

# Site Improvement Plan

## Fal & Helford

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](mailto: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](mailto:enquiries@naturalengland.org.uk)

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

**UK0013112 Fal & Helford SAC**

## Site description

The Fal and Helford SAC in south Cornwall is a complex inshore site comprised of the two ria (drowned river valley) systems of the Fal and Helford Rivers and adjacent Falmouth Bay. The rias receive a low freshwater input and therefore contain a notable range of fully marine habitats with a high diversity of species across the majority of the site. These habitats are highly influenced by the degree of exposure within the site which varies greatly from extremely sheltered mudflats in the upper Fal to more exposed rocky coastal areas around the mouth of the Helford. Furthermore, the south-westerly location supports seawater temperatures that allow species to occur that are usually more southerly in their distribution.

The majority of the shores of the upper Fal and Helford are fringed by sheltered littoral sandflats and mudflats and are recognised for the importance of the species living within the sediments. In some areas of the upper reaches of the estuaries Atlantic salt meadows are found transitioning from mudflats through, in some places, to woodland which is a rare occurrence in the UK though very much a function of the ria geology. Littoral and sublittoral rocky reef features are present in the SAC and include circalittoral reef in Falmouth Bay, kelp forest communities, estuarine reef and littoral rocky shore communities.

In the lower Fal and Falmouth Bay extensive beds of the unattached coralline red algae maerl are present supporting a high diversity of flora and fauna. These maerl beds are Biodiversity Action Plan (BAP) priority habitats and are the most south-westerly examples of maerl beds in Britain. Other BAP priority habitats within the site include seagrass beds, which are present in both the Fal and the Helford. BAP species in the site include the native oyster (subject to a traditional fishery), pink sea fan and burgundy maerl paint weed.

## 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 Marine consents and permits: shipping	Threat	H1110 Subtidal sandbanks, H1170 Reefs	Assess the impacts of ship anchoring on the SAC using recent data	Falmouth Harbour Commissioners , Natural England, St. Mawes Pier and Harbour Company, Port of Truro
2 Invasive species	Threat	H1110 Subtidal sandbanks, H1130 Estuaries, H1140 Intertidal mudflats and sandflats, H1170 Reefs	Develop a management plan for Pacific oyster	Natural England, Volunteers

3	Water Pollution	Pressure	H1110 Subtidal sandbanks, H1130 Estuaries, H1140 Intertidal mudflats and sandflats, H1160 Shallow inlets and bays, H1170 Reefs, H1330 Atlantic salt meadows, S1441 Shore dock	Develop an overall strategy to reduce diffuse nutrient pollution into the SAC	Cornwall Council, Cornwall Inshore Fisheries Conservation Authority (IFCA), Environment Agency, Natural England, South West Water Ltd, Landowner(s), Port Health, Food Standards Agency (FSA)
4	Public Access/Disturbance	Pressure	H1110 Subtidal sandbanks	Review Recreational Boating Study outcomes and promote best practice	Cornwall Council, Environment Agency, Falmouth Harbour Commissioners , Natural England, Duchy of Cornwall, Plymouth University, A & P Ports, St. Mawes Pier and Harbour Company, Port Pendennis Marina, Helford River Moorings, Truro and Penryn Harbour Authority, Royal Yachting Association (RYA)
5	Siltation	Pressure	H1110 Subtidal sandbanks, H1130 Estuaries, H1140 Intertidal mudflats and sandflats, H1160 Shallow inlets and bays, H1170 Reefs, H1330 Atlantic salt meadows, S1441 Shore dock	Develop an overall strategy to reduce undesirable terrestrial sources of sediment input into SAC	Cornwall Council, Cornwall Inshore Fisheries Conservation Authority (IFCA), Environment Agency, Natural England, South West Water Ltd, Landowner(s), Port Health, Food Standards Agency (FSA)
6	Public Access/Disturbance	Pressure/ Threat	H1110 Subtidal sandbanks, H1130 Estuaries, H1160 Shallow inlets and bays	Review the development of moorings	Falmouth Harbour Commissioners , St. Mawes Pier and Harbour Company, Helford River Moorings, Truro and Penryn Harbour Authority, Sailaway St. Anthony

7 Marine consents and permits: channel maintenance	Pressure	H1110 Subtidal sandbanks, H1130 Estuaries, H1140 Intertidal mudflats and sandflats, H1160 Shallow inlets and bays	Develop an overall strategy to reduce undesirable terrestrial sources of sediment input into the SAC	Cornwall Council, Cornwall Inshore Fisheries Conservation Authority (IFCA), Environment Agency, Natural England, South West Water Ltd, Landowner(s), Port Health, Food Standards Agency (FSA)
8 Fisheries: Recreational marine and estuarine	Pressure/ Threat	H1130 Estuaries, H1140 Intertidal mudflats and sandflats	Indicate where management is necessary and work with organisations to implement these measures	Cornwall Inshore Fisheries Conservation Authority (IFCA), Duchy of Cornwall
9 Invasive species	Threat	H1110 Subtidal sandbanks, H1130 Estuaries, H1160 Shallow inlets and bays, H1170 Reefs	Identify the scale of the non-natives issue and implement management as required	Cornwall Wildlife Trust, Natural England, Environmental Records Centre for Cornwall and the Isles of Scilly (ERCCIS)
10 Fisheries: Commercial marine and estuarine	Pressure	H1170 Reefs	Indicate where management is necessary and work with organisations to implement these measures	Cornwall Inshore Fisheries Conservation Authority (IFCA)
11 Water Pollution	Pressure	H1110 Subtidal sandbanks, H1130 Estuaries, H1140 Intertidal mudflats and sandflats, H1160 Shallow inlets and bays, H1170 Reefs, H1330 Atlantic salt meadows, S1441 Shore dock	Maintain or increase the awareness raising of issues within the SAC	Cornwall Inshore Fisheries Conservation Authority (IFCA), Falmouth Harbour Commissioners, Port Health, A & P Ports, St. Mawes Pier and Harbour Company, Port Pendennis Marina, Helford River Moorings, Truro and Penryn Harbour Authority
12 Fisheries: Private	Threat	H1110 Subtidal sandbanks, H1140 Intertidal mudflats and sandflats	Advice to Duchy Oyster Farm, Cornwall IFCA and Defra as necessary	Cornwall Inshore Fisheries Conservation Authority (IFCA), Natural England, Duchy Oyster Farm
13 Fisheries: Commercial marine and estuarine	Pressure	H1110 Subtidal sandbanks	Secure the appropriate protection of SAC features through a new Regulating Order	Cornwall Inshore Fisheries Conservation Authority (IFCA), Natural England, Truro and Penryn Harbour Authority, Local oyster fishermen

14 Fisheries: Commercial marine and estuarine	Pressure	H1110 Subtidal sandbanks, H1140 Intertidal mudflats and sandflats	Indicate where management is necessary and work with organisations to implement these measures	Cornwall Inshore Fisheries Conservation Authority (IFCA)
15 Air Pollution: risk of atmospheric nitrogen deposition	Threat	H1130 Estuaries, H1330 Atlantic salt meadows, S1441 Shore dock	Further investigate nitrogen deposition impact on the site	Natural England
16 Invasive species	Threat	H1110 Subtidal sandbanks, H1130 Estuaries, H1160 Shallow inlets and bays, H1170 Reefs	Identify the scale of the non-natives issue and implement management as required	Fisheries, Port of Truro

## 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 Marine consents and permits: shipping

Ship anchoring and the anchoring of other commercial vessels have occurred in the Fal and Helford SAC since its designation and have the potential to damage designated features of the site through physical damage (abrasion). Focussed in Falmouth Bay and Outer Carrick Roads, ship anchoring has the potential to lead to localised damage to e.g. maerl habitat through physical damage (abrasion). Operations within Falmouth Harbour Commissioners (FHC) port limits are currently assessed according to habitat sensitivity information and as part of FHC's Environmental Management System. To date there has not been a full assessment of the potential damage of the activity due to lack of data on the location of sensitive habitats and ship anchoring.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1A	Further develop an assessment of the impact of ship anchoring on SAC features using 2013 feature map (desk based study), and potentially research project	£20,000	2014-15	Modification Of Dredging / Harbour Management	Natural England, External funding	To be agreed	Falmouth Harbour Commissioners , Natural England, St. Mawes Pier and Harbour Company, Port of Truro

## 2 Invasive species

Cultivation of Pacific oyster *Crassostrea gigas* has the potential to impact features of the SAC through biological disturbance (introduction of non-native species and translocation). In the Helford, the lack of a Competent Authority complicates the regulation of this activity, as it is marine license exempt. Activities in the intertidal can be managed by NE through SSSI consents, but there is no management mechanism for the activity in the subtidal, although the activities of the Duchy Oyster Farm have been limited by the introduction of the CIFCA dredging byelaw.

<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>
<b>2A</b>	Management plan and control implementation for Pacific oyster colonisation. To include physical removal where necessary although this will depend on the scale of the issue and subsequent feasibility of removal. Defra and Natural England are currently working on guidance relating to the management of Pacific oysters, and the findings of the IPENS Pacific oyster evidence project in north east Kent may also be relevant.	£5,000	2014 onwards	Invasive Control Plan: Invasive Species Control Programme	Natural England	Natural England	Volunteers

### 3 Water Pollution

Diffuse and point source pollution can impact the features of the Fal and Helford SAC in a number of ways, from nutrient and organic enrichment to suspended solids and changes in the salinity regime. Both direct and indirect (catchment derived) sources operate.

In terms of the Water Framework Directive, the current status of the Fal and Helford is that the Carrick Roads Inner, Carrick Roads Outer and Helford water bodies are moderate, but failing for dissolved inorganic nitrogen (DIN). In addition, both Carrick Roads water bodies are failing for TBT (see issue 11). Carrick Roads Inner and the Helford are also failing for invertebrates.

Toxic algal blooms have been recorded within the SAC, including a bloom of *Karenia mikimotoi* in the Helford in 2009 that led to the death of many invertebrates. The Helford River is known to be highly nutrient enriched and the upper Fal catchment area is designated as a Nitrate Vulnerable Zone. Furthermore, current development pressure around the Truro and Falmouth is likely to increase pressure on sewage treatment works and other waste water assets.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
3A	Implement the Pollution Action Plan as described in Annex D of the RBMP. For the Fal and Helford this was to <i>evaluate impacts and apply appropriate solution, e.g. catchment sensitive farming, water protection zone or control of discharges</i> . This will help to understand sources of Dissolved Inorganic Nitrogen (DIN), and will involve work with partners (water companies and Cornwall Council) to take forward actions in each sector to address the issue. This could include a workshop for relevant agencies including Port Health, Environment Agency, Natural England (monitoring, land management and marine staff), Cornwall Council and water bodies.	£75,000	2015	Integrated Nutrient Management Plan: Nutrient Reduction Management Plan	Environment Agency, Natural England, Rural Development Programme (RDPE), Water Framework Directive (WFD), Catchment Sensitive Farming (CSF), Water company	To be agreed	Cornwall Council, Environment Agency, Natural England, South West Water Ltd

<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>
<b>3B</b>	Investigate Catchment Sensitive Farming scheme, NELMS and Campaign for the Farmed Environment (CFE) as mechanisms to help reduce DIN and other nutrient input from diffuse agricultural sources.	£20,000	2014-15	England Catchment Sensitive Farming (CSF)	Natural England, Rural Development Programme (RDPE), New Environmental Land Management Scheme (NELMS), Catchment Sensitive Farming (CSF)	Natural England	Cornwall Council, Cornwall Inshore Fisheries Conservation Authority (IFCA), Environment Agency, South West Water Ltd, Landowner(s), Port Health, Food Standards Agency (FSA)
<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>
<b>3C</b>	Consider how the uptake of permitted headroom, and the permitting of new developments, could impact elements of Water Framework Directive (WFD) assessment including DIN and/or cause deterioration of a protected area, and other statutory designations.	No funding required, as it is part of the statutory remit	2015	Regulation: Environmental Permits	Environment Agency, Water company	To be agreed	Environment Agency, South West Water Ltd

#### 4 Public Access/Disturbance

Anchoring of recreational vessels has been occurring within the site since its designation, particularly in the Helford River, Restronguet and Percuil, and has the potential to damage sensitive habitats within the Fal and Helford SAC e.g. maerl and seagrass beds as a result of the abrasive nature of the activity. A voluntary code of conduct is in place in some areas, as are voluntary no-anchor zones. A 2012 study gathered more information on the impacts of recreational boating activities and infrastructure and it is anticipated that the outcomes of the study will be used to develop e.g. a best practice code of conduct.

<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>
<b>4A</b>	Review the outcomes of the Recreational Boating Study. Each port or harbour authority to develop their own good practise guide to reflect the needs of the individual ports and harbours. Implement management changes where appropriate.	£2,000	2014-15	Advice: Education & awareness raising	External funding	Local partnership	Cornwall Council, Environment Agency, Falmouth Harbour Commissioners , Natural England, Duchy of Cornwall, Plymouth University, A & P Ports, St. Mawes Pier and Harbour Company, Port Pendennis Marina, Truro and Penryn Harbour 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>
<b>4B</b>	Install eco-moorings where recreational moorings overlap with sensitive habitats. Outcomes of the Recreational Boating Study could be used to help identify moorings that overlap with sensitive habitats.	£100,000	2015	Modification Of Dredging / Harbour Management	External funding	Local partnership	Falmouth Harbour Commissioners , St. Mawes Pier and Harbour Company, Helford River Moorings, Truro and Penryn Harbour Authority, Royal Yachting Association (RYA)

## 5 Siltation

Effluent and run off can impact the features of the Fal and Helford SAC in a number of ways, from nutrient and organic enrichment to suspended solids and changes in the salinity regime. Both direct and indirect (catchment derived) sources operate. Recently, the Environment Agency have recorded a WFD fail for benthic invertebrates in the Helford.

Sewage and trade effluent including china clay suspended sediment inputs are a source of suspended solids. Sediment run off e.g. from surrounding agricultural land in the catchment area has led to localised silting up of creeks (e.g. in the Helford) and upper river areas e.g. Port of Truro, upper Fal. In the Port of Truro, the deposition of sediment has led to an increased need for maintenance dredging. This accretion has been noted in the 2011 Cornwall and Isles of Scilly Shoreline Management Plan. The Fal and Helford are sediment starved systems due to limited sediment supply and will only reach estuarine equilibrium if accrete and gain material. The aim here is not to try and reduce sediment supply to the estuary overall but to reduce the input of undesirable terrestrial sources of sediment into the estuary.

<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>
<b>5A</b>	Identify key sources and sinks for sediment input into the SAC and investigate Catchment Sensitive Farming scheme. Develop key actions for the site (see Issue 3)	£20,000	2014-15	England Catchment Sensitive Farming (CSF)	Natural England, Rural Development Programme (RDPE), New Environmental Land Management Scheme (NELMS), Catchment Sensitive Farming (CSF)	Natural England	Cornwall Council, Cornwall Inshore Fisheries Conservation Authority (IFCA), Environment Agency, Water companies, Landowner(s), Port Health, Food Standards Agency (FSA)

<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>
<b>5B</b>	Organise a workshop for relevant Port Health, Environment Agency, monitoring (NE), land management (NE), marine (NE) staff, Cornwall Council and water bodies (see issue 3)	£500	2015	Mechanism not identified / develop mechanism	Environment Agency, Natural England, Rural Development Programme (RDPE), Water Framework Directive (WFD)	Natural England	Cornwall Council, Cornwall Inshore Fisheries Conservation Authority (IFCA), Environment Agency, Water companies, Landowner(s), Port Health, Food Standards Agency (FSA)

## 6 Public Access/Disturbance

The laying of new moorings can impact features of the Fal and Helford SAC through physical loss (smothering) and physical damage (abrasion). There is a lack of management within Restronguet and Percuil but in these areas a licence would be required by the MMO. Recent discussions at the SAC Management Forum (January 2014) suggests that moorings within the SAC are not currently expanding.

<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>
<b>6A</b>	Harbour authorities to conduct another audit of their moorings. Natural England to map and use the Recreational Boating Study baseline to compare with the new data.	No funding required	2014 onwards	Modification Of Dredging / Harbour Management	No funding required	Local partnership	Falmouth Harbour Commissioners , Other, St. Mawes Pier and Harbour Company, Helford River Moorings, Truro and Penryn Harbour Authority, Sailaway St. Anthony

## 7 Marine consents and permits: channel maintenance

There is a requirement for regular maintenance dredging at various sites within the Fal and Helford SAC e.g. upper Truro River (biannually) and Penryn River (every 3-4 yrs), and also at Port Pendennis Marina, Falmouth Marina and Mylor Marina. As mentioned in the 2011 Cornwall and Isles of Scilly Shoreline Management Plan and Dredging Protocol for the Fal and Helford estuaries, the creeks up-estuary of the Carrick Roads have historically accreted rapidly as a result of catchment derived sources. The need for maintenance dredging in the upper Fal has increased due to sediment run off due to changes in agricultural practices in the catchment. This activity has the potential to impact the features through physical loss (removal and smothering) and physical damage (siltation).

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
7A	See actions for Issue 5, Siltation	see Actions 5A and 5B	2014 onwards	England Catchment Sensitive Farming (CSF)	Rural Development Programme (RDPE), Catchment Sensitive Farming (CSF)	Natural England	Cornwall Council, Environment Agency, South West Water Ltd, Landowner(s), Port Health, Food Standards Agency (FSA)

## 8 Fisheries: Recreational marine and estuarine

Bait digging has the potential to impact features of the SAC through physical damage (trampling) and biological disturbance (selective extraction of species). A voluntary code of conduct exists in the Helford but there are frequent reports of relatively large scale commercial bait digging (of e.g. razor clams and cockles) which suggest that current mechanisms are not effective. Where this occurs in the parts of the site underpinned by SSSI, this can be managed by NE through SSSI legislation. In the Helford, the lack of a Competent Authority complicates the regulation of this activity.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
8A	Where the assessments indicate management is required, introduce appropriate measures. Deadline 2016.	Not yet determined	2016	Regulation: Creation / amendment of byelaws	n/a	Cornwall Inshore Fisheries Conservation Authority (IFCA)	n/a

## 9 Invasive species

The Fal and Helford SAC contains a busy port and is popular with recreational boating. Mussel and oyster farms are also operational within the SAC. With the release of ballast water from ships and the influx of ships and boats from other areas comes a risk of the introduction of non-native species, for which there is currently insufficient information available to determine the sensitivity of many marine habitats and species to this effect. Several invasive species have been recorded in the site. Concern has increased recently over the potential impacts of the alien sea squirt *Didemnum vexillum*, which can overgrow most hard substrata in the sub-tidal zone including hard bodied sessile animals and plants, the main transport pathway for which include recreational boating and aquaculture (Laing et al., 2010). The spread of invasive seaweeds such as *Sargassum muticum* is also of concern. International protocol (Ballast Water Convention) and local arrangements exist e.g. Truro & Falmouth Port Health Authority view ballast management records during vessel inspections.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
9A	Work with Cornwall Wildlife Trust and ERCCIS to understand scale of non-natives issue and implement management as required	Not yet determined	2014	Mechanism not identified / develop mechanism	Defra, External funding	Natural England	Cornwall Wildlife Trust, Environmental Records Centre for Cornwall and the Isles of Scilly (ERCCIS)

## 10 Fisheries: Commercial marine and estuarine

Commercial fishing activities categorised as 'amber or green' under Defra's revised approach to commercial fisheries in EMSs require assessment and (where appropriate) management. This assessment will be undertaken by CIFCA. For activities categorised as 'green', these assessments should take account of any in-combination effects of amber activities, and/or appropriate plans or projects, in the site. Static gear fisheries such as tangle netting, gill netting and potting have the potential to damage reef features through abrasion and the selective extraction of certain species. Mesh size, fixed engine, boat size and permitting controls are in place.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
10A	Where the assessments indicate management is required, introduce appropriate measures. Deadline 2016.	Not yet determined	2016	Regulation: Creation / amendment of byelaws	n/a	Cornwall Inshore Fisheries Conservation Authority (IFCA)	Natural England

## 11 Water Pollution

Chemical pollution: boat maintenance, beach berthing and marina activities have the potential to lead to localised water pollution through the introduction of chemicals. Not currently a widespread issue in Fal and Helford and voluntary codes are publicised through RYA Green Blue Initiative & Harbour Authorities (Environmental Code of Practice Leaflet). The risk of discharges of Tributyl Tin (TBT) is concentrated around the docks and locked in sediments around marinas (historical areas of application of TBT paints / scraping of hulls), but may occur throughout estuary at lower levels (not currently evidence of migration). The return of dogwhelks to southern parts of the estuary are indicative of lower TBT levels, although Carrick Roads Inner and Carrick Roads Outer are failing for TBT in terms of the Water Framework Directive. This could impact features through toxic contamination.

<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>
<b>11A</b>	Maintain awareness raising of issues within SAC, or increase if current levels inadequate.	£2,000	2015	Advice: Education & awareness raising	Local partnership	Local partnership	Cornwall Inshore Fisheries Conservation Authority (IFCA), Falmouth Harbour Commissioners, A & P Ports, St. Mawes Pier and Harbour Company, Port Pendennis Marina, Helford River Moorings, Truro and Penryn Harbour Authority

## 12 Fisheries: Private

The Duchy Oyster Farm operates under licence from the Duchy of Cornwall which owns the exclusive fishing rights in the Helford River. The oyster farm has requested to resume their use of towed gear to manage and harvest the oyster beds in the Helford River. They are currently in discussion with the CIFCA and Defra as to if and how this may be permitted. This activity has the potential to damage features through physical damage (siltation and abrasion) and biological disturbance (the selective extraction of species). The use of towed gear has been subject to an HRA undertaken by Cefas.

<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>
<b>12A</b>	Ensure appropriate protection of the SAC is maintained in relation to private fishery activities	Not yet determined		Regulation: Creation / amendment of byelaws	n/a	Cornwall Inshore Fisheries Conservation Authority (IFCA)	Natural England, Duchy Oyster Farm

### 13 Fisheries: Commercial marine and estuarine

Although dredges are normally categorised as 'Red' for this interest feature as part of Defra's revised approach to commercial fisheries management in EMSs, native oyster dredging in the Fal has been categorised as a high risk amber activity. The fishery is described as a traditional fishery, in that it is restricted to sail or hand-powered vessels and is limited to the oyster dredging season (1 Oct - 31 March). There are approximately 30 licensed dredges. The fishery has the potential to damage features through physical damage (siltation and abrasion) and biological disturbance (the selective extraction of species). A new Regulating Order will be made before the start of the 2014 season and the fishery will be managed by the CIFCA. The CIFCA will assess the impact of the new RO by undertaking an HRA. Outside RO, dredging no longer possible within the SAC as covered by CIFCA byelaw which came into force January 2014.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
13A	Secure appropriate protection of SAC features through new Regulating Order.	Not yet determined	2014-15	Regulation: Regulating Order (Public fishery)	n/a	Cornwall Inshore Fisheries Conservation Authority (IFCA)	Natural England, Truro and Penryn Harbour Authority, Local oyster fishermen

### 14 Fisheries: Commercial marine and estuarine

Dredges (inc. Hydraulic), benthic trawls and seines are categorised as 'Red' for these interest features (and specifically the sub-features: subtidal rock and boulder communities; eelgrass bed communities; maerl bed communities) as part of Defra's revised approach to commercial fisheries management in EMSs, and requisite mechanisms are being or will be implemented by CIFCA. Seine netting currently occurs sporadically within the Fal estuary (it is a legal activity). Derek Goodwin conducts scientific monitoring. Environment Agency also adopt this practise as part of their WFD monitoring. This activity has the potential to damage features through physical damage (siltation and abrasion) and biological disturbance (the selective extraction of species).

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
14A	Ensure compliance with bye-law and provide an appropriate level of reporting to ensure sites are well managed and to enable Natural England to provide advice on the condition of features and potential condition threats.1. Ongoing action.	Not yet determined	2014	Enforcement: Byelaws	n/a	Cornwall Inshore Fisheries Conservation Authority (IFCA)	n/a

### 15 Air Pollution: risk of atmospheric nitrogen deposition

Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection and hence there is a risk of harmful effects, but the sensitive features are currently considered to be in favourable condition on the site. This requires further investigation.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
15A	Further investigate potential atmospheric nitrogen impacts on the site based on application of guidance from Chief Scientist Group Nitrogen Task and Finish Group	Not yet determined	2014-17	Investigation / Research / Monitoring	Not yet determined	Natural England	n/a

## 16 Invasive species

Attempts to control the spread of slipper limpets *Crepidula fornicata* with practical management has been the focus of discussion in recent years. Seed funding was previously available through the Conservation Enhancement Scheme. However, funding was only available for one year whereas previous discussion with the oyster fishery pointed to the fact that this would not be sufficient to address the issue and that longer term funding was needed.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
16A	Work with the oyster fishery and Environment Agency to understand the scale of the slipper limpet issue and disposal options and costs. Implement management where required.	Not yet determined	2014 onwards	Mechanism not identified / develop mechanism	Defra, Grant in aid	Natural England	Fisheries, Port of Truro

## Site details

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

### Qualifying features

#UK Special responsibility

#### Fal & Helford SAC

S1441 *Rumex rupestris*: Shore dock

H1110 Sandbanks which are slightly covered by sea water all the time

H1130 Estuaries

H1140 Mudflats and sandflats not covered by seawater at low tide

H1160 Large shallow inlets and bays

H1170 Reefs

H1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

### Site location and links

#### Fal & Helford SAC

Area (ha) **6387.8**      Grid reference **SW747261**      [Map link](#)

Local Authorities      Cornwall

Site Conservation Objectives      [Fal and Helford SAC](#)

European Marine Site conservation advice      [Fal & Helford SAC](#)

Regulation 33/35 Package      [Regulation 33/35 Package](#)

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.*

### Fal & Helford SAC

River basin

[South West RBMP](#)

WFD Management catchment

West Cornwall and the Fal

WFD Waterbody ID (Cycle 2 draft)

GB108048001250, GB108048001270, GB108048001280, GB108048001750, GB108048001860, GB108048001870

## Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Fal & Helford SAC	Carricknath Point to Porthbean Beach SSSI Lower Fal & Helford Intertidal SSSI Upper Fal Estuary & Woods SSSI Rosemullion SSSI Merthen Wood SSSI Malpas Estuary SSSI Gerrans Bay to Camels Cove SSSI
National Nature Reserve (NNR)	
Fal & Helford SAC	n/a
Ramsar	
Fal & Helford SAC	n/a
Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Fal & Helford SAC	Falmouth Bay to St Austell Bay pSPA

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	03/12/2014	

[www.naturalengland.org.uk/ipens2000](http://www.naturalengland.org.uk/ipens2000)

