - obtain appropriate permissions	Not yet determined	Defra	Environment Agency
8D	Promote positive water management measures to users in the catchment e.g. creation of winter storage reservoirs.	Not yet determined	2014-20	Advice	Not yet determined	Environment Agency	Natural England, Natural Resources Wales, Hereford: Planning & Landscape
8E	Consider the implications of water resource trading between catchments.	£20,000	2015-27	Mechanism not identified / develop mechanism	Not yet determined	Environment Agency	Natural England, Severn Trent Water Ltd, Welsh Water Dwr Cymru, Natural Resources Wales

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
8F	Undertake a review of the river flow regulation to determine if it is adversely affecting SAC features.	Not yet determined	2014-21	Investigation / Research / Monitoring	Not yet determined	Natural Resources Wales	Environment Agency, Natural England

9 Public Access/Disturbance

The high usage of the river by canoeists and anglers has the potential to cause disturbance to SAC species and habitats as well as the supporting or dependant flora and fauna. Examples range from the cutting of water crowfoot *Ranunculus* beds for navigation, dogs disturbing otters and the disturbance of gravel bars and beds by canoeists.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
9A	Assess the impact on SAC features of high user numbers on, and in close proximity to the river. Identify measures required to mitigate any areas of concern including educating the public and companies regarding the sensitive use of the river.	£30,000	2016-21	Investigation / Research / Monitoring	Natural England	Natural England	Environment Agency, Natural Resources Wales

10 Air Pollution: impact of atmospheric nitrogen deposition

Nitrogen deposition exceeds site relevant critical loads with respect to the SAC's transition mire habitat located in Wales.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
10A	Investigate the potential atmospheric nitrogen impacts on the transition mire component of the SAC (in Wales) and consider actions at a strategic and site level to reduce impacts.	Not yet determined	2014-21	Investigation / Research / Monitoring	Natural Resources Wales	Natural Resources Wales	Environment Agency, Local Authorities

11 Inappropriate scrub control

Increased scrub and woodland is affecting the structure and composition of the transitional mire and quaking bog at Colwyn Brook Marshes. This appears to indicate drying out due to a change in hydrological processes/wetland structure function and/or vegetation succession due to a change in grazing pressure.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
11A	Implement a programme of scrub control in Colwyn Brook Marshes.	Not yet determined	2014-21	Partnership agreement: Other	Welsh Government Glastir	Natural Resources Wales	n/a

12 Undergrazing

Undergrazing is affecting the structure and composition of the transitional mire and quaking bog feature at Colwyn Brook Marshes and may be contributing to further scrub encroachment and vegetation succession.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
12A	Implement an appropriate grazing regime in Colwyn Brook Marshes.	Not yet determined	2014-27	Glastir/ Section 15 Management Agreement	Welsh Government Glastir	Natural Resources Wales	n/a

13 Transportation and service corridors

Produce a site management statement which ensures that the SAC features are taken into account when undertaking works on Network Rail's assets.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
13A	Appropriate management of Network Rail's assets	No costs	2015-21	Non-Natural England funded site management plan	Network Rail	Network Rail	Natural England, Natural Resources Wales

Site details

The tables in this section contain site-relevant contextual information and links

Qualifying features

#UK Special responsibility

River Wye SAC

H3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation

H7140 Transition mires and quaking bogs

S1092 *Austropotamobius pallipes*: White-clawed (or Atlantic stream) crayfish

S1095 *Petromyzon marinus*: Sea lamprey

S1096 *Lampetra planeri*: Brook lamprey

S1099 *Lampetra fluviatilis*: River lamprey

S1102 *Alosa alosa*: Allis shad

S1103 *Alosa fallax*: Twaite shad

S1106 *Salmo salar*: Atlantic salmon

S1163 *Cottus gobio*: Bullhead

S1355 *Lutra lutra*: Otter

Site location and links

River Wye SAC

Area (ha) **2234.89** Grid reference **SO109369** [Map link](#)

Local Authorities Fynwy/ Monmouthshire; Gloucestershire; Herefordshire; Powys

Site Conservation Objectives

Site Conservation Objectives (covers area in England) [European Site Conservation Objectives for River Wye SAC](#)

Site Conservation Objectives (covers area in Wales) [Countryside Council for Wales: Landscape & Wildlife River Wye/ Afon Gwy SAC](#)

European Marine Site conservation advice [n/a](#)

Regulation 33/35 Package

[n/a](#)

Marine Management Organisation site plan

[n/a](#)

Water Framework Directive (WFD)

The Water Framework Directive (WFD) provides the main framework for managing the water environment throughout Europe. Under the WFD a management plan must be developed for each river basin district. The River Basin Management Plans (RBMP) include a summary of the measures needed for water dependent Natura 2000 sites to meet their conservation objectives. For the second round of RBMPs, SIPs are being used to capture the priorities and new measures required for water dependent habitats on Natura 2000 sites. SIP actions for non-water dependent sites/habitats do not form part of the RBMPs and associated consultation.

Additional information is provided on targets for flow and some water quality parameters, in order to meet the conservation objectives for certain Natura 2000 sites. The relevant targets are identified in the revised conservation objectives document (see link to PDF below).

These targets have been revised for a number of Natura 2000 rivers and lakes, following a review by the conservation agencies of Common Standards Monitoring Guidance. For rivers, this is done through local discussions between Natural England and Environment Agency staff. For lake sites, the only parameter where alignment of standards was reviewed was phosphorus and so this work was undertaken jointly at a national level.

The linked PDF documents include the proposed target values, and also set out an 'interim progress goal', that will need to be achieved by 2021. Where sufficient information is available the document also identifies a timescale for achievement of the longer-term target. For any sites where it has not been possible to agree specific targets, usually because further technical work is required, these will be indicated in the documents by an asterisk. For further information please see Part 2 of the River Basin Plan

River Wye SAC

River basin

[Severn RBMP](#)

WFD Management catchment

Wye

WFD Waterbody ID (Cycle 2 draft) GB109055022830, GB109055029670, GB109055029690, GB109055029700, GB109055029720, GB109055029730, GB109055036670, GB109055036680, GB109055036690, GB109055036720, GB109055036740, GB109055036750, GB109055036760, GB109055036771, GB109055036780, GB109055036790, GB109055036890, GB109055036910, GB109055036920, GB109055036930, GB109055036940, GB109055036960, GB109055022830, GB109055029720, GB109055036680, GB109055036690, GB109055036760, GB109055036910, GB109055036950, GB109055036970, GB109055036980, GB109055036990, GB109055037020, GB109055037030, GB109055037050, GB109055037060, GB109055037080, GB109055037090, GB109055037115, GB109055037116, GB109055037130, GB109055037140, GB109055037150, GB109055037160, GB109055041870, GB109055041880, GB109055041890, GB109055041900, GB109055041910, GB109055041960, GB109055042070, GB109055042080, GB109055042090, GB109055042110, GB109055042120, GB109055042130, GB109055042140, GB109055042150, GB109055042160, GB109055042170, GB109055042180, GB109055042190, GB109055042200, GB109055042250, GB109055042260, GB109055042270, GB109055042280, GB109055042310, GB109055042320, GB109055042330, GB109055042340, GB109055042350, GB109055042360, GB109055042370, GB30940067, GB53090541540, GB530905415406

Locally revised Conservation Objectives

[Moving towards common standards monitoring guidance targets for SAC rivers](#)

Additional information on locally revised Conservation Objectives

[n/a](#)

EA/ NE agreed RBMP lake SAC targets

[n/a](#)

River Restoration Plan

Source of information on river restoration plans for SAC rivers where these are in place or planned, with links to documentation where this is available.

Webpage link: Restoring Designated Rivers

[n/a](#)

River Restoration Plan document

[n/a](#)

Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)

River Wye SAC

River Lugg SSSI
Park Wood SSSI
Coed Aberdulas SSSI
Carn Gafallt SSSI
Caeau Coed Mawr SSSI
Bach Howey Gorge SSSI
Afon Llynfi SSSI
Coed Bryn-person SSSI
River Wye (Lower Wye) SSSI
Coed y Ciliau SSSI
River Wye (Upper Wye) SSSI
Lower Wye Gorge SSSI
Upper Wye Gorge SSSI
Capler Wood SSSI
Shorn Cliff & Caswell Woods SSSI
Severn Estuary SSSI
Afon Irfon SSSI
Llwyn-cus SSSI
River Wye (Tributaries) SSSI
River Ithon SSSI
Rhosydd Llanwrthwl SSSI
Rhos Penrhiw SSSI
Rhagnentydd Gwy Uchaf SSSI
Marcheini Uplands, Gilfach Farm & Gamallt SSSI
Coed Aberedw SSSI

Llymwynt Brook Pastures SSSI
Waen Rydd SSSI
Ithon Valley Woodlands SSSI
Gweunydd Nant y Dernol SSSI
Gweunydd Esgairdraenllwyn SSSI
Erwood Dingle SSSI
Duhonw SSSI
Colwyn Brook Marshes SSSI
Malienydd SSSI

National Nature Reserve (NNR)

River Wye SAC

n/a

Ramsar

River Wye SAC

n/a

Special Areas of Conservation (SAC) and Special Protection Areas (SPA)

River Wye SAC

n/a

Other relevant documents and links

[Defra website: Managing sewage sludge, slurry and silage](#)

Information on Defra website

[Protecting our Water, Soil and Air: A Code of Good Practice for farmers, growers and land managers](#)

Defra document 2009

[GB non-native species secretariat: Biosecurity and Prevention](#)

GB non-native species secretariat website

<i>Version</i>	<i>Date</i>	<i>Comment</i>
0.8	04/11/2014	



www.naturalengland.org.uk/ipens2000