

Site Improvement Plan

Durham Coast

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)

UK0030140 Durham Coast SAC

Site description

Durham Coast SAC is the only example of vegetated sea cliffs on magnesian limestone exposures in the UK. These cliffs extend along the North Sea coast for over 20 km from South Shields southwards to Blackhall Rocks.

Their vegetation is unique in the British Isles and consists of a complex mosaic of paramaritime, mesotrophic and calcicolous grasslands, tall-herb fen, seepage flushes and wind-pruned scrub. Within these habitats rare species of contrasting phytogeographic distributions often grow together forming unusual and species-rich communities of high scientific interest. The communities present on the sea cliffs are largely maintained by natural processes including exposure to sea spray, erosion and slippage of the soft magnesian limestone bedrock and overlying glacial drifts, as well as localised flushing by calcareous water.

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 Natural changes to site conditions	Pressure/Threat	H1230 Vegetated sea cliffs	Investigate migration rates of the interest feature	Natural England
2 Inappropriate coastal management	Pressure/Threat	H1230 Vegetated sea cliffs	Gather evidence, and influence through coastal planning processes	Durham County Council, National Trust, Natural England, South Tyneside Metropolitan Borough Council, Sunderland City Council, Durham Coast Heritage Partnership
3 Invasive species	Threat	H1230 Vegetated sea cliffs	Revise the National Nature Reserve (NNR) management plan and agree strategic plan with the National Trust	National Trust, Natural England
4 Fertiliser use	Pressure	H1230 Vegetated sea cliffs	Look for opportunities to revert adjacent land to low input grassland	Durham County Council, Durham Wildlife Trust, National Trust, Natural England, South Tyneside Metropolitan Borough Council, Sunderland City Council, Durham Coast Heritage Partnership

5	Vehicles: illicit	Pressure	H1230 Vegetated sea cliffs	Block illegal access routes where possible. Increase resources for wardening/policing and enforcement, and raise public awareness	Durham Constabulary, Durham County Council, Durham Wildlife Trust, National Trust, South Tyneside Metropolitan Borough Council, Sunderland City Council, Durham Coast Heritage Partnership
6	Change to site conditions	Threat	H1230 Vegetated sea cliffs	If routine condition assessments and specific investigations show the SAC habitat is affected by past landfill being exposed by coastal erosion, investigate the best remediation options and carry them out. Use regulatory levers if necessary	Durham County Council, South Tyneside Metropolitan Borough Council, Sunderland City Council
7	Public Access/Disturbance	Pressure	H1230 Vegetated sea cliffs	Increase resources for wardening and raise public awareness	Durham Constabulary, Durham County Council, Durham Wildlife Trust, National Trust, South Tyneside Metropolitan Borough Council, Sunderland City Council, Durham Coast Heritage Partnership

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 Natural changes to site conditions

Development and arable land use already come very close to the existing cliff top in many places, constraining the ability of the cliff top habitats to roll back as the cliffs naturally erode. It is uncertain whether there is enough space for natural migration of the SAC habitat.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1A	Assess the risk of the interest feature migrating out of SAC / SSSI boundary within the next 50 years. Use geomorphological advice contract and/or information from the Shoreline Management Plan to model the 50 year recession line, and maps from SSSI files to assess the urgency of extending the boundary landwards.	Not yet determined	2014-17	Investigation / Research / Monitoring	Natural England	Natural England	n/a

2 Inappropriate coastal management

Decades of deposition of colliery spoil at the base of the cliffs has formed an artificial raised beach along much of the Durham coastline which prevents waves reaching the cliff foot. This has slowed the erosion of the cliffs and changed their profile, reducing the slumping which exposes fresh substrate and creates niches for the development of different successional stages of vegetation. It has also reduced the influence of salt spray on the cliff vegetation. The constraint of these natural processes has degraded the diversity of the vegetation, its uniqueness and its scientific interest, and upset the ecological balance allowing scrub and ruderal species to encroach into more sensitive habitats. Deposition of colliery spoil ceased in the 1980s and there have been significant efforts to clean up the beaches since. The remaining spoil is being naturally eroded back by the sea but at current rates in some places it could take decades for the sea to act directly on the cliff base again. New coastal defences that interfere with erosional processes could have a similar negative impact on the vegetated sea cliffs.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
2A	The current Shoreline Management Plan (SMP) for Tyne to Flamborough Head covers the Durham Cost SAC area and runs from 2007 to 2017. Ensure that coastal strategies and applications for individual schemes that implement the SMP policies are appropriate for the location and that methods are presented in sufficient detail. Ensure integration with Core Strategies for inland development. Natural England to consider the impact on the SAC at all levels of the shoreline planning process.	Staff time	2014-17	Shoreline Management Plan and Strategies	Staff time	Durham County Council	Natural England
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
2B	Natural England to contribute to development of the next Shoreline Management Plan 2017-2027.	Staff time	2014-17	Shoreline Management Plan and Strategies	Staff time	Natural England	Durham County Council, South Tyneside Metropolitan Borough Council, Sunderland City Council

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
2C	Look for opportunities to replace hard engineering areas such as concrete stairways with more appropriate solutions e.g. when they collapse due to coastal erosion, working in partnership with Durham County Council and the Heritage Coast Partnership.	Not yet determined	2014-20	Advice	Not yet determined	Local partnership	Durham County Council, National Trust, Natural England, South Tyneside Metropolitan Borough Council, Sunderland City Council
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
2D	Natural England to commission a study (or undertake internally if resource/skills are available) to investigate the Shoreline Management Plan findings for the SAC stretch of coast and assess where hard engineering and/or the legacy of coal mining waste are having a particular impact on the SAC habitat. Gather more information about the erosion rates of the coal waste and the impact on the SAC.	Not yet determined	2015-20	Investigation / Research / Monitoring	Not yet determined	Natural England	Durham County Council, National Trust, South Tyneside Metropolitan Borough Council, Sunderland City Council, Durham Coast Heritage Partnership

3 Invasive species

Where scrub is encroaching too far into grassland areas this is detrimental to the interest feature. This is due to lack of management e.g. grazing, and/or because the natural coastal processes which keep the scrub in check such as erosion and exposure to the elements are constrained. Bracken is spreading into the good grassland in some areas, especially at the mouths of the denes, and sycamore and invasive species like Himalayan Balsam are also most problematic where the denes meet the coast as the watercourses bring in the seed. Cultivated species from caravan parks and gardens have also colonised parts of the coast and need to be kept in check. Unauthorised burning of scrub makes it more difficult to treat.

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
3A	Add specific actions to the National Nature Reserve management plan and undertake management of scrub and invasive species in the Durham Coast unit at the mouth of Castle Eden Dene. Chris Evans, the Senior Reserve Manager reports that there are some issues there with Himalayan balsam and bracken (also Japanese knotweed, although this is almost under control now). It may also be possible to fence and graze some of this area to help keep scrub down.	£5,000	2014-16	National Nature Reserve (NNR) management plan	Staff time	Natural England	n/a
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
3B	Agree and consent a more strategic and long term site management plan for scrub / bracken control with the National Trust, and maybe other partners if required. On various units of Durham Coast, scrub/bracken encroachment has been flagged up as an issue to be monitored, especially around the mouths of denes and gills. Most of these units are managed by the National Trust. National Trust already carry out scrub control through the notice and consent process, but this tends to be on an ad hoc basis.	£20,000	2014-20	Non-Natural England funded site management plan	National Trust	National Trust	n/a

4 Fertiliser use

Many of the wet fen/flush areas have become degraded by nutrient enrichment from fertiliser run-off from arable land. Where the hinterland to the SAC has been reverted to low input grassland the issue should resolve over time, though there may be a long lag. In specific areas there is still arable land immediately adjacent to the SAC where run-off is occurring and reversion to grassland would benefit the SAC feature.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
4A	Look for opportunities (e.g. through mitigation for development, expiring tenancy agreements etc.) to purchase or add tenancy conditions to land adjacent to the SAC which is currently managed as arable, and revert it to low input grassland to reduce nutrient run off into the SAC.	Not yet determined	2014 onwards	Land / Tenancy Acquisition: Tenancy Negotiation/ Buy Out	Not yet determined	Durham County Council	Durham Wildlife Trust, National Trust, South Tyneside Metropolitan Borough Council, Sunderland City Council, Durham Coast Heritage Partnership

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
4B	Use agri-environment schemes to secure reversion of arable land adjacent to the SAC to low input grassland that doesn't lead to run off of nutrients into the SAC.	£280/hectare	2016 onwards	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Natural England	n/a

5 Vehicles: illicit

Illegal use of motorbikes, quadbikes and 4x4s occurs in specific areas along the coast, especially around soft cliffs and dunes, causing erosion and damage to vegetation and soils.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
5A	Increase wardening and signage to make sure people are aware of the damaging effects of illegal vehicle use.	Not yet determined	2014 onwards	Advice: Education & awareness raising	Local Authority, Local partnership, Voluntary conservation organisation	Durham County Council	Durham Wildlife Trust, National Trust, South Tyneside Metropolitan Borough Council, Sunderland City Council, Durham Coast Heritage Partnership

<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>
5B	Rationalise access points and block vehicle access where appropriate.	Not yet determined	2014 onwards	Advice: Access Strategy	Local Authority, Local partnership	Durham County Council	Durham Wildlife Trust, National Trust, South Tyneside Metropolitan Borough Council, Sunderland City Council, Durham Coast Heritage Partnership
<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>
5C	Increase wardening efforts and liaise with the police to take enforcement action against illegal vehicle use.	Not yet determined	2014 onwards	Enforcement: S34 Road Traffic Act/ S28p(6) Liaison With Natural England	Local Authority, Natural England, Local partnership, Police	Natural England	Durham Constabulary, Durham County Council, South Tyneside Metropolitan Borough Council, Sunderland City Council

6 Change to site conditions

There are at least two or three sites on the coast where contaminated/toxic waste has been landfilled into old quarries and as the cliffs erode this is now being exposed. This could lead to pollution of the cliff habitats and changes in vegetation. Also, schemes to address the problem e.g. by slowing coastal erosion could be damaging to the SAC in themselves by interfering with natural processes. Rock armouring has already been used in some locations.

<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>
6A	Research and investigate the best options for remediation of contaminated / toxic waste that are not in themselves damaging to the SAC interest. Look for a longer term alternative to rock armouring.	£10,000	2014-15	Investigation / Research / Monitoring	Landowner/occupier	Durham County Council	South Tyneside Metropolitan Borough Council, Sunderland City Council

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
6B	Carry out remediation of contaminated / toxic waste once the best mechanism has been identified.	Not yet determined	2015 onwards	Mechanism not identified / develop mechanism	Landowner/occupier	Durham County Council	South Tyneside Metropolitan Borough Council, Sunderland City Council

7 Public Access/Disturbance

In public access hot spots e.g. close to housing and car parks, dog fouling leads to increased nutrients which can change the vegetation, favouring ranker grasses and weeds.

<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>
7A	Raise public awareness of the problems caused by dog fouling and how it damages the site by causing nutrient enrichment and vegetation change.	Not yet determined	2014 onwards	Advice: Education & awareness raising	Local Authority, Natural England, Local partnership, Voluntary conservation organisation	Durham County Council	Durham Wildlife Trust, National Trust, South Tyneside Metropolitan Borough Council, Sunderland City Council, Durham Coast Heritage Partnership

<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>
7B	Raise public awareness of the problems caused by dog fouling and how it damages the site by causing nutrient enrichment and vegetation change.	£3,500	2014 onwards	Advice: Signage	Local Authority, Natural England, Local partnership, Voluntary conservation organisation	Durham County Council	Durham Wildlife Trust, National Trust, South Tyneside Metropolitan Borough Council, Sunderland City Council, Durham Coast Heritage Partnership

<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>
7C	Increase wardening efforts and liaise with the police to enforce dog fouling offences.	Not yet determined	2014 onwards	Enforcement	Local Authority, Natural England, Local partnership, Police	Natural England	Durham Constabulary, Durham County Council, South Tyneside Metropolitan Borough Council, Sunderland City Council

Site details

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

Qualifying features

#UK Special responsibility

Durham Coast SAC	H1230 Vegetated sea cliffs of the Atlantic and Baltic coasts
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Site location and links

Durham Coast SAC

Area (ha) **393.63** Grid reference **NZ455407** [Map link](#)

Local Authorities Durham; South Tyneside; Sunderland

Site Conservation Objectives [European Site Conservation Objectives for Durham Coast SAC](#)

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

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

Marine Management Organisation site plan [n/a](#)

Water Framework Directive (WFD)

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

Durham Coast SAC

River basin

[Northumbria RBMP](#)

WFD Management catchment

Wear

WFD Waterbody ID (Cycle 2 draft)

GB103025075930, GB103025075950

Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Durham Coast SAC	Durham Coast SSSI

National Nature Reserve (NNR)	
Durham Coast SAC	Castle Eden Dene NNR Durham Coast NNR

Ramsar	
Durham Coast SAC	Northumbria Coast

Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Durham Coast SAC	Teesmouth & Cleveland Coast SPA Northumbria Coast SPA

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	06/11/2014	

www.naturalengland.org.uk/ipens2000

