River Wiske Internal Drainage Board

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Biodiversity Action Plan

January 2010

FINAL REPORT

JBA Consulting
Denison House
Hexthorpe Road
DONCASTER
South Yorkshire
DN4 0BF
UK
t: +44 (0)1302 342 055
f: +44 (0)1302 329 887
www.jbaconsulting.co.uk

River Wiske IDB
York House
Thornfield Business Park
Standard Way
Northallerton
North Yorkshire
DL6 2XQ

REVISION HISTORY

Revision Ref./ Date Issued	Amendments	Issued to
Draft Report November 2009		River Wiske IDB
Final Report January 2010		River Wiske IDB

CONTRACT

This report describes work commissioned by the River Wiske Internal Drainage Board to produce a Biodiversity Audit and Action Plan for the drainage district. Rachael Brady, Laura Hicks, Kieran Sheehan, Christopher Toop, Jon Whitmore and Richard Barnard of JBA Consulting carried out the work.

Prepared by: ..... Rachael Brady BSc MSc MIEEM
Senior Ecologist

Reviewed by: .....pp. Kieran Sheehan BSc MSc PGCE MIEEM MIfL
Senior Ecologist

DISCLAIMER

This document has been prepared solely as a Biodiversity Audit and Action Plan for the River Wiske Internal Drainage Board. JBA Consulting accepts no responsibility or liability for any use that is made of this document other than by the Client for the purposes for which it was originally commissioned and prepared.

ACKNOWLEDGMENTS

JBA would like to acknowledge Mark Wills of the North and East Yorkshire Ecological Data Centre in York for supplying much of the habitat and species data on which the distribution maps in this report are based.

PURPOSE

This Biodiversity Action Plan has been prepared by the River Wiske Internal Drainage Board in accordance with the commitment in the Implementation Plan of the DEFRA Internal Drainage Board Review for Internal Drainage Boards to produce their own Biodiversity Action Plans by April, 2010.

It also demonstrates the Board's commitment to fulfilling its duty as a public body under the Natural Environment and Rural Communities Act 2006 to conserve biodiversity.

Many of the Board's activities have benefits for biodiversity, not least its water level management and ditch maintenance work. It is hoped that this Biodiversity Action Plan will help the Board to maximise the biodiversity benefits from its activities and demonstrate its contribution to the Government's UK Biodiversity Action Plan targets.

The Board has adopted the Biodiversity Action Plan as one of its policies and is committed to its implementation. It will review the plan periodically and update it as appropriate.

Signed copy held at address below

…….. Date …….

Mr A C Hutchinson
Chairman of the Board

CONTACT DETAILS

This Biodiversity Action Plan is a public statement by the Board of its biodiversity objectives and the methods by which it intends to achieve them.

We would welcome appropriate involvement in the delivery of the Plan from interested organisations, companies and individuals.

You can contact us about this Biodiversity Action Plan by writing to the following address:

River Wiske Internal Drainage Board
York House
Thornfield Business Park
Standard Way
Northallertom
North Yorkshire
DL6 2XQ

Or by emailing:

Biodiversity & Conservation Officer — Rachael Brady (rachael.brady@jbaconsulting.co.uk)

Chief Executive of the Shire Group of IDBs — Ian Benn (ian.benn@jbaconsulting.co.uk)

Further information is available on the Board's website: www.shiregroup-idbs.gov.uk

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ABBREVIATIONS

AONB	Area of Outstanding Natural Beauty
BAP	Biodiversity Action Plan
BARS	Biodiversity Action Reporting System
CFMP	Catchment Flood Management Plan
EA	Environment Agency
FWAG	Farming and Wildlife Advisory Group
GIS	Geographical Information System
ha	Hectare
IDB	Internal Drainage Board
km	Kilometre
LBAP	Local Biodiversity Action Plan
LNR	Local Nature Reserve
NA	Not Applicable
NBN	National Biodiversity Network
NCA	National Character Areas
NE	Natural England
NERC	Natural Environment Research Council
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SINC	Site of Interest for Nature Conservation
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
UK BAP	United Kingdom Biodiversity Action Plan
WLMP	Water Level Management Plan
YWT	Yorkshire Wildlife Trust

1 IDB BIODIVERSITY – AN INTRODUCTION

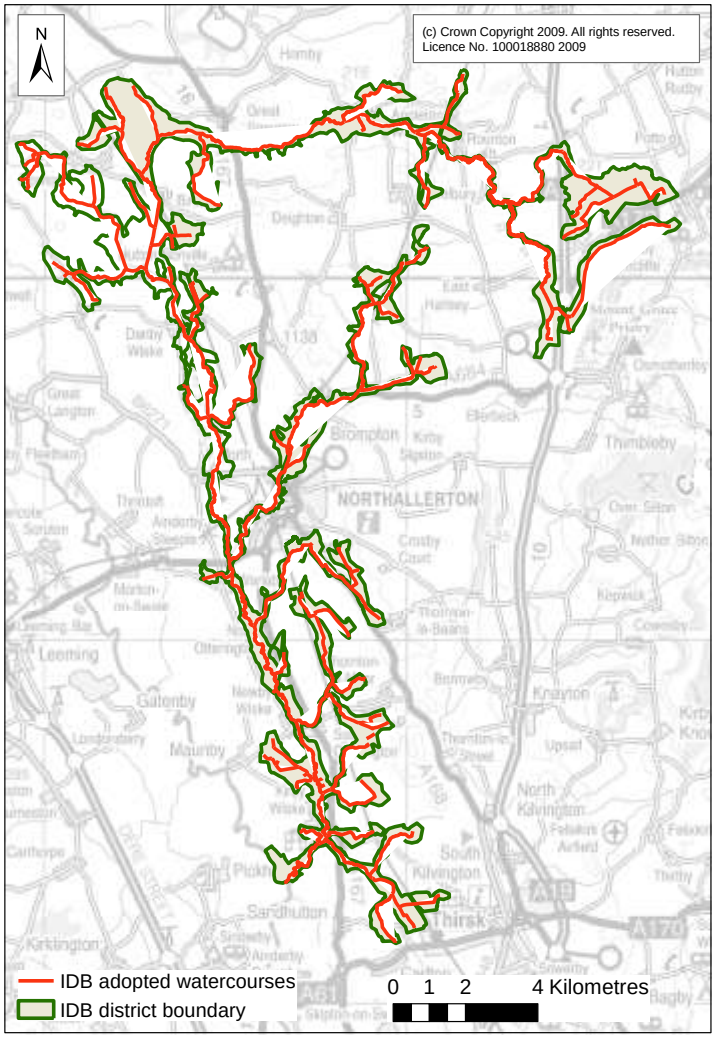
1.1 Introduction

The River Wiske IDB has conducted a biodiversity audit of its district and identified those habitats and species that would benefit from particular management or actions by the IDB. Using this information, which is presented in later sections, the IDB's Biodiversity Action Plan (BAP) has been developed. The Plan identifies objectives for the conservation and enhancement of biodiversity within the drainage district, and goes on to describe targets and actions that will hopefully deliver these objectives. The intention is to integrate, as appropriate, biodiversity into the Board's activities, such as annual maintenance programmes and capital works projects.

The action plan will help to safeguard the biodiversity of the drainage district now and for future generations. In particular, it is hoped that implementing the plan will contribute to the achievement of local and national targets for UK BAP priority species and habitats. Species and habitats which are not listed in the UK BAP but may be locally significant for a variety of reasons have also been considered.

The Plan is an evolving document that will be reviewed and updated on a regular basis. It covers the entire drainage district of the IDB, as shown in Figure 1-1.

Figure 1-1 River Wiske IDB District



1.2 What is Biodiversity?

The Convention on Biodiversity agreed at the Earth Summit in Rio de Janeiro in 1992 defined biodiversity as:

"The variability among living organisms from all sources, including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems."

Biodiversity can be defined simply as "the variety of life" and encompasses the whole spectrum of living organisms, including plants, birds, mammals, and insects. It includes both common and rare species, as well as the genetic diversity within species. Biodiversity also refers to the habitats and ecosystems that support these species.

1.3 The Importance of Conserving Biodiversity

Biodiversity is a vital resource and it is essential to acknowledge its importance to our lives along with the range of benefits that it produces:

- Supply of ecosystem services – water, nutrients, climate change mitigation, pollination
- Life resources – food, medicine, energy and raw materials
- Improved health and well-being
- Landscape and cultural distinctiveness
- Direct economic benefits from biodiversity resources and 'added value' through local economic activity and tourism
- Educational, recreational and amenity resources

1.4 The Biodiversity Action Planning Framework

This IDB Biodiversity Action Plan is part of a much larger biodiversity framework that encompasses international, national and local levels of biodiversity action planning and conservation.

1.4.1 Biodiversity - The International Context

The international commitment to halt the worldwide loss of habitats and species and their genetic resources was agreed in 1992 at United Nations Conference on the Environment and Development, commonly know as the Rio Earth Summit. Over 150 countries, including the United Kingdom, signed the Convention on Biological Diversity, pledging to contribute to the conservation of biodiversity at the global level. These states made a commitment to draw up national strategies to address the losses to global biodiversity and to resolve how economic development could go hand in hand with the maintenance of biodiversity.

The Rio Convention includes a global commitment to achieve by 2010 a significant reduction of the current rate of biodiversity loss at the global, regional and national level (www.biodiv.org/convention/default.html). The 2002 World Summit in Johannesburg on Sustainable Development subsequently endorsed this target.

1.4.2 Biodiversity - The National Context

The UK BAP is the UK's commitment to Article 6A of the Rio Convention on Biological Diversity. It describes the UK's priority species and habitats, and seeks to benefit 65 priority habitats and 1149 species in total. It identifies other key areas for action such as the building of partnerships for conserving biodiversity and gathering vital biodiversity data.

In England, *Working with the Grain of Nature* sets out the Government's strategy for conserving and enhancing biological diversity, and establishes programmes of action for integrating biodiversity into policy and planning for key sectors, together with appropriate targets and indicators. The Strategy has a Water and Wetlands Working Group and an associated programme of action that includes:

- Integrating biodiversity into whole-catchment management; and
- Achieving net gain in water and wetland BAP priority habitats through Water Level Management Plans (WLMPs), Catchment Flood Management Plans (CFMPs), and sustainable flood management approaches.

1.4.3 Local Biodiversity Action Plans

For the UK BAP to be implemented successfully it requires some means of ensuring that the national strategy is translated into effective action at the local level. The UK targets for the management, enhancement, restoration, and creation of habitats and species populations have therefore been translated into targets in Local Biodiversity Action Plans (LBAPs), which tend to operate at the county level.

1.5 Internal Drainage Boards and Biodiversity

The Natural Environment and Rural Communities Act 2006 places a duty on IDBs to conserve biodiversity. As a public body, every IDB must have regard in exercising its functions, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.

The Act states that conserving biodiversity includes restoring or enhancing a population or habitat. In so doing, an IDB should have regard to the list published by the Secretary of State of living organisms and types of habitat that are of principal importance for the purpose of conserving biodiversity. In effect, this list is comprises the Biodiversity Action Plan priority species and habitats for England.

In 2007, the Government's IDB Review Implementation Plan established a commitment that IDBs should produce their own Biodiversity Action Plans.

This IDB Biodiversity Action Plan has been produced to help fulfil these requirements and seeks to set out targets and actions that complement the UK Biodiversity Action Plan and Local Biodiversity Action Plans.

1.6 The Aims of the River Wiske IDB Biodiversity Action Plan

The aims of this IDB BAP are:

- To ensure that habitat and species targets from the UK Biodiversity Action Plan and the local LBAP are translated into effective action within the drainage district.
- To identify targets for other habitats and species of local importance within the drainage district.
- To develop effective local partnerships to ensure that programs for biodiversity conservation are maintained in the long term.
- To raise awareness within the IDB and locally of the need for biodiversity conservation, and to provide guidance to landowners, occupiers and their representatives on biodiversity and inland water management.
- To ensure that opportunities for conservation and enhancement of biodiversity are fully considered throughout the IDB's operations, and
- To monitor and report on progress in biodiversity conservation.

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2 THE IDB BAP PROCESS

2.1 The Biodiversity Audit

To produce this IDB Biodiversity Action Plan, information on the habitats and species present in the catchment was first obtained. This "Biodiversity Audit" involved the collation of existing data held by the IDB and by other biodiversity partners.

2.2 Evaluating and Prioritising Habitats and Species

The Biodiversity Audit identified those priority habitats and species in the UK Biodiversity Action Plan and the Local Biodiversity Action Plan that can be found in the drainage district. Additional non-BAP habitats and species deemed to be important within the drainage district were also identified.

Further habitats and species, together with additional targets and actions, may be added in the future, as knowledge is improved and delivery of the IDB BAP is reviewed.

A range of criteria was then used to select those species and habitats that are of particular importance to the IDB – that is to say, those habitats and species that could benefit from IDB actions. The criteria used included their national and local status, the opportunities for effective IDB action and the resources available.

2.3 Setting Objectives, Targets and Indicators

For each habitat and species identified as being important to the IDB, conservation objectives and targets have been drawn up and set out in the Plan. The objectives express the IDB's broad aims for benefiting a particular habitat or species. The related targets have been set to focus IDB programmes of action and to identify outcomes that can be monitored to measure achievement. For each target an indicator has been set – a measurable feature of the target that, when monitored over time, allows delivery to be assessed.

In order for this BAP to be as effective as possible the targets and actions have been devised to be SMART (Specific, Measurable, Achievable, Relevant and Time-limited). The targets are ambitious, but are also considered to be proportionate and practicable given the resources available.

Procedural targets and actions have also been considered. These are targets that the Board will use to measure the way in which it considers, and incorporates, biodiversity across the whole range of its operations. These may involve changes to administrative, management and operating procedures.

2.4 Implementation

Once targets have been set for habitats and species, it is important that the actions to deliver the Biodiversity Action Plan are described. The Plan sets out how the Board intends to implement the actions in the plan, often in partnership with other organisations or individuals.

2.5 Monitoring

Achievement of the Plan targets will be measured by a programme of monitoring which the Board will undertake, in some instances with assistance from its partners, and the methods to be used are described in the Plan.

2.6 Reporting and Reviewing

It is important to review the implementation of the BAP, assess changes in the status of habitats and species and the overall feasibility of objectives and targets. In addition, it is vital that the successful achievement of targets is recorded and the gains for biodiversity registered in the public domain.

The Plan sets out the methods the IDB will be using to review the delivery of targets and to communicate progress to partner organisations and the public.

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3 THE BIODIVERSITY AUDIT

3.1 Introduction

The following Sections 4, 5 and 6 summarise the results of the Biodiversity Audit. Section 4 provides information about the drainage district and a list of the nature conservation sites that occur within or bordering its boundaries. Sections 5 and 6 list respectively the habitats and species occurring within the district that are of potential importance to the IDB.

3.2 Local Biodiversity Action Plans

The following Local Biodiversity Action Plans cover the IDB's district:

- Hambleton Biodiversity Action Plan

3.3 Biodiversity Audit Boundary

The Biodiversity Audit covers the entire district of the IDB, as shown in Figure 1-1. Where data has been obtained that shows a record of a species in a 1km square which the district wholly or partially covers, this has been included in the area of the audit.

3.4 Sources of Data – Habitats

Information on habitats of relevance occurring within the drainage district was obtained from the following sources:

- GIS data on priority BAP habitats (Natural England)
- Ecological surveys of the district undertaken by the Board
- North & East Yorkshire Ecological Data Centre (NEYEDC)
- Hambleton Biodiversity Action Plan

3.5 Sources of Data – Species

Information on species of relevance occurring within the drainage district was obtained from the following sources:

- NEYEDC
- Ecological surveys of the district undertaken by the Board
- Hambleton Biodiversity Action Plan
- National Biodiversity Network (NBN) Gateway

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4 NATURE CONSERVATION SITES

4.1 The Drainage District

The drainage district covers an area of 4,345 hectares and contains 168.95km of IDB-maintained watercourses. It is located in North Yorkshire, north of Thirsk, in the area of Northallerton.

4.2 Geology

The River Wiske drainage district is underlain by a range of geological deposits, including:

- Undifferentiated sandstone and conglomerate from the Triassic period;
- Undifferentiated mudstone, siltstone and sandstone from the Triassic period, and
- The Lias group consisting of mudstone, siltstone, limestone and sandstone from the Mesozoic period.

4.3 Landscape

4.3.1 Landscape Designations

There are no statutory landscape designations within the River Wiske drainage district.

4.3.2 Landscape Character

Natural England has divided the whole of England into a number of National Character Areas (NCA) based on characteristic landforms, wildlife and land use. They are not designations and are not confined by traditional administrative boundaries. For each NCA, Natural England has prepared a profile that characterises the wildlife and natural features, identifies the influences that act upon those features and sets objectives for nature conservation.

The drainage district is located within the following National Character Areas:

- Vale of Mowbray – low-lying agricultural landscape contained by the escarpment of the North Yorkshire Moors and Cleveland Hills to the east and the undulating slopes and valleys of the Yorkshire Dales to the west.
- Tees Lowlands – a broad low-lying plain of gently undulating, mostly arable, farmland that extends from the Cleveland Hills in the southeast to the Pennine Fringes in the west and the Durham Magnesian Limestone in the north.

4.4 Nature Conservation Sites

The following section describes all nature conservation sites located within the IDB district. For each site its designation, features contributing to its designation, and the potential for IDB activities to impact upon the site are identified. Sites graded as high are those containing IDB watercourses, medium are those with IDB watercourses running adjacent or into it, and low are those that are disassociated from IDB watercourses.

4.4.1 Statutory Nature Conservation Sites

There are no statutory designated nature conservation sites located within the district; however, the North Yorkshire Moors are located adjacent to the eastern boundary. This area is designated as a Site of Special Scientific Interest (SSSI), Special Protection Area (SPA) and Special Area of Conservation (SAC).

4.5 Non-statutory Nature Conservation Sites

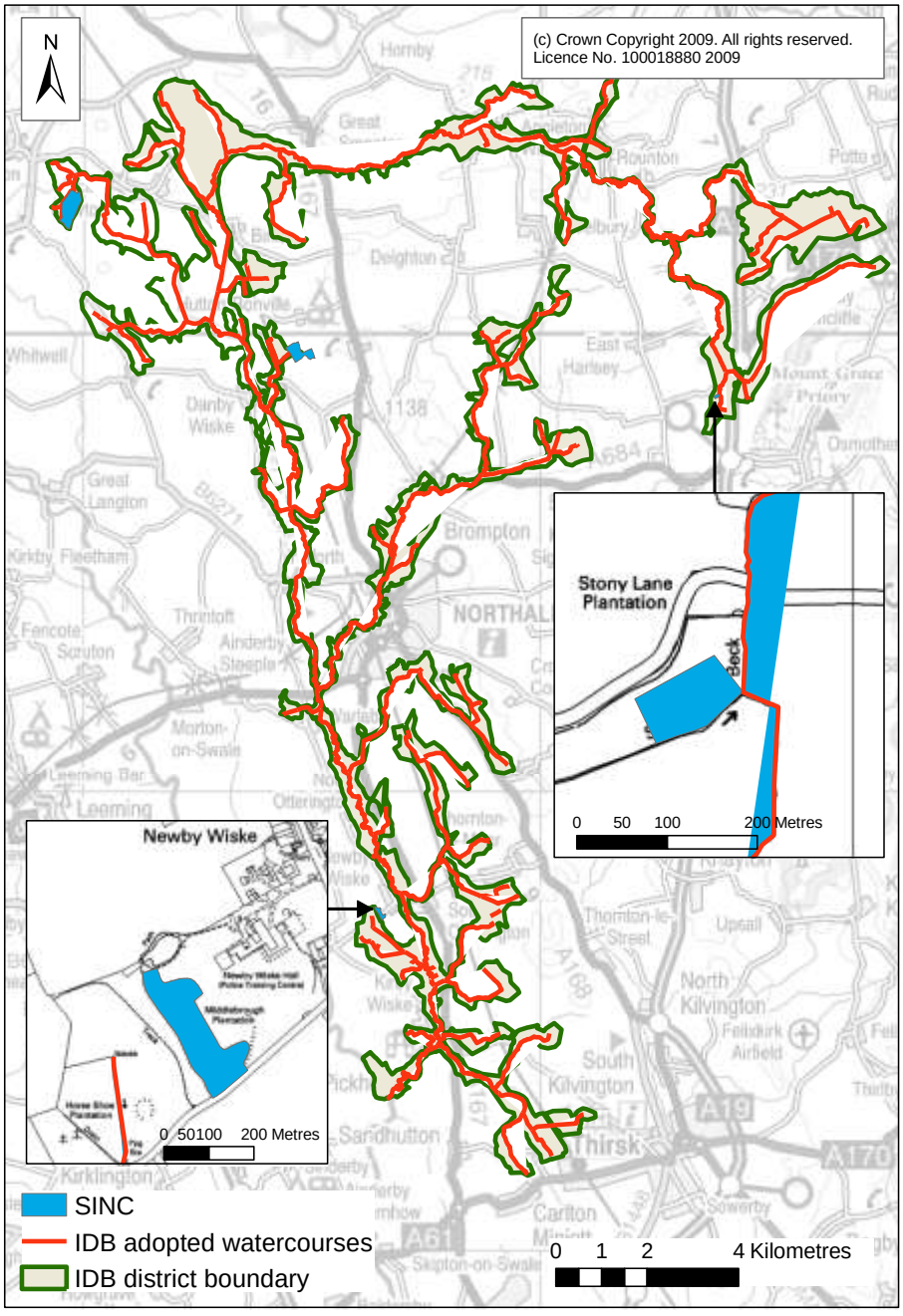
Four sites have been identified locally as being important for wildlife and are designated as Sites of Importance for Nature Conservation (SINC). Whilst this designation does not have statutory status, the sites themselves are considered important for their contribution to biodiversity and planning

policy requires that they are given consideration. The sites located within the drainage district are shown in Table 4-1 and Figure 4-1.

Table 4-1 Non-statutory Nature Conservation Sites

Site name	Designation	Potential to be Affected by IDB Activities
Middlebrough Plantation	SINC	Low
Pheasantry Wood and Fox Covert	SINC	Medium
Stony Lane Pond	SINC	Medium
Pepper Arden Bottoms	SINC	Medium

Figure 4-1 Location of Non-statutory Nature Conservation Sites



5 HABITAT AUDIT

5.1 Introduction

The habitat audit is divided into two sections – a Habitat Audit Summary and a description of the Habitats of Importance for the IDB. The first of these sections identifies the UK BAP priority habitats and the Hambleton Local BAP habitats that occur within the IDB district. It then identifies those habitats of potential importance to the IDB. These habitats are described in more detail in the second section.

5.2 Habitat Audit Summary

Table 5-1 lists the BAP habitats occurring within the IDB district. Habitats of importance to the IDB are identified and classified as high, medium, or low in terms of the potential for the IDB to maintain, restore or expand habitat. A number of habitats from the medium and high categories are taken forward to full action planning.

Table 5-1 Habitat Audit Summary

Broad Habitat Types	UK BAP Priority Habitat	Local Biodiversity Action Plan Habitat	Habitat of Importance for IDB	Location of Habitat of Importance for IDB	IDB Potential for Maintaining, Restoring or Expanding Habitat
Arable and Horticultural	Arable Field Margins	Farmland	Arable Field Margins	Throughout the drainage district	Medium
Boundary and Linear Features	Hedgerows	Farmland	Hedgerows	Throughout the drainage district	Medium
Broadleaved, Mixed and Yew Woodland	Wet Woodland	Wet Woodland	Wet Woodland	Big Wood, located to the east of Kirby Wiske	Low
Improved Grassland	Coastal and Floodplain Grazing Marsh	Neutral Grassland	Floodplain Grassland	Limited extent recorded in the south of the district near Newby Wiske	Medium
Rivers and Streams	Rivers	Rivers and Streams	Rivers, Drains and Streams	River Wiske and other IDB maintained watercourses.	High
Standing Open Water and Canals	Eutrophic Standing Waters Ponds	Lakes and Ponds	Lakes and Ponds	Scattered throughout the drainage district	Low

5.3 Habitats of Importance for the IDB

5.3.1 Introduction

In the following sections, more detail on the habitats selected as being of importance or potential importance for the IDB is presented. This includes information on distribution across the district, national status and threats.

5.3.2 Arable Field Margins

Description

Arable field margins refer to strips of land lying between arable crops and the field boundary, which are deliberately managed to create conditions which benefit key farmland species.

National Status

Arable crops cover an estimated area of 1,403,000ha in the UK. If a field margin of only 6m were managed for wildlife a further 95,600ha of land could be managed in a way that would benefit wildlife, without having serious detrimental effects on the remaining cropped area.

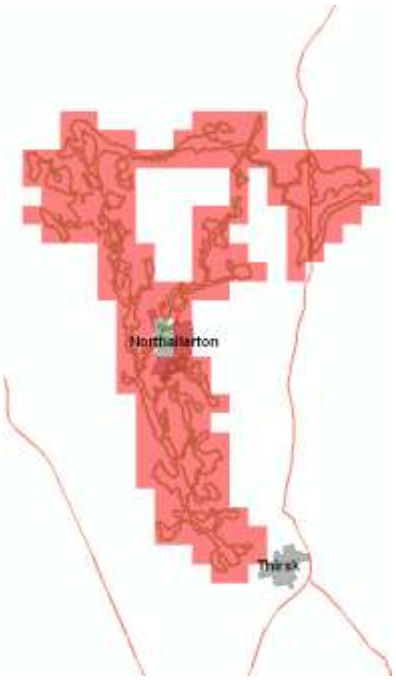
Arable field margins provide important habitat for a number of birds, butterflies, and numerous other invertebrates as well as supporting threatened and important species of arable flora.

Threats

The main threats include arable intensification, cultivation to field edges, removal of field boundaries and inappropriate management techniques aimed at 'tidiness'.

Status of Arable Field Margins

(1km Distribution)



5.3.3 Hedgerows

Description

Hedgerows are linear strips of trees and shrubs often associated with features such as ditches, banks and grass verges. They provide valuable habitat for a large range of species, including over 600 plant species, 1500 insects, 65 birds and 20 mammals.

Status

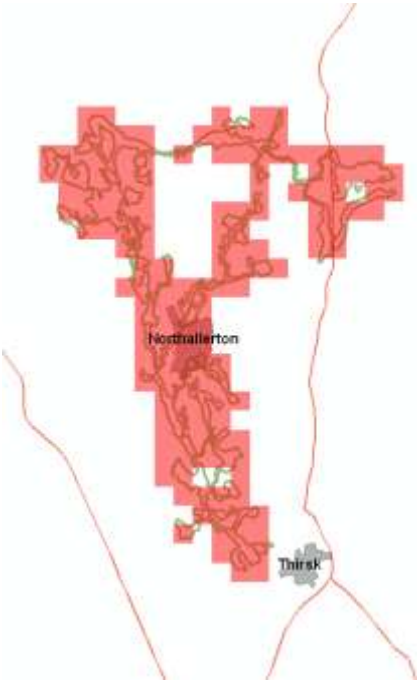
There has been a dramatic decline in hedgerows in the UK during the latter half of the twentieth century. It is estimated that only 10% of all UK hedgerows are being managed favourably for conservation.

Threats

The majority of threats relate to changes in agricultural practices and/or poor management, and include: over frequent, too severe and badly timed cutting; contamination by pesticides and fertilisers and increases in intensive arable farming.

Status of Hedgerows

(1km Distribution)



5.3.4 Wet Woodland

Description

Wet woodland occurs on poorly drained or seasonally wet soils, with Alder, Birch and willows usually becoming the predominant tree species. It is frequently found in mosaic with other woodland or wetland habitats.

National Status

There is no precise data available on the national extent of wet woodland. In the 1980s, the estimated UK coverage of wet woodland was 50,000 – 70,000 ha of which 25,000 – 30,000 ha was ancient semi-natural.

Threats

Wet woodland is affected by the following factors that impact directly or indirectly upon its current condition and dynamics: clearance and conversion to other land-uses; cessation of management; inappropriate grazing, land drainage and flood defence; poor water quality; invasion by non-native species such as Himalayan Balsam (*Impatiens glandulifera*); and climate change.

Status of Wet Woodland

(1km Distribution)

5.3.5 Floodplain Grassland

Description

Floodplain grasslands are periodically inundated pastures, or meadows with ditches which maintain the water levels. Almost all are grazed and some are cut for hay or silage.

These grasslands are particularly important for breeding waders and wintering wildfowl.

National Status

The exact extent of floodplain grassland in the UK is not known but it is possible that there may be a total of 300,000ha. England holds the largest proportion with an estimate in 1994 of 200,000ha.

Threats

The principle threats to floodplain grassland include: arable intensification; decline in traditional livestock farming; lack of traditional land management; increases in use of pesticides and insecticides; insensitive flood control works and increasing pollution of groundwater.

Status of Floodplain Grassland

(1km Distribution)

5.3.6 Rivers, Drains and Streams

Description

Flowing waters can take a variety of forms. Typically they include rivers and streams, which are dynamic, flowing waterbodies, but can also include slower flowing man-made watercourses such as ditches and drains. They host a range of sub-habitats such as shingle beds and eroding river banks, and provide valuable movement and dispersal corridors for mobile species such as Otter and Kingfisher.

National Status

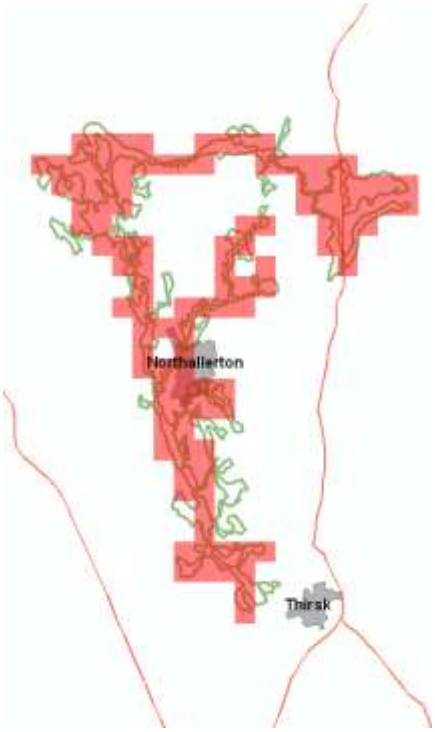
The national status of this habitat group is somewhat uncertain. Although it is clearly widespread, there is a great variety in river and types making accurate assessment difficult.

Threats

Flowing waters are susceptible to a wide range of threats. These can be related to water abstraction or transfer; inappropriate management; damage or disturbance from recreational activities; non-native plant and animal species, and detrimental activities within the catchment.

Status of Rivers, Drains and Streams

(1km Distribution)



5.3.7 Lakes and Ponds

Description

Standing open waterbodies can be either of human or natural origin, and vary widely in size and type. Ponds are small bodies of water between 1m^2 and 2ha in area that hold water for more than four months in a year. Anything larger than this is defined as a lake.

Standing waterbodies are of great importance for wildlife. Approximately 3,500 invertebrate species and over 300 species of vascular plants have been recorded in ponds

National Status

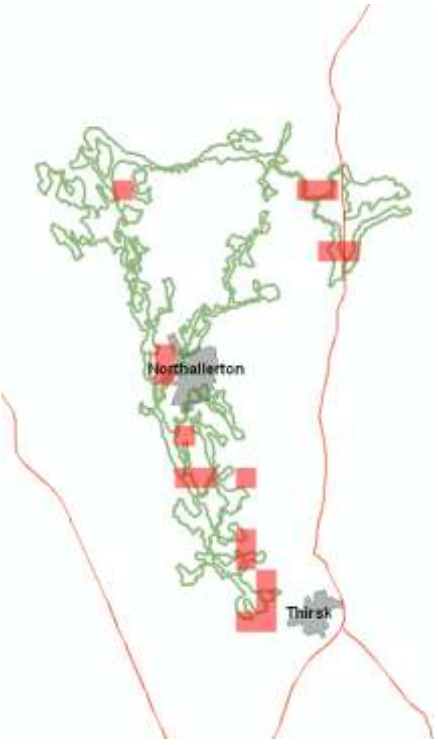
Numbers of ponds in the UK have suffered a decline of over 75% in the last 100 years. The current number of ponds is estimated to be 375,000, of which about 229,000 are located in lowland Britain.

Threats

The main threats to ponds include: neglect or lack of management; introduced species; excessive pond clearance; damage and disturbance by recreational activities; pollution; nutrient enrichment, and dumping and infilling with waste.

Status of Lakes and Ponds

(1km Distribution)



6 SPECIES AUDIT

6.1 Introduction

As with the habitat audit, the species audit is divided into two sections – a Species Audit Summary and a description of the Species of Importance for the IDB. The first of these sections lists the UK and Hambleton Local BAP priority species that have been recorded within the IDB district, as identified by the information gathering exercise. The second section describes those species of particular importance, or potential importance within the IDB district.

6.2 Species Audit Summary

Table 6-1 lists the BAP species recorded within the IDB district. Also listed are those species of importance to the IDB, or of potential importance. The species listed are categorised as high, medium or low in terms of the IDBs potential to maintain or increase species population or range. A number of species from the medium to high categories are taken forward to full action planning.

Table 6-1 Species Audit Summary

Species	Group	UK BAP Priority Species	LBAP Species	Species of Importance for IDB	Location of Species of Importance for IDB within IDB District	IDB Potential for Maintaining or Increasing Species Population or Range
Water Vole (*Arvicola terrestris*)	Mammals	Yes	Yes	Yes	Recorded on the River Wiske near Danby Wiske and on Brompton Beck	High
Hedgehog (*Erinaceus europaeus*)	Mammals	Yes	No	No	-	-
Otter (*Lutra lutra*)	Mammals	Yes	Yes	Yes	Recorded on the River Wiske near North Otterington and Kirby Wiske	High
Soprano Pipistrelle (*Pipistrellus pygmaeus*)	Mammals	Yes	Yes	Yes	Recorded near East Cowton	Low
Brown Long Eared Bat (*Plecotus auritus*)	Mammals	Yes	Yes	Yes	Recorded near South Cowton and Yafforth	Low
Kingfisher (*Alcedo atthis*)	Birds	No	No	Yes	No site specific records but known to occur along the River Wiske	Medium
Reed Bunting (*Emberiza schoeniclus*)	Birds	Yes	No	Yes	Recorded at Pepper Arden Bottoms SINC	Low
Lapwing (*Vanellus vanellus*)	Birds	Yes	Yes	Yes	Recorded at Pepper Arden Bottoms SINC but likely to be more widespread throughout the district	Medium

6.1 Species of Importance for the IDB

6.1.1 Introduction

In this section, more detail is provided for species identified as being of importance, or potential importance for the IDB. Information on distribution across the IDB district, national status and threats are presented, as is a summary of the current status of each species in relation to the principle conservation legislation and designations; the abbreviations used in this summary, and the legislation to which they relate are presented in Table 6-2. The distributions illustrated below are based on data available at the time of the production of this plan, and may not represent the species' full range within the drainage district, particularly given the paucity of records for the area.

Table 6-2 Current Status Abbreviations

Abbreviation	Description
Bonn I/II/bats	Convention on the Conservation of Migratory Species of Wild Animals, giving appendix number, 'bats' showing the species inclusion in the convention's Agreement on the Conservation of Bats in Europe.
Bern I/II/III	Convention on the European Wildlife and Natural Habitats, giving the appendix number.
CITES I,II	Convention of International Trade in Endangered Species of wild fauna and flora, giving the appendix number.
CR94, 2/4	The Conservation Regulations 1994, a transposal of the EC Habitats and Birds Directions into UK law, giving schedule number.
ECII/IV/V	EC Directive on the Conservation of Natural Habitats and Wild Fauna and Flora (Habitats Directive), giving annex number.
EC Birds	EC Directive on the Conservation of Wild Birds (Birds Directive), annex I.
Game Acts	These specify conditions when certain game species may not be hunted or shot.
WCA 1/5/6/8/9	Wildlife & Countryside Act 1981 (as amended), giving the schedule number.

6.1.2 Water Vole (*Arvicola terrestris*)

Current Status

WCA 5, UK BAP Priority Species

A rather large vole that occurs mainly on well vegetated banks of lowland ponds, rivers, canals and drainage ditches. It feeds mainly on grasses and typically nests in burrows, but occasionally in reed tussocks in marshes, producing around two litters of 5 offspring per year.

Found close to water throughout Britain. Once abundant, Water Vole numbers and their distribution have declined significantly, becoming extinct in some parts of Britain.

Threats

The main threats to Water Vole are; loss and fragmentation of habitat; disturbance of riverside habitat; inappropriate management of waterways; predation by mink and other predators; pollution; and poisoning.

Water Vole

(1km Distribution)

6.1.3 Otter (*Lutra lutra*)

Current Status

WCA 5, 6; EC II, IV; Cites I; CR94, 2; UK BAP Priority Species

The Otter is a large carnivore associated with lakes, rivers and marshes.

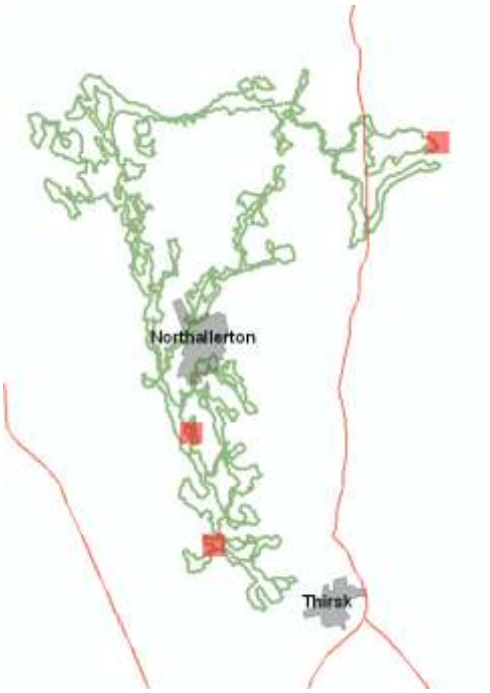
Otters were widespread in UK until a sharp decline in the 1950s as a result of persecution and pollution from organochlorine insecticides. The species is now recovering with improvements in river water quality and re-introductions in some areas.

Threats

The main threats to Otter are pollution; loss of bankside habitat; road mortality; capture in eel traps; disturbance and inappropriate river management.

Otter

(1km Distribution)



6.1.4 Kingfisher (*Alcedo atthis*)

Current Status

Bern II, WCA 1, EC Birds I

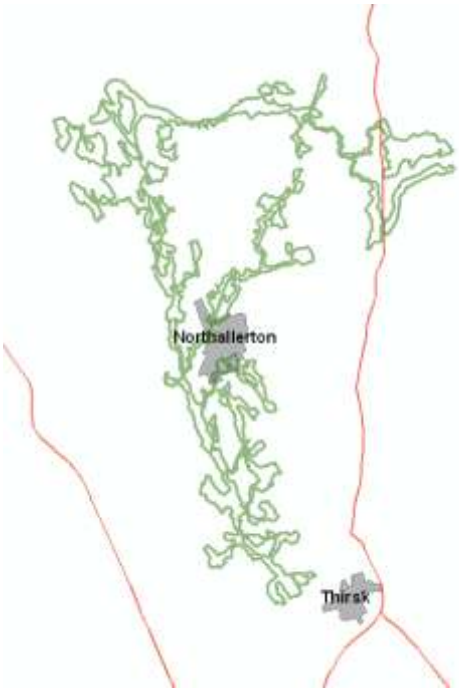
Kingfishers are widespread throughout the UK, but have suffered recent declines. Populations in the north are generally fragmented and particularly vulnerable to stresses. There are an estimated 4800 to 8000 breeding pairs in the UK.

Threats

The main threats to Kingfisher are decreases in water quality, particularly from pollution, and habitat degradation through unsympathetic management.

Kingfisher

(1km Distribution)



6.1.5 Reed Bunting (*Emberiza schoeniclus*)

Current Status

Bern II; Red Data List; UK BAP Priority Species

Common and widespread in Europe and found throughout the UK. Of conservation concern in the UK after a significant decline in population numbers during the 1970s and 1980s.

Threats

The main threats to Reed Bunting are the use of herbicides and insecticides; changes to farming practices and regimes; loss of farmland habitat diversity; loss of wetland habitats; and unsympathetic river engineering.

Reed Bunting

(1km Distribution)

6.1.6 Lapwing (*Vanellus vanellus*)

Current Status

Bern III, Red Data List, UK BAP Priority Species

Lapwings are found on farmland throughout the UK particularly in lowland areas of northern England, the Borders and eastern Scotland. There are approximately 156,000 breeding pairs in the UK and a further 1.5 – 2 million birds overwinter in the UK from the continent.

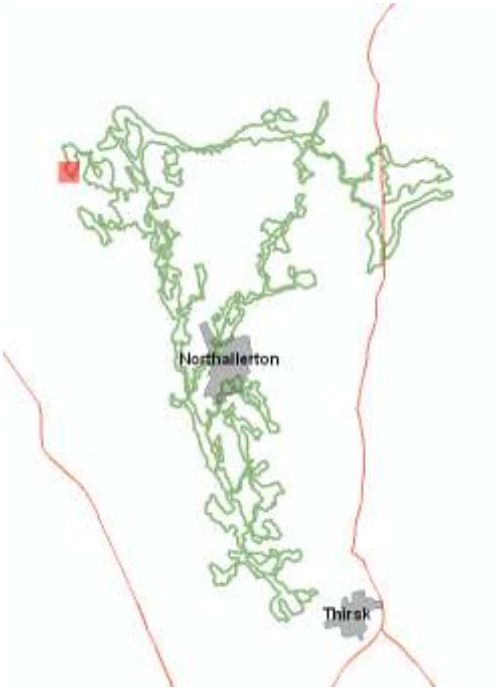
The species has undergone severe declines of approximately 50% during the 1980s and early 90s.

Threats

This species has suffered principally through changes in farming practices and loss of wet grasslands through draining and reclamation.

Lapwing

(1km Distribution)



7 HABITAT AND SPECIES ACTION PLANS

7.1 Habitat and Species Action Plans

The following sections contain action plans for each of the habitats and species that have been prioritised for action by the IDB. The plans set out the objectives, targets and actions that the IDB believes are appropriate for each. These plans will be reviewed and updated periodically.

Where IDB objectives and targets contribute to UK BAP or LBAP targets, this is also identified.

7.2 Action Plans for the River Wiske IDB

7.2.1 Habitat Action Plans

The following Habitat Action Plans are included for River Wiske internal drainage district:

- Arable Field Margins
- Hedgerows
- Floodplain Grassland
- Rivers, Drains and Streams

7.2.2 Species Action Plans

The following Species Action Plans are included for the River Wiske internal drainage district:

- Water Vole
- Otter
- Kingfisher
- Lapwing

7.2.3 Procedural Action Plans

- A Procedural Action Plan has also been devised for the River Wiske IDB.

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8 HABITAT ACTION PLAN – ARABLE FIELD MARGINS

8.1 Introduction

Arable field margins are herbaceous strips or blocks, usually sited on the outer 2-12m margin of the arable field, that are managed specifically to provide benefits for wildlife. They are commonly known as grass margins or wildlife strips.

The margin is usually uncultivated grassland, self-seeded, or sown with a carefully chosen wildlife mix, and with a diversity of perennial broadleaved plants. The vegetation is cut annually or approximately every three years to prevent scrub invasion.

Arable field margins can provide a feeding habitat for several farmland birds, including the Grey Partridge and a variety of passerines such as the Corn Bunting and Yellowhammer. In addition to birds, these margins are beneficial for invertebrates, provide cover and feeding areas for the Brown Hare and other small mammals, and foraging strips for predators such as Barn Owls.

8.2 National Status

Approximately 41% of the British landscape is tilled (44% in England), of which cereals alone comprise 51% (Joint Nature Conservation Committee 2006). This gives an estimated area coverage for arable crops of 1,403,000ha across the UK.

The current national resource is estimated to be 105,217ha. However, given the extent of arable crops, if a margin of 6m were managed for wildlife across the UK resource, a further 95,600ha of land would be available to wildlife, without any serious detrimental effects on the remaining cropped areas.

Arable field margins are listed as a UK BAP priority habitat.

8.3 Local Status

The most recent data available for North Yorkshire is from the Countryside Stewardship scheme audit in 1998. This recorded 72.7km of ‘uncropped arable margins’ and 207km of ‘2m grass margins and beetle banks’, giving a total of 279.7km of arable field margins in North Yorkshire, excluding the National Parks.

8.4 Status within the Drainage District

There is only very limited information available on the distribution of arable field margins within the drainage district. It is expected, however, that an arable field margin in some form exists alongside all arable fields, or there is the potential for one to exist. This is reflected in the distribution described for the IDB district.

8.5 Threats

The current threats to arable field margins in the drainage district include:

- Intensification of arable farming, leading to increased use of pesticides in efforts to obtain a weed free monoculture
- Expansion of fields and removal of field boundaries in order to increase field size and farm productivity
- Cultivation all the way to field edges
- Inappropriate management of existing field margins, such as spraying to remove 'weeds'
- Nutrient enrichment from agricultural runoff.

8.6 IDB Objectives and Targets

Target Ref.	Target	Action Ref.	IDB Actions	Partners	Date	Indicators	Reporting	UK BAP	Local BAP
1	Maintain and improve the quality of current arable field margins within the drainage district	1.1	Encourage appropriate management techniques for field margins adjacent to IDB watercourses	EA FWAG NE	2010 onwards	Number of landowners advised	Annually	√	√
		1.2	Reduce disturbance to ground nesting birds using arable field margins adjacent to IDB drains		2010 onwards	Start date for annual maintenance	Annually		
2	Maintain and expand the current extent of arable field margins within the district	2.1	Encourage the creation of arable field margins adjacent to IDB watercourses	EA FWAG NE	2010 onwards	Number of landowners advised	Annually	√	
		2.2	Promote the uptake of Environmental Stewardship schemes within the drainage district	EA FWAG NE	2010 onwards	Number of landowners advised	Annually	√	√
		2.3	Encourage an increase in margins containing plant species which provide seed for wild birds and sources of nectar and pollen	EA FWAG NE	2010 onwards	Number of landowners advised	Annually	√	√

8.7 Associated Species

Key species associated with the habitat action plan for arable field margins include farmland birds (including the UK BAP species Grey Partridge, Yellowhammer and Skylark).

9 HABITAT ACTION PLAN - HEDGEROWS

9.1 Introduction

Hedgerows are important, not just for biodiversity, but also for farming, landscape, cultural and archaeological reasons. They are important habitats in their own right and are especially important for butterflies and moths, farmland birds and bats. They are the most significant wildlife habitat over large stretches of lowland Britain and are an essential refuge for many woodland and farmland plants and animals. Hedgerows also act as wildlife corridors for many species, including reptiles and amphibians, allowing dispersal and movement between other habitats. This habitat action plan covers all types of hedgerows, and the mature trees within them.

9.2 National Status

It is currently estimated that 450,000 km of hedgerow remain in the UK, with approximately 154,000 km classified as ancient and/or species rich. However, since 1945 there has been a drastic loss of hedgerows throughout the UK, and especially in eastern counties of England, due to removal and neglect. Between 1984 and 1990, the net loss of hedgerow length in England was estimated as 21%.

Hedgerows are listed as a UK BAP priority habitat.

9.3 Local Status

There is no comprehensive data available for the status of hedgerows in North Yorkshire, however the Farming and Rural Conservation Agency reports that 123.5km of hedgerow were planted with aid from the Countryside Stewardship Scheme between 1991 and 1998.

9.4 Status within the Drainage District

Hedgerows appear to be widely distributed throughout the majority of the drainage district, although data on the quality of hedgerows (such as species richness) is limited.

9.5 Threats

The main threats to hedgerows in the River Wiske drainage district include:

- Neglect (no cutting or laying) leading to hedgerows changing into lines of trees and the development of gaps. This reflects modern high labour costs and loss of traditional skills.
- Too frequent and badly timed cutting leading to poor habitat conditions, the development of gaps and probable species changes.

- Use of herbicides, pesticides and fertilizers right up to the bases of hedgerows leading to nutrient enrichment and a decline in species diversity.
- Increased stocking rates, particularly of sheep, leading to hedgerow damage and the need to fence fields.
- Removal for agricultural and development purposes.
- Inadequate protective legislation.
- Loss of hedgerow trees through senescence, disease and felling.

9.6 IDB Objectives and Targets

Target Ref.	Target	Action Ref.	IDB Actions	Partners	Date	Indicators	Reporting	UK BAP	Local BAP
3	Identify and determine status of hedgerows alongside IDB watercourses	3.1	Survey hedgerows alongside and adjoining IDB watercourses	FWAG	Ongoing	Length (m) surveyed	Annually		
		3.2	Identify ancient and species-rich hedgerows within the drainage district	FWAG	Ongoing	Length (m) surveyed	Annually	√	
4	Ensure no net loss of hedgerow through the operations of the IDB.	4.1	Monitor all maintenance and new capital works to ensure any hedgerow removal is compensated by re-planting species-rich hedgerows		Ongoing	Number of capital works schemes monitored	Annually		
		4.2	Prevent damage to existing hedgerows during the operations of the IDB workforce/ contractors		Ongoing	Length (m) protected/ remaining intact	Annually	√	
5	Encourage hedgerow enhancement within the drainage district	5.1	Produce guidance and provide advice on hedgerow management to landowners within the drainage district	NE	Ongoing	Number of owners advised	Annually	√	
		5.2	Identify any possible areas where the IDB can enhance/replant hedgerows	EA YWT	2011	Length (m) assessed	Annually to 2011		
		5.3	Promote the uptake of agri-environment schemes that encourage the appropriate management/enhancement of hedgerows	NE FWAG	Ongoing	Number of owners advised	Annually	√	

9.7 Associated Species

Key species associated with hedgerows include Bats and Farmland Birds.

10 HABITAT ACTION PLAN – FLOODPLAIN GRASSLAND

10.1 Introduction

Floodplain grassland is defined as periodically inundated pasture, or meadow with ditches which maintain the water levels. The ditches are especially rich in plants and invertebrates. Almost all areas are grazed and some are cut for hay or silage.

Sites may contain seasonal water-filled hollows and permanent ponds with emergent swamp communities, but not extensive areas of tall fen species like reeds; although they may abut with fen and reed swamp communities.

These sites are particularly important for breeding waders such as Snipe, Lapwing, Curlew and Redshank and internationally important populations of wintering wildfowl including Bewick Swan, Whooper Swan and Avocet.

Due to its importance for wildlife, this is a UK BAP priority habitat, known as Coastal and Floodplain Grazing Marsh.

10.2 National Status

The exact extent of floodplain grassland in the UK is not known but it is possible that there may be a total of 300,000ha. England holds the largest proportion with an estimate in 1994 of 200,000ha.

Only a small proportion of this grassland is semi-natural supporting a high diversity of native plant species (5,000ha in England, an estimated 10,000ha in the UK).

10.3 Local Status

There is limited information available on the status of this habitat within North Yorkshire. Floodplain grassland is an important habitat feature of many river valleys throughout the region, although there has been substantial drainage of this habitat leading to reductions in distribution and habitat quality.

Floodplain Grassland is a local BAP priority habitat.

10.4 Status within the Drainage District

Floodplain grassland occurs in the south of the district near Newby Wiske.

10.5 Threats

The principle threats to floodplain grassland in the drainage district include:

- Arable intensification
- Decline in traditional livestock farming

- Lack of traditional land management
- Increases in use of pesticides and insecticides
- Aggregate extraction along river corridors
- Groundwater abstraction
- Insensitive flood control works
- Sea level rise, and increasing pollution of groundwater

10.6 IDB Objectives and Targets

Target Ref.	Target	Action Ref.	IDB Actions	Partners	Date	Indicators	Reporting	UK BAP	Local BAP
6	Maintain and enhance the quality of floodplain grassland adjacent to IDB watercourses	6.1	Assess the quality of floodplain grassland adjacent to IDB watercourses	EA FWAG NE YWT	2011	Area assessed (m^2)	Annually to 2011		√
		6.2	Provide guidance to IDB employees/contractors to ensure, where practical, maintenance of IDB watercourses has no detrimental effect on floodplain grassland		Ongoing	Number of employees advised	Annually	√	√
		6.3	Encourage sympathetic management techniques for floodplain grassland areas	EA FWAG NE YWT	Ongoing	Number of landowners advised	Annually	√	√
7	Maintain and expand the current extent of floodplain grassland within the drainage district	7.1	Encourage uptake of Environmental Stewardship schemes within the drainage district	EA FWAG NE LWT	Ongoing	Number of landowners advised	Annually	√	√
		7.2	Identify areas within the drainage district with the potential for floodplain grassland restoration and/or creation schemes	EA FWAG NE YWT	2012	% of district assessed	Annually to 2012	√	√
		7.3	Advise and work with landowners on potential for floodplain grassland restoration and/or creation schemes	EA FWAG NE YWT	Ongoing	Number of landowners advised	Annually	√	√

10.7 Associated Species

Key species associated with floodplain grassland include Lapwing and other waders and wildfowl.

11 HABITAT ACTION PLAN – RIVERS, DRAINS AND STREAMS

11.1 Introduction

Rivers, drains and streams, whether semi-natural, modified or man-made, provide important habitats for a range of species. The mosaic of features found within watercourses can support a diverse range of plants and animals. For example, riffles and pools support a range of aquatic species, and exposed sediments such as shingle beds and sand bars are important for a range of invertebrates. Marginal and bankside vegetation also support an array of wild flowers and animals. Rivers, drains and streams also provide a wildlife corridor link between fragmented habitats in intensively farmed landscapes.

11.2 National Status

There is no widely available information on the status or distribution of rivers, drains and streams in the UK, although DEFRA estimate there to be 150,000km of river in the UK. Given the abundance of rivers, drains and streams, the quality of the habitat they provide is perhaps of more interest than the extent. The vast majority of aquatic habitats in the UK, especially in lowland areas, have undergone declines in quality and it is likely that this is reflected across most of this habitat type as well.

11.3 Local Status

Four of Yorkshire's principle rivers can be found in the Hambleton district – the Swale, the Ure, the Tees and the Ouse. In addition, the Rivers Wiske, Leven and Cod Beck are all also present.

Rivers and Streams are a local BAP priority habitat.

11.4 Status within the Drainage District

Although there are no data available on the total length of rivers, drains and streams in the IDB district, the IDB maintain 169km of watercourse.

11.5 Threats

The main threats to rivers, drains and streams in the drainage district include:

- Pollution, including eutrophication and acidification
- Excessive ground and surface water extraction
- Intensive land drainage and flood defence works
- Inappropriate bank management, including overgrazing
- Invasive plant and animal species (i.e. Himalayan Balsam and Giant Hogweed)

11.6 IDB Objectives and Targets

Target Ref.	Target	Action Ref.	IDB Actions	Partners	Date	Indicators	Reporting	UK BAP	Local BAP
8	Maintain and enhance the existing habitat and species diversity of watercourses within the drainage district	8.1	Ensure the appropriate management of the IDB watercourses through an integrated Biodiversity Action Plan and Maintenance regime		Ongoing through plan life	Plan production	Upon completion	-	
		8.2	Identify and assess potential impacts of all new discharges into IDB maintained watercourses	EA	Ongoing though Plan life	Number assessed	Annually	-	√
		8.3	Produce guidance and provide advice to riparian owners within the drainage district	NE FWAG	Ongoing	Number of owners advised	Annually	-	√
		8.4	Ensure any IDB consents cause minimum environmental damage to the aquatic habitat		Ongoing	Number of consents assessed	Annually	-	√
9	Control non-native invasive species along IDB watercourses	9.1	Record and monitor non-native invasive plants and animals	YWT FWAG EA	2010 onwards	Length (m) channel surveyed	Annually from 2010	-	
		9.2	Assess feasibility of controlling stands of invasive plants annually, as recorded	EA	As required	Length (m) of watercourse assessed	When required	-	
10	Assess the suitability and accessibility of IDB catchments and watercourses for Eel	10.1	Assess all IDB catchments and watercourses for suitability and accessibility for Eel	EA	2011	% of catchments assessed	Annually to 2011	-	
		10.2	Identify target sites and assess feasibility for improvements in accessibility for Eels	EA	2011	% of catchments assessed	Annually to 2011	-	

11.7 Associated Species

Key species associated with Rivers, Drains and Streams include Otter, Water Vole, White-clawed Crayfish, Bats and Eels.

12 SPECIES ACTION PLAN – WATER VOLE

12.1 Introduction

The Water Vole is the UK's largest vole species. It is frequently confused with the Brown Rat, but can be distinguished by its furred tail, blunt muzzle, and more discrete ears. Water Voles occur along vegetated banks of slow flowing rivers, streams, ditches, dykes and lakes where they feed on grasses and other waterside vegetation.

Signs of the presence of Water Voles can include cropped 'lawns' of grazed vegetation, latrines of droppings, and networks of burrows and tunnels in banks and surface vegetation. Water Vole burrows are generally between 4 and 8cm in diameter and can be confused with holes made by Brown Rats - the lack of spoil created by Water Voles, and a slightly smaller opening, are the principal distinguishing features.

12.2 National Status

The Water Vole is found throughout Britain, although it is scarcer in upland areas and reliant on areas with appropriate freshwater habitats. Once common throughout its range, the Water Vole underwent dramatic declines in number in the twentieth century. A survey in 1996-1998 by the Vincent Wildlife Trust found that occupancy of sites where Water Voles had previously been recorded had declined by 89%. The Water Vole is afforded full protection from disturbance and destruction of both individuals and occupied habitat through its inclusion on Schedule 5 of the Wildlife and Countryside Act, 1981 (and subsequent amendments).

The Water Vole is a UK BAP priority species.

12.3 Local Status

The surveys by the Vincent Wildlife Trust reported a decline in the Yorkshire Water Vole population by 98% between 1990 and 1998. There have not been any major systematic surveys so the current status is unclear.

The Water Vole is a local BAP priority species.

12.4 Status within the Drainage District

The Water Vole has been recorded sparingly within the IDB district. It is probably present along the majority of suitable watercourses, but records are currently restricted to the River Wiske near Danby Wiske and Brompton Beck.

12.5 Threats

The main threats to Water Vole in the drainage district include:

- Predation by the non-native North American Mink
- Habitat loss due to intensive agricultural practices, inappropriate vegetation management, insensitive flood defence and drainage engineering (culverting, bank reinforcement) and bank erosion from heavy grazing
- Pollution resulting in poor water quality
- Variation in water levels. Greatly fluctuating water levels can flood burrow systems and drown Water Voles. The drying out of watercourses may also be detrimental, leaving burrow entrances exposed and Water Voles vulnerable to predators

12.6 IDB Objectives and Targets

Target Ref.	Target	Action Ref.	IDB Actions	Partners	Date	Indicators	Reporting	UK BAP	Local BAP
11	Maintain and enhance suitable habitat for Water Vole within the drainage district	11.1	Assess existing habitat suitability of IDB watercourses for Water Vole	YWT	2010	Length (m) assessed	2010		
		11.2	Ensure appropriate management of IDB watercourses with known Water Vole populations		Ongoing	Length (m) managed/ maintained	Annually	√	√
		11.3	Review maintenance regimes and identify watercourses where the mowing and weed cutting regime can be altered to enhance and increase Water Vole habitat		2010 onwards	Length (m) enhanced	Annually		
		11.4	Work with landowners to improve the riparian habitat for Water Voles	NE YWT	2010 onwards	Number of landowners advised	Annually	√	√
12	Ensure all IDB works comply with relevant legislation protecting Water Vole and their habitat	12.1	Provide training to IDB workforce/contractors on legislation pertaining to Water Vole and their habitat		2011	Number of employees trained	Annually to 2011	√	√
		12.2	Ensure Water Vole surveys are conducted prior to any bank improvement, drainage or other engineering works		Ongoing	Number of surveys undertaken	Annually	√	√
13	Record and monitor populations of Water Vole within the drainage district	13.1	Collate records of Water Voles to establish a baseline data set for this species in the drainage district		Ongoing	Number of records collated	Annually	√	√
		13.2	Submit all Water Vole records from the drainage district to NEYEDC		2010 onwards	Number of records submitted	Annually	√	√
		13.3	Undertake monitoring of key Water Vole colonies		2010 onwards	Length (m) surveyed	Annually	√	√
		13.4	Investigate the distribution of Mink in the drainage district	YWT	2010 onwards	Length (m) assessed	Annually	√	√
		13.5	Assess whether Mink control would benefit Water Vole recovery/recolonisation and/or site safeguard	YWT	2011 onwards	Assessment completed	As required	√	√

13 SPECIES ACTION PLAN – OTTER

13.1 Introduction

The Otter is a semi-aquatic species, feeding mainly on fish and crustaceans caught underwater. They have a life expectancy of between 10-15 years and are territorial in nature. Otters are well equipped for swimming rapidly through water. They have a long body, a powerful tail and webbed feet.

In the UK, Otters can breed all year round. They produce between one and five young (usually two or three) which are born blind and without teeth. They stay with their mother for up to one year while she teaches them how to swim and catch fish. Adult Otters have no natural predators, although in the past they were heavily persecuted by gamekeepers.

During the late 1950s, following the introduction of new and stronger pesticides, the UK's Otter population went into rapid decline. It is only recently that the Otter population in Britain has started to recover through protective legislation and conservation programmes.

13.2 National Status

The Otter is a UK BAP Priority Species due to the rapid decline in numbers experienced by this species between the 1950s and the 1970s. During this time, the species declined markedly both in numbers and extent and by the 1980s was effectively extinct from the midlands and south-east of England. However, populations remained in Wales, south-west England and much of Scotland, where sea loch and coastal colonies comprise one of the largest populations in Europe. There is also a significant population of Otters in Northern Ireland. The decline now appears to have halted and sightings are being reported in former habitats.

The Otter is protected under Schedule 5 and 6 of the Wildlife and Countryside Act 1981 and Schedule 2 of the Conservation (Natural Habitats, etc.) Regulations 1994.

13.3 Local Status

As in much of the UK, Otters were historically widespread throughout North Yorkshire. However, by the 1980s they had been lost from the most of the county with only a remnant population persisting. In recent years the Yorkshire Wildlife Trust have recorded increases in Otter activity along the Rivers Ure, Swale, Nidd, Wharfe and Ouse.

The Otter is a local BAP priority species.

13.4 Status within the Drainage District

Otters have been recorded on the River Wiske near North Otterington and Kirby Wiske.

13.5 Threats

The main threats to Otters in the drainage district include:

- Pollution, impacting on water quality and food supply/prey
- Poor in-channel and bankside habitat management
- Disturbance from human activity due to development and recreation
- Accidental death on roads and in traps

13.6 IDB Objectives and Targets

Target Ref.	Target	Action Ref.	IDB Actions	Partners	Date	Indicators	Reporting	UK BAP	Local BAP
14	Maintain and enhance suitable habitat for Otter within the drainage district	14.1	Assess existing habitat suitability for Otter	EA YWT	2010	Length (m) assessed	2010		
		14.2	Work with landowners to improve the riparian habitat for Otter	NE EA YWT FWAG	2010 onwards	Number of landowners advised	Annually	√	√
		14.3	Ensure maintenance and improvement works take into account the needs of otters, retaining features such as trees, scrub and overhanging root systems	EA	Ongoing	Number of features retained	Annually	√	
15	Ensure all IDB works comply with relevant legislation protecting Otter and their habitat.	15.1	Provide training to IDB workforce/contractors on legislation pertaining to Otter and their habitat		2011	Number of employees trained	Annually to 2011	√	√
		15.2	Ensure surveys for Otter activity are conducted prior to any bank improvement, drainage or other engineering works		Ongoing	Number of surveys undertaken	Annually	√	√
16	Record and monitor Otter activity within the drainage district.	16.1	Collate records of Otter activity to establish a baseline data set for this species in the drainage district		Ongoing	Number of records collated	Annually	√	√
		16.2	Submit all Otter records from the drainage district to NEYEDC		2010 onwards	Number of records submitted	Annually	√	√

14 SPECIES ACTION PLAN – KINGFISHER

14.1 Introduction

The Kingfisher is a distinctive bird species of aquatic habitats, thanks to its iridescent blue and orange plumage. The Kingfisher feeds primarily on small fish, which it catches by diving, usually from a perch in the waterbody; because of this technique, kingfishers prefer slow-flowing or static water for hunting. During the breeding season, a mated pair will dig a long tunnel and nesting chamber into a bankside, in which the young will be born and raised.

14.2 National Status

Between 1974 and 1997 British Trust for Ornithology studies have recorded quite substantial fluctuations in the British Kingfisher population. During the 1980s, the Kingfisher underwent major declines along linear waterways but these have since been reversed and the Kingfisher has re-established itself throughout much of its former range. The Kingfisher is on the RSPBs Amber List of '*Birds of Conservation Concern*', because of declines throughout its European range.


Source: Nigel Blake 2009

14.3 Local Status

According to the Rare Breeding Birds Panel, there were 91 breeding pairs of Kingfishers in Yorkshire in 2003 and 90 in 2004.

14.4 Status within the Drainage District

There is currently little information available on the distribution of Kingfishers within the drainage district, although it would be expected that substantial use would be made of the waterways and wetland habitats within the district.

14.5 Threats

The main threats to Kingfisher in the drainage district include:

- Pollution resulting in poor water quality which reduces available prey;
- Inappropriate vegetation management which exposes nest sites and disturbs nesting adults;
- Agricultural improvement of bankside habitats and bank erosion from heavy grazing;
- Canalisation and flood alleviation schemes which destroy nesting habitat.

14.6 IDB Objectives and Targets

Target Ref.	Target	Action Ref.	IDB Actions	Partners	Date	Indicators	Reporting	UK BAP	Local BAP
17	Maintain and enhance suitable habitat for Kingfisher within the drainage district	17.1	Identify suitable habitat for Kingfishers	EA YWT	2011	No of sites identified	Annually to 2011		
		17.2	Investigate the possibility of creating artificial nest sites on suitable watercourses	EA YWT	2014	No of sites created	Annually to 2014		
		17.3	Ensure maintenance and improvement works take into account the needs of	EA	Ongoing	Number of features retained	Annually		

Target Ref.	Target	Action Ref.	IDB Actions	Partners	Date	Indicators	Reporting	UK BAP	Local BAP
			Kingfishers, retaining features such as suitable perching branches						
18	Record and monitor numbers of Kingfisher within the drainage district	18.1	Collate records for Kingfisher to establish a baseline data set for this species in the drainage district		Ongoing	Number of records collated	Annually		
		18.2	Submit all records of Kingfisher from the drainage district to NEYEDC		2010 onwards	Number of records submitted	Annually		

15 SPECIES ACTION PLAN – LAPWING

15.1 Introduction

The Lapwing (also known as the Green Plover or Peewit) is a member of the plover family and its distinctive call is often heard over ploughed fields in the winter and spring. In flight it appears black and white, although on the ground its green colour and crest is more evident.

This once familiar farmland bird has suffered significant declines recently and is now almost absent from Wales and much of central England.


Source: Nigel Blake 2009

15.2 National Status

Lapwings are found on farmland throughout the UK, particularly in the lowland areas of northern England, the Borders and eastern Scotland. There are approximately 156,000 breeding pairs in the UK and a further 1.5 – 2 million birds overwinter in the UK from the continent.

In the breeding season Lapwings prefer spring sown cereals, root crops, permanent unimproved pasture, meadows and fallow fields for nesting. They can also be found on wetlands with short vegetation. In winter they flock on pasture and ploughed fields. The highest known winter concentrations of lapwings are found at the Somerset Levels, Humber and Ribble estuaries, Breydon Water/Berney Marshes, the Wash, and Morecambe Bay.

The Lapwing is a UK BAP priority species.

15.3 Local Status

The Lapwing in Yorkshire and Humber is a common resident and very common passage migrant and winter visitor, although there has been a decline in breeding numbers.

The Lapwing is a local BAP priority species.

15.4 Status within the Drainage District

There are only scattered records of this species across the district, but it would be expected that the actual distribution of Lapwings is likely to be greater.

15.5 Threats

The Lapwing has declined dramatically during the last thirty years due, in the main, to the effects of agricultural intensification. Whilst the threat from this has now somewhat diminished due to the widespread uptake of agri-environment schemes, the threat to Lapwings still remains. In particular these threats arise from:

- Declines in mixed farming and subsequent loss of habitat diversity
- The general shift away from spring-sown cereals to winter-sown, leading to a loss of winter stubble
- Continued use of agri-chemicals including herbicides and insecticides
- A reduction in set-aside land and the area of sugar beet grown
- The destruction of nests by farm livestock operations, especially ‘early bite’ cattle grazing, grass rolling and extra cuts of silage

- The ploughing down of stubbles in the autumn that encourages Lapwings to set up breeding territories which are then sown with a dense arable crop

15.6 IDB Objectives and Targets

Target Ref.	Target	Action Ref.	IDB Actions	Partners	Date	Indicators	Reporting	UK BAP	Local BAP
19	Maintain and enhance suitable breeding and feeding habitat for Lapwing within the drainage district	19.1	Encourage landowners to enter agri-environment schemes that benefit Lapwing	NE FWAG	Ongoing	Number of landowners advised	Annually	√	√
		19.2	Promote the restoration and recreation of habitat for Lapwing (e.g. wet grassland, wader scrapes)	EA NE FWAG	Ongoing	Number of landowners advised	Annually	√	√
20	Monitor Lapwing numbers within the drainage district	20.1	Collate records of Lapwing to establish a baseline data set for this species in the drainage district		Ongoing	Number of records collated	Annually	√	√
		20.2	Submit all Lapwing records from the drainage district to NEYEDC		2010 onwards	Number of records submitted	Annually	√	√

16 PROCEDURAL ACTION PLAN

16.1 Introduction

A range of procedural actions and targets have also been devised within this Action Plan. These will contribute to alterations in the way in which internal and administrative operations are carried out within the River Wiske IDB. They will lead to the promotion of best-practice methods and contribute to biodiversity gain, outside the targets identified in the specific habitat and species action plans.

16.2 IDB Objectives and Targets

Target Ref.	Target	Action Ref.	IDB Actions	Partners	Date	Indicators	Reporting	UK BAP	Local BAP
21	Promote environmental best practice when undertaking all drainage works	21.1	Train IDB employees/ contractors in environmental best practice		Ongoing	Number of employees trained	Annually		
		21.2	Advise landowners within the drainage district on environmental best practice		Ongoing	Number of landowners advised	Annually	√	√
		21.3	Publicise examples of environmental best practice		As required	Number of articles/press releases	When required		
22	Control culverting of watercourses	22.1	Review all applications for "Consent for works affecting IDB watercourses" and advise appropriately		Ongoing	Number of consents reviewed	Annually		
23	Improve understanding of species populations present within the drainage district	23.1	Submit all species records to NEYEDC		Ongoing	Number of records submitted	Annually		
24	Improve BAP delivery through partnership working with organisations and landowners	24.1	Develop existing partnerships to deliver BAP targets and seek new partners to allow delivery through joint working or funding		Ongoing	Number or area of BAP targets delivered through partnership working	Annually		

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17 IMPLEMENTATION

17.1 Implementation

The actions detailed in the habitat and species actions plans in previous chapters will be implemented predominantly through minor changes to IDB management and maintenance methods.

To complement this BAP a maintenance programme will be devised by the Board, through which many of the actions will be implemented. Any capital works undertaken by the Board will also allow implementation of BAP actions.

Partnership working will allow several actions to be implemented, for example, data collection and the provision of advice.

The River Wiske IDB 'BAP Champion' will also take the lead and ensure that the actions detailed in this action plan are implemented.

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18 MONITORING

18.1 Monitoring

Monitoring of the River Wiske IDB BAP will be required to ensure that the actions detailed in the habitat and species action plans are being implemented.

Monitoring of the indicators detailed in the action plans will be undertaken and recorded, generally on an annual basis.

The River Wiske IDB 'BAP Champion' will be involved in monitoring and recording the implementation of the River Wiske BAP.

Species and habitats vary naturally over time. Monitoring will result in new information, such as the presence of species missed during earlier surveys. Any new information will be incorporated into the IDB BAP as appropriate.

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19 REVIEWING AND REPORTING PROCESS

19.1 Reviewing and Reporting Process

Progression of the BAP requires monitoring and reporting to the public, BAP Working Group and also to the UK BAP.

Progress towards each of the targets is likely to be assessed annually and it is anticipated that the River Wiske IDB BAP will be fully reviewed after five years. However, the production and long-term development of the BAP is a flexible process.

Annual reporting will be done through the Shire Group website, meetings of the River Wiske Internal Drainage Board and through the national Biodiversity Action Reporting System (BARS). Targets and actions for the individual action plans have been written so that they fit the national BARS, which is the approved system for reporting. Using BARS annual progress reports will be produced and made available.

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