

Site Improvement Plan

Lundy

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)

UK0013114 Lundy SAC

Site description

Lundy SAC is an extensive offshore area surrounding the island of Lundy, in the Bristol Channel. The interest features are predominantly subtidal, the most significant being the outstandingly diverse granite reef system, but also including extensive subtidal sandbanks and sea-caves. The island and surrounding waters also support a significant population of Grey Seals, a qualifying Annex 2 species.

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 Low breeding success/poor recruitment	Threat	H1170 Reefs	Investigate low levels of recruitment, and the overall population health of Sunset cup coral, <i>Leptopsammia pruvoti</i>	Natural England, University(ies)
2 Disease	Pressure/Threat	H1170 Reefs	Investigate the population dynamics and the health of Pink sea fan, <i>Eunicella verrucosa</i> .	Natural England, University(ies)
3 Invasive species	Pressure/Threat	H1170 Reefs	Investigate impacts of marine invasive species; Japanese wireweed, <i>Sargassum muticum</i> and Harpoon weed, <i>Asparagopsis armata</i>	Natural England, Wardens, Consultant
4 Fisheries: Commercial marine and estuarine	Pressure/Threat	H1170 Reefs	Ensure continuing compliance with byelaws	Devon & Severn Inshore Fisheries Conservation Authority (IFCA)
5 Fisheries: Commercial marine and estuarine	Pressure/Threat	H1110 Subtidal sandbanks, H1170 Reefs, H8330 Sea caves, S1364 Grey seal	Complete assessments to establish whether management is required	Devon & Severn Inshore Fisheries Conservation Authority (IFCA)
6 Public Access/Disturbance	Pressure	H1170 Reefs	Investigate effects of recreational anchoring on the kelp forest and Pink sea fan, <i>Eunicella verrucosa</i>	Natural England, Wildlife Trust(s), Seasearch

7 Public Access/Disturbance	Threat	S1364 Grey seal	Investigate human interference and disturbance to Grey seal population	Natural England, The Lundy Company
8 Changes in species distributions	Threat	H1170 Reefs	Investigate algal species richness	Natural England, Consultant
9 Water Pollution	Threat	S1364 Grey seal	Determine the degree of threat posed by pollution	Natural England, Consultant
10 Climate change	Pressure	H1170 Reefs, S1364 Grey seal	Investigate potential changes to flora and fauna resulting from predicted climatic changes	Cornwall Inshore Fisheries Conservation Authority (IFCA), Natural England, University(ies)
11 Energy production	Threat	S1364 Grey seal	Investigate potential threats to Grey seal as a result of renewable energy	Natural England, Consultant

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 Low breeding success/ poor recruitment

Sunset cup coral, *Leptopsammia pruvoti* is a nationally rare species in the UK, at the northern limit of its range. Populations at Lundy have been declining since the 1980s, with years of little or low level recruitment. Significant uncertainty remains regarding the reasons for lack of recruitment, overall population health and the degree of change which is occurring within the *L. pruvoti* population

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1A	Investigate the health (and potentially the recruitment) of key benthic fauna such as Sunset cup coral, <i>Leptopsammia pruvoti</i> . Significant uncertainty remains regarding the reasons for lack of recruitment, decline in population size, overall population health and the degree of change which is occurring within the population of several benthic species.	£50,000	2015-20	Investigation / Research / Monitoring	Not yet determined	Natural England	University(ies)

2 Disease

Necrotic disease is affecting key species on the subtidal reef (Pink sea fan, *Eunicella verrucosa*) and there is little evidence of recovery. The population is in poor state compared to other South West populations. Pathogens are considered a general threat to marine life, particularly to species on the southern limit of their range in the face of rising water temperatures.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
2A	Investigate the reasons for the apparently anomalous poor health of <i>Eunicella verrucosa</i> and other species populations round Lundy. Research suggests disease (<i>Vibrio</i> bacteria) may be a problem. There is also a possibility that excessive nutrients may be implicated in anomalous high levels of infection. Contaminant levels should be considered.	£50,000	2015-20	Investigation / Research / Monitoring	Not yet determined	Natural England	University(ies)

3 Invasive species

The SAC is already colonised by Japanese wireweed, *Sargassum muticum* and Harpoon weed, *Asparagopsis armata* - the impact of both species intertidally may not be as great as initially feared, but significant uncertainty remains. The marine environment is both highly susceptible to invasion, and effectively unmanageable once invaded. Investigation into subtidal impacts on kelp forest and possibly Pink sea fan, *Eunicella verrucosa*.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
3A	Investigate the degree of threat posed by invasive non-native marine species Japanese wireweed, <i>Sargassum muticum</i> and Harpoon weed, <i>Asparagopsis armata</i> which have already colonised; other species may be expected i.e. Japanese kelp, <i>Undaria pinnatifida</i> .	£20,000	2015-20	Investigation / Research / Monitoring	Not yet determined	Natural England	Wardens, Consultant
3B	If there is found to be an issue with invasive non-native marine species Japanese wireweed, <i>Sargassum muticum</i> and Harpoon weed, <i>Asparagopsis armata</i> , investigate options to reliably control these species.	£20,000	2015-20	Investigation / Research / Monitoring	Not yet determined	Natural England	Consultant

4 Fisheries: Commercial marine and estuarine

Dredges (inc. hydraulic), benthic trawls and seines are categorised as 'Red' for this interest feature (and specifically the sub-features: subtidal bedrock and stable boulder communities; vertical rock) as part of Defra's revised approach to commercial fisheries management in EMSs. On 1st January 2014, Devon and Severn IFCA brought in a new Mobile Fishing Permit Byelaw to control access of vessels using bottom towed gear in MPAs.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
4A	For Red activities, once management measures are established to protect the feature, ongoing work will be required by the Regulator to ensure compliance and 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. On 1st January 2014, Devon and Severn IFCA brought in a new Mobile Fishing Permit Byelaw to control access of vessels using bottom towed gear in MPAs.	Not yet determined	2015-20	Enforcement: Byelaws	Not yet determined	Devon & Severn Inshore Fisheries Conservation Authority (IFCA)	n/a

5 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 D&SIFCA. 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.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
5A	For Amber/Green activities, where assessments indicate management is required, appropriate measures will be introduced by the Regulator by 2016. If management measures are established to protect the feature(s), ongoing work will be required by the Regulator to ensure compliance and 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.	Not yet determined	2014-16	Regulation: Creation / amendment of byelaws	Not yet determined	Devon & Severn Inshore Fisheries Conservation Authority (IFCA)	n/a

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
5B	For Amber/Green activities, where assessments indicate management is required, appropriate measures will be introduced by the Regulator by 2016. If management measures are established to protect the feature(s), ongoing work will be required by the Regulator to ensure compliance and 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.	Not yet determined	2015-20	Enforcement: Byelaws	Not yet determined	Devon & Severn Inshore Fisheries Conservation Authority (IFCA)	n/a

6 Public Access/Disturbance

There are localised impacts from recreational use of intertidal reef (by tourists) and of subtidal rocky reef for snorkelling and scuba-diving. The latter primarily concerns physical damage and possibly removal of organisms. Recreational boats anchoring around the island has also been identified as potentially impacting on the kelp forests and possibly Pink sea fan, *Eunicella verrucosa*.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
6A	Look at the effects of recreational anchoring around the island to assess its impact on the kelp forest and <i>Eunicella verrucosa</i> .	£20,000	2015-18	Investigation / Research / Monitoring	Not yet determined	Local partnership	Natural England, Wildlife Trust(s), Seasearch

7 Public Access/Disturbance

Human interference and disturbance might be affecting the Grey seal population at Lundy. This could lead to stress and an impact on the population to successfully breed.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
7A	Investigate the impacts of human interference and disturbance to Grey seals at Lundy.	£5,000	2015-25	Investigation / Research / Monitoring	Not yet determined	Local partnership	Natural England, The Lundy Company

8 Changes in species distributions

Investigate algal species richness to assess any changes. There is uncertainty around whether there has been a reduction in species richness since designation.

<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>
8A	Investigate algal species richness to assess any changes. There is uncertainty around whether there has been a reduction in species richness since designation.	£20,000	2015-25	Investigation / Research / Monitoring	Not yet determined	Local partnership	Natural England, Consultant

9 Water Pollution

There are general low-level threats to seals in the wider area from marine litter, and bioaccumulation of e.g. PCBs (Polychlorinated biphenyls).

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
9A	Investigate the degree to which marine pollution may affect Grey seal populations which use Lundy	£5,000	2025	Investigation / Research / Monitoring	Not yet determined	Natural England	Consultant

10 Climate change

Recorded increases in water temperature around the island and changing weather patterns are likely to increase physical stress for some organisms and may be affecting diversity and composition of marine biotopes as well as species distributions.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
10A	Investigate potential changes to subtidal fauna and flora which may be expected under current climate change predictions.	£3,000	2025	Investigation / Research / Monitoring	Not yet determined	Local partnership	Cornwall Inshore Fisheries Conservation Authority (IFCA), Natural England, University(ies)

11 Energy production

Collision, noise and visual impacts from renewable energy developments are a potential threat to the Grey seal population. There is little evidence available on the sensitivity of grey seals to these impacts, and how they respond. To assess the impacts of future renewable tidal and wind developments in the Bristol Channel we need to understand the impacts to Grey seals.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
11A	Investigate the degree to which potential tidal and wind renewable energy production in the Bristol Channel could have a negative impact on Grey seal and thus affect populations that use Lundy.	£3,000	2015-25	Investigation / Research / Monitoring	Not yet determined	Natural England	Consultant

Site details

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

Qualifying features

#UK Special responsibility

Lundy SAC	H1110 Sandbanks which are slightly covered by sea water all the time
	H1170 Reefs
	H8330 Submerged or partially submerged sea caves
	S1364 <i>Halichoerus grypus</i> : Grey seal

Site location and links

Lundy SAC

Area (ha) 3064.53	Grid reference SS136465	Map link
Local Authorities		Devon
Site Conservation Objectives		Lundy SAC
European Marine Site conservation advice		Lundy SAC
Regulation 33/35 Package		Regulation 33/35 package link
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.

Lundy SAC

River basin

[South West RBMP](#)

WFD Management catchment

North Devon

WFD Waterbody ID (Cycle 2 draft)

n/a

Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Lundy SAC	Lundy SSSI

National Nature Reserve (NNR)	
Lundy SAC	n/a

Ramsar	
Lundy SAC	n/a

Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Lundy SAC	n/a

Other relevant documents and links	
Lundy SAC	Mobile Fishing Permit Byelaw

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	19/12/14	

www.naturalengland.org.uk/ipens2000

