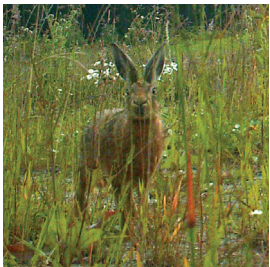
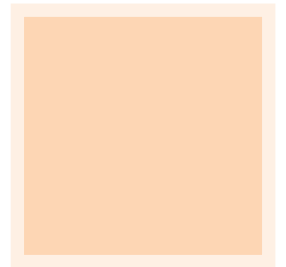


Highthorn Surface Mine

Biodiversity Action Plan

October 2015 - DRAFT

HJB / BA795 / 161



Allow us to introduce ourselves

Banks Mining is part of the Banks Group. We design, develop and operate surface mines providing coal to help meet our society's demand for energy in a responsible and considerate way.

An established North East company, the Banks Group develops and operates surface coal mines, wind farms and other renewable energy projects, commercial and residential land and property developments.

We aim to support the continued development of these businesses whilst maintaining a high standard of biodiversity and habitat enhancement, environmental performance and community engagement in line with our development with care approach to business.

Enhancing nature - monitoring and improving wildlife habitats

We recognise that our activities may have the potential to make a significant change to both the natural environment and local communities, and that it is our responsibility to maximise environmental benefits and minimise any adverse impacts arising from these activities.

This document is your guide to the lengths we go to for ensuring protection and enhancement of a range of habitats for wildlife on our sites.

Banks' millionth tree planted at Blagdon Estate, Northumberland



Setting the standard

UK Biodiversity Action Plan

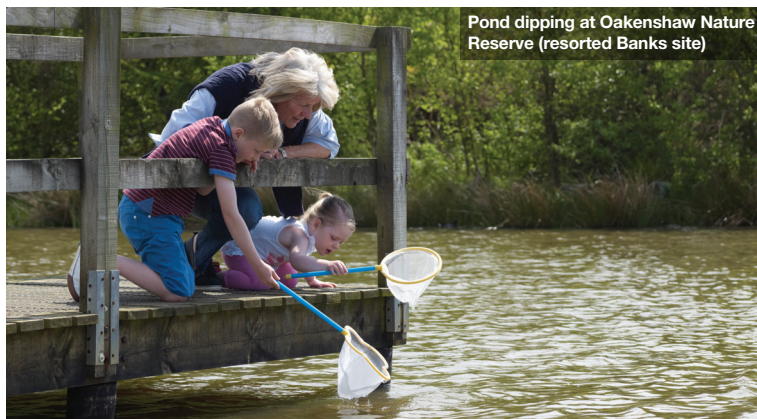
The UK Biodiversity Action Plan (UK BAP) describes the biological resources contained in the UK and their detailed conservation methods. These were designed for the most threatened species and habitats requiring conservation action to help in their road to recovery.

The UK BAP aims to conserve, protect and if possible enhance the variety of life.

England, Northern Ireland, Scotland and Wales have developed their own strategies to allow for different conservation approaches in accordance with their different priorities, environments and levels of biodiversity.

Selecting priority species and habitats is decided by expert groups working with select criteria, based on international importance, rapid decline, high risk and habitats of importance for key species.

The devolution from the UK biodiversity action plan to the individual counties within the UK, was a step to concentrate their efforts on a smaller scale to make more worthwhile decisions for nature. Banks Group has taken a further step by introducing site specific BAP's for our English surface mines. Site specific BAPs have been in place on our Shotton and Brenkley Lane surface mines since they started operation in 2008 and 2010 respectively.



Pond dipping at Oakenshaw Nature Reserve (resorted Banks site)



The Site Biodiversity Action Plan is drafted in context with, and follows the general format of the UK Biodiversity Action Plan and the Northumberland Biodiversity Action Plan and the Newcastle Biodiversity Action Plan.

The Site Biodiversity Action Plan will identify those actions to be undertaken and provides forward planning guidance for future years, helping towards conservation of the UK biodiversity.

Aims for the Highthorn BAP

The overall aim of the Highthorn BAP is to guide the conservation, enhancement and management of biodiversity in the full range of habitats and species located within and adjacent to the site whilst allowing development, restoration and aftercare management of the site to proceed.

MORE SPECIFICALLY THE sBAP WILL:

- Ensure there is sufficient ecological survey information for decisions facilitating the protection, enhancement and conservation of priority species
- Comply with legislation and set higher standards to ensure species protection
- Use best practice for biodiversity during the preparation, development and restoration / mitigation phases of the site to safeguard species for future generations
- Monitor the impact of works on species by reviewing targets and maintaining a good understanding of the biodiversity characteristics of the site
- Optimise biodiversity opportunities on site
- Strengthen the understanding and commitment of site staff and contractors through training to aid the protection of species to enhance biodiversity



The overall objective is to ensure that all the target sBAP species remain present on or around the site during the operational phases and that suitable habitats are restored on the site for them to re-establish across the site in similar or greater numbers to the baseline survey information.

Track record

The following pages demonstrate the success stories from our current sites, existing site BAPs and how using habitats in and around the working site can aid target species

Otter photographed with a remote camera using a drainage ditch on the Brenkley Lane site



Brown hare on the Brenkley Lane overburden mound



Skylark on the Brenkley Lane overburden mound



Otters

Utilise the periphery of working sites. The area between soil storage mounds and boundary hedgerows provide good movement corridors with records of animals using boundary drainage channels on the Brenkley Lane and Shotton sites. Progressive restoration on the Brenkley Lane site has reinstated the Milkhope Burn with an improved open channel profile and there is good evidence of this being frequently used by otters.

Brown Hare

Utilise a variety of areas within the working site including soil storage mounds and overburden storage mounds (even before they establish with grass). An important factor in the sites success for brown hare is that the majority of the site is pedestrian free and with little disturbance from people the hares rapidly adapt to machinery movements. There is a good sized population of hares on the Brenkley Lane site, centred on the overburden storage mound. There are also good numbers of hares on the Shotton site, again centred on the overburden mound.

Skylark

Utilise the soil storage mounds and overburden mounds, along with adjacent mitigation fields. They have consistently established territories and bred on the Brenkley Lane and Shotton sites with numbers increasing each year (10 birds recorded on the Brenkley Lane overburden mound on 16/05/15). Skylark have also established on the progressive restoration at Brenkley Lane (9 birds recorded on 16/05/15).

Peregrine Falcon

Utilise the edges of the excavation areas and hunt across the open area of the excavation. Peregrines are frequently seen on the Brenkley Lane and Shotton sites.

Track record

Lapwing

Utilise soil storage mounds and overburden mounds. They have nested on the subsoil and overburden mounds on the Brenkley Lane site and on a large topsoil storage mound on the Shotton site. The young lapwing benefit from open wet areas that support the insect larvae that is their main food source. Shallow depressions have been created on the mounds which form seasonal wet areas. They are also using the restored parkland at Brenkley Lane (12 birds recorded on the 30/05/15) and the area of progressive restoration (8 birds recorded on the 30/05/15)

Grey Partridge

Utilise soil storage mounds and overburden mounds along with the peripheries of the site. Positive management of hedgerows and hedgerow margins on and adjacent to the sites has been beneficial.

Snipe

Snipe were present on the Brenkley Lane site before it became operational. They were utilising several areas of rough stony grassland within fields on the site. This type of habitat has been recreated on the area of progressive restoration and snipe have been recorded using it.

Reed bunting

Utilise hedgerows retained on and around the sites along with vegetation around drainage channels and water treatment areas.

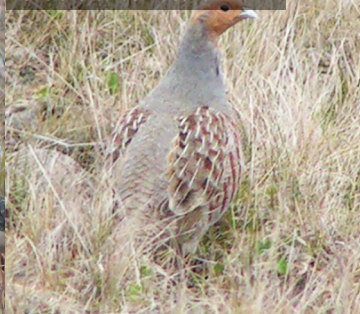
Badgers

Are present near to both the Brenkley Lane and Shotton sites and have been recorded on the soil storage mounds and overburden mound at Brenkley Lane

Young lapwing on the restored parkland at Brenkley Lane



Grey Partridge on the Brenkley Lane overburden mound



Barn owl

Utilise soil storage and overburden mounds along with the site periphery. In particular the dense grass on the topsoil mounds is good habitat for voles which are an important part of their diet. Barn owl numbers around the Brenkley Lane and Shotton sites have increased since the sites have been working.

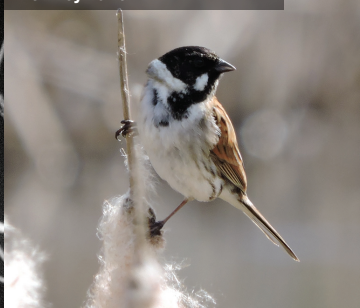
Great Crested Newts

These are present on two separate areas of the Brenkley Lane site which has required licensing by Natural England. Mitigation ponds have been created and newts were translocated into these in 2005 and numbers of newts have steadily increased.

Barn Owl on the edge of the Brenkley Lane site



Reed Bunting on site lagoons at Brenkley Lane



Snipe on the Brenkley Lane progressive restoration



Badger on the Brenkley Lane site



Track record

Types of habitat managed, created, and protected during the last 6 years include in and around the site

- Wet grassland
- Ponds and wetlands
- Watercourses
- Species rich grassland
- Hedgerows
- Broad leaf woodland



Moss Carr, near Leeds (resorted Banks site)

Highthorn overview

Work to date

In preparation for the planning application and environmental statement, significant numbers of surveys have been carried out over two and a half years since 2012. Surveys undertaken on behalf of Banks Mining by independent consultants have included:

- Coastal bird surveys
- Breeding bird surveys
- Winter farmland bird surveys
- Barn owl surveys
- Vantage point bird surveys and drive round
- Schedule 1 protected bird surveys
- Amphibian surveys
- Bat surveys
- Reptile surveys
- Badger surveys
- Red squirrel surveys
- Otter surveys
- Water vole surveys
- Protected species surveys
- Habitat surveys
- Tree and hedgerow surveys
- Noise surveys
- Air quality surveys
- Lighting surveys
- Vibration assessment

In consultation with local nature conservation groups and environmental bodies, the target priority species for Highthorn BAP in the Druridge Bay area are suggested to be:

- Brown hare (UK BAP)
- Bats (UK & N'land BAPs)
- Red squirrel (UK & N'land BAPs)
- Otter (UK & N'land BAPs)
- Barn Owl (N'land BAP)
- Lapwing (UK & N'land BAPs)
- Skylark (UK & N'land BAPs)
- Yellow wagtail (UK & N'land BAPs)
- Yellowhammer (UK & N'land BAPs)
- Reed bunting (UK & N'land BAPs)
- Linnet (UK & N'land BAPs)
- Tree sparrow (UK & N'land BAPs)
- Grey partridge (UK & N'land BAPs)
- Pink-footed goose
- Whooper swan
- Twite (UK BAP)
- Marsh harrier
- Avocet
- Curlew (UK & N'land BAPs)
- Golder plover (N'land BAP)
- Wigeon
- Pond invertebrate assemblages

Highthorn overview

Highthorn BAP in operation



BANKS MINING WILL CARRY OUT:

- Restoration first
- Annual surveys
- Progressive restoration
- Discover Druridge works
- Site enhancement works
- Partnership with local bodies

COMMENCEMENT OF WORKS

Hemscott Hill sand extraction permission revoked

1ha of remediation and stabilisation works to the areas of the dunes that have been previously disturbed.

YEAR 1

18.6ha of new wetland habitat at Druridge Ponds

4.5ha of new habitat created to the immediate north of Druridge Pools

YEAR 2

11ha new wet grassland habitat created at Chibburn Pools

6ha of wetland habitat created to the immediate west of the Druridge Pools

1.5ha of wild flower meadow surrounding the preceptory

19ha of progressive restoration

YEAR 3

58ha of progressive restoration

Improvement works to the 5ha Hemscott Hill ponds

YEAR 4

101ha of progressive restoration.

Landscape improvement works to the coniferous shelter tree belts north of the Preceptory

5500m of new native species rich hedgerow planting

YEAR 5 - 7

Remaining 149ha of the working areas restored, which will include the creation of ponds, open swales and watercourses with surrounding areas of wet species rich grassland. There will also be species rich hedgerows with hedgerow trees, field copses and small areas of woodland. Suitable areas for snipe and skylark within the new arable fields will be identified and enhanced.

PRIORITY SPECIES 1:

Brown Hare (*Lepus europaeus*)



Fact file

Colour: Golden brown, pale belly, white tail

Characteristics: Powerful long hind legs, long ears

Size: Length 70cm, weight 4kg, larger than rabbits with longer legs and ears (black tips)

Lifespan: 4 years

Food source: Vegetation, bark

Shelter: Form (shallow depression in ground)

Visible: Mostly early spring in breeding season

Habitat: Grassland and woodland edges

Hares are a game animal, but are often seen as a pest as they have started feeding on crops instead of their preferred wild grass and weeds. This is due to changes in farming practice, which has resulted in the brown hare declining in numbers.

Highthorn ecological survey information

Brown hare were recorded frequently within the mammal survey and in most of the breeding bird and wintering bird surveys, both within the site and in the wider survey area (e.g. Chibburn Farm area to the north). There were at least 17 records within the site during the survey programme, while a brown hare was also recorded in the Fox Covert camera trapping. Although they remain widespread and numerous in Northumberland, they have suffered population declines and are Section 41 priority species, and can therefore be considered of local interest in the context of the site and wider area.

Mitigation

OPERATIONAL PHASE

Establish suitable grassland on soil storage and overburden mounds to benefit brown hare. Restoration First areas will also provide suitable grassland.

Monitor populations as part of sBAP.

RESTORATION PHASE

The restoration will provide suitable habitat for brown hare, with new hedgerows and hedgerow margins, woodland copses and species rich (extensive) grassland.

PRIORITY SPECIES 2:

Bats



Fact file

Colour: Varied

Characteristics: Varied

Size: Varied

Lifespan: Varied

Food source: Insects

Shelter: Roosts (trees, caves, buildings), hollow tree (summer), large trees (winter)

Visible: Summer, sunset/sunrise

Habitat: Wetland, pasture, deciduous woodland

Bats use landscape features for commuting from one area of countryside to another, by echolocation calls which bounce off linear features when they are flying overhead (eg. Woodland hedges). Bats have an important role in many environments by pollinating flowers, spreading seeds and controlling pests.

Highthorn ecological survey information

Six species of bat were identified during the surveys: noctule, common, soprano and Nathusius' pipistrelle (*Pipistrellus nathusii*), *Myotis* sp. bats (whiskered/Brandt's) and a single occurrence of Daubenton's bat.

Levels of bat activity across the site were generally low, evidenced by automated detector call registrations and observations in transect surveys. This is likely to reflect the open aspect of most of the site, with few sheltered corridors for movement. Significantly higher levels of activity were recorded nearby, over Hemscott Hill Ponds, where the waterbodies provide high quality foraging habitat, and the sheltered conditions of a garden at Highthorn.

Of the bats recorded, Nathusius' pipistrelle and whiskered/Brandt's bats are considered rare or uncommon in Northumberland. Although Nathusius' pipistrelle is probably under-recorded, with improved ultrasonic equipment providing new records, its presence should still be regarded as a feature of County-level interest. The presence of other bat species is a feature of no more than local interest, given the lack of roosts detected on site.

Mitigation

OPERATIONAL PHASE

Maintaining boundary hedgerows and managing bunds within site to maintain sheltered, insect-rich flight corridors. Creating insect-rich wetland habitats in coastal grasslands. Provision of bat boxes in plantations. Monitor populations as part of sBAP.

RESTORATION PHASE

Creation of wet grassland with scrapes along the Hemscott Burn. Improving density and condition of hedgerows to provide greater habitat connectivity in restored landscape.

PRIORITY SPECIES 3:

Red Squirrel (*Sciurus vulgaris*)



Fact file

Colour: Red/brown pelt, underside white

Characteristics: Long bushy tail for balance, steering and warmth

Size: Length up to 22cm, tail up to 20cm, mass up to 340g

Lifespan: 3 years

Food source: Seeds, fungi, nuts, berries

Shelter: Drey (twigs, moss, leaves, bark), den (tree hollows)

Visible: Morning, late afternoon, evening

Habitat: Coniferous forests and broadleaf woodlands

The red squirrel has decreased in number in the UK, particularly after the introduction of the grey squirrel but also due to its woodland habitat being lost and fragmented.

Highthorn ecological survey information

Signs of squirrel activity were found in two plantations, and baited camera traps confirmed these to be red squirrel. No signs of squirrel activity were found in Fox Covert, either from cone / drey searches or baited camera trapping.

Druridge Bay is not considered a 'core area' where red squirrel populations may be maintained in the longer term, but for the moment the population in the two plantations can be considered to be at least local interest.

Mitigation

OPERATIONAL PHASE

Minimise working period on nearby bunds. Consider supplementary feeding using red squirrel- specific feeders. Maintain / improve suitability of plantations for red squirrel. Monitor populations as part of sBAP.

RESTORATION PHASE

Review status of red squirrel in wider area of Druridge Bay with advice from conservation bodies. If appropriate, design and manage new planting to accommodate habitat requirements of red squirrel.

PRIORITY SPECIES 4:

Otter (*Lutra lutra*)



Fact file

Colour: Pale grey-brown fur, broad snout, webbed feet, short legs

Characteristics: Long, slim bodies, short limbs, webbed paws, sharp claws

Size: Length 1-1.2m, mass 7-10.5kg

Lifespan: 4-10 years

Food source: Fish, waterbirds, amphibians, crustaceans

Shelter: Close to river, drains, thick vegetation

Visible: Usually at night

Habitat: Interface between land and a river/stream

The European otter is native to Britain and is one of our largest carnivores. Their diverse and flexible diet allows them to inhabit many different unpolluted water bodies including the sea. Their territories span up to distances of 40km depending upon the food availability which they hunt for at night. Their numbers have declined in the past due to water being polluted from pesticides, hunting and loss of habitat.

Highthorn ecological survey information

The riparian mammal survey found positive signs of otter on the Hemscott Burn, this is located 360m from the nearest site boundary. Habitat connectivity between this area and Hemscott Hill Ponds was considered to be poor. No signs were found in 2014 here or elsewhere on site, and there was no evidence of otters using the ditches which cross the site. No signs of breeding places or resting places of otters were found.

It is reasonable to conclude that there is a well-established coastal otter population in Druridge Bay. Based on known otter behaviour, it is likely that otters will utilise small ditches and terrestrial habitats on and around the site in order to move between ponds and other watercourses. While it is not possible to conclude that otters will not use the site, it is very unlikely to be an important part of their home range. Although otters are now widespread in Northumberland, a population of a European protected species in the wider Druridge Bay area can be considered a feature of local importance.

Mitigation

Measures to contain any pollutants and regulate flow rates and physical containment of site.

Provision of new off-site wetland in coastal field areas as part of restoration first and on the restored site will increase available habitat and improve connectivity.

PRIORITY SPECIES 5:

Barn Owl (*Tyto alba*)



Fact file

Colour: Brown back, white face and underparts, black eyes

Characteristics: Long broad wings, short square tail, heart shaped face

Size: Length 35cm, weight 400g, wingspan 20cm

Lifespan: 3-4 years

Food source: Voles, shrew, mice, rats

Shelter: Roosts/nests in trees, cliffs, buildings, chimneys

Visible: At night

Habitat: Field margins, grassland, woodland edges, hedgerows, fencerows

UK breeding: 4,000 pairs

UK wintering: 12,500 - 25,000 birds

Barn owls usually hunt at night for animals on the ground locating them via sound, they hover over potential prey spots or use a lookout such as branches and fences. Declines have been seen with the use of pesticides and intensification of agricultural practices, as this removes their preferred foraging habitat of rougher grassland. Lack of nesting sites is also causing the decrease in numbers and populations have shown increases after placing nest boxes in locations accessible such as attics of some buildings.

Highthorn ecological survey information

BIRDS OF CONSERVATION CONCERN:
Amber

STATUS ON HIGHTHORN SITE:
Resident in survey area

WINTER SURVEY:
Regularly recorded at dawn & dusk, foraging in Cresswell Ponds / Hemscott Hill Farm area, on dune grassland near Druridge Pools, and the fields to the north.

Mitigation

OPERATIONAL PHASE

Management of storage mounds and unworked land to provide suitable habitat voles. Provide nest boxes in suitable areas around the site.

RESTORATION PHASE

Creation of agricultural landscape with mix of arable, grassland, wet grassland and hedgerows to maximise suitable habitat.

PRIORITY SPECIES 6:

Lapwing (*Vanellus vanellus*)



Fact file

Colour: Black and white

Characteristics: Rounded wing shape and crest

Size: Length 11-13 inches, wingspan 26-34 inches, mass 128-330g

Lifespan: 4-5 years

Food source: Worms, insects

Shelter: Nests on the ground in open fields/moorland

Visible: At night, all year around

Habitat: Farmland, wetlands

UK breeding: 140,000 pairs

UK wintering: 850,000 birds

Numbers of the northern lapwing have shown a decline with increases in grazing in the uplands and with intensive agricultural techniques in the lowlands, in which the rougher grassland has been lost due to improvement of land for farmers and their crops. An option for preventing this problem is by adding a fallow plot which is uncropped, to provide more suitable habitats.

Highthorn ecological survey information

BIRDS OF CONSERVATION CONCERN:
Red

BREEDING PAIRS WITHIN SITE:
6

STATUS ON SITE/WIDER AREA:
Winter survey recorded up to 800 birds, summer survey recorded 31 breeding pairs (6 on site). On site lapwing a breeding resident/ winter visitor with several counts of more than 300 in coastal fields and wetlands.

IMPORTANCE OF SITE AND DRURIDGE BAY:
Local importance

Mitigation

OPERATIONAL PHASE

Management of overburden mounds and unworked land to provide suitable habitat for ground-nesting birds.

RESTORATION PHASE

Creation of agricultural landscape with mix of arable, grassland, wet grassland and hedgerows to maximise value to farmland birds.

PRIORITY SPECIES 7:

Skylark (*Alauda arvensis*)



Fact file

Colour: Brown, with paler underparts, tail and wings have white edges

Characteristics: Sings, short blunt crest on head, short tail and wings

Size: Length 17cm, wingspan 33cm, weight 40g

Lifespan: 2-3 years

Food source: Seeds insects

Shelter: Grass nests in vegetation

Visible: All year around

Habitat: Open farmland and heath

UK breeding: 1,500,000 pairs

The Eurasian Skylark forages mostly on the ground and now struggles to find its food with farming practices changing over the years, including the use of pesticides, thus resulting in numbers declining.

Highthorn ecological survey information

BIRDS OF CONSERVATION CONCERN:
Red

BREEDING PAIRS WITHIN SITE:
26

STATUS ON SITE / WIDER AREA:
73 territories recorded in survey area (26 on site). On site breeding skylark recorded in dune grassland and fields with maximum non-breeding flock of 18 recorded September 2014

IMPORTANCE OF SITE/DRURIDGE BAY:
Local importance

Mitigation

OPERATIONAL PHASE

Management of overburden mounds and unworked land to provide suitable habitat for ground-nesting birds.

Management of inner faces of bunds and top of overburden mounds to provide winter feeding for seed-eating birds.

RESTORATION PHASE

Creation of "Wildlife Islands" and localised wet areas in reinstated arable fields.

Creation of agricultural landscape with mix of arable, grassland, wet grassland and hedgerows to maximise value to farmland birds.

PRIORITY SPECIES 8:

Yellow Wagtail (*Motacilla flava*)



Fact file

Colour: Green on top with yellow underparts

Characteristics: Wagging tail

Size: Length 16cm, wingspan 25cm, weight 18g

Lifespan: 3 years

Food source: Small insects

Shelter: Nests on the ground (grass/plants and fur)

Visible: March to September

Habitat: Lowland grassland, wet pastures

UK breeding: 15,000 territories

Yellow wagtails are decreasing in numbers, due to agricultural practices changing, however with all species that migrate long distances, conditions in other countries could be a factor, but is unknown at present

Highthorn ecological survey information

BIRDS OF CONSERVATION CONCERN:
Red

BREEDING PAIRS WITHIN SITE:
3

STATUS ON SITE/WIDER AREA:
Recordings of up to 6 territories, including confirmed breeding. On site 2-3 breeding pairs recorded in dunes and Hemscott Hill Farm area.

IMPORTANCE OF SITE AND DRURIDGE BAY:
District level importance

Mitigation

OPERATIONAL PHASE

Management of ponds and wet grassland and the creation of ponds, scrapes and wet grassland on the coastal fields adjacent to arable fields.

RESTORATION PHASE

Reinstatement of wet grassland with scrapes along the Hemscott Burn.

PRIORITY SPECIES 9:

Yellowhammer (*Emberiza citronella*)



Fact file

Colour: Bright yellow head and underparts with brown back

Characteristics: Sing 'a little bit of bread and no cheese'

Size: Length 16cm, wingspan 26cm, weight 31g

Lifespan: 3 years

Food source: Seeds and insects

Shelter: Nests (grass/moss)

Visible: All year around

Habitat: Woodland edges, heath, hedgerows, farmland

UK breeding: 710,000 pairs

A decrease of yellowhammer numbers has been seen with agricultural practices changing reducing the winter seed availability.

Highthorn ecological survey information

BIRDS OF CONSERVATION CONCERN:
Red

BREEDING PAIRS WITHIN SITE:
6

STATUS ON SITE/WIDER AREA:
Recordings of 11 territories (6 within site).
On site frequent recordings in hedgerows in southern part of survey area, no records from Chibburn.

IMPORTANCE OF SITE AND DRURIDGE BAY:
Local importance

Mitigation

OPERATIONAL PHASE

Management of inner faces of bunds and top of overburden mounds to provide winter feeding for seed-eating birds

RESTORATION PHASE

Creation of agricultural landscape with mix of arable, grassland, wet grassland and hedgerows to maximise value to farmland birds.

PRIORITY SPECIES 10:

Reed Bunting (*Emberiza schoeniclus*)



Fact file

Colour: Brown back, black heads and throats, white collar and moustache

Characteristics: Long jagged tail

Size: Length 16cm, wingspan 24cm, weight 21g

Lifespan: 3 years

Food source: Seeds and insects

Shelter: Nest in vegetation (grass/reeds/moss)

Visible: All year around

Habitat: Wetlands, farmland

UK breeding: 250,000 pairs

Declines in numbers are likely to be from agricultural intensification

Highthorn ecological survey information

BIRDS OF CONSERVATION CONCERN:
Amber

BREEDING PAIRS WITHIN SITE:
3

STATUS ON SITE/WIDER AREA:
Recordings of 20 territories (3 within site). On site reed bunting resident in farmland, wetland edge and dune grassland habitats

IMPORTANCE OF SITE AND DRURIDGE BAY:
Local importance

Mitigation

OPERATIONAL PHASE

Management of water treatment areas and creation of ponds and scrapes on the coastal fields.

Management of inner faces of bunds and top of overburden mounds to provide winter feeding for seed-eating birds.

RESTORATION PHASE

Creation of agricultural landscape with mix of arable, grassland, wet grassland and hedgerows to maximise value to farmland birds.

PRIORITY SPECIES 11:

Linnet (*Carduelis cannabina*)



Fact file

Colour: Brown backs, grey heads

Characteristics: Small, long tail

Size: Length 14cm, wingspan 24cm, weight 19g

Lifespan: 2 years

Food source: Seeds and insects

Shelter: Nests in gorse bushes/hedgerows

Visible: All year around

Habitat: Heathland, scrub, farmland

UK breeding: 430,000 pairs

Numbers of the common linnet are declining with the increase of herbicide use, scrub removal and hedge trimming, resulting in a decrease in food supply (seeds).

Highthorn ecological survey information

BIRDS OF CONSERVATION CONCERN:
Red

BREEDING PAIRS WITHIN SITE:
3

STATUS ON SITE/WIDER AREA:
Recordings of 17 territories in survey area.
Winter flocks of up to 75 on dune grassland.
On site small breeding numbers recorded with winter flocks on dune grassland. Maximum recording of 75 in November 2013

IMPORTANCE OF SITE AND DRURIDGE BAY:
Local importance

Mitigation

OPERATIONAL PHASE

Management of overburden mounds and unworked land to provide suitable habitat for ground-nesting birds.

Management of inner faces of bunds and top of overburden mounds to provide winter feeding for seed-eating birds.

RESTORATION PHASE

Creation of agricultural landscape with mix of arable, grassland, wet grassland and hedgerows to maximise value to farmland birds.

PRIORITY SPECIES 12:

Tree Sparrow (*Passer montanus*)



Fact file

Colour: Chestnut brown, white cheeks with a black spot

Characteristics: Raised tail

Size: Length 14cm, wingspan 21cm, weight 24g

Lifespan: 2 years

Food source: Seeds and insects

Shelter: Nests in holes in trees

Visible: All year around

Habitat: Farmland, hedges and woodland edges

UK breeding: 200,000 pairs

The decrease in the number of Eurasian tree sparrow is probably due to agricultural intensification and specialisation, with emphasis on herbicide use and autumn-sown crops. Changing farming from mixed to specialised and increasing insecticides has caused a reduction in the nestling's food sources (insects).

Highthorn ecological survey information

BIRDS OF CONSERVATION CONCERN:
Red

BREEDING PAIRS WITHIN SITE:
0

STATUS ON SITE/WIDER AREA:
Recordings of 38 pairs in survey area including 2 colonies. On site recordings of breeding colonies in several locations around the survey area.

IMPORTANCE OF SITE AND DRURIDGE BAY:
District level importance

Mitigation

OPERATIONAL PHASE

Management of inner faces of bunds and top of overburden mounds to provide winter feeding for seed-eating birds.

RESTORATION PHASE

Creation of agricultural landscape with mix of arable, grassland, wet grassland and hedgerows to maximise value to farmland birds.

PRIORITY SPECIES 13:

Grey Partridge (*Perdix perdix*)



Fact file

Colour: Grey, orange face, striped orange flanks

Characteristics:

Medium sized, plump, horseshoe-shaped patch on belly

Size: Length 32cm, wingspan 46cm, weight 390g

Lifespan: 3 years

Food source: Leaves, seeds, insects

Shelter: Nest in margin of cereal field

Visible: All year around

Habitat: Farmland

UK breeding: 43,000 pairs

The grey partridge is a game bird and it prefers to run instead of fly, spending more time on the ground. Their numbers have shown a decline in Great Britain with the intensive cultivation, causing losses of habitats for breeding and a loss in food supplies.

Highthorn ecological survey information

BIRDS OF CONSERVATION CONCERN:

Red

BREEDING PAIRS WITHIN SITE:

1

STATUS ON SITE/WIDER AREA:

Widespread in survey area (dunes and farmland) with at least 4 territories. On site widely distributed breeding on dune grassland and agricultural land.

IMPORTANCE OF SITE AND DRURIDGE BAY:

Local importance

Mitigation

OPERATIONAL PHASE

Management of overburden mounds and unworked land to provide suitable habitat for ground-nesting birds.

Management of inner faces of bunds and top of overburden mounds to provide winter feeding for seed-eating birds.

RESTORATION PHASE

Creation of agricultural landscape with mix of arable, grassland, wet grassland and hedgerows to maximise value to farmland birds.

PRIORITY SPECIES 14:

Pink-footed Goose (*Anser brachyrhynchus*)



Fact file

Colour: Grey-brown, pink legs and bill

Characteristics: Short neck and bill, rounded head

Size: Length 60–75cm, weight 3.4kg, wingspan 1.5m

Lifespan: 8 years

Food source: Tundra plants, oilseed rape, sugar beet, potato, grasses

Shelter: Nest (cliffs)

Visible: October to April

Habitat: Wetland and farmland

UK wintering: 360,000 birds

The pink-footed goose has seen an increase in numbers over the year, due to being more protected from shooting. They can cause damage to farmer's crops, however it can also benefit them as they glean leftover plant material once the crop has been harvested, decreasing the chance of crop diseases arising

Highthorn ecological survey information

BIRDS OF CONSERVATION CONCERN:
Amber

STATUS ON SITE/WIDER AREA:
Recordings of more than 5000 in survey area in 2012-13. 4000 in wider area recorded in 2013-14 but less than 3000 on site. Less than 1500 recorded in wider area between October – December 2014. On site abundant winter visitor on agricultural fields between September and February.

IMPORTANCE OF SITE AND DRURIDGE BAY:
International importance in 2012-13, below threshold in subsequent seasons.

Mitigation

OPERATIONAL PHASE

Management of undisturbed land in early phases of the site to improve habitat for pink-footed geese, possible identification of off-site refuge area for later operational phases and incorporation of management for pink-footed geese in the grazed coastal pasture.

RESTORATION PHASE

Reinstatement of agricultural land-use within Highthorn site, including some fields >5ha in area to allow future use by geese, including some fields >5ha in area.

PRIORITY SPECIES 15:

Whooper Swan (*Cygnus cygnus*)



Fact file

Colour: White, yellow and black beak and legs

Characteristics: Long thin neck

Size: Length 1.5m, wingspan 2.3m, weight 9.3kg

Lifespan: 9 years

Food source: Aquatic plants, grass, grain, potatoes

Shelter: Nest close to water

Visible: October to March

Habitat: Wetland

UK breeding: 9-14 (wild) pairs

UK wintering: 15,000 birds

Whooper swans need large bodies of water, in which they spend most of their time swimming, this is especially needed in growth as their legs do not support their weight for a long time.

Highthorn ecological survey information

BIRDS OF CONSERVATION CONCERN:
Amber

STATUS ON SITE/WIDER AREA:
Recordings of up to 80 in survey area, 161 in Atlas data but usually much lower numbers recorded during survey (0-41). On site roosting on Cresswell Pond, 33 in February 2014 with a maximum of more than 80 passing through survey area in October 2013.

IMPORTANCE OF SITE AND DRURIDGE BAY:
Site not important/wider area regional up to national importance

Mitigation

OPERATIONAL PHASE

Minimise working period on nearby bunds, if works undertaken within winter period.

Refuge area for geese may also be utilised by whooper swans.

RESTORATION PHASE

Reinstatement of wet grassland with scrapes along the Hemscott Burn.

PRIORITY SPECIES 16:

Curlew (*Numenius arquata*)



Fact file

Colour: Mottled brown plumage

Characteristics: Long, slender, downcurved bills, long legs

Size: Length 50-60cm, wingspan 90cm, weight 770-1,000g

Lifespan: 5 years

Food source: Worms/invertebrates (shellfish, shrimps)

Shelter: Nest on the ground in long grass

Visible: All year around

Habitat: Damp/boggy areas in grasslands, moors

UK breeding: 68,000 pairs

UK wintering: 150,000 birds

The Eurasian curlew has a near threatened status by the IUCN due to its current population size and with its numbers still declining

Highthorn ecological survey information

BIRDS OF CONSERVATION CONCERN:
Red

BREEDING PAIRS WITHIN SITE:
1

STATUS ON SITE/WIDER AREA:
Recordings of up to 80 regularly wintering on dune grassland. On site regular winter flock of up to 50 on Hemscott Hill Links. More unusual record of 18 on powerline over oilseed rape field in March 2014.

IMPORTANCE OF SITE AND DRURIDGE BAY:
District-level importance

Mitigation

OPERATIONAL PHASE

Compensatory wet grassland / scrape creation in coastal fields to increase area with penetrable ground.

Progressive restoration to minimise soil storage and handling to reduce loss of soil fauna.

RESTORATION PHASE

Reinstatement of wet grassland with scrapes along the Hemscott Burn.

Restoration of some fields >5ha in area

PRIORITY SPECIES 17:

Golden Plover (*Pluvialis apricaria*)



Fact file

Colour: Black throat, chest, belly, band of white, spotted-gold and black back and cap (winter), or in summer yellow throat, chest, belly

Characteristics: Sharp pointed wings, upright stance

Size: Length 26-29cm, wingspan 72cm, weight 220g

Lifespan: 4 years

Food source: Worms and beetles

Shelter:

Open ground / moorland

Visible: Uplands (summer), Lowlands (winter)

Habitat: Moorlands, farmland, muddy estuaries

UK breeding: 38,000 – 59,000 pairs

The European golden plover has had its range reduced in line for cultivation and afforestation of heathlands perhaps causing the decline in their numbers.

Highthorn ecological survey information

BIRDS OF CONSERVATION CONCERN:
Amber

STATUS ON SITE/WIDER AREA:
Maximum recording of 110, usually smaller numbers present, but atlas data maxima higher (350 – 710). On site winter visitor mostly in coastal fields, with maximum count in September 2012.

IMPORTANCE OF SITE AND DRURIDGE BAY:
Local Importance – larger flocks occur elsewhere in county

Mitigation

OPERATIONAL PHASE

Compensatory wet grassland / scrape creation in coastal fields to increase area with penetrable ground.

Progressive restoration to minimise soil storage and handling to reduce loss of soil fauna.

RESTORATION PHASE

Reinstatement of wet grassland with scrapes along the Hemscott Burn.

Restoration of some fields >5ha in area.

Ensure restoration practice and design promotes development of soil fauna.

PRIORITY SPECIES 18:

Marsh Harrier (*Circus aeruginosus*)



Fact file

Colour: Grey wings with black tips, brown back, chestnut belly, pale head (male). Female is brown, with golden crown

Characteristics: Long tail, wings in distinctive V-shape

Size: Length 48-55 cm, wingspan 1.2m, weight 540-670g

Lifespan: 6 years

Food source: Frogs, fish, insects, birds

Shelter: Nesting in reed beds

Visible: April - October

Habitat: Marshland, reed beds

UK breeding: 320-380 pairs

The western marsh harrier has reduced in numbers because of persecution, destruction of habitats and use of pesticides. Numbers are back on the rise but threats of shooting whilst migrating and disturbance in their breeding season are still present.

Highthorn ecological survey information

BIRDS OF CONSERVATION CONCERN:
Amber

STATUS ON SITE/WIDER AREA:
Recorded between March – September over wetlands and fields in other parts of the survey area.

IMPORTANCE OF SITE AND DRURIDGE BAY: Regional importance as rare species with expanding population colonising NE England

Mitigation

OPERATIONAL PHASE

Creation of wet grassland habitat to improve foraging habitat in coastal fields, maintaining connectivity between East Chevington and Warkworth Lane to east and south of site.

RESTORATION PHASE

Reinstatement of wet grassland with scrapes along the Hemscott Burn.

PRIORITY SPECIES 19:

Avocet (*Recurvirostra avosetta*)



Fact file

Colour: Black and white, black cap down back of neck, blue legs

Characteristics: Long legs, long, thin, upcurved bills

Size: Length 42-46cm, wingspan 78cm, weight 280g

Lifespan: 4 years

Food source: Insects, worms

Shelter: Nest on open ground on vegetation

Visible: East coast (summer), South West coast (winter)

Habitat: Mud in shallow lakes, open ground

UK breeding: 1,500 pairs

The pied avocet is at threat due to, their wetland habitats being polluted with insecticides etc. human disturbance, land reclamation, development and diseases such as avian influenza.

Highthorn ecological survey information

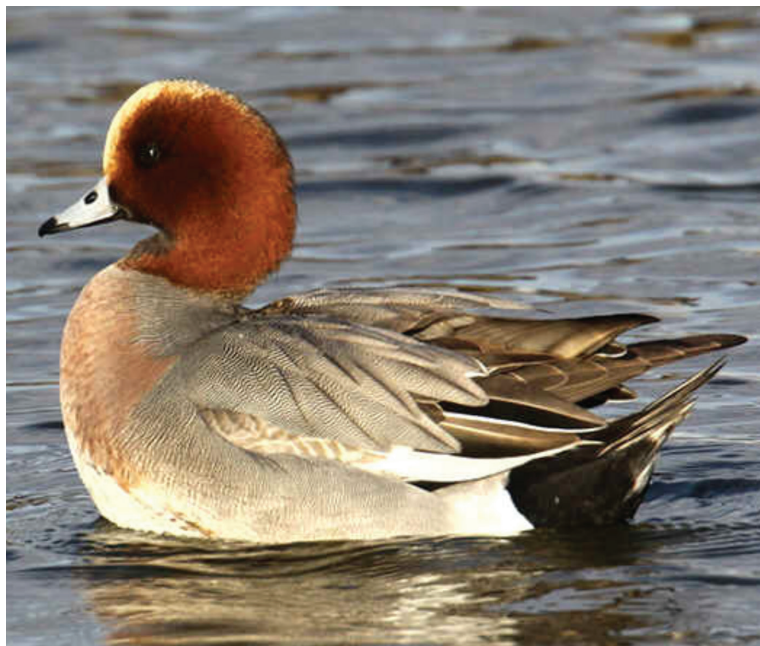
BIRDS OF CONSERVATION CONCERN:
Amber

STATUS ON SITE/WIDER AREA:
Recordings of up to 10 on Cresswell Pond between March – July, occasionally overflying other parts of the survey area.

IMPORTANCE OF SITE AND DRURIDGE BAY: Regional importance as rare species with expanding population colonising NE England

PRIORITY SPECIES 20:

Wigeon (*Anas penelope*)



Fact file

Colour: Grey with pink breast, white belly, chestnut head (male), female is light brown

Characteristics: Round head, short bill

Size: Length 43-48cm, wingspan 80cm, weight 650-800g

Lifespan: 3 years

Food source: Plant food

Shelter: Nests on ground near water and under cover

Visible: All year around

Habitat: Wetlands, grassland, marshes

UK breeding: 300-500 pairs

UK wintering: 450,000 birds

The numbers are declining and threats contributing to this are from disturbance from pollution, wetland drainage and wetland management practice.

Highthorn ecological survey information

BIRDS OF CONSERVATION CONCERN:
Amber

STATUS ON SITE/WIDER AREA:
Recordings of 300-800 regularly present, exceptionally up to 2000 reported. On site, wigeon abundant on coastal wetlands, occasionally rafting on sea. Maximum count of 620 recorded in February 2014 moving between sea and Cresswell Pond.

IMPORTANCE OF SITE AND DRURIDGE BAY:
Up to County level importance (Lindisfarne area holds much larger flocks)

Mitigation

OPERATIONAL PHASE

Compensatory wet grassland / scrape creation in coastal fields. Buffer zone of species-rich wet grassland around Hemscott Hill Ponds

RESTORATION PHASE

Reinstatement of wet grassland with scrapes along the Hemscott Burn.

PRIORITY SPECIES 21:

Twite (*Linaria flavirostris*)



Fact file

Colour: Brown streaked with black above and a pink rump, underparts whitish with brown flecks

Characteristics: Small, long tail, stubby bill

Size: Length 13-13.5cm

Lifespan: 3 years

Food source: Seeds

Shelter: Nest (bush and dune hollows)

Visible: Uplands (summer), coast (winter)

Habitat: Treeless moorland (breeding)

UK breeding: 10,000 pairs

UK wintering: 100,000 - 150,000 birds

Numbers of twite have seen a decline, probably due to losses of food supplies and nesting habitat.

Highthorn ecological survey information

BIRDS OF CONSERVATION CONCERN:
Red

STATUS ON SITE/WIDER AREA:
Recordings of up to 80 regularly wintering on dune grassland. On site regular winter flock of up to 50 on Hemscott Hill Links, more unusual record of 18 on powerline over oilseed rape field in March 2014.

IMPORTANCE OF SITE AND DRURIDGE BAY:
District-level importance

Next steps

If the Highthorn Surface Mine is granted planning permission, we will undertake the following:

- Annual surveys
- Annual reports
- Performance review
- Action taken where necessary
- Lessons learnt applying to new sites
- Employ right people for the job
- Restore the site
- Restoration First activities
- Discover Druridge
- Support of local conservation initiatives
- In house technical team of Richard Hutchinson and Mark Simmons