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

Planning for the Future

Site Improvement Plan

Craven Limestone Complex

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)

UK0014776 Craven Limestone Complex SAC

Site description

The Craven Limestone Complex includes the second most extensive area of calcareous grassland in the UK. It supports swards that exhibit exceptional structural diversity, ranging from hard-grazed through to tall herb-rich grasslands on ungrazed cliff ledges, woodland margins and around limestone pavements and screes. It is thus an important example of grassland-scrub transitions. The site supports large areas of mid-altitude limestone pavement, with a wide range of transitions to other habitats described above and woodlands on rocky slopes and ravines.
There are large species-rich fen systems and extensive spring-fed flush fens throughout much of the site. The site also contains complexes of tufa-forming springs associated with a range of other habitats including alkaline fens, calcareous grasslands, limestone pavements, cliffs and screes.
Craven contains what are believed to be the largest expanses and type example of purple moor-grass – marsh hawk's-beard mire in the UK. Malham Tarn Moss is an active raised bog in an area overlying limestone where wetlands are more typically base-rich fens and which are represented on the lagg.

Malham Tarn is considered the best example of an upland stonewort dominated lake in England and is the highest marl lake in the UK. The water drains from surrounding Carboniferous limestone and is nutrient-poor. The feeder streams and the tarn itself support populations of white-clawed crayfish while upland becks and streams with calcareous waters and stony beds support good numbers of bullhead.

Craven Limestone Complex is also the single remaining native site for Lady's-slipper orchid.

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 Overgrazing	Pressure	H8240 Limestone pavements, H9180 Mixed woodland on base-rich soils associated with rocky slopes, S1163 Bullhead	Restrict stock access to vulnerable locations	Environment Agency, Forestry Commission, National Trust, Natural England, Yorkshire Dales National Park Authority
2 Water Pollution	Threat	H3140 Calcium-rich nutrient-poor lakes, lochs and pools	Annually review the Diffuse Water Pollution Plan and maintain monitoring equipment	Environment Agency, National Trust, Natural England

3 Changes in species distributions	Pressure/ Threat	H3140 Calcium-rich nutrient-poor lakes, lochs and pools, H7220 Hard-water springs depositing lime, S1092 White-clawed (or Atlantic stream) crayfish, S1163 Bullhead	Establish and implement methods to maintain populations	Defra, Environment Agency, National Trust, Natural England, Yorkshire Dales National Park Authority, The Botanical Society of Britain & Ireland (BSBI), NNR staff
4 Hydrological changes	Pressure/ Threat	H7110 Active raised bogs	Carry out works to stabilise peat at Tarn Moss	National Trust, Natural England
5 Undergrazing	Pressure/ Threat	H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)	Establish appropriate grazing	Natural England
6 Inappropriate weed control	Pressure	H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites), H8240 Limestone pavements	Control weed species as needed	Natural England
7 Deer	Pressure/ Threat	H8240 Limestone pavements, H9180 Mixed woodland on base-rich soils associated with rocky slopes	Investigate the impact of deer on features and manage the population	Forestry Commission, National Trust, Natural England, Yorkshire Dales National Park Authority
8 Climate change	Pressure/ Threat	H8240 Limestone pavements	Monitor for effects and if possible seek mitigation	Natural England
9 Air Pollution: impact of atmospheric nitrogen deposition	Pressure	H6130 Grasslands on soils rich in heavy metals, H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites), H6410 Purple moor-grass meadows, H7110 Active raised bogs, H7220 Hard-water springs depositing lime, H7230 Calcium-rich springwater-fed fens, H8240 Limestone pavements, H9180 Mixed woodland on base-rich soils associated with rocky slopes, S1902 Lady`s-slipper orchid	Develop and implement a Site Nitrogen Action Plan (if deemed appropriate to the site-specific circumstances)	Not yet determined
10 Species decline	Threat	H6130 Grasslands on soils rich in heavy metals, H6210 Dry grasslands and scrublands on chalk or limestone (important orchid sites)	Review the Conservation Objectives for affected features	Natural England, Voluntary conservation organisation(s)
11 Feature location/ extent/ condition unknown	Threat	H7220 Hard-water springs depositing lime	Survey for and determine location/ extent of feature	Natural England, Consultant

12 Public Access/Disturbance	Pressure	S1163 Bullhead	Consider access restrictions in affected locations	Environment Agency, National Trust, Natural England, Yorkshire Dales National Park Authority
13 Conflicting conservation objectives	Threat	H7230 Calcium-rich springwater-fed fens	Review the Conservation Objectives for complex sites, and possibly restrict access	National Trust, Natural England
14 Disease	Threat	H7110 Active raised bogs, H8240 Limestone pavements, H9180 Mixed woodland on base-rich soils associated with rocky slopes, S1092 White-clawed (or Atlantic stream) crayfish	Develop and implement Site Biosecurity Plan and associated measures	Defra, Environment Agency, Forestry Commission, National Trust, Natural England, Yorkshire Dales National Park Authority, Animal & Plant Health Agency
15 Invasive species	Threat	H3140 Calcium-rich nutrient-poor lakes, lochs and pools, S1092 White-clawed (or Atlantic stream) crayfish	Threat of introduction of aquatic non-natve species	Environment Agency, National Trust, Natural England, Yorkshire Dales National Park Authority
16 Direct impact from 3rd party	Threat	S1902 Lady`s-slipper orchid	Maintain an appropriate level of site wardening.	Natural England, Defra (Royal Botanic Gardens Kew)

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 Overgrazing

Overgrazing by sheep/deer/rabbits is having a negative impact upon tree and shrub species on limestone pavement. In addition, there is localised overgrazing of woodland and stream sides.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1A	Seek advice about planning permission / Scheduled Monument Consent for fencing on limestone pavement on land under a limestone pavement order.	£196 per item	2014-20	Regulation: Other - obtain appropriate permissions	Higher Level Stewardship (HLS), New Environmental Land Management Scheme (NELMS)	Natural England	Yorkshire Dales National Park Authority

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1B	Fence areas of limestone pavement.	£20,055	2014-20	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Higher Level Stewardship (HLS), New Environmental Land Management Scheme (NELMS)	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1C	Seek funding sources outside of Countryside Stewardship for limestone pavement fencing.	£2,000-£10,000+ per item	2016-25	Mechanism not identified / develop mechanism	Not yet determined	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1D	Fence off areas of woodland and replant.	£6,032	2014-25	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	New Environmental Land Management Scheme (NELMS)	Natural England	Forestry Commission

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1E	Investigate feasibility of fencing or reducing stock grazing adjacent to streams and the potential impacts on the wider habitats as well as on bullhead.	Staff time	2014-20	Investigation / Research / Monitoring	Staff time	Natural England	Environment Agency, National Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1F	Fence or reduce stock adjacent to stream.	£3,892	2015-25	Rural Development Programme for England (RDPE): Environmental Stewardship Higher Level Scheme (HLS)	Higher Level Stewardship (HLS), New Environmental Land Management Scheme (NELMS)	Natural England	National Trust, Yorkshire Dales National Park Authority

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1G	Modify or revoke existing consents should they be found to be damaging through Review of Consents.	In-house work	2015-30	Enforcement	Staff time	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1H	Investigate the relative impacts of rabbit grazing on key habitats.	£10,000-£20,000	2015-20	Investigation / Research / Monitoring	SSSI funding	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
1I	Encourage the control of rabbits to deliver habitat objectives.	Not yet determined	2014 onwards	Advice	Not yet determined	Natural England	n/a

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1J	If Action IROW 161 fails, consider a management scheme/ notice under Section 28JK of the Wildlife and Countryside Act (as amended) to require control of rabbits where impacts on features are observed.	Not yet determined	2016-20	Regulation: SSSI Regulation	Not yet determined	Natural England	n/a

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
1K	Where rabbits are impacting features under Environmental Stewardship Scheme management, negotiate appropriate agreements to ensure that farmers reduce stock numbers accordingly.	Staff time	2014 onwards	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	Not yet determined	Natural England	n/a

2 Water Pollution

There are diffuse water pollution issues at Malham Tarn which affect the tarn and possibly the fens. There is a concern about total phosphate levels in particular.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
2A	Review the Diffuse Water Pollution Plan annually for Malham Tarn.	Not yet determined	2014 onwards	Diffuse Water Pollution Plan	Staff time	Natural England	Environment Agency, National Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
2B	Review results from water quality monitoring equipment at Malham Tarn to determine if there is a need to continue the monitoring.	Staff time	2014-15	Diffuse Water Pollution Plan	Staff time	Natural England	Environment Agency, National Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
2C	Maintain current water quality monitoring equipment at Malham Tarn and continue the water quality monitoring to identify causes if it is deemed necessary.	£2,500-£8,000	2014 onwards	Diffuse Water Pollution Plan	Water Framework Directive (WFD)	Natural England	Environment Agency, National Trust

3 Changes in species distributions

Malham Tarn: Recent survey indicates that the white-clawed crayfish population is low. There is no current information about the status of the bullhead population. Chara species are fluctuating. Indications are that the Bartsia alpina population is declining.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3A	Survey of white clawed crayfish and bullhead population to establish a baseline figure.	Not yet determined	2014	Investigation / Research / Monitoring	SSSI funding	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3B	Establish a monitoring program for the white clawed crayfish and bullhead populations.	£5,500 per survey per species	2020-30	Investigation / Research / Monitoring	SSSI funding	Natural England	Environment Agency, National Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3C	Investigate, establish and implement methods to protect and increase the native white clawed crayfish population at Malham Tarn.	Not yet determined	2015-30	Investigation / Research / Monitoring	Not yet determined	Natural England	Environment Agency, National Trust

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3D	Survey of the *Bartsia alpina* population.	£1000	2015-16	Investigation / Research / Monitoring	SSSI funding	Natural England	Yorkshire Dales National Park Authority, The Botanical Society of Britain & Ireland (BSBI)

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
3E	Establish and implement method to increase the *Bartsia alpina* population and/or its genetic diversity.	Not yet determined	2016 onwards	Investigation / Research / Monitoring	SSSI funding	Natural England	Defra

4 Hydrological changes

The edge of Tarn Moss is being eroded by wave action from the artificially high water levels in Malham Tarn. This is leading to direct loss of bog, and increased drying at the edge of the peat body. It also increases the sediment loading to the tarn.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
4A	Carry out works around the edge of Tarn Moss to stabilise the peat and reduce erosion.	Not yet determined	2015	Diffuse Water Pollution Plan	National Trust, Water Framework Directive (WFD)	Natural England	National Trust

5 Undergrazing

Undergrazing is noted to be a problem on several sites. Further research is required on appropriate grazing levels with cattle. No grazing management is in place near land at Hawkswick, Littondale. This means that the calcareous grassland is rank and losing species interest.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
5A	Research on appropriate cattle grazing levels on limestone grassland.	£19,500 per year	2014-20	Investigation / Research / Monitoring	Not yet determined	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
5B	Bring an area of limestone grassland at Hawkswick Cote into grazing management.	£2,465	2016	Rural Development Programme for England (RDPE): Common Agricultural Policy 2014-20 (New Environmental Land Management Scheme)	New Environmental Land Management Scheme (NELMS)	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
5C	If Action [ROW 30] fails, consider a management scheme/notice under Section 28J/K of the Wildlife and Countryside Act (as amended) to require suitable grazing management where impacts on features are observed.	Not yet determined	2017-20	Regulation: SSSI Regulation	Not yet determined	Natural England	n/a

6 Inappropriate weed control

Weed encroachment, especially thistles, is reaching the limit of the acceptable threshold. Bracken encroachment is affecting european features although on a local basis only.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
6A	Address local weed encroachment, especially thistles, and local bracken encroachment where levels are reaching the limit of the acceptable threshold.	Not yet determined	2014-17	Rural Development Programme for England (RDPE): Environmental Stewardship Higher Level Scheme (HLS)	Higher Level Stewardship (HLS)	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
6B	If action 6A fails, consider a management scheme/notice under Section 28J/K of the Wildlife and Countryside Act (as amended) to require weed encroachment to be addressed where impacts on features are observed.	Not yet determined	2016-20	Regulation: SSSI Regulation	Not yet determined	Natural England	n/a

7 Deer

Deer grazing appears to be preventing natural regeneration of woodland tree species in some locations.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
7A	Establish the numbers of deer and their impact upon interest features and agree a monitoring strategy.	£11,350	2014-20	Investigation / Research / Monitoring	SSSI funding	Natural England	Forestry Commission, National Trust, Yorkshire Dales National Park Authority

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
7B	Develop a site deer management strategy. Manage deer populations especially around ash and other woodlands, limestone pavement and juniper areas.	£3,500 per year	2015-25	Partnership agreement	Defra, SSSI funding	Natural England	Forestry Commission, National Trust, Yorkshire Dales National Park Authority

8 Climate change

Climate change may be leading to the loss of key species associated with the more upland and montane elements of calcareous rocky slopes and limestone pavement.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
8A	Review likely climate change impacts and identify appropriate adaptive actions.	Not yet determined	2015-21	Investigation / Research / Monitoring	Not yet determined	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
8B	Initiate monitoring to determine the degree to which this is occurring.	Not yet determined	2016-35	Investigation / Research / Monitoring	Not yet determined	Natural England	n/a

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
8C	Implement or introduce refugia, mitigation or seedbanks to conserve vulnerable species.	Not yet determined	2020-30	Mechanism not identified / develop mechanism	Not yet determined	Natural England	n/a

9 Air Pollution: impact of atmospheric nitrogen deposition

Nitrogen deposition exceeds site relevant critical loads.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
9A	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

10 Species decline

The extent of calaminarian grassland is likely to shrink in area or decline in condition if there is no continuing disturbance. Some calcareous grassland is failing Integrated Site Assessment (ISA) due to low % forbs. This maybe due to inappropriate grazing of some sites, or the aspect of the land (such as northern facing slopes or natural mosaic habitats of neutral grassland).

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
10A	Initiate monitoring to determine if low forb % on some calcareous grassland sites is due to management or some other factor.	Not yet determined	2014-25	Investigation / Research / Monitoring	Not yet determined	Natural England	Voluntary conservation organisation(s)

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
10B	Review Conservation Objectives for known naturally affected habitats such as calcareous grassland with low forb % cover and calaminarian grassland in the first instance (and potentially others down the line post investigation).	Not yet determined	2014-18	Advice: Review Conservation Objectives	Natural England, SSSI funding	Natural England	n/a

11 Feature location/ extent/ condition unknown

The location of tufa springs and alkaline fens is not always certain and favourable condition tables do not enable an accurate assessment of condition for this feature.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
11A	Confirm the location and extent of biologically important tufa springs and alkaline fens.	£10,000	2015-20	Investigation / Research / Monitoring	Not yet determined	Natural England	Consultant

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
11B	Refine the relevant favourable condition tables to enable the condition of springs on this site to be accurately assessed by Common Standards Monitoring.	No funding required	2015-20	Advice: Other	Natural England, SSSI funding	Natural England	n/a

12 Public Access/Disturbance

Public access causing erosion is one of the contributing factors to the lack of structure of the bank side/stream vegetation. This is likely to be having a knock-on effect on the bullhead population. The bullhead population appears to be declining in this location.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
12A	Investigate whether erosion caused by public access at stream sides is having a negative impact upon the bullhead population. If so, instigate the changes required.	Not yet determined	2015-30	Partnership agreement	New Environmental Land Management Scheme (NELMS)	Natural England	Environment Agency, National Trust, Yorkshire Dales National Park Authority

13 Conflicting conservation objectives

Management of some habitats can conflict, e.g. cattle grazing may benefit calcareous grassland, but have a negative impact on flushes and mires.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
13A	Review the practical implementation of the conservation objectives, to achieve favourable management for all features.	No funding required	2015-20	Advice: Other	No funding required	Natural England	National Trust

14 Disease

Potential loss of the main native tree species by *Chalara* (ash die-back) will adversely affect condition. Potential threat from phytopthora mainly to raised bog through reduction/ loss of one or more dwarf shrub species. There is also a potential threat from crayfish plague.

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
14A	Develop and implement a site biosecurity plan for Chalara (Ash Die-back).	Not yet determined	2015-20	Bio-security plan	Not yet determined	Forestry Commission	National Trust, Natural England, Yorkshire Dales National Park Authority, Animal & Plant Health Agency

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
14B	Monitor for evidence of disease outbreak in ash, (*Chalara*).	Not yet determined	2015-20	Investigation / Research / Monitoring	Not yet determined	Forestry Commission	Natural England, Yorkshire Dales National Park Authority

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
14C	If National Guidance advises, make Ash stands more robust through both diversifying genetic and species mix (*Chalara*).	Not yet determined	2014 onwards	Investigation / Research / Monitoring	Not yet determined	Forestry Commission	Natural England, Yorkshire Dales National Park Authority

Action	*Action description*	*Cost estimate*	*Timescale*	*Mechanism*	*Funding option*	*Delivery lead body*	*Delivery partner(s)*
14D	Monitor for disease outbreak and sudden die-back of dwarf shrubs due to *Phytopthora ramorum*.	Not yet determined	2015-20	Investigation / Research / Monitoring	Not yet determined	Defra	n/a

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
14E	Develop, and when necessary implement a site biosecurity plan for *Phytophthora.*	Not yet determined	2014 onwards	Bio-security plan	Not yet determined	Defra	Forestry Commission, Animal & Plant Health Agency

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
14F	Develop and implement a site biosecurity plan to prevent crayfish plague and other crayfish diseases.	Not yet determined	2015-20	Bio-security plan	Not yet determined	Environment Agency	National Trust, Natural England, Animal & Plant Health Agency

15 Invasive species

Introduction of aquatic non-native species may impact on a wide variety of the features of this site.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
15A	Develop a site and biosecurity plan to prevent/ minimise impacts from invasive species	Not yet determined	2015-20	Bio-security plan	Not yet determined	Natural England	Environment Agency, National Trust, Yorkshire Dales National Park Authority

16 Direct impact from 3rd party

Possible theft of Lady's slipper orchid from the only documented wild site remaining in Britain.

Action	Action description	Cost estimate	Timescale	Mechanism	Funding option	Delivery lead body	Delivery partner(s)
16A	Ensure funding for species wardening over appropriate seasonal timescale (cost quoted per annum)	£4,500	2014-40	National Nature Reserve (NNR) management plan	Species Recovery Programme	Natural England	National Trust, The Botanical Society of Britain & Ireland (BSBI), Defra (Royal Botanic Gardens Kew)

Site details

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

Qualifying features

#UK Special responsibility

Craven Limestone Complex SAC	H3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara spp*
	H6130 Calaminarian grasslands of the *Violetalia calaminariae*
	H6210# Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*)
	H6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)
	H7110# Active raised bogs
	H7220# Petrifying springs with tufa formation (*Cratoneurion*)
	H7230 Alkaline fens
	H8240# Limestone pavements
	H9180# *Tilio-Acerion* forests of slopes, screes and ravines
	S1092 *Austropotamobius pallipes*: White-clawed (or Atlantic stream) crayfish
	S1163 *Cottus gobio:* Bullhead
	S1902 *Cypripedium calceolus*: Lady`s-slipper orchid

Site location and links

Craven Limestone Complex SAC

Area (ha) **5328.25** *Grid reference* **SD924673**	Map link
Local Authorities	North Yorkshire
Site Conservation Objectives	European Site Conservation Objectives for Craven Limestone Complex SAC
European Marine Site conservation advice	n/a
Regulation 33/35 Package	n/a
Marine Management Organisation site plan	n/a

Water Framework Directive (WFD)

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

Additional information is provided on targets for flow and some water quality parameters, in order to meet the conservation objectives for certain Natura 2000 sites. The relevant targets are identified in the revised conservation objectives document (see link to PDF below).

These targets have been revised for a number of Natura 2000 rivers and lakes, following a review by the conservation agencies of Common Standards Monitoring Guidance. For rivers, this is done through local discussions between Natural England and Environment Agency staff. For lake sites, the only parameter where alignment of standards was reviewed was phosphorus and so this work was undertaken jointly at a national level.

The linked PDF documents include the proposed target values, and also set out an 'interim progress goal', that will need to be achieved by 2021. Where sufficient information is available the document also identifies a timescale for achievement of the longer-term target. For any sites where it has not been possible to agree specific targets, usually because further technical work is required, these will be indicated in the documents by an asterisk. For further information please see Part 2 of the River Basin Plan

Craven Limestone Complex SAC

River basin	Humber RBMP
WFD Management catchment	Aire and Calder, Wharfe and Lower Ouse
WFD Waterbody ID (Cycle 2 draft)	GB104027063110, GB104027063130, GB104027064090, GB104027064150, GB104027064180, GB104027064253, GB30429844
Locally revised Conservation Objectives	
Additional information on locally revised Conservation Objectives	n/a
EA/ NE agreed RBMP lake SAC targets	Proposed total phosphorus targets for Lake Natura 2000 Protected Area Special Areas of Conservation for the updated river basin management plan consultation

River Restoration Plan

Source of information on river restoration plans for SAC rivers where these are in place or planned, with links to documentation where this is available.

Webpage link: Restoring Designated Rivers	n/a
River Restoration Plan document	n/a

Overlapping or adjacent protected sites

Site(s) of Special Scientific Interest (SSSI)	
Craven Limestone Complex SAC	Malham-Arncliffe (Cool Pasture) SSSI
	Bastow Wood SSSI
	Malham-Arncliffe SSSI
	Kilnsey Flush SSSI
	Conistone Old Pasture SSSI

National Nature Reserve (NNR)	
Craven Limestone Complex SAC	Malham Tarn NNR

Ramsar	
Craven Limestone Complex SAC	Malham Tarn

Special Areas of Conservation (SAC) and Special Protection Areas (SPA)	
Craven Limestone Complex SAC	n/a

Other relevant documents and links

Version	*Date*	*Comment*
0.5	20/11/14	