

Site Improvement Plan

South Pennine Moors

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)

UK9007021 Peak District Moors (South Pennine Moors Phase 1) SPA

UK9007022 South Pennine Moors Phase 2 SPA

UK0030280 South Pennine Moors SAC

Site description

The South Pennine Moors Special Area of Conservation (SAC) and Special Protection Area (SPA) includes the major moorland blocks of the South Pennines from Ilkley in the North to Leek and Matlock in the South.

It covers extensive tracts of semi-natural moorland habitats including upland heath and blanket mire. The diverse mosaic of habitats contributes greatly to the ornithological interests, which comprises birds of prey and waders.

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 Hydrological changes	Threat	A103(B) Peregrine, A140(B) Golden Plover, A222(B) Short-eared Owl, A466(B) Dunlin, Breeding bird assemblage, H4010 Wet heathland with cross-leaved heath, H7130 Blanket bogs, H7140 Very wet mires often identified by an unstable `quaking` surface	Restore site hydrology by implementing restoration plans	Environment Agency, National Trust, Natural England, Peak District National Park Authority, Severn Trent Water Ltd, United Utilities Water Plc, Yorkshire Water Services Ltd, Landowner(s), University(ies), Yorkshire Peat Partnership, Moors for the Future, Pennine Prospects
2 Managed rotational burning	Pressure	A098(B) Merlin, A140(B) Golden Plover, A222(B) Short-eared Owl, A466(B) Dunlin, Breeding bird assemblage, H4010 Wet heathland with cross-leaved heath, H4030 European dry heaths, H7130 Blanket bogs	Research and implement alternative management and less intensive burning programmes	National Trust, Natural England, Peak District National Park Authority, Severn Trent Water Ltd, Yorkshire Water Services Ltd, Landowner(s), University(ies), Yorkshire Peat Partnership, Moors for the Future, Consultant, Fires Operation Group, Pennine Prospects

3 Low breeding success/ poor recruitment	Pressure/ Threat	A098(B) Merlin, A103(B) Peregrine, A222(B) Short-eared Owl	Investigate causes and work with partner organisations and the police to address these	Derbyshire Constabulary, Natural England, Peak District National Park Authority, RSPB, The Moorland Association, Raptor Study Group, Pennine Prospects
4 Inappropriate management practices	Threat	A098(B) Merlin, A103(B) Peregrine, A140(B) Golden Plover, A222(B) Short-eared Owl, A466(B) Dunlin, Breeding bird assemblage, H4010 Wet heathland with cross-leaved heath, H4030 European dry heaths, H7130 Blanket bogs, H7140 Very wet mires often identified by an unstable `quaking` surface, H91A0 Western acidic oak woodland	Produce and implement landscape scale management plans	Environment Agency, Forestry Commission, National Trust, Natural England, Peak District National Park Authority, RSPB, Wildlife Trust(s), Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Projects - Waders/Wren/Wildlife Trust/Twite recovery, Game & Wildlife Conservation Trust (GWCT), Pennine Prospects
5 Public Access/Disturbance	Pressure/ Threat	Breeding bird assemblage, H4010 Wet heathland with cross-leaved heath, H4030 European dry heaths, H7130 Blanket bogs, H7140 Very wet mires often identified by an unstable `quaking` surface, H9180 Mixed woodland on base-rich soils associated with rocky slopes	Implement habitat and species management plans related to specific disturbance issues	Derbyshire Constabulary, Environment Agency, Forestry Commission, Highways Agency, Local Authority(ies), National Trust, Natural England, Peak District National Park Authority, RSPB, Wildlife Trust(s), Landowner(s), University(ies), Yorkshire Peat Partnership, Moors for the Future, Consultant, Pennine Prospects, Vehicle user group(s), British Mountaineering Council
6 Air Pollution: impact of atmospheric nitrogen deposition	Pressure	A098(B) Merlin, A103(B) Peregrine, A140(B) Golden Plover, A222(B) Short-eared Owl, A466(B) Dunlin, Breeding bird assemblage, H4010 Wet heathland with cross-leaved heath, H4030 European dry heaths, H7130 Blanket bogs, H7140 Very wet mires often identified by an unstable `quaking` surface, H91A0 Western acidic oak woodland	Control, reduce and ameliorate atmospheric nitrogen impacts	Not yet determined

7 Wildfire/ arson	Pressure/ Threat	A098(B) Merlin, A103(B) Peregrine, A140(B) Golden Plover, A222(B) Short-eared Owl, A466(B) Dunlin, Breeding bird assemblage, H4010 Wet heathland with cross-leaved heath, H4030 European dry heaths, H7130 Blanket bogs, H7140 Very wet mires often identified by an unstable `quaking` surface, H91A0 Western acidic oak woodland	Produce and implement wildfire management plans	Derbyshire Constabulary, Local Authority(ies), Natural England, Peak District National Park Authority, Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Fires Operation Group, Local constabulary(ies), Pennine Prospects
8 Vehicles	Threat	A098(B) Merlin, A140(B) Golden Plover, A222(B) Short-eared Owl, A466(B) Dunlin, Breeding bird assemblage, H4010 Wet heathland with cross-leaved heath, H4030 European dry heaths, H7130 Blanket bogs, H7140 Very wet mires often identified by an unstable `quaking` surface	Increase cross-agency partnership working	Derbyshire Constabulary, Derbyshire County Council, Local Authority(ies), Natural England
9 Overgrazing	Pressure	A098(B) Merlin, A222(B) Short-eared Owl, A466(B) Dunlin, Breeding bird assemblage, H4010 Wet heathland with cross-leaved heath, H4030 European dry heaths, H7130 Blanket bogs, H7140 Very wet mires often identified by an unstable `quaking` surface, H91A0 Western acidic oak woodland	Establish long-term sustainable grazing plans	Defra, National Trust, Natural England, Peak District National Park Authority, Landowner(s), National Farmers' Union (NFU)
10 Forestry and woodland management	Threat	H91A0 Western acidic oak woodland	Implement targeted woodland plans for the site and adjacent land	Forestry Commission, Natural England
11 Changes in species distributions	Pressure/ Threat	A098(B) Merlin, A103(B) Peregrine, A222(B) Short-eared Owl, A466(B) Dunlin, Breeding bird assemblage	Investigate the changes in species	Natural England, University(ies), Consultant
12 Disease	Threat	H4030 European dry heaths, H7130 Blanket bogs, H91A0 Western acidic oak woodland	Develop Phytophthora resilience plans	Defra, Natural England, Yorkshire Peat Partnership, Moors for the Future, Food and Environment Research Agency (FERA), Pennine Prospects
13 Undergrazing	Threat	H4010 Wet heathland with cross-leaved heath, H4030 European dry heaths, H7130 Blanket bogs	Increase specific stock grazing on difficult areas of the site	Defra, Natural England, Peak District National Park Authority, Landowner(s), National Farmers' Union (NFU)

14 Invasive species	Pressure/ Threat	H4010 Wet heathland with cross-leaved heath, H4030 European dry heaths, H91A0 Western acidic oak woodland	Implement targeted invasive species control plans	Forestry Commission, Natural England, Landowner(s)
15 Planning Permission: general	Pressure/ Threat	A098(B) Merlin, A103(B) Peregrine, A140(B) Golden Plover, A222(B) Short-eared Owl	Develop a joined up approach across Local Authorities towards planning applications	Bradford Metropolitan Council, Burnley Borough Council, Kirklees Council, Natural England, Oldham Metropolitan Borough Council, Rochdale Metropolitan Borough Council, Calderdale Council

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 Hydrological changes

The hydrological integrity of the blanket bog habitat (H7140) has been adversely affected across the site by a range of external factors, principally historic air pollution and wild fires which in some areas has been added to by historical and continuing land use management practices. Leading to areas of bare and eroding peat, surface gullying and sub-surface peat pipes, loss of peat forming species, lowered water tables and altered hydrology. Certain elements of current restoration work have a clear link to recovery of some or all of these listed factors and estimates for restoration costs assume this work is undertaken across the site, however for some aspects of the challenge (surface vegetation, macropores, erosion gullies and subsurface peat pipes) there is insufficient understanding of the issue and this has led to trialling new restoration methods and monitoring the impacts. Consequently the extent of restoration to deliver favourable condition cannot be fully quantified. The complexity of the pattern of degraded hydrology from surface vegetation to subterranean pipes means that one, several or all of the actions described may be required; the production of a restoration plan for each blanket bog unit should provide the necessary detail.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1A	<p>Gully blocking to block or dam eroding channels within the blanket bog. Including introducing new techniques arising from action 1E. Resulting in:</p> <ul style="list-style-type: none"> • raising the water table • retaining water in the system for longer • reducing the effects of water erosion • supporting existing and new vegetation • reducing the chances of flash flooding further down the catchment. 	£2,000,000	2015-35	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Natural England	National Trust, Peak District National Park Authority, Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Pennine Prospects

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1B	<p>Gully blocking, to block or dam eroding channels within the blanket bog. Including introducing new techniques arising from action 1E. Resulting in:</p> <ul style="list-style-type: none"> • raising the water table • retaining water in the system for longer • reducing the effects of water erosion • supporting existing and new vegetation, • reducing the chances of flash flooding further down the catchment. 	£3,000,000	2015-35	Water Industry Asset Management Plan (AMP): Implement Plan Scheme	AMP process	United Utilities Water Plc	Environment Agency, National Trust, Natural England, Peak District National Park Authority, Severn Trent Water Ltd, Yorkshire Water Services Ltd, Landowner(s), Yorkshire Peat Partnership, Moors for the Future
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1C	<p>Gully blocking, to block or dam eroding channels within the blanket bog. Including introducing new techniques arising from action 1E. Resulting in:</p> <ul style="list-style-type: none"> • raising the water table • retaining water in the system for longer • reducing the effects of water erosion • supporting existing and new vegetation, • reducing the chances of flash flooding further down the catchment. 	£2,000,000	2015-35	Partnership agreement	Not yet determined	Local partnership	National Trust, Natural England, Peak District National Park Authority, Landowner(s), Yorkshire Peat Partnership, Moors for the Future

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1D	Increasing bryophytes (in particular sphagnum species of bog habitat) by adding live material as fragments/whole plants (from suitable donor sites) or sphagnum 'beads' to all areas where the hydrological integrity has already been improved or is considered to be suitable now (See 1A, C, D).	£500,000	2015-35	Habitat creation / restoration strategy: Habitat restoration	Not yet determined	Local partnership	National Trust, Natural England, Peak District National Park Authority, Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Pennine Prospects
1E	Increasing bryophytes (in particular sphagnum species of bog habitat) by adding live material as fragments/whole plants (from suitable donor sites) or sphagnum 'beads' to all areas where the hydrological integrity has already been improved or is considered to be suitable now (See 1A, C, D).	£3,000,000	2015-35	Water Industry Asset Management Plan (AMP): Implement Plan Scheme	Not yet determined	United Utilities Water Plc	Environment Agency, Natural England, Severn Trent Water Ltd, Yorkshire Water Services Ltd, Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Pennine Prospects
1F	Increasing bryophytes (in particular sphagnum species of bog habitat) by adding live material as fragments/whole plants (from suitable donor sites) or sphagnum 'beads' to all areas where the hydrological integrity has already been improved or is considered to be suitable now (See 1A, C, D).	£2,000,000	2015-35	Partnership agreement	Not yet determined	Local partnership	National Trust, Natural England, Peak District National Park Authority, Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Pennine Prospects

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1G	Bare Peat Restoration: reducing the extent of bare eroding and oxidising peat by creating a surface of vegetation using stabilising media such as heather brash (cut from other moorlands) or geotextiles, to reduce erosion. A nurse crop of sward grasses is fostered by an application of seed along with lime and fertiliser. The nurse crop creates suitable conditions for moorland species to come through. This management will also contribute to raising the water table (see gully blocking).	£250,000	2015-20	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Not yet determined	Natural England	National Trust, Peak District National Park Authority, Landowner(s), Moors for the Future, Pennine Prospects
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1H	Bare Peat Restoration: reducing the extent of bare eroding and oxidising peat by creating a surface of vegetation using stabilising media such as heather brash (cut from other moorlands) or geotextiles, to reduce erosion. A nurse crop of sward grasses is fostered by an application of seed along with lime and fertiliser. The nurse crop creates suitable conditions for moorland species to come through. This management will also contribute to raising the water table (see gully blocking).	£1,000,000	2015-20	Water Industry Asset Management Plan (AMP): Implement Plan Scheme	Rural Development Programme (RDPE)	United Utilities Water Plc	Environment Agency, National Trust, Natural England, Peak District National Park Authority, Severn Trent Water Ltd, Yorkshire Water Services Ltd, Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Pennine Prospects

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1I	Bare Peat Restoration: reducing the extent of bare eroding and oxidising peat by creating a surface of vegetation using stabilising media such as heather brash (cut from other moorlands) or geotextiles, to reduce erosion. A nurse crop of sward grasses is fostered by an application of seed along with lime and fertiliser. The nurse crop creates suitable conditions for moorland species to come through. This management will also contribute to raising the water table (see gully blocking).	£1,000,000	2015-20	Existing Local Project	Not yet determined	Local partnership	Environment Agency, National Trust, Natural England, Peak District National Park Authority, Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Pennine Prospects
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
1J	Re-profiling gullies, where appropriate, and re-profiling the steep eroding ends of blocked grips. Techniques have been developed to re-grade the steep sides to allow vegetation to develop. Develop best practice for treating peat pipes.	£1,000,000	2015-35	Existing Local Project	Not yet determined	Local partnership	National Trust, Natural England, Peak District National Park Authority, Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Pennine Prospects

<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>
1K	Continue research and evidence gathering for the impacts of gully blocking and the role it plays in controlling further gully erosion, reducing sediment loss from peat lands, promoting re-vegetation, reducing water discolouration of streams and raising the water table to increase saturation of peat domes. Evaluation of this evidence against other potential restoration methods to assess the cost effectiveness/benefits of gully blocking.	£200,000	2015-20	Investigation / Research / Monitoring	Not yet determined	Local partnership	National Trust, Natural England, Peak District National Park Authority, Landowner(s), University(ies), Yorkshire Peat Partnership, Moors for the Future, Pennine Prospects
1L	Design and implement site based monitoring to measure hydrological improvements. Includes setting baselines on a site basis.	£50,000	2015-35	Investigation / Research / Monitoring	Not yet determined	Natural England	National Trust, Peak District National Park Authority, University(ies), Yorkshire Peat Partnership, Moors for the Future, Pennine Prospects
1M	Monitor sphagnum recolonisation of surface peat.	£50,000	2015-35	Investigation / Research / Monitoring	Not yet determined	Natural England	National Trust, Peak District National Park Authority, University(ies), Yorkshire Peat Partnership, Moors for the Future, Pennine Prospects

2 Managed rotational burning

A significant number of landowners across the sites currently have burning plans, as part of their existing agreements, which are used for moorland management. There is strong evidence that managed rotational burning results in changes to plant species composition, peat properties, Dissolved Organic Carbon, peat chemistry, peat water table and peat flow-paths of blanket bog and upland wet heath habitats. Although managed burning is acceptable on upland dry heath, burn rotation length needs to be appropriate to avoid deterioration. Managed burning can have both positive and negative impacts on the habitat for SPA birds through changes to vegetation. Current management plans, particularly on blanket bog and wet heath, are likely to maintain unfavourable condition.

<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	Informed by the Upland Evidence Review Tier 3 guidance, improve blanket bog, wet heath and dry heath habitat so that it increasingly contributes to Favourable Condition Status of the interest features by reviewing and renegotiating, if necessary, burning consents.	Staff time	2015-25	Regulation: Issue Appropriate Notice/Consent	Not yet determined	Natural England	National Trust, Peak District National Park Authority, Landowner(s)
2B	Informed by the Upland Evidence Review Tier 3 guidance, improve blanket bog, wet heath and dry heath habitat so that it increasingly contributes to Favourable Condition Status of the interest features by reviewing and renegotiating, if necessary, burning consents.	£1,000,000	2015-25	Regulation: Compulsory Withdraw/Modify Notice/Consent	Not yet determined	Natural England	National Trust, Peak District National Park Authority, Landowner(s)
2C	Informed by the Upland Evidence Review Tier 3 Guidance, monitor of amend burning plans to assess success of implementation and outcomes (including improved peak land functionality) so that they are increasingly contributing to Favourable Condition Status.	£300,000	2015-25	Investigation / Research / Monitoring	Not yet determined	Natural England	National Trust, Peak District National Park Authority, Landowner(s), University(ies), Consultant, Fires Operation Group

<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	Evaluation of cutting programmes on dry heath and deep peat to inform recommendations for future management, for example using the Goyt Valley trial data, but also wider evidence base.	£100,000	2015-20	Investigation / Research / Monitoring	Not yet determined	Local partnership	National Trust, Natural England, Peak District National Park Authority, Landowner(s), University(ies), Yorkshire Peat Partnership, Moors for the Future, Consultant, Pennine Prospects
<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>
2E	Integrate wildfire prevention measures into Moorland Management Plan. Understand wildfire risk to inform best practice by mapping fuel loadings, wetness and fire breaks through remote sensing.	£100,000	2015-20	Investigation / Research / Monitoring	Not yet determined	Peak District National Park Authority	Peak District National Park Authority, Severn Trent Water Ltd, Yorkshire Water Services Ltd, Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Fires Operation Group, Pennine Prospects

3 Low breeding success/ poor recruitment

Suitable habitat exists on site to support successful breeding by a larger number of pairs than are currently recorded, of in particular, peregrine, but also merlin and short-eared owl. Analysis of the distribution reveals a strong correlation between actively kept moorland and the lower than expected numbers of raptors for which the site is classified (Peak Malpractice report RSPB 2007). Whilst a correlation is not a cause it is also fact that since 2000 two gamekeepers with significant responsibility for land management within the SPA have been convicted of wildlife crimes specifically targeting raptors, in addition to this a peregrine corpse displaying evidence of persecution was recovered from 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>
3A	Establish area targets for territory occupancy by selected species agreed by NE with land managers, working with the Peak District Raptor Project. Undertake cooperative monitoring of bird populations and breeding success.	£300,000	2015-25	Investigation / Research / Monitoring	Not yet determined	Natural England	n/a, Peak District National Park Authority, RSPB, Volunteers, The Moorland Association, Raptor Study Group, Pennine Prospects
3B	Work with the police and partner organisations to pursue any illegal activities detrimental to merlin, peregrine and short-eared owl.	Staff time	2015 onwards	Enforcement	Not yet determined	Natural England	Derbyshire Constabulary, Local Authority(ies), Police Wildlife Liaison Officers
3C	Work proactively with partner organisations, landowners and industry to promote positive working to improve the conservation status of raptors as well as waders, grouse and other birds. Provide awareness training for gamekeepers on wildlife enhancement with management. Include joint initiatives to record populations and promote achievements (publicity).	£50,000	2015-25	Advice	Not yet determined	Natural England	Game & Wildlife Conservation Trust (GWCT), National Gamekeepers Association

4 Inappropriate management practices

The condition of blanket bog habitat in particular is under pressure from changes in: recreational use, land management (commercial grouse moor management, farming and restoration practices availability of agreement packages) and some illegal activity. To help achieve favourable conservation status an ecosystem approach is desirable to recognise the interdependence of ecosystem services and optimal habitat condition including developing greater flexibility within existing funding streams deriving support for management across a range of interests.

<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	Production of detailed habitat management plans, the SAC habitats listed (features) each have a different profile and require specific management that must be tailored to current habitat condition, but must also be capable of integrating with management of other features (habitats and species) and other outcomes. Including guidance of what Favourable Condition Status is for each of the individual features.	£300,000	2015-20	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Not yet determined	Natural England	Environment Agency, Forestry Commission, National Trust, Peak District National Park Authority, RSPB, Wildlife Trust(s), Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Game & Wildlife Conservation Trust (GWCT), Pennine Prospects
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
4B	A major factor affecting favourable conservation status for SAC habitats is the dominance of single species on blanket bog, wet and dry heaths (especially heather and <i>Molinia</i>) through specific management techniques. Trial new approaches.	£909,720	2015-35	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Not yet determined	Natural England	Environment Agency, Forestry Commission, National Trust, Peak District National Park Authority, RSPB, Wildlife Trust(s), Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Game & Wildlife Conservation Trust (GWCT), Pennine Prospects

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
4C	A major factor affecting favourable conservation status for SAC habitats is the dominance of single species on blanket bog, wet and dry heaths (especially heather and Molinia) through specific management techniques. Trial new approaches.	£1,000,000	2015-35	Existing Local Project	Not yet determined	Natural England	Environment Agency, Forestry Commission, National Trust, Peak District National Park Authority, RSPB, Wildlife Trust(s), Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Game & Wildlife Conservation Trust (GWCT), Pennine Prospects
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
4D	Research the possibilities of future flexible funding mechanisms, beyond, Higher Level Stewardship agreements, either as part of NELMs or as an additional funding element of schemes. Allowing for reactive management (capital additions) to improve the condition of the site throughout the lifetime of the agreement.	Not yet determined	2015-35	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Not yet determined	Natural England	Environment Agency, Forestry Commission, National Trust, Peak District National Park Authority, RSPB, Wildlife Trust(s), Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Game & Wildlife Conservation Trust (GWCT), Pennine Prospects

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
4E	Promote and enhance partnership/community working to integrate habitat restoration as well as other Ecosystem Services approaches into all land management/biodiversity work. Habitat restoration should target positive impacts for carbon storage, raw water quality and flood risk alleviation.	£30,000	2015-17	Existing Local Project	Not yet determined	Local partnership	Environment Agency, Forestry Commission, National Trust, Peak District National Park Authority, RSPB, Wildlife Trust(s), Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Game & Wildlife Conservation Trust (GWCT), Pennine Prospects
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
4F	Enable sensitive land management on adjacent holdings to positively contribute to the objectives of the SPA/SAC e.g. management of in-bye fields to include use by feeding golden plover. This can be delivered by sharing the required outcomes across the site (1000 hectares of grassland bird measures secured on in-bye land adjacent to the site).	£2,000,000	2015-35	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Not yet determined	Natural England	Environment Agency, Forestry Commission, National Trust, Peak District National Park Authority, RSPB, Wildlife Trust(s), Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Game & Wildlife Conservation Trust (GWCT), Pennine Prospects

<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>
4G	Secure long term funding for existing and additional Landscape Scale Delivery work to halt the decline of SPA breeding bird assemblages (for example joined up predator control). This requires flexibility around funding and a national approach.	£720,000	2015-25	Partnership agreement: Other	Not yet determined	Local partnership	Environment Agency, Forestry Commission, National Trust, Peak District National Park Authority, RSPB, Wildlife Trust(s), Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Game & Wildlife Conservation Trust (GWCT), Pennine Prospects

5 Public Access/Disturbance

Disturbances/activities located in sensitive site areas or at sensitive times of the year (e.g. bird breeding season or during heavily waterlogged periods) can have a negative impact upon notified features. Particular activities which impact include rock climbing, walking (incl. dog walkers), legal activities (byway usage), hang-gliding and the flying of model aircrafts.

<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	Monitor sensitive Natura features where disturbance is a factor (or a potential factor) to discern trends and refine advice on recreational activities.	£300,000	2015-20	Investigation / Research / Monitoring	Not yet determined	Natural England	Environment Agency, Forestry Commission, Highways Agency, Local Authority(ies), National Trust, Peak District National Park Authority, RSPB, Wildlife Trust(s), Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Pennine Prospects, Vehicle user group(s), British Mountaineering 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>
5B	Develop and implement habitat and species management plans in relation to specific disturbance issues, potentially as part of a public access management plan.	£50,000	2015-20	Non-Natural England funded site management plan	Not yet determined	Local partnership	Environment Agency, Forestry Commission, Highways Agency, Local Authority(ies), National Trust, Peak District National Park Authority, RSPB, Wildlife Trust(s), Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Pennine Prospects, Vehicle user group(s), British Mountaineering 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>
5C	Manage erosion issues away from Public Rights of Way Act (PROW), caused by public access (open access desire lines and informal paths), by installing flagstone paths and stabilising and restoring adjoining bare peat on SAC blanket bog sites.	£2,599,200	2015-35	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Not yet determined	Natural England	Environment Agency, Forestry Commission, Highways Agency, Local Authority(ies), National Trust, Peak District National Park Authority, RSPB, Wildlife Trust(s), Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Pennine Prospects, Vehicle user group(s), British Mountaineering 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>
5D	Increase awareness of the importance of the sites in terms of SAC/SPA designation (including Habitats Regulations) and the impact of potentially disturbing activities (including open access) on them, through access and community projects. Develop and implement a Peak Park events web-based application system.	£200,000	2015-17	Existing Local Project	Not yet determined	Local partnership	Environment Agency, Forestry Commission, Highways Agency, Local Authority(ies), National Trust, Peak District National Park Authority, RSPB, Wildlife Trust(s), Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Pennine Prospects, Vehicle user group(s), British Mountaineering 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>
5E	Increase pressure on highways authorities and owners to manage PROWs, to avoid ongoing damage to features.	Not yet determined	2015-35	Enforcement: S34 Road Traffic Act/ S28p(6) Liaison With Natural England	Not yet determined	Derbyshire Constabulary	Local Authority(ies), Natural England, Local constabulary(ies)

6 Air Pollution: impact of atmospheric nitrogen deposition

Nitrogen deposition exceeds site relevant critical loads.

<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	Control, reduce and ameliorate atmospheric nitrogen impacts.	Not yet determined	2014-20	Site Nitrogen Action Plan	Not yet determined	Not yet determined	Not yet determined

7 Wildfire/ arson

Wildfires are a periodic threat across the site and directly impact on upland habitats including SAC features; blanket bog, wet heath and dry heath. The ecosystem services delivered by these habitats are adversely affected through direct damage caused to the vegetation, peat and soils, which results in loss of valuable habitat quality and associated wildlife alongside carbon release to atmosphere and to watercourses. Peat exposed by wildfire is at increased risk to wind and water erosion, with water run-off from uplands potentially resulting in downstream flooding, sedimentation of water courses and discolouration of drinking water. Wildfire will vary year to year depending on the condition of the vegetation (drier etc.) and this will result in varying levels of impact (e.g. rapid grass fire in March has less impact than a summer fire on heather over peat). The cause of ignition is generally accepted to be of human origin with deliberate intent a pattern on some parts of the site and elsewhere careless behaviour near to footpaths and car parks appear to be the chief cause of ignition.

<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	Wildfire Prevention Plans, as part of Moorland Management Plans, need to be created and implemented across the whole site (see also Managed rotational burning, and include Wildfire Risk Reduction Management in these plans).	Staff time	2015-20	Advice	Not yet determined	Local partnership	Local Authority(ies), Natural England, Peak District National Park Authority, Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Fires Operation Group, Local constabulary(ies), Pennine Prospects
<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	Improve the resilience of bare peat to ignition events through appropriate restoration (see Hydrological changes).	Not yet determined	2015-20	Partnership agreement	Not yet determined	Local partnership	Local Authority(ies), Natural England, Peak District National Park Authority, Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Fires Operation Group, Local constabulary(ies), Pennine Prospects

<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	Introduce bylaws to protect ecosystems and through this the SAC habitats vulnerable to fire damage, bylaws would enable public rights of way to be closed for short periods when the risks of fire are high (in combination with existing powers to suspend open access rights).	Not yet determined	2015-20	Enforcement: S34 Road Traffic Act/ S28p(6) Liaison With Natural England	Not yet determined	Derbyshire Constabulary	Local Authority(ies), Natural England, Local constabulary(ies)
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
7D	Increase education and awareness of the impacts of wildfire, both ecological and financial. Ensuring a programme of engagement and preventative measures are in place around high risk sites, such as the Upper Calder Valley, and that there are clear communications between statutory and regulative bodies to ensure enforcement is pursued, where appropriate, in line with the relevant legislation for site/feature damage.	Not yet determined	2015-20	Advice	Not yet determined	Natural England	Environment Agency, Forestry Commission, Highways Agency, Local Authority(ies), National Trust, Peak District National Park Authority, Wildlife Trust(s), Landowner(s), Yorkshire Peat Partnership, Moors for the Future, Pennine Prospects, Vehicle user group(s), British Mountaineering Council

8 Vehicles

Damaging vehicle use is an issue across the site, damaging notified features and affecting bird nesting activity. This can be motorbikes, quad bikes, 4x4s and pedal cycles. Wet peat habitats are most sensitive.

<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	Increased partnership working on prevention of damaging vehicle use and increased resources to prosecute where necessary.	Staff time	2015-17	Enforcement: S34 Road Traffic Act/ S28p(6) Liaison With Natural England	Not yet determined	Derbyshire Constabulary	Derbyshire County Council, Local Authority(ies), Local constabulary(ies)

<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
8B	Increased pressure on highways authorities and owners to manage PRoWs, to avoid ongoing damage to features by introducing byelaws.	Staff time	2015-17	Enforcement	Not yet determined	Derbyshire Constabulary	Derbyshire County Council, Local Authority(ies), Local constabulary(ies)
<i>Action</i>	<i>Action description</i>	<i>Cost estimate</i>	<i>Timescale</i>	<i>Mechanism</i>	<i>Funding option</i>	<i>Delivery lead body</i>	<i>Delivery partner(s)</i>
8C	Monitor adherence to consents/moorland management plans for vehicle use based on evidence.	Staff time	2015-17	Enforcement	Not yet determined	Natural England	n/a

9 Overgrazing

Overgrazing has adversely affected blanket bog, wet heath, dry heath and oak woodland habitats. In some instances this continues in others it is necessary to safeguard recovery when grazing is returned to the site. Areas of the site are suffering from overgrazing, affecting the habitats of the breeding birds and causing water run-off and erosion. Increased stocking levels are affecting the mosaic of dwarf-shrubs and are replacing them with grassland. Overgrazing has a likely long term impact leading to unfavourable condition for bog and heath communities.

<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	Pilot, and if successful roll out Virtual Fencing projects (also used for undergrazing).	£500,000	2015-25	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Natural England	Defra, National Trust, Peak District National Park Authority, Landowner(s), National Farmers' Union (NFU)

<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>
9B	Provision of long-term sustainable grazing regimes using off-wintering, fencing or shepherding. This requires the economic issues to be addressed (see actions 4B and 14A for addressing Molinia and Bracken dominance).	£1,000,000	2015-20	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Natural England	Defra, National Trust, Peak District National Park Authority, Landowner(s), National Farmers' Union (NFU)
<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>
9C	Where consented grazing is continuing to cause damage and appropriate agri-environment agreements cannot be negotiated. Source funding to implement the outcomes of the review of existing grazing consents with a view to negotiating long term sustainable grazing regimes.	Not yet determined	2015-17	Regulation: Compulsory Withdraw/Modify Notice/Consent	Not yet determined	Natural England	Defra, Landowner(s)

10 Forestry and woodland management

H91A0 Western acidic oak woodland is a feature of the site and the conservation and enhancement of this feature requires active management. Inappropriate tree planting may result in introduction of infected species. Planting can affect blanket bog or increase predation risks for breeding waders on adjacent moorland, for example inappropriate planting on in-bye land which is used by breeding birds for feeding.

<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	Create, consult upon and implement targeted woodland plans for the site and adjacent land including exploring planting as a method of controlling invasive species.	£100,000	2015-17	Partnership agreement	Not yet determined	Forestry Commission	Natural England

11 Changes in species distributions

Changes in species distribution are occurring across the site, caused by varying factors such as air pollution, current land management, erosion and the effects of climate change. These changes are currently not fully understood and therefore cannot inform future management. The most significant changes are to bird populations leading to an obvious decline in breeding numbers or shifts to new breeding areas.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
11A	Investigate the changes in species distribution across the site and attempt to identify the possible causes, to inform future management plan and restoration.	£150,000	2015-17	Investigation / Research / Monitoring	Not yet determined	Natural England	University(ies), Consultant
Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
11B	Based on the results of the IPENS 066 – Analysis of changes in moorland management in the North York Moors SPA (Aerial Imagery) project, explore the potential for a similar South Pennine Moors study showing how changes in management may impact on bird populations.	Not yet determined	2015-17	Investigation / Research / Monitoring		Natural England	University(ies), Consultant

12 Disease

The fungus-like pathogen *Phytophthora spp.* is known to be killing various species within the SAC. Species known to have affected the site are *P. pseudosyringae*, *P. cactorum*, *P. syringae* and *P. ramorum*. Few control mechanisms exist for the disease so early detection and proper disposal of infected plant material are essential. Plant species known to be affected or that have been affected or may require future monitoring are: Hybrid Bilberry *Vaccinium x intermedium*, Bilberry *Vaccinium myrtillus*, Common alder *Alnus glutinosa*, Common ash *Fraxinus excelsior*, English oak *Quercus robur*, Sessile oak *Quercus petraea*, Moor birch *Betula pubescens*, and Rhododendrons.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
12A	Develop and implement <i>Phytophthora</i> resilience plans - mitigate risk through land management practice (including a constant dialogue advising interested parties on current knowledge and management of the disease as this develops).	£200,000	2015-20	Partnership agreement	Not yet determined	Local partnership	Defra, Natural England, Yorkshire Peat Partnership, Moors for the Future, Food and Environment Research Agency (FERA), Pennine Prospects

13 Undergrazing

Areas of the site are suffering from undergrazing, affecting both the habitats of the breeding birds and the notified feature habitats; this is principally a by-product of stock removal for habitat restoration.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
13A	Increased facilitation of specific stock grazing on difficult sites including conservation fencing, shepherding and introducing appropriate breeds. This will also include the re-introduction of stock onto sites where they were previously excluded/removed.	£500,000	2015-18	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Local partnership	Defra, Natural England, Peak District National Park Authority, Landowner(s), National Farmers' Union (NFU)

14 Invasive species

Bracken and rhododendron need to be controlled on a wider scale across the site to avoid the suppression of the SAC heath, blanket bog and mire communities. This work will need to bring together various land owners, occupiers and organisations. Management can be difficult and expensive; plans need to be cost-effective and practical with a view to control rather than eradication. Given the decades elapsed to arrive at the current levels of coverage, slowing or reversing the process will be long term with consistency and persistence from all parties being key. Techniques to be more widespread and with a more integrated approach across the site are:

- Cutting
- Crushing/rolling
- Livestock treading (during winter) and
- Herbicides.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
14A	Investigate and implement a better and more targeted invasive species control programme across the site whilst allowing for the role that bracken provides in cover and structure for breeding birds (refer to section 10A Forestry and Woodland Management).	£3,086,550	2015-20	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Rural Development Programme (RDPE)	Natural England	Forestry Commission, Landowner(s)

15 Planning Permission: general

Local development frameworks, infrastructure programs and planning permissions need to be evaluated on a whole site basis, for example wind turbines and housing developments. The 'in combination' and cumulative effects of numerous applications are, potentially, fragmenting the site and slowing the chances of a joined up landscape scale delivery resilient 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>
15A	Implement a co-ordinated approach across Local Authorities, covering the South Pennine Moors SPA Phase 2, to evaluate the 'in-combination effects at a site level' when considering/developing local development frameworks, infrastructure programmes and evaluating planning permissions. This needs to consider both land which is covered by the SPA and land which is functionally linked (e.g. adjacent feeding habitats for SPA birds).	Not yet determined	2015-20	Mechanism not identified / develop mechanism	Not yet determined	Natural England	Bradford Metropolitan Council, Burnley Borough Council, Kirklees Council, Oldham Metropolitan Borough Council, Rochdale Metropolitan Borough Council, Calderdale 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>
15B	Establish and monitor cumulative impacts of development on South Pennine Moors SPA Phase 2 bird populations.	Not yet determined	2015 onwards	Mechanism not identified / develop mechanism	Not yet determined	Natural England	Bradford Metropolitan Council, Burnley Borough Council, Kirklees Council, Oldham Metropolitan Borough Council, Rochdale Metropolitan Borough Council, Calderdale 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>
15C	Compensate /mitigate at a whole site level against disturbance/development pressures to ensure South Pennine Moors SPA Phase 2 population thresholds are maintained.	Not yet determined	2018 onwards	Mechanism not identified / develop mechanism	Not yet determined	Natural England	Bradford Metropolitan Council, Burnley Borough Council, Kirklees Council, Oldham Metropolitan Borough Council, Rochdale Metropolitan Borough Council, Calderdale Council

Site details

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

Qualifying features

#UK Special responsibility

Peak District Moors (South Pennine Moors Phase 1) SPA

A222(B) *Asio flammeus*: Short-eared owl

A098(B) *Falco columbarius*: Merlin

A140(B) *Pluvialis apricaria* : European golden plover

South Pennine Moors Phase 2 SPA

A222(B) *Asio flammeus*: Short-eared owl

A160(B) *Numenius arquata*: Eurasian curlew

A162(B) *Tringa totanus*: Common redshank

A275(B) *Saxicola rubetra*: Whinchat

A277(B) *Oenanthe oenanthe*: Northern wheatear

A282(B) *Turdus torquatus*: Ring ouzel

A367(B) *Carduelis flavirostris*: Twite

A466(B) *Calidris alpina schinzii*: Dunlin

A168(B) *Actitis hypoleucos*: Common sandpiper

A153(B) *Gallinago gallinago*: Common snipe

Breeding bird assemblage

A098(B) *Falco columbarius*: Merlin

A140(B) *Pluvialis apricaria* : European golden plover

A142(B) *Vanellus vanellus*: Northern lapwing

South Pennine Moors SAC

H4010 Northern Atlantic wet heaths with *Erica tetralix*

H4030 European dry heaths

H7130# Blanket bogs

H7140 Transition mires and quaking bogs

H91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles

Site location and links

Peak District Moors (South Pennine Moors Phase 1) SPA

Area (ha) **45270.52** Grid reference **SK157968** [Map link](#)

Local Authorities

Barnsley; Derbyshire Dales; High Peak; Kirklees; Macclesfield; North East Derbyshire; Oldham; Sheffield; Staffordshire Moorlands; Tameside

Site Conservation Objectives

[European Site Conservation Objectives for Peak District Moors \(South Pennine Moors Phase I\) SPA](#)

European Marine Site conservation advice

[n/a](#)

Regulation 33/35 Package

[n/a](#)

Marine Management Organisation site plan

[n/a](#)

South Pennine Moors Phase 2 SPA

Area (ha) **20936.53** Grid reference **SD953349** [Map link](#)

Local Authorities

Bradford; Burnley; Calderdale; Craven; Kirklees; Leeds; Oldham; Pendle; Rochdale

Site Conservation Objectives

[European Site Conservation Objectives for South Pennine Moors \(Phase II\) SPA](#)

European Marine Site conservation advice

[n/a](#)

Regulation 33/35 Package

[n/a](#)

Marine Management Organisation site plan

[n/a](#)

South Pennine Moors SAC

Area (ha) **64983.13** Grid reference **SK144960** [Map link](#)

Local Authorities

Barnsley; Bradford; Calderdale; Cheshire; Derbyshire; Kirklees; Lancashire; Leeds; North Yorkshire; Oldham; Rochdale; Sheffield; Staffordshire; Tameside

Site Conservation Objectives

[European Site Conservation Objectives for South Pennine Moors 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.

Peak District Moors (South Pennine Moors Phase 1) SPA

River basin	North West RBMP
WFD Management catchment	Aire and Calder, Derbyshire Derwent, Don and Rother, Dove, Upper Mersey, Weaver/Gowy
WFD Waterbody ID (Cycle 2 draft)	GB104027057340, GB104027057370, GB104027057380, GB104027057390, GB104027057400, GB104027057460, GB104027057500, GB104027057600, GB104027057660, GB104027057750, GB104027063590, GB104028052800, GB104028052891, GB104028057800, GB104028057810, GB104028057890, GB104028057900, GB104028057930, GB104028057940, GB104028057960, GB112068060230, GB112069060700, GB112069060730, GB112069060731, GB112069060770, GB112069060790, GB112069060800, GB112069060850, GB112069060970, GB112069064741, GB30431609, GB30431667, GB30431693, GB30431848, GB30431876, GB30432418, GB30432459, GB30432627, GB31231778, GB31231791, GB31231942, GB31233043

South Pennine Moors Phase 2 SPA

River basin	North West RBMP
WFD Management catchment	Aire and Calder, Irwell, Ribble, Upper Mersey, Weaver/Gowy
WFD Waterbody ID (Cycle 2 draft)	GB104027062520, GB104027062610, GB104027062650, GB104027062690, GB104027062770, GB104027062780, GB104027062840, GB104027062850, GB104027062950, GB104027063034, GB104027063250, GB104027064210, GB104027064230, GB112069064720, GB112069064741, GB112071065090, GB112071065110, GB112071065160, GB112071065180, GB30430323, GB30430435, GB30430471, GB30430563, GB30430575, GB30430594, GB30430604, GB30430621, GB30430632, GB30430633, GB30430670, GB30431070, GB30431104, GB30431247, GB30431248, GB31230663, GB31231168, GB31231404

South Pennine Moors SAC

River basin	Humber RBMP	North West RBMP
WFD Management catchment	Aire and Calder, Derbyshire Derwent, Don and Rother, Dove, Irwell, Ribble, Upper Mersey, Weaver/Gowy, Wharfe and Lower Ouse	

WFD Waterbody ID (Cycle 2 draft)

GB104027057340, GB104027057380, GB104027057390, GB104027057400, GB104027057460, GB104027057500, GB104027057600, GB104027057660, GB104027057750, GB104027062520, GB104027062610, GB104027062650, GB104027062690, GB104027062770, GB104027062780, GB104027062840, GB104027062850, GB104027062950, GB104027063034, GB104027063250, GB104027063590, GB104027064210, GB104027064230, GB104028052800, GB104028052891, GB104028057800, GB104028057810, GB104028057890, GB104028057900, GB104028057930, GB104028057940, GB104028057960, GB112068060230, GB112069060700, GB112069060730, GB112069060731, GB112069060770, GB112069060790, GB112069060800, GB112069060850, GB112069060970, GB112069064720, GB112069064741, GB112071065090, GB112071065110, GB112071065160, GB112071065180, GB30430323, GB30430435, GB30430471, GB30430563, GB30430575, GB30430594, GB30430604, GB30430621, GB30430632, GB30430633, GB30430670, GB30431070, GB30431104, GB30431247, GB30431248, GB30431609, GB30431667, GB30431693, GB30431848, GB30431876, GB30432459, GB30432627, GB31230663, GB31231168, GB31231404, GB31231778, GB31231791, GB31231942, GB31233043

Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Peak District Moors (South Pennine Moors Phase 1) SPA	<ul style="list-style-type: none"> Eastern Peak District Moors SSSI South Pennine Moors SSSI Leek Moors SSSI The Dark Peak SSSI Goyt Valley SSSI
South Pennine Moors Phase 2 SPA	<ul style="list-style-type: none"> South Pennine Moors SSSI The Dark Peak SSSI
South Pennine Moors SAC	<ul style="list-style-type: none"> Eastern Peak District Moors SSSI South Pennine Moors SSSI Leek Moors SSSI The Dark Peak SSSI Goyt Valley SSSI
National Nature Reserve (NNR)	
Peak District Moors (South Pennine Moors Phase 1) SPA	Kinder Scout NNR
South Pennine Moors Phase 2 SPA	n/a
South Pennine Moors SAC	Kinder Scout NNR
Ramsar	
Peak District Moors (South Pennine Moors Phase 1) SPA	n/a
South Pennine Moors Phase 2 SPA	n/a
South Pennine Moors SAC	n/a
Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Peak District Moors (South Pennine Moors Phase 1) SPA	South Pennine Moors SAC
South Pennine Moors Phase 2 SPA	South Pennine Moors SAC

South Pennine Moors SAC

South Pennine Moors Phase 2 SPA

Peak District Moors (South Pennine Moors Phase 1) SPA

<i>Version</i>	<i>Date</i>	<i>Comment</i>
1.0	17/12/2014	

www.naturalengland.org.uk/ipens2000

