Improvement Programme for England's Natura 2000 Sites (IPENS)

Planning for the Future

Site Improvement Plan

Avon River and Valley

Site Improvement Plans (SIPs) have been developed for each Natura 2000 site in England as part of the Improvement Programme for England's Natura 2000 sites (IPENS). 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 site(s) 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 SIPs are based on Natural England's current evidence and knowledge. The SIPs are not legal documents, they are live documents that will be updated to reflect changes in our evidence/knowledge and as actions get underway. The information in the SIPs will be used to update England's contribution to the UK's Prioritised Action Framework (PAF).

The SIPs are not formal consultation documents, but if you have any comments 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

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

UK9011091 Avon Valley SPA

UK0013016 River Avon SAC

Site description

The River Avon SAC is one of the richest chalk rivers in Europe. It is important for its fish population, invertebrate, which include populations of Desmoulins Whorl Snail and its in-river plant community habitat as well as bankside habitats.

The Avon Valley SPA is a wide river valley comprising mostly unimproved wet grassland and has importance for wintering wildfowl with Bewick's Swan and Gadwall as the notified features. The population of Bewick's Swan in the Avon Valley have decreased in line with a national trend of decrease, which is felt to be due to decreased breeding success. At the moment the SPA does not meet the threshold for them.

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 Physical modification	Pressure	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1016 Desmoulin`s whorl snail, S1095 Sea lamprey, S1096 Brook lamprey, S1106 Atlantic salmon, S1163 Bullhead	Restore channel morphology and natural hydromorphological river processes	Cranborne Chase & West Wiltshire Downs AONB, Environment Agency, Forestry Commission, Hampshire and Isle of Wight Wildlife Trust, Natural England, The New Forest National Park Authority, Wessex Water Services Ltd, Wiltshire Wildlife Trust, Landowner(s), Wessex Chalk Streams and Rivers Trust, National Farmers' Union (NFU), Wild Trout Trust, Wiltshire Fishery Association, New Forest Land Advice Service, River manager(s)
2 Siltation	Pressure	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1095 Sea lamprey, S1096 Brook lamprey, S1106 Atlantic salmon, S1163 Bullhead	Reduce siltation inputs from agriculture, tracks and roads	Defra, Environment Agency, Ministry of Defence (MoD), Rural Payments Agency (RPA), The New Forest National Park Authority, Wiltshire Council

3 Water Pollution	Pressure/ Threat	A037(NB) Bewick's Swan, A051(NB) Gadwall, H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1016 Desmoulin`s whorl snail, S1095 Sea lamprey, S1096 Brook lamprey, S1106 Atlantic salmon, S1163 Bullhead	Reduce phosphorus and organic pollutants from diffuse pollution and point sources	Dorset County Council, Environment Agency, Hampshire County Council, Natural England, The New Forest National Park Authority, Wessex Water Services Ltd, Wiltshire Council, Wessex Chalk Streams and Rivers Trust, Parish Council(s), National Farmers' Union (NFU), Simcorp, New Forest Land Advice Service, Householder(s), Campaign for the Farmed Environment
4 Water abstraction	Pressure/ Threat	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1095 Sea lamprey, S1096 Brook lamprey, S1106 Atlantic salmon, S1163 Bullhead	Restore river flows (favourable condition targets)	Environment Agency, Natural England, Wessex Water Services Ltd, Defence Infrastructure Organisation (DIO), Veolia, Sembcorp
5 Changes in species distributions	Threat	A037(NB) Bewick's Swan, S1016 Desmoulin`s whorl snail, S1106 Atlantic salmon	Monitor, investigate and aim to restore swan, snail and salmon populations.	Environment Agency, Natural England, Wessex Chalk Streams and Rivers Trust
6 Invasive species	Pressure/ Threat	H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1095 Sea lamprey, S1096 Brook lamprey, S1106 Atlantic salmon, S1163 Bullhead	Control invasive plant species; monitor and investigate Signal crayfish impacts	Dorset County Council, Dorset Wildlife Trust, Environment Agency, Hampshire and Isle of Wight Wildlife Trust, Hampshire County Council, Natural England, Wessex Water Services Ltd, Wiltshire Council, Wiltshire Wildlife Trust, Wessex Chalk Streams and Rivers Trust, National Farmers' Union (NFU), Avon Non Native Invasive Plant Forum
7 Public Access/Disturbance	Pressure	A037(NB) Bewick's Swan	Manage dog walkers to prevent wildfowl being disturbed	Natural England

8 Hydrological changes	Threat	S1016 Desmoulin`s whorl snail	Restore hydrology to sites and wetland mosaic/network that supports Desmoulin's whorl snail	Environment Agency, Natural England
9 Inappropriate weed control	Threat	A037(NB) Bewick's Swan, H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1092 White-clawed (or Atlantic stream) crayfish, S1095 Sea lamprey, S1096 Brook lamprey, S1163 Bullhead	Reduce the impact of weed cutting on the river habitat and fish species	Natural England, Landowner(s), Wessex Chalk Streams and Rivers Trust, Wiltshire Fishery Association, River manager(s)
10 Change in land management	Threat	A037(NB) Bewick's Swan	Sustain the grazing quality for Bewick Swans and adapt management where appropriate	Hampshire and Isle of Wight Wildlife Trust, Natural England
11 Habitat fragmentation	Threat	A037(NB) Bewick's Swan, A051(NB) Gadwall, H3260 Rivers with floating vegetation often dominated by water-crowfoot, S1016 Desmoulin`s whorl snail, S1095 Sea lamprey, S1096 Brook lamprey, S1106 Atlantic salmon, S1163 Bullhead	Explore amendment to the SAC/ SPA designation	Natural England

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 Physical modification

The Strategic Framework for the Restoration of the River Avon (Halcrow and GeoData 2009) found 59% of the length of the River Avon, 36% Nadder, 33% Wylye, 23% Till, 6% Dockens and 2% Bourne to be partially, significantly or severely modified. Physical habitat modifications have caused simplification of the biotope mosaics (substrate types, variations in flow, channel width and depth, in-channel and side-channel sedimentation features, bank profiles, erosion features, in-channel and bankside vegetation cover and woody debris) and impact both on the SAC chalk stream habitat feature itself and also the levels of populations of the SAC species it supports. The strategy proposes options for the full restoration, rehabilitation or enhancement covering the majority of the of the River Avon and associated watercourses. Modifications include widening and/or deepening of channels, realignment, bank revetments, embankments, tree and large woody debris clearance. Modifications also include some physical barriers to fish movement up river and sediment transport, leading to the smothering of coarse substrates. The impact of of bankside management practices for fisheries on the site's features also requires assessment.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1A	Implement the River Avon Restoration Plan. Secure the investment of resources to deliver the complete restoration plan (beyond current EA WFD delivery programme).	£20,000,000	2015-33	River Restoration Plan: Restoration Project	Defra, Environment Agency, Natural England, Other, Landowner(s) and manager(s)	Environment Agency	Cranborne Chase & West Wiltshire Downs AONB, Hampshire and Isle of Wight Wildlife Trust, Natural England, The New Forest National Park Authority, Wessex Water Services Ltd, Wiltshire Wildlife Trust, Wessex Chalk Streams and Rivers Trust, National Farmers' Union (NFU), Wild Trout Trust, Wiltshire Fishery Association, New Forest Land Advice Service

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1B	Implement the River Avon Restoration Plan. Secure the investment of resources to continue delivery through the Wessex Chalk Stream project to 2021.	£528,000	2015-21	Partnership agreement	Environment Agency, Natural England, Other, Wildlife Trust, Wessex Water	Wiltshire Wildlife Trust	Environment Agency, Natural England, Wessex Water Services Ltd, Wiltshire Fishery Association

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1C	Implement the River Avon Restoration Plan. Secure investment of resources to continue delivery through the Wessex Chalk Stream and Rivers Trust to 2021.	£60,000	2015-21	Partnership agreement	Environment Agency, Other	Environment Agency	Environment Agency, Wessex Chalk Streams and Rivers Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1D	Implement the River Avon Restoration Plan. Secure the investment of resources to deliver the complete plan of restoration measures.	£720,000	2015-33	Conservation Enhancement Scheme (CES)	Natural England, Grant in aid	Natural England	Wiltshire Wildlife Trust, Landowner(s), Wessex Chalk Streams and Rivers Trust, Wessex Chalk Stream Project, River manager(s)

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1E	Review existing agri-environment agreements (mostly HLS) to secure management of the floodplain to allow hydrological and physical connectivity between the river and its floodplain to enable the river to function naturally (including management, restoration and/or creation of wet floodplain habitats for SAC and SPA species). Also deliver tree planting/management where identified as a river restoration need to restore structure.	£4,000,000	2015-25	Rural Development Programme for England (RDPE): Environmental Stewardship Higher Level Scheme (HLS)	Rural Development Programme (RDPE)	Natural England	Forestry Commission, Woodland Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1F	Secure management of the floodplain through new agri-environment schemes to allow hydrological and physical connectivity between the river and its floodplain to enable the river to function naturally (including management, restoration and creation of wet floodplain habitats for SAC and SPA species). Also deliver tree planting/management where identified as a river restoration need to restore structure.	£4,000,000	2016-25	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Natural England	Forestry Commission, Woodland Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1G	Monitor restored sites to assess recovery and inform future restoration.	Not yet determined	2014-33	Investigation / Research / Monitoring	Environment Agency, Natural England	Local partnership	Environment Agency, Hampshire and Isle of Wight Wildlife Trust, Wiltshire Wildlife Trust, Wessex Chalk Streams and Rivers Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1H	Assess whether or not bankside management does, or has the potential to, lead to the unfavourable condition of the SAC or SPA. Bankside management for fishery purposes is listed as an exemption from the List of Operations Likely to Damage the River Avon System SSSI. If appropriate revoke this exemption and issue relevant consents/assents to landowners/river managers.	Not yet determined	2015-17	Designation strategy: Notification Amendment	Natural England, Grant in aid	Natural England	Landowner(s), Wessex Chalk Streams and Rivers Trust, Wiltshire Fishery Association, River manager(s)

2 Siltation

Excessive fine sediment supply can lead to the smothering of coarse substrates and the loss of flora and fauna dependent on them. Siltation reduces the air spaces within gravels and reduces water flow through the substrate leading to poor quality of the water in the gravels. This effects the establishment of *Ranunculus* plants, and egg and larval survival in salmon, lampreys and bullhead. Sources of silt include run-off from agricultural land, roads, sewage and fish farm discharges. Tracks in the upper catchments of the Wylye and Nadder are a particular issue, providing a pathway for runoff from arable land and the track itself.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
2A	As part of implementing the Diffuse Water Pollution Plan (DWPP) and relevant actions in the Nutrient Management Plan (NMP) deliver Catchment Sensitive Farming capital grant scheme (supported by two CSF Project Officers) to reduce siltation across the catchment arising from agriculture.	cost included above to reduce P (excludes work to tracks)	2015	England Catchment Sensitive Farming (CSF)	Rural Development Programme (RDPE)	Natural England	Environment Agency

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
2B	As part of implementing the Diffuse Water Pollution Plan (DWPP) and relevant actions in the Nutrient Management Plan (NMP) review and amend existing HLS agreements and target resource protection measures where they can reduce siltation further.	cost included above to reduce P (excludes work to tracks)	2015-25	Rural Development Programme for England (RDPE): Environmental Stewardship Higher Level Scheme (HLS)	Rural Development Programme (RDPE)	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
2C	Implement the DWPP and relevant actions in the NMP. Secure funding and resource (two CSF Project Officers) to target and deliver measures in the Avon catchment to reduce siltation from agriculture. This action includes addressing issues arising from farm tracks as either a pathway and/or source of diffuse pollution.	cost included above to reduce P (excludes work to tracks)	2016-25	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
2D	Conduct a catchment appraisal (through catchment walkovers) to identify tracks and highways that are acting as a pathway, or source, for siltation to the river and recommend solutions to mitigate the impact for each case identified.	£30,000	2015-16	Investigation / Research / Monitoring	Environment Agency, Local Authority, Natural England, Ministry of Defence (MoD), Highways Agency	Environment Agency	Ministry of Defence (MoD), Natural England, Wiltshire Council, National Farmers' Union (NFU)

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
2E	Where identified bycatchment appraisal, implement solutions to reduce siltation to the river arising from public highways and tracks.	£175,000	2016-20	Major Landowner Group land ownership activities : Undertake Specific Management Works	Local Authority, Highways Agency	Wiltshire Council	Environment Agency, Natural England

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
2F	Where identified by catchment appraisal implement solutions to reduce siltation to the river arising from tracks and training activities on Salisbury Plain.	Not yet determined	2015-20	Major Landowner Group land ownership activities : Undertake Specific Management Works	Ministry of Defence (MoD)	Defence Infrastructure Organisation (DIO)	Environment Agency, Natural England

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
2G	Investigate if the exemption for maize from Post Harvest Management of Land under the Good Agricultural and Environmental Conditions - Soil Protection Review GAEC 1 causes significant siltation/phosphorous release or other issues in the Avon catchment and determine if there is evidence to justify this exemption being removed.	£20,000	2015-20	Investigation / Research / Monitoring	No funding required	Natural England	National Farmers' Union (NFU)

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
2H	Implement the Nutrient Management Plan by if necessary, investigating the establishment of a Water Protection Zone to reduce siltation from agriculture (both the existing and new environmental land management schemes are voluntary and estimates on the uptake required suggest that regulation may be required to achieve desired outcomes).	Not yet determined	2020-64	Regulation: Other - obtain appropriate permissions	Environment Agency	Environment Agency	n/a

3 Water Pollution

Elevated levels of phosphate (P) lead to dominance by algae and a loss of characteristic plant species. Within Blashford Lakes high P levels could switch the system from a macrophyte dominated system to an algal dominated one resulting in a poorer feeding conditions for gadwall. Organic pollution, reducing dissolved oxygen levels (from microbial breakdown of organic material) effects biota and is also an issue. Water quality can also affect the habitat quality necessary to support Desmoulin's whorl snail and the SPA species. Diffuse pollution from agriculture, small point discharges and sewage treatment work (STW) discharges are contributing to elevated levels of nutrients (by 10-50ug/l P) and reduced disolved oxygen levels in parts of the SAC. Catchment sensitive farming measures (including agri-environment scheme resource protection measures) are estimated to deliver approximately 10% (maximum 20%) reduction in P levels. Whilst nearly all Sewage Treatment Works (STWs) within the catchment have been limited to 1mg/l P, and the locations in the Avon catchment that show improving water quality trends generally coincide with improvements to STWs in that reach of river, it is likely that further reductions of P will be necessary from STWs and also small point sources.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3A	Secure agreement of the Nutrient Management Plan with EA and stakeholders.	No cost	2014	Integrated Nutrient Management Plan: Nutrient Reduction Management Plan	n/a	Environment Agency	Dorset County Council, Hampshire County Council, Natural England, The New Forest National Park Authority, Wessex Water Services Ltd, Wiltshire Council, Wessex Chalk Streams and Rivers Trust, National Farmers' Union (NFU), New Forest Land Advice Service

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3B	For each of the catchments affected, ascertain both, the proportion of flow derived from the upper greensand and chalk and the background natural level of phosphate (P) in ground water orignating from the upper greensand geology. Assess how this impacts on river phosphorous levels within the SAC.	£60,000	2014-21	Investigation / Research / Monitoring	Environment Agency, Natural England	Environment Agency	Natural England

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3C	Establish the near-natural typology of rivers strongly influenced by flow from upper greensand geology (scope to include catchments beyond Avon) and the relationship between phosphate (P) in the catchment groundwater and that in the watercourse; understand how the river ecology reflects the influence of natural concentrations of phosphate in Upper Greensand geology and ascertain in near natural situations the factors that limit eutrophication response of the river ecology and to what degree .	£40,000	2014-21	Investigation / Research / Monitoring	Natural England	Natural England	Environment Agency

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3D	Implement the Nutrient Management Plan and relevant actions in the Diffuse Water Pollution Plan (DWPP) to reduce P (and N) from agricultural diffuse pollution (including siltation). Secure funding and resource (for two Project Officers) to deliver the Catchment Sensitive Farming (CSF) capital grant scheme as this action is key to reducing nutrients in the catchment.	£9,500,000 for Actions 3D and 3E	2015	England Catchment Sensitive Farming (CSF)	Rural Development Programme (RDPE)	Natural England	Environment Agency

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3E	Implement the Nutrient Management Plan and relevant actions in the DWPP to reduce P (and N) from agricultural diffuse pollution (including siltation). Secure funding and resource (2x Project Officers) to target resource protection (RP) measures through HLS in 2015 and to review and amend existing agreements where this will deliver further benefits to water quality.	See Action 3D	2015-20	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3F	Implement the Nutrient Management Plan and relevant actions in the DWPP to reduce P (and N) from agricultural diffuse pollution (including siltation) by targetting and delivering resource protection and infrastructure measures to improve water quality in the Avon catchment.	Not yet determined	2016-25	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3G	Implement the Nutrient Management Plan and relevant actions in the DWPP. Secure funding and resource to target and deliver voluntary resource protection measures in the Avon catchment to reduce phosphorus (P) (and nitrogen (N)) arising from agricultural diffuse pollution via the Campaign for the Farmed Environment.	Not yet determined	2014-21	Existing Local Project		Campaign for the Farmed Environment	Land manager(s), Land agent(s), Landowner/occupier

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3H	Implement the Nutrient Management Plan by if necessary, investigating the establishment of a Water Protection Zone to achieve delivery of measures to reduce P from agricultural diffuse pollution (both the existing and new environmental land management schemes are voluntary and estimates on the uptake required suggest that additional regulation may be required to achieve desired outcome).	Not yet determined	2020-64	Regulation: Other - obtain appropriate permissions	Environment Agency, Natural England	Environment Agency	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3I	Implement the Nutrient Management Plan by introducing incentive schemes other than the new environmental land management scheme, if deemed necessary, to secure reduction of P arising from agricultural diffuse pollution.	Not yet determined	2020-64	Mechanism not identified / develop mechanism	Defra	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3J	Improve discharges of All Cannings and East Knoyle sewage treatment works to a consent limit of 1 mg/l Total phosphorous as annual average (assumes ≤700ug/l in discharge).	£7,500,000	2015-20	Water Industry Asset Management Plan (AMP): Implement Plan Scheme	AMP process	Wessex Water Services Ltd	Environment Agency

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3K	Improve Sewage Treatment Works (STWS) discharges in the catchment to Best Available Technology (BAT) standard (≤ 500mg/l in discharge as at 2014) and tighter as improved treatments are established (≤ 100-200 mg/l in discharge) where this contributes to the least onerous solution for achieving phosphorus (P) target for SAC favourable status compared with securing greater reductions in agricultural sources.	Not yet determined	2020-25	Water Industry Asset Management Plan (AMP): Implement Plan Scheme	AMP process	Wessex Water Services Ltd	Environment Agency

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3L	Assess the significance of small point discharges including septic tanks (estimated to contribute to up to 7% (worst case scenario) of the phosphorus levels across some catchments) using NE's Risk Assessment Tool (under development).	Not yet determined	2015-16	Integrated Nutrient Management Plan: Nutrient Reduction Management Plan	Environment Agency	Environment Agency	Natural England

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3M	Propose and implement solutions to mitigate phosphorus inputs to the river where the NE risk assessment tool identifies that existing, or new, individual or groups of small point discharges (including septic tanks) may present a risk to water quality.	Not yet determined	2016-20	Mechanism not identified / develop mechanism	Environment Agency, Natural England	Environment Agency	Natural England, Wessex Water Services Ltd, Parish Council(s), Householder(s)

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3N	Ensure best practice management of septic tanks and small package treatment plants through an awareness campaign and ensure that new or replacement proposals are considered against sequential options of impact (eg mains sewage connection, settlement first time sewage viability, tertiary treatment, discharge to deep well aerated soil/chalk groundwater etc) and meet high standards on location and design in constraining organic and nutrient pollution where there is a lack of headroom for deterioration in the river.	Not yet determined	2016-20	Partnership agreement	Environment Agency	Local partnership	Environment Agency, Natural England, Catchment partnership, Parish Council(s)

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3O	Investigate reasons for relatively high values of ammonia in some parts and a few failures outside of the SAC and the widespread (but not substantial) failure for Dissolved Oxygen in the SAC including: Avon Western Arm, Avon up stream, Ebble confluence to Knapp Mill, Dockens Water, Avon Eastern Arm catchment, and the upper Nadder catchment.	Not yet determined	2014-17	Investigation / Research / Monitoring	Environment Agency, Natural England	To be agreed	Environment Agency

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3P	If necessary, following EA investigation, ascertain and address reasons for failure of some water bodies to meet chemical targets for Dissolved Oxygen if required by investigation.	Not yet determined	2020-25	Water Industry Asset Management Plan (AMP): Implement Plan Scheme	AMP process	Local partnership	Environment Agency, Wessex Water Services Ltd

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3Q	Investigate reasons (e.g. sources and pathways) for high values of P in the Dockens Water, particuarly in wet conditions, and with particular focus on small point discharges and agriculture/other land-use (walkover survey).	Not yet determined	2014-16	Investigation / Research / Monitoring	Environment Agency	Local partnership	Environment Agency, Natural England

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3R	Determine significance of organic pollutants, in particular natural hormones: oestradiol, testosterone, 11-ketotestosterone, prostaglandins and the synthetic ones such as 17α-ethinyloestradiol, on water quality (and in particular the potential impact on the Atlantic salmon population) arising from fish farm effluent and Sewage Treatment Works (STWs).	Not yet determined	2014-17	Investigation / Research / Monitoring	Environment Agency, Natural England	Environment Agency	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3S	Reduce impact of organic pollutants, in particular natural hormones: oestradiol, testosterone, 11-ketotestosterone, prostaglandins and the synthetic ones such as 17α-ethinyloestradiol, on water quality (and in particular the potential impact on the Atlantic salmon population) arising from fish farm effluent and STWs. Apply predicted No-effect Concentrations (PNECs) for oestradiol and ethynyloestradiol as a precautionary measure prior to Environmental Quality Standard, (EQS). Apply EQS when agreed.	Not yet determined	2017-25	Regulation: Other - obtain appropriate permissions	Not yet determined	Environment Agency	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3T	Investigate solutions to reduce impact from organic pollutants, in particular natural hormones: oestradiol, testosterone, 11-ketotestosterone, prostaglandins and the synthetic ones such as 17α-ethinyloestradiol, on water quality (and in particular the potential impact on the Atlantic salmon population) arising from STWs.	£16,000	2015-20	Water Industry Asset Management Plan (AMP): Implement Investigation	AMP process	Wessex Water Services Ltd	Environment Agency

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3U	Determine significance, and reduce impact, of organic and chemical pollutants from agriculture and road runoff (include eg. metaldehyde).	Not yet determined	2014-15	Investigation / Research / Monitoring	Local Authority, Natural England	Natural England	Local Authorities, Wessex Water Services Ltd, National Farmers' Union (NFU), Sembcorp, Cholderton and District Water Company

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3V	Implement adequate monitoring of water quality (chemical and biological) to assess site condition against conservation objective standards, identify issues and assess recovery.	Not yet determined	2014-20	Investigation / Research / Monitoring	Environment Agency	Environment Agency	Natural England, Wessex Water Services Ltd, Wessex Chalk Streams and Rivers Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3W	Investigate changes in river bank species diversity over time, and in particular potential loss of species due to increases in N and provide recommendations for recovery.	Not yet determined	2015-17	Investigation / Research / Monitoring	Natural England	Natural England	n/a

4 Water abstraction

Water abstraction causes lower than natural river flows that affects a range of habitat factors including current velocity, water depth, wetted area, substrate quality, dissolved oxygen levels and water temperature. The maintenance of both flushing flows and base flows, based on natural hydrological processes, is vital to the sustaining the SAC chalk stream habitat as a whole and to fish species at low flows in particular.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
4A	Implement Phase 2 of the integrated grid infrastructure (Stage 4 of RoC Sustainability Reductions) to reduce abstraction impacts	£48,000,000	2015-20	Water Industry Asset Management Plan (AMP): Implement Plan Scheme	Not yet determined	Wessex Water Services Ltd	Environment Agency

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
4B	Reduce the impact of surface water abstractions from fish farms (RoC)	Not yet determined	2014-15	Restoring Sustainable Abstraction Programme: Abstraction Licence - Revoke/Amend	Not yet determined	Environment Agency	Natural England

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
4C	Vary abstraction licenses if new evidence shows that this is required and sustainability reductions under the Review of Consent (RoC) is found not to fully protect flows.	Not yet determined	2020-25	Regulation: Abstraction Licence	Not yet determined	Environment Agency	Natural England, Wessex Water Services Ltd, Veolia, Sembcorp

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
4D	Assess and, taking into account a least onerous solution approach, remove any impact of 'Crown exempt' abstractions on achievment on flow conservation objective standards	Not yet determined	2014-17	Regulation: Issue Appropriate Notice/Consent	Not yet determined	Natural England	Environment Agency, Defence Infrastructure Organisation (DIO)

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
4E	Assess and amend Stream Support license conditions (both within and outside of the SAC) to ensure they mimic as closely as possible flows under natural conditions.	Not yet determined	2015-25	Regulation: Abstraction Licence	Not yet determined	Environment Agency	Natural England, Wessex Water Services Ltd

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
4F	Investigate and implement alternative solutions to reliance on Stream Support (both within and oustside of the SAC)	Not yet determined	2020-25	Water Industry Asset Management Plan (AMP): Implement Investigation	Not yet determined	Local partnership	Environment Agency, Natural England, Wessex Water Services Ltd

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
4G	Monitor river flows to assess compliance with SAC conservation objectives.	Not yet determined	2014-20	Investigation / Research / Monitoring	Environment Agency	Environment Agency	Wessex Water Services Ltd

5 Changes in species distributions

Salmon are declining and the population level is below the critical conservation level. The reason for the decline is not fully understood and may relate to external factors and climate change however in-channel habitat, flows, siltation and temperature may also be significant contributing factors (refer to the EA River Avon Salmon and Sea Trout Site Action Plan). These factors are being fully or partly addressed through the implementation of various plans, however limited by budgetary constraints. In addition Bewick's Swans are choosing to winter elsewhere even though the habitat in the SPA remains good for them. Desmoulin's whorl snail habitat is fragmented throughout the catchment and of varying quality. The main issue affecting the habitat being site dryness or scrub cover and where hydrologically feasible this is being addressed through agri-environment and Conservation Enhancement Schemes.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
5A	Assess how future (and in the case of Bewick's Swan existing) climate change will impact on the SAC and SPA habitat and species and, if feasible and desirable, recommend measures that reduce any of the impacts identified on the individual habitats and species that do not inadversely impact on the other features and will protect the integrity of the two sites.	£45,000	2015-18	Investigation / Research / Monitoring	Environment Agency, Natural England	Hampshire and Isle of Wight Wildlife Trust	Environment Agency, Natural England, Partnership

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
5B	Implement measures for the SAC habitat and SAC and SPA features that have been recommended to mitigate climate change (and are not addressed elsewhere) and that protect the integrity of the two sites.	Not yet determined	2018-27	Mechanism not identified / develop mechanism	Environment Agency, Natural England	Natural England	Environment Agency, Hampshire and Isle of Wight Wildlife Trust, Wiltshire Wildlife Trust, Partnership

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
5C	Investigate the reasons for the decline in the salmon population and continue the present extent of monitoring the population.	Not yet determined	2015-21	Investigation / Research / Monitoring	Environment Agency	Environment Agency	Natural England, Wessex Chalk Streams and Rivers Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
5D	Reduce the impact of fish stocking on the salmon population and other SAC fish species by reassessing the capacity of the river to support stocked fish and review/agree management plans for fisheries activities that do not impact on the SAC features	No cost	2014-21	Regulation: Fish Stocking Consent, (Incl Electric)	n/a	Environment Agency	Natural England

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
5E	Ensure side ditches are maintained and backwaters are created to provide good habitat for young fish.	Not yet determined	2015-20	Mechanism not identified / develop mechanism	Not yet determined	Natural England	Wessex Chalk Streams and Rivers Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
5F	Assess the reasons for the decline in the population and distribution of Desmoulins Whorl Snail across the River and the Valley. This should also include a survey of suitable habitat in the SAC and in surrounding area to include an assessment of the population level of the snail at each site supporting suitable habitat. This is in order to assess present distribution and abundance and to help direct management of those sites.	£27,000	2015-17	Investigation / Research / Monitoring	Not yet determined	Natural England	Hampshire and Isle of Wight Wildlife Trust, Wiltshire Wildlife Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
5G	Implement grazing/cutting or water level management changes, or creation of habitat to provide conditions within the catchment that support a self-sustaining population of Desmoulins whorl snail.	Not yet determined	2016-25	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
5H	Conduct a survey to assess the quality and suitability of grasslands within the SPA for wintering Bewick's swans.	£3,000	2015-17	Investigation / Research / Monitoring	Natural England	Natural England	Hampshire and Isle of Wight Wildlife Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
5I	Monitor fishing levels at Blashford Lakes and ensure that the activity level, and any associated disturbance, does not negatively impact on wintering Gadwall or the habitat that they require.	Not yet determined	2015-18	Investigation / Research / Monitoring	Natural England	Hampshire and Isle of Wight Wildlife Trust	Natural England

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
5J	Implement habitat management solutions to reduce P levels in Blashford Lakes to protect Gadwall (ensuring that a macrophyte dominated system is maintained).	£370,000	2020-25	Water Industry Asset Management Plan (AMP): Implement Plan Scheme	Wessex Water	Wessex Water Services Ltd	Environment Agency, Natural England

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
5K	Implement any recommended management from the investigation into the quality and suitibility of grasslands within the SPA for wintering Bewick's swans.	Not yet determined	2017-21	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Natural England	Natural England	n/a

6 Invasive species

Invasive plants cause progressive deterioration of bankside habitats by impoverishing the botanical diversity and causing winter instability due to lack of year round plant cover. This can increase the risk of erosion and siltation and thereby affect fish spawning habitat and gravel habitat supporting characteristic submerged plant communities. The principle plant species of concern are Orange Balsam, Japanese Knotweed, Giant Hogweed,Creeping Water Primrose, Skunk Cabbage, Water Fern (*azolla*) and Himalayan Balsam. An approach is required to reduce and eliminate them by sub catchment where they are established combined with monitoring and rapid removal of any spread to new sub catchments. Invasive animal species such as Signal crayfish are known to impact on riverine species such as Salmon, but in the Avon their population size, distribution and potential impact is not quantatively known.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
6A	Secure funding to continue the Source to Sea project (Avon catchment-wide non-native invasive species control programme) up to 2016 to control and eliminate invasive plant species.	£340,000	2015-18	Partnership agreement	Environment Agency, Natural England, Other	Avon Non Native Invasive Plant Forum	Dorset Wildlife Trust, Environment Agency, Hampshire and Isle of Wight Wildlife Trust, Natural England, Wiltshire Wildlife Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
6B	Set up and run a programme to monitor and provide a rapid response to plants previously controlled by the Source to Sea Project (Himalayan and Orange Balsam, Japanese Knotweed, Giant Hogweed, Creeping Water Primrose, Water Fern *Azolla* and Skunk Cabbage) and also other plants and wider taxa that may present a threat e.g. Mink, *Ludwigia*, fish, invertebrates (killer shrimp etc.).	£60,000	2018-27	Existing Local Project	Environment Agency, Natural England, SSSI funding	Avon Non Native Invasive Plant Forum	Dorset County Council, Dorset Wildlife Trust, Environment Agency, Hampshire and Isle of Wight Wildlife Trust, Hampshire County Council, Wessex Water Services Ltd, Wiltshire Wildlife Trust, Wessex Chalk Streams and Rivers Trust, National Farmers' Union (NFU)

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
6C	Survey and monitor the impact of crayfish on the SAC and determine the extent of control measures that may be required to eradicate them.	£60,000	2015-17	Investigation / Research / Monitoring	Environment Agency, Natural England, Other	Environment Agency	Dorset Wildlife Trust, Hampshire and Isle of Wight Wildlife Trust, Natural England, Wiltshire Wildlife Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
6D	Control or eradicate Signal crayfish from the catchment (biological method).	£270,000	2018-25	Mechanism not identified / develop mechanism	Defra, Environment Agency, Natural England, Other	Wiltshire Wildlife Trust	Environment Agency, Natural England

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
6E	Monitor the impact of climate change on fish species such as Carp and other non-native fish and assess the risk that these species present to native populations of SAC fish (eg Alantic Salmon) or habitats (e.g. lakes inhabitated by Gadwall) should warmer and/or wetter summers allow them to successfully breed or increase the potential of them escaping into the SAC during floods.	Not yet determined	2015-17	Investigation / Research / Monitoring	Defra	Defra	Environment Agency

7 Public Access/Disturbance

Dog walkers disturbing wildfowl in areas outside public rights of way is a concern.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
7A	Prevent public disturbance of Bewick's swans.	No cost	2015-16	Regulation: SSSI Regulation	n/a	Natural England	n/a

8 Hydrological changes

Desmoulin's whorl snail is an annual species and requires localities that are stable hydrologically. Changes in the hydrology that may affect the species include flooding or drying out due to low ground water levels which may be linked to either changing climate conditions or over-abstraction.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
8A	Assess the hydrological condition (flooding/abstraction impacts/water level management) of sites that support Desmoulin's whorl snail across the catchment and the long-term sustainibility of the existing wetland network to sustain the population at a catchment level. Make recommendations to protect/restore the hydrological functioning of the sites. Identify locations in the catchment to restore or create new fen and/or swamp habitat to increase the resilience of the population.	£50,000	2015-16	Investigation / Research / Monitoring	Not yet determined	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
8B	Reduce any impacts on the hydrological conditions that support Desmoulin's whorl snail habitat	Not yet determined	2020-25	Habitat creation / restoration strategy: Habitat restoration	Not yet determined	Natural England	Environment Agency

9 Inappropriate weed control

Insensitive weed cutting may impact on the chalk stream habitat and the fish species it supports. Weed cutting appears to favour a dominance by *Ranunculus* species and this can lead to a loss in other plant species diversity and abundance. As well as the potential for direct damage to fish species it may also result in a loss of food source, shelter and wildlife associated with the river plants - in particular for invertebrates, and their eggs, fish and fish fry (it is estimated that up to 40% of the invertebrate biomass can be lost by a weed cut). It may also cause the lowering of water levels on the adjacent floodplain effecting wetland habitats and the fauna they support. This type of vegetation also buffers low flows by maintaining water depth and flow diversity. Maintaining diverse plant communities is crucial to the health of the chalk stream system.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
9A	As part of the Detailed Notification Review assess whether or not weed cutting for fishery purposes does, or has the potential to, cause unfavourable condition of the SAC. Weed-cutting for fishery purposes is listed as an exemption from the List of Operations Likely to Damage the River Avon System SSSI. If it is found to be damaging then this exception should be revoked and relevant consents/assents issued to landowners/river managers.	Not yet determined	2015-17	Designation strategy: Notification Amendment	n/a	Natural England	Landowner(s), Wessex Chalk Streams and Rivers Trust, Wiltshire Fishery Association, River manager(s)

10 Change in land management

Areas of wet grassland may become wetter due to higher river levels in summer. This may increase the difficulty of managing some areas of the floodplain by grazing and cutting in some years potentially impacting on the grazing quality for Bewick swans. This may be in part be linked to reduced weed cutting in the river channel but also changing summer rainfall patterns (e.g. increased summer storminess) related to climate change

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
10A	Investigate alternative grassland management options for use in areas of the valley where climate change is leading to wetter conditions and the development of swamp habitat. This may include grazing options involving other animals (eg Water Buffalo) and alternative equipment that can cut grass in wetter conditions without damaging the habitat.	£9,000	2014-16	Investigation / Research / Monitoring	Natural England, SSSI funding	Natural England	Hampshire and Isle of Wight Wildlife Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
10B	Survey grasslands and monitor changes in the vegetation condition of the SPA to ensure that any changes do not impact on habitat quality for Bewick's swan.	£54,000	2014-20	Investigation / Research / Monitoring	Natural England, SSSI funding	Natural England	n/a

11 Habitat fragmentation

SAC/SPA boundaries may not adequately cover the extent of all Annex 1 and Annex 2 features and/or their supporting habitats. Several of the headwaters and the tributaries that are not included within the boundary of the SAC (or underpinning SSSI) are integral to and important to the natural functioning of the whole river system and also support the habitats and species for which the site is selected and/or notified. The headwaters are also particularly sensitive to abstraction pressures.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
11A	Explore changes to the SAC/SPA designations that may be required (e.g. boundary changes) to include qualifying habitat or species features that are not satisfactorily represented within the existing boundary or cannot be effectively conserved at favourable status by the existing boundary.	£2,000	2015-17	Designation strategy (SSSI)	Natural England	Natural England	n/a

Site details

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

Qualifying features

#UK Special responsibility

Avon Valley SPA	A037(NB) *Cygnus columbianus bewickii*: Bewick swan
	A051(NB) *Anas strepera*: Gadwall
River Avon SAC	H3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation
	S1016 *Vertigo moulinsiana*: Desmoulin`s whorl snail
	S1095 *Petromyzon marinus*: Sea lamprey
	S1096 *Lampetra planeri*: Brook lamprey
	S1106 *Salmo salar:* Atlantic salmon
	S1163 *Cottus gobio:* Bullhead

Site location and links

Avon Valley SPA

Area (ha) **1385.08** *Grid reference* **SZ144983**	Map link
Local Authorities	Dorset; Hampshire; New Forest National Park Authority
Site Conservation Objectives	European Site Conservation Objectives for Avon Valley SPA
European Marine Site conservation advice	n/a
Regulation 33/35 Package	n/a
Marine Management Organisation site plan	n/a

River Avon SAC

Area (ha) **498.24**	*Grid reference*	**SU124339**	Map link
Local Authorities			Dorset; Hampshire; New Forest National Park Authority
Site Conservation Objectives			European Site Conservation Objectives for River Avon 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 (RMBP) 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

Avon Valley SPA

River basin	South West	South West RBMP
WFD Management catchment	Hampshire Avon	
WFD Waterbody ID (Cycle 2 draft)	GB108043011010, GB108043011011, GB108043011012, GB108043015720, GB108043015730, GB108043015740, GB108043015750, GB108043015840, GB30845377, GB30845412, GB30845427, GB30845428, GB30845441, GB30845446, GB30847016, GB30847017	
Locally revised Conservation Objectives		
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

River Avon SAC

River basin	South West	South West RBMP
WFD Management catchment	Hampshire Avon	

WFD Waterbody ID (Cycle 2 draft)	GB108043011010, GB108043011011, GB108043011012, GB108043015720, GB108043015730, GB108043015740, GB108043015750, GB108043015770, GB108043015830, GB108043015840, GB108043015880, GB108043016190, GB108043022350, GB108043022360, GB108043022370, GB108043022390, GB108043022410, GB108043022420, GB108043022470, GB108043022471, GB108043022480, GB108043022510, GB108043022520, GB108043022530, GB108043022540, GB108043022550, GB108043022560, GB108043022570
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	Restoring Designated Rivers
River Restoration Plan document	Avon System SSSI and SAC

Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Avon Valley SPA	River Avon System SSSI
	Avon Valley (Bickton-Christchurch) SSSI
	The New Forest SSSI
	Town Common SSSI
River Avon SAC	River Till SSSI
	River Avon System SSSI
	East Harnham Meadows SSSI
	Avon Valley (Bickton-Christchurch) SSSI
	Jones's Mill SSSI
	Porton Meadows SSSI
	The New Forest SSSI
	Christchurch Harbour SSSI
	Britford Water Meadows SSSI
	Lower Woodford Water Meadows SSSI

National Nature Reserve (NNR)	
Avon Valley SPA	n/a
River Avon SAC	n/a

Ramsar	
Avon Valley SPA	Avon Valley
	Dorset Heathlands
River Avon SAC	Avon Valley
	New Forest

Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Avon Valley SPA	River Avon SAC

River Avon SAC	Dorset Heaths SAC New Forest SPA Avon Valley SPA

Version	*Date*	*Comment*
1.0	10/10/2014	