EAST RIDING OF YORKSHIRE BIODIVERSITY ACTION PLAN STRATEGY

Photo: East Riding Chalk Wold by Stephen Robinson

DRAFT

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EXECUTIVE SUMMARY

What is biodiversity and why is it important?

Biological Diversity, or Biodiversity, represents the variety of all life on Earth from the smallest bacteria to the largest blue whale. Biodiversity includes the variety of different species, the variety of places in which species live, known as habitats, and the variety within species. The term 'biodiversity' is subtly different to other similar terms, such as wildlife or nature, as it covers the variety of life in its totality including humans, their livestock and crops and man-made habitats. In a country like England this is important, as practically all habitats are influenced by, or rely on, the intervention of people in one way or another.

Biodiversity is important because it provides mankind with food, medicine, materials and other essential goods. It also provides us with many services, including the provision of clean air, soil and water and protection from flooding and coastal erosion. Biodiversity may also potentially help us to adapt to climate change by storing and absorbing carbon and by mopping up some of the damaging effects it may have. The natural environment provides the East Riding with its sense of place, making it an attractive location for people to live, work and play and potentially bringing economic investment from tourism and regeneration. Apart from the many benefits that biodiversity provides us it also has strong intrinsic and moral worth and is also important in its own right.

There is a wide range of legislation and policy at international, national, regional and local levels that affords protection to biodiversity. This has resulted in a national framework for biodiversity action planning from the UK to the local East Riding level. The East Riding of Yorkshire Biodiversity Action Plan (ERYBAP) will allow the East Riding of Yorkshire to fulfil its part of the national targets for the conservation of biodiversity, but more importantly it will preserve and enhance the quality of life for all residents, be they human or otherwise.

Our Vision and Aims

The East Riding of Yorkshire Biodiversity Partnership's vision is that the partners will work together to deliver the ERYBAP:

"To sustain, restore and create a thriving, vibrant and sustainable biodiversity network in which the Priority Habitats and Species of the East Riding of Yorkshire can prosper."

To achieve this vision the ERYBAP will set out what is special about the biodiversity of the East Riding and what action will be taken to conserve Priority Species and conserve, enhance, restore and re-create Priority Habitats and set appropriate targets to achieve this. The value that local communities place on the biodiversity of the East Riding is important and the Partnership aims to engage with local communities, raise their awareness of the biodiversity around them and develop partnerships to deliver biodiversity action on the ground where people live. In fulfilling the vision and aims of the ERYBAP the Partnership seeks to provide additional and new benefits

for biodiversity in the East Riding over and above those already being delivered by others. It is essential that the ERYBAP promotes the development of strong networks of habitats for the East Riding that will provide space for biodiversity and the ability for biodiversity interests to move and change as part of the challenges posed by climate change and other potential pressures.

The Biodiversity of the East Riding

The East Riding has a rich and varied biodiversity that is nationally and internationally important and that gives the area its sense of place. Well known examples include:

- the ancient flood meadows of the Lower Derwent Valley;
- the chalk grasslands of the Wolds;
- the wetlands of the River Hull valley;
- the remnants of lowland heath in the eastern Vale of York;
- the mudflats and saltmarshes of the Humber Estuary;
- the sand dunes of the Spurn Peninsula;
- the towering chalk cliffs of the Flamborough Headland; and
- the offshore chalk reef habitats of the North Sea.

The varied habitats of the East Riding support a range of important species, these include:

- strongholds for water vole and otter;
- significant over-wintering populations of golden plover, black tailed godwit and curlew;
- breeding bittern and avocet;
- important farmland bird populations including grey partridge, tree sparrow, yellowhammer and skylark;
- populations of great crested newt, common toad and grass snake;
- migratory fish including sea and river lamprey, Atlantic salmon, eel and smelt;
- the UK's largest mainland seabird nesting colony with gannets, kittiwakes, razorbills and puffins;
- rare plants including greater water parsnip and purple milk vetch;
- a range of rare invertebrates including tansy beetle and dingy skipper butterfly; and
- significant local species such as barn owl and brown hare.

In addition to important habitats and species, the East Riding also has a full range of designated sites from the international to the local level. The East Riding of Yorkshire Local Wildlife Sites (LWS) network aims to provide a comprehensive register of sites of substantive nature conservation value. The conservation and enhancement of these LWS will deliver a significant proportion of the ERYBAP.

Whilst there are known significant environmental, economic and social benefits for the protection and safeguard of biodiversity, there are significant threats resulting in losses to biodiversity. These threats are causing losses at an alarming rate at all levels from the global to the local scale. For example in the East Riding 86 species of plant have already become extinct. Whilst there are threats to wildlife there are also opportunities that if harnessed could help to reverse the declines and safeguard the area's biodiversity for future generations. The ERYBAP will help us to take advantage of these opportunities.

How will the East Riding of Yorkshire Biodiversity Action Plan work?

The ERYBAP is a tool; the success of its implementation will be down to the participation and enthusiasm of the people involved.

The ERYBAP is not one single report, rather it is a folder of separate documents that interlink and fall under the umbrella of this ERYBAP Strategy Document. This Document aims to set the ground rules and framework that the rest of the ERYBAP documents that will follow. Habitat and species action plans (HAPs and SAPs) will be produced to focus on particular habitats and species and to set objectives for their conservation and enhancement. Different HAPs and SAPs will be developed as the Partnership develops and grows. The HAPs and SAPs are broken into two halves; the statements are text based documents that will change little over the course of the plan, whereas the action plans themselves will have targets for the habitats and species and short-term actions to achieve these targets. These documents will be dynamic and ever changing. To deal with other crosscutting issues or opportunities, guidance notes will also be produced to give specific advice on particular subjects, such as wildlife friendly gardening.

Habitats will only be selected for development into HAPs if they can be actioned by the Partnership and if the Partnership can add something new to what is already happening. Species will be covered within the relevant HAP(s) wherever possible to keep the number of SAPs to a minimum, thus promoting an ecosystem approach that takes into consideration the effects of actions on every element of an ecosystem, recognising that all these elements are linked.

The ERYBAP is one of the 'three pillars' of biodiversity in the East Riding alongside the LWS System and the North and East Yorkshire Ecological Data Centre (NEYEDC). As the only Local Records Centre for the area NEYEDC will support the ERYBAP in terms of biodiversity data collation, management and dissemination with crucial support from local recorders and naturalists.

The Role of the East Riding of Yorkshire Biodiversity Partnership

The role of the Partnership will be to develop and adopt the ERYBAP and to then implement the actions included therein. It is also to promote and raise awareness of the importance of biodiversity in the East Riding and to get others involved with implementing the ERYBAP. This will involve many partners getting together to set targets for habitats and species based on information about the biodiversity of the East Riding. Various partners will set actions against these targets so that over the course of the plan's lifetime these targets will be gradually achieved. The Partnership will also be involved in monitoring, reviewing and revising the ERYBAP as appropriate.

How to get Involved

Everyone can get involved in the ERYBAP, whether they are an expert, an amateur naturalist or an interested member of the public. You do not have to be a member of an organisation, but organisations can get involved. There are a number of ways to get involved, here are just a few:

- Join the Partnership – whether you are an individual, a group, an organisation or a company you can join the East Riding of Yorkshire Biodiversity Partnership and play your part. This may just entail receiving updates on what is happening in the area, or it may involve you or your group carrying out actions in your area towards ERYBAP targets.
- Wildlife friendly gardening – we can all help wildlife at home by doing a few simple things in our gardens, such as leaving a corner to go wild, providing nest boxes, digging a pond or feeding the birds. You can also try to avoid using chemical pesticides in favour of natural alternatives and stop using peat based composts that can lead to the destruction of peat bog habitats.
- Record what wildlife you see whilst out and about – record what species you see, when and where you saw it and how many there were and send this information to the NEYEDC so the data can be added to many other sightings and build up the picture of the area's wildlife (www.neyedc.org.uk).
- Volunteering – volunteer with a conservation group and do some practical work to manage a habitat. The British Trust for Conservation Volunteers (BTCV), the Yorkshire Wildlife Trust and other organisations all run practical volunteer days where you can get fit, meet people and do your bit.
- Private sector organisations – why not create a wildlife area at work if there is space or try and get your company to manage the site with wildlife in mind? Put up bat boxes, feed the birds or plant berry and fruit bearing bushes. Have team away days doing practical conservation work. As a team, company or office do sponsored events in aid of wildlife charities.
- Join a local wildlife group or go on a guided wildlife walk – there are lots of local wildlife, countryside or naturalist groups in the East Riding that can help you develop your wildlife skills and get involved in practical conservation. Alternatively join a guided walk with a local group to see more of the East Riding's wildlife.

Further Information

For further information on the ERYBAP and on how to get involved with the Partnership you can contact:

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1.0 INTRODUCTION, POLICY AND BACKGROUND

1.1 Overall Vision and Aims

The East Riding of Yorkshire Biodiversity Partnership's vision is that the partners will work together to deliver the East Riding of Yorkshire Biodiversity Action Plan (ERYBAP):

"To sustain, restore and create a thriving, vibrant and sustainable biodiversity network in which the Priority Habitats and Species of the East Riding of Yorkshire can prosper."

To make this vision a reality, the ERYBAP has the following aims:

1. to identify what is special about the biodiversity of the East Riding and what action will be taken to conserve Priority Species and conserve, enhance, restore and re-create Priority Habitats and set appropriate targets to achieve this;

2. to identify and recognise what local communities value about the biodiversity of the East Riding and encourage and support action at a local level;

3. to ensure that the relevant proportion of national and regional targets for habitats and species are implemented within the East Riding;

4. to ensure that the implementation of the Biodiversity Action Plan (BAP) habitats and species targets provides additional benefits for biodiversity in the East Riding over and above those already being delivered by others;

5. to monitor and review progress of the ERYBAP implementation and update targets and actions as necessary;

6. to engage with local communities, raise their awareness of the biodiversity around them and develop partnerships to deliver biodiversity action on the ground where people live;

7. to co-ordinate and prioritise the delivery of biodiversity action in the East Riding; and

8. to promote the development of a functional network of habitat corridors for the East Riding that will provide space for biodiversity and the ability for biodiversity interests to move and change as part of the challenges posed by climate change and other potential pressures upon it.

A series of key themes have been identified that will guide the delivery of the ERYBAP, (see Appendix A for details of the key themes). These principles have been integrated into the above ERYBAP aims. The key themes principally relate to the coverage of the ERYBAP including its relationship with other partners responsible for major delivery mechanisms, such as agri-environment schemes. They also relate to the practical delivery of the ERYBAP on the ground i.e. at specific sites in local geographic areas of the East Riding, coordinated through Habitat and Species Action Plans (HAPs and SAPs), and supported through advice and guidance from strong partnership working.

1.2 What is Biodiversity?

Biodiversity (which is an acronym for biological diversity) is simply the term given to the variety of life on earth. Biodiversity encompasses all life on the planet, from the smallest microorganisms to the largest animals and plants. It includes the marine, aquatic and terrestrial habitats that sustain all organisms, including humans. Biodiversity also includes the variation within and between ecosystems and habitats and genetic variation within individual species (www.ukbap.org.uk). Terms like 'wildlife' have subtly different meanings, often excluding human beings and domesticated species and the interactions they have with wildlife and concentrating only on the non-human natural world.

1.3 Why is Biodiversity Important?

Biodiversity is the single most important indicator of the state of the environment around us and where we live. Human existence is dependent upon other organisms. Other species provide the oxygen that we breathe, recycle our waste, provide food, clean the water we drink, help to reduce flooding and pollution, provide fuel, food and clothing and produce chemicals used in our medicines. The natural world enriches the quality of our lives, providing positive effects upon human health, wealth and wellbeing and provides an invaluable educational, recreational and tourism resource. Table 1 below outlines some of the benefits that biodiversity provides to society and to the economy, such benefits are often termed 'ecosystem services' (Millennium Ecosystems Approach, 2005).

It is essential to conserve our biodiversity, since the planet's ecosystems are composed of communities of organisms that are interrelated. The variety of species and variations within any particular species is crucial because it enables organisms to adapt to natural changes in their environment and, for example, to respond to diseases.

Ultimately, the survival of species, including us, depends upon maintaining the biodiversity of life on earth. Humans have a responsibility to be careful custodians of biodiversity, not only for human related purposes, but also for the intrinsic value of biodiversity itself. This responsibility is one of the underpinning philosophies behind sustainable development so that humans safeguard existing biodiversity interests and repair human damage to biodiversity for the benefit of future generations.

Table 1: Some of the benefits of conserving biodiversity, often termed as ecosystem services.

Biodiversity Benefit	Explanation
Has an important role in tackling climate change	- Woodlands and peat bogs act as carbon sinks, locking up excess carbon e.g. Snaith & Cowick, Rawcliffe and Goole Moors. - Floodplains and coastal habitats help to reduce or ameliorate flooding. - Natural habitats provide corridors to allow mobile species to move and adapt in response to changes in climate. - Urban woodland and tree cover can help to cool and clean the air of our cities and provide shade.
An indicator of the wider health of our environment	- A biodiversity rich environment performs well against other measures of environmental quality, e.g. clean air and water. - Provides an attractive and healthy environment for people. - Enhances outdoor recreation, exercise and relaxation opportunities.
Helps to sustain local economies	- The biodiversity sector benefits the economy through the provision of jobs. - Boosts the tourism industry. A 1998 survey found that the RSPB Bempton Cliffs reserve attracts 45,000 visitors every year and their expenditure amounted to £407,000 in the local economy (ERYC, 2002). - Makes for a more attractive area that may be better placed to attract external investment. - Helps generate local produce e.g. wild bees and insects pollinate plants and microorganisms help to keep soil fertile. - Provides new market opportunities for farmers and land managers through farm diversification.
Supports other vital services that sustain life on Earth	- Ecosystem services include the provision of clean air and water, defence against floods and storms, and the management of waste and pollution.
Is an important part of our cultural heritage and identity	- Defines local character and distinctiveness and drives sense of place; from the chalk cliffs of Flamborough to the sand dunes of Spurn Peninsula to the chalk grasslands of the Wolds. - Habitats are also of historic importance, such as lowland heathland and species rich grasslands, having resulted from traditional land-use practices. For example the ancient flood meadows of the Derwent Valley result from traditional hay meadow cropping with seasonal flooding.

Biodiversity Benefit	Explanation
Offers opportunities for community engagement and volunteering	- Local authorities can engage local communities and promote social inclusion through interaction with wildlife. - Volunteering can help people to learn or develop new skills, make new friends, get valuable work experience and put existing experience to good use. Mayfield and Broom Park, Sugar Mill Ponds and Howden Marsh are all Local Nature Reserves managed by local volunteer groups.
Provides us with essential products and materials	- Provides many vital products such as food, medicine, and building materials. - Sustainable fisheries depend on the conservation of marine biodiversity. - May provide new resources that have not yet been utilised or realised, such as natural medicines.

1.4 International, European and National Biodiversity Legislation

There are increasingly effective legal mechanisms available for the conservation of biodiversity (Fry, 2008). The national suite of legislation for biodiversity arises from the international, European and domestic levels. The UK Government demonstrated its commitment to The Convention on Biological Diversity (Rio de Janeiro, 1992) by being the first signatory to produce a Biodiversity Action Plan (the UK Biodiversity Action Plan, 1994). The government has transposed responsibilities under the EC Habitats Directive and EC Birds Directive into UK/domestic legislation. The main relevant biodiversity legislation is summarised in Table 2 below. The articles or sections referred to in Table 2 are not exclusively those that are relevant to biodiversity, but they are significant in terms of the biodiversity action planning process. Further details regarding other legislation and the contents of the Acts themselves are contained within Fry 2008, and are available on the Internet from a number of websites.

Table 2: International Conventions and European and National Biodiversity Legislation (based on those cited in Fry, 2008)

Legislation Level, Title & Date	Objectives	Articles/Sections of Particular Relevance to Biodiversity Action Planning
Convention on Biological Diversity 1992 (International)	This Convention is concerned with the conservation of biological diversity. The Convention generated the term 'biodiversity' and set in place the requirement for the production of Biodiversity Action Plans.	Articles 6, 7, 8, 10, 13 and 20.

Legislation Level, Title & Date	Objectives	Articles/Sections of Particular Relevance to Biodiversity Action Planning
The Ramsar Convention 1971 (International)	This Convention provides an intergovernmental framework for the conservation and wise use of wetlands and their resources. The Ramsar signatories have compiled a list of sites designated as Wetlands of International Importance that are known as Ramsar sites, as the Convention was based in the city of Ramsar in Iran.	Articles 1-5 and See The Ramsar Convention Manual, 2006
Council Directive of 2 April 1979 on the Conservation of Wild Birds (79/409/EEC) (European)	This EC Directive relates to the conservation of all species of naturally occurring birds in their wild state including their protection, management and control. The directive applies to birds, their eggs, nests, young and habitat. Special Protection Areas (SPA) for birds are designated under this directive and form part of the Natura 2000 network of sites.	Articles 2, 3, 4, 10 and 11.
Council Directive of 21 May 1992 on the Conservation of Natural Habitats and of Wild Flora And Fauna (92/43/EEC) (European)	To contribute towards ensuring biodiversity through the conservation of natural habitats and of wild flora and fauna. Measures taken are to be designed so as to maintain or restore natural habitats and species of wild flora and fauna at a favourable conservation status. Special Areas for Conservation (SAC) are designated under this directive and together with the SPA sites form the Natura 2000 network of sites. Article 10 encourages member states to merge features of the landscape of major importance for wild flora and fauna such as rivers, traditional field boundaries and stepping stone habitats including ponds and small woods. These features are seen as contributing to the overall coherence of the Natura 2000 network and "essential for the migration, dispersal and genetic exchange of wild species". This sets the legislative background for the development of habitat networks.	Articles 2, 3, 4, 10, 11 and 12.
Water Framework Directive (2000/60/EC) (European)	This is the most substantial piece of EC water legislation to date. It is designed to improve and integrate the way water bodies are managed throughout Europe. The Directive requires all inland and coastal waters to reach good chemical and ecological status by 2015. This will involve the establishment of a river basin structure approach with environmental objectives including ecological targets for surface waters.	All
Wildlife & Countryside Act 1981 as amended (National)	Provides the UK statutory basis for the protection of species, including flora and fauna, and the habitats they use.	Parts 1 and 2.

Legislation Level, Title & Date	Objectives	Articles/Sections of Particular Relevance to Biodiversity Action Planning
The Conservation of Habitats and Species Regulations 2010 (National enacting European)	These Regulations implement the Habitats Directive including the provision for the establishment of the Natura 2000 network of sites (including SPAs and SACs), extend the provisions of the Wildlife & Countryside Act 1981 (as amended) for the protection of species (flora and fauna) and provide a mechanism for assessing the implications of plans, projects or proposals on Natura 2000 sites. The Regulations also require the inclusion of planning policies in Local Development Frameworks to implement Article 10 of the Habitats Directive (i.e. the principle of habitat networks).	All.
Natural Environment and Rural Communities (NERC) Act 2006 (National)	Incorporates a general duty on all public bodies, including local authorities, to have regard to the purpose of conserving biodiversity in the exercise of their functions. Includes lists of UK Priority Habitats and Species for biodiversity action and conversation to inform biodiversity action plan production.	Parts 2, 3 (Sections 40 and 41) and 9
Marine and Coastal Access Act 2009 (National)	Will ensure clean healthy, safe, productive and biologically diverse oceans and seas, by putting in place better systems for delivering sustainable development of marine and coastal environment. Marine Conservation Zones will provide a mechanism to protect nationally important habitats and species.	Part 5
Environmental Impact Assessment (EIA) Regulations 1999 (National enacting European)	These Regulations require environmental assessments to be made for certain types of projects. There are also Sections that place a requirement for assessments for the intensification of agriculture on uncultivated and semi-natural land. Further, it introduced European Union based rules that guard against environmental damage caused by large scale restructuring of rural land including the large scale removal of field boundaries.	All
Countryside Act 1968 (National)	Confers powers upon local authorities and other bodies for the conservation and enhancement of the natural beauty of the countryside.	Section 11

1.5 National, Regional and Local Policy Framework

The biodiversity policy framework arises due to the commitment of the UK Government to the conservation of biodiversity. This includes carrying out the government's duties and responsibilities arising from international and national legislative provision, as indicated in Section 1.4. Relevant national requirements are subsequently taken forward at a regional and local policy level through various plans and policies. Relevant policy documentation and guidance is summarised in Table 3 below.

Table 3: National, Regional and Local Policy Framework and National Indicators

Policy/Guidance Level, Title and Date	Objectives and Relationship with Biodiversity Action Planning
PPS9 (2005) (National)	Planning Policy Statement 9 (PPS9) sets out the Government's national policies on the protection of biodiversity and geological conservation through the planning system in England. The objectives of PPS9 are fundamentally linked to achieving the vision for *Working with the Grain of nature: a biodiversity strategy for England* (Defra, 2002). This includes providing and implementing local planning policy for the identification, prevention of harm to and safeguard of biodiversity interests, restoration and creation of Priority Habitats and protection of habitats used by statutory protected species. Further, Paragraph 11 makes direct reference to the need to conserve Priority Habitats and Species of principal importance for biodiversity in England (now known as the NERC list of Priority Habitats and Species), see Table 2. There are several documents that accompany PPS9 including a good practice guide, Planning Circular 06/2005 (regarding statutory obligations), and Defra publications guidance on identifying, selecting and managing Local Sites. These can be found on the Department of Communities and Local Government (DCLG) and Department for Environment and Rural Affairs (Defra) respective websites.
Consultation on draft PPS: Planning for Natural and Healthy Environment (2010)	The new draft PPS sets out streamlined and consolidated planning policy relating to: Biodiversity & Geodiversity (currently set out in PPS9, see above), landscape protection, soil and agricultural land quality, and forestry (currently set out in PPS7: Sustainable Development in Rural Areas), coastal access, heritage coast and the undeveloped coast (currently set out in PPG20 Coastal Planning) , and Planning for Open Space, Sport and Recreation (PPG17).
PPS12 (2008) (National)	Planning Policy Statement 12 (PPS12) explains what local spatial planning is, and how it benefits communities. It also sets out what the key ingredients of local spatial plans are and the key government policies on how they should be prepared. It should be taken into account by local planning authorities in preparing development plan documents and other local development documents.
NI 197 (2007) (National)	The government's expectations regarding the role of local authorities with Local Sites is set out within the new National Indicator (NI) 197 (DCLG, 2007) on local biodiversity and is defined as: "*Proportion of Local Sites where positive conservation management has been, or is being, implemented.*" The government is demonstrating that, as part of public bodies role in delivering the NERC Act 2006 duty, positive conservation management and monitoring of biodiversity features within Local Sites can make a significant contribution to the implementation to the delivery of the ERYBAP, including relevant UK Priority Habitats and Species and locally derived priorities. NI 197 can be used by public bodies to work in partnership when considering finding practical management activities for BAP Priority Habitats and Species within Local Sites.

Policy/Guidance Level, Title and Date	Objectives and Relationship with Biodiversity Action Planning
The Yorkshire & Humber Regional Spatial Strategy (2008) (Regional)	The Yorkshire & Humber Regional Spatial Strategy (RSS) 2008 - 2026 incorporates biodiversity into the spatial vision by using indicators such as woodland cover, Local Wildlife Sites in active management, the wild bird population, green infrastructure and countryside quality as a measure of its success. The RSS expects that these indicators are used at a local policy level. Changes in the status of these natural environment indicators can then be monitored and reported. The RSS includes a policy on forestry, trees and woodland that requires increased woodland planting in the East Riding. The biodiversity policy includes a target for all local authorities to produce a local biodiversity action plan (LBAP) and identify Local Sites (Wildlife and Geological) in Local Development Frameworks by 2011. The RSS recognises the role of LBAPs in delivering local biodiversity action and reporting upwards to the regional bodies on the regional indicators.
East Riding of Yorkshire Local Development Framework (East Riding of Yorkshire LDF) (in preparation) (Local)	The Local Development Framework, or LDF, is a portfolio of documents that provide the framework for managing development and addressing the key planning issues within the East Riding. The Preferred Approach Core Strategy (the main policy document) sets out a number of draft policies that are relevant to biodiversity, including policies on climate change, geographical area based policies and a number of generic development policies on subjects such as biodiversity, green infrastructure and landscape. The LDF is intended to be used alongside the Planning Policy Statements and Guidance. Until the Core Strategy is adopted the 'saved' policies within the four existing Local Plans and the Hull and East Riding Joint Structure Plan will continue to be used as the basis for planning decisions.
East Riding of Yorkshire Landscape Character Assessment (Local)	East Riding of Yorkshire Council published a Landscape Character Assessment for the East Riding area in November 2005. The Assessment identifies the areas of distinct landscape character within the East Riding and makes judgements about the quality, value, sensitivity and capacity for new development in each landscape character area identified. An assessment was made of the various components that contribute to landscape character to identify the different Landscape Character Types within the Countryside Character Areas in the East Riding. Biodiversity is a key component of landscape value and therefore an assessment was made of the ecology of each area.

1.6 Relationship of the ERYBAP with the planning system

The ERYBAP is not a supplementary planning document and does not duplicate or modify existing planning policy and legislation. It does however form part of the evidence base for the Local Development Framework. As such it should be used in the planning system to highlight important habitats and species and opportunities for biodiversity enhancement in the East Riding. It is the intention that through the LDF process a Supplementary Planning Document (SPD) on biodiversity will be produced the in future to provide further guidance on how the ERYBAP priorities can be considered and delivered through the planning system.

1.7 The National, Regional and Local Biodiversity Action Planning Framework

The legislation and policy framework referred to in Sections 1.4 and 1.5 have been instrumental in the establishment of a biodiversity action planning framework from the national level through to the local level. This is summarised in Table 4 below.

Table 4: The Biodiversity Action Planning Framework

Strategy/Document Type and Date	Brief Explanation of Role
Biodiversity the UK Action Plan, 1994.	Provides the UK Government's response to the Convention on Biological Diversity signed in 1992, see Table 2. The UK Biodiversity Action Plan describes the UK's biological resources and commits a detailed plan for the protection of these resources. The UK Biodiversity Partnership conducts reviews of Priority Habitats and Species (a major review was completed in 2007). The UK priorities are used at country based and local geographic levels to assist determination of local Priority Habitats and Species and conservation action.
Working with the grain of nature: a biodiversity strategy for England, Defra 2002.	This is a government led biodiversity strategy for England that has been prepared with an active partnership of stakeholders from the public, private and voluntary sectors. The strategy sets out a series of actions that will be taken by the Government and its partners to make biodiversity a fundamental consideration across all main sections of public policy (www.ukbap.org.uk). For example, the strategy includes aims to develop and support partnerships in English regions and at a more local level for the delivery of biodiversity action.
Securing biodiversity: A new framework for delivering Priority Habitats and Species in England, Defra and Natural England 2008.	This more recent document sets out a framework for the delivery of the England Biodiversity Strategy through an ecosystem approach that focuses on delivering landscape scale approaches that benefit Priority Habitats and Species. The framework also seeks to improve the integration between national, regional and local delivery and strengthening the links between policy makers, practitioners and reinforcing biodiversity partnerships.
A Biodiversity Audit of Yorkshire & the Humber, Yorkshire & Humber Biodiversity Forum, 1999.	Provides an overview of the region's valuable biodiversity. The publication of the Audit was seen as the start of the biodiversity process in the region to promote and enable effective co-ordination of biodiversity action planning. This includes providing support for LBAP production to enable full regional coverage.
Yorkshire & Humber Regional Biodiversity Strategy, Yorkshire & Humber Biodiversity Forum, 2009.	This regional strategy highlights the importance of protecting and enhancing biodiversity within the region and promotes the role of biodiversity within other regional strategies and programmes. For example in terms of economic, environmental and social development of the region. The strategy identifies policies to safeguard and enhance the region's valuable biodiversity resource.
Local Biodiversity Action Plans (various publication dates)	Each LBAP works on the basis of a partnership to identify local priorities and to determine the contribution they can make to the delivery of the national Species and Habitat Action Plan targets (www.ukbap.org.uk). LBAPs are one of the plans that the Government indicates can be absorbed into Sustainable Community Plans, see Table 5.

Strategy/Document Type and Date	Brief Explanation of Role
Humber Estuary Management Scheme	The overall aim of the Humber Management Scheme is: "Subject to natural change, maintain the favourable condition of the site through the sustainable management of activities". A plan has been developed by a partnership known as the 'Humber Estuary Relevant Authorities Group'. The Management Scheme identifies human activities that may have a detrimental affect on the key features of the site, assesses current management of these activities, and prescribes the management actions for each activity and each individual relevant authority (either working alone, or in partnership with the Humber Advisory Group) to ensure favourable condition of the site.
Flamborough Head Management Plan	The main purpose of this plan is to ensure that human activities at Flamborough Head are managed in a way that is compatible with the natural assets of Flamborough, and to seek opportunities to improve these assets and the human activities that depend upon them. To this effect the document provides a framework for the application of the Conservation (Natural Habitats, &c.) Regulations 1994 within and around the Flamborough Head European Marine Site. The Plan seeks to act as a framework for the sustainable management of the wider natural environment at Flamborough Head to ensure integrated management of wildlife, landscape and access in the area.
Company/Organisation/Parish/Town Council BAPs	Individual companies, organisations and Parish and Town Councils are increasingly developing their own sub-LBAPs to target biodiversity action at a smaller and more localised scale or on a site specific basis. These should link into the LBAP that they fall under.

1.8 The Partnership Approach to Biodiversity Action Planning in the East Riding of Yorkshire

1.8.1 The Sustainable Natural Environment Task Group (SNETG)

The preparation and implementation of the LBAP is undertaken through a co-ordinated partnership approach in the East Riding. The Sustainable Natural Environment Task Group (the SNETG) forms part of the East Riding Local Strategic Partnership (LSP) led by East Riding of Yorkshire Council (ERYC). The SNETG is responsible for guiding natural environment related activity in the East Riding, including biodiversity. The SNETG is one of four task groups under the Sustainable Communities and Transport Action Group (SCaTAG), which, in turn, is one of four action groups reporting to the LSP Board. The terms of reference for the SNETG explain the remit of this group further, see Appendix B.

The SNETG provides the steering group for:

- the East Riding of Yorkshire Biodiversity Partnership;
- the East Riding of Yorkshire Local Wildlife Sites (LWS) Panel; and
- the East Riding of Yorkshire Habitat Survey (Broad Habitat and LWS Survey).

The SNETG also guides other delivery projects as necessary and relevant to the Group's remit. By providing the core link between these different biodiversity related work areas in the East Riding, the SNETG can ensure that the ERYBAP is linked to and delivered at LWS in the area, so that local biodiversity action is focussed at locally important sites and that conservation projects are linked to these two processes. This provides a unified system for local biodiversity action in the East Riding involving many partners. A structure diagram illustrating the unified approach is shown in Appendix C. Action for biodiversity in the wider countryside away from LWS and key habitat networks and other designated sites will still be required to help conserve mobile species and to create new habitats to link existing sites and habitats into sustainable networks.

1.8.2 The East Riding of Yorkshire Biodiversity Partnership

The East Riding of Yorkshire Biodiversity Partnership was formed in 2008. The Partnership comprises representatives from statutory agencies, non-governmental organisations, public bodies, local and regional conservation groups and interested individuals. The remit of the Partnership is to drive forward the development, implementation and ongoing review of the ERYBAP and to provide a unified voice for nature conservation in the East Riding.

The approach of the Partnership is to promote public involvement and engagement with the delivery of the ERYBAP. This can be on an individual basis through wildlife friendly gardening, the recording and submission of wildlife sightings for their area or through involvement in local biodiversity events. Alternatively, there are opportunities available to get involved with Parish and Town Councils and the implementation of their biodiversity responsibilities under the NERC Act 2006, see Table 2. This may be through site based activities in the local neighbourhood, assisting the production of Parish Plans or organising events.

1.8.3 Relationship of ERYBAP with Local Wildlife Sites Network

The relationship between the ERYBAP and the LWS network is driven by government guidance, including the Defra Local Sites Guidance, the implementation of NI197 (see Table 3) and the legislative framework (see Table 2). The SNETG has established the East Riding of Yorkshire Local Wildlife Sites Panel (ERY LWS Panel). The aims of the Panel are to:

- receive and evaluate data generated through ongoing survey of the East Riding LWS and other sites that have the potential to be designated as LWS;
- devise, apply and refine scientific and objective criteria for the selection of LWS;
- seek co-operation from and work with landowners of LWS for the benefit of the biodiversity value, the ERYBAP implementation and the landowner;
- work in partnership with the Biodiversity Partnership and landowners to collate similar actions and activities on LWS into specific habitat or species projects;
- develop and implement a coordinated approach to the ongoing monitoring of designated LWS; and
- promote the enhancement of sites through buffering and increasing connectivity.

The ongoing East Riding LWS survey and monitoring programme will generate data concerning:

- the presence of East Riding Priority Habitats and Species within LWS;
- the area (in ha.) of Priority Habitat within each LWS;
- individual LWS citations and maps showing site boundaries;
- information regarding current management activities on each LWS;
- information regarding perceived threats and pressures upon LWS to help identify potential improvements to the site's biodiversity value; and
- the identification of potential opportunities for positive management activities to maintain or enhance the Priority Habitats or Species present on site. This action could form the basis of ERYBAP actions if the landowner or manager is willing to commit to the action.

These data will inform the delivery of relevant targets within habitat and species action plans that can be implemented through the LWS system working in conjunction with the landowner(s). The framework for the HAPs and SAPs, therefore, provides the ability to identify relevant local actions on LWS that can be delivered through the ERYBAP.

The roles of LWS are linked to the delivery of the ERYBAP as shown in Figure 1 below.

Figure 1: The Role of Local Wildlife Sites in the Delivery of the ERYBAP

LWS provide valuable wildlife refugia for much of the UK's flora and fauna and complement the value of other site systems within the biodiversity network by facilitating species movements, colonisation and expansion.

The LWS evaluation process enables locally distinctive and valuable features to be represented and identified.

The LWS survey and designation process identifies habitat and species management requirements for each site. This enables the prioritisation of site based management action that contributes to the implementation of the national performance indicator NI197 Local Sites regarding their positive management and to report this through the ERYBAP.

LWS survey and notification enables positive engagement with landowners and managers. The designation enables the prioritisation of advice, practical assistance and identification of sources of financial support for landowners and managers. The presence of LWS designated land contributes to the scoring system for other funding streams and grant aid. This provides opportunities for joined up thinking between public bodies to prioritise funding for the management of BAP Priority Species and Habitat features within LWS.

LWS designation and management contributes to the implementation of ERYBAP objectives and targets through specific LWS actions (with respect to maintenance and management) at locally represented UK Priority Habitats and Species.

By assisting the delivery of projects to deliver HAP or SAP based actions within suites of LWS of similar habitat type. This will improve the habitats within the site and the LWS itself. This process will enable targeted funding approaches to be made on a habitat or species basis rather than on an individual site basis.

LWS enable ERYC, partner organisations and communities to understand the character and value of the nature conservation resource in the East Riding and what is important in their local landscape and natural heritage and that contributes to the East Riding's sense of place.

The LWS system provides baseline data, which can be used to monitor the success of biodiversity action activities on the ground over time.

LWS contribute to the health and economic wealth of society, human wellbeing and quality of life all of which are fundamentally linked to the purpose of biodiversity action planning and the creation of sustainable communities.

Survey, monitoring and identification of LWS contributes to the maintenance of an up to date evidence base to inform the production of the LDF and other plans and policies.

The process of site evaluation, in preparation for LWS designation, can help to identify gaps in knowledge about the conservation resource of an area or individual sites that can in turn inform further survey, management, research or monitoring as a significant component of habitat and species action plan targets.

The implementation of NI197 will be instrumental in linking LBAP action with LWS, providing a unified system for biodiversity coordination and action in the East Riding based on a strong partnership approach, see Appendix C.

1.8.4 Local Biological Records Centre

The North and East Yorkshire Ecological Data Centre (NEYEDC) collates, manages and disseminates biodiversity information for the East Riding. NEYEDC hold the habitat mapping, site descriptions, species lists and site evaluation information for LWS within the East Riding, boundaries of statutory nature conservation sites (Sites of Special Scientific Interest (SSSI), SAC, SPA, Ramsar), as well as local species records gathered from individual naturalists, local societies, commercial organisations and local authorities. The data is managed in line with current standards, as defined by the National Biodiversity Network (NBN) to ensure consistent quality.

The need for up to date comprehensive local data is integral to setting meaningful targets for species and habitats in the ERYBAP. Firstly the data is needed to determine the current resource by distribution and area/population size of the habitat/species in the East Riding, from this targets for increasing the resource can be set and effectively monitored and reported into the national Biodiversity Action Reporting System (BARS) (see Section 3.4.1). Data that is held by local recorders, naturalists and conservation group is also vitally important in informing the ERYBAP and this has been crucial in informing this document.

1.9 Links with Local Policies, Strategies and Partnerships

In addition to the SNETG, East Riding of Yorkshire Biodiversity Partnership and the ERY LWS Panel, there is a range of other existing partnerships, strategies and groups that have a role in delivering the ERYBAP, including a wide range of funded and voluntary community, farmer and locally led initiatives that seek to record, communicate, protect and enhance biodiversity. Some

of these are summarised in Table 5, however there are many other initiatives that will be captured in the most relevant species or habitat action plan or guidance note.

Table 5: Summary Information Regarding Other Local Policies, Strategies and Partnerships

Name of Policy Plan, Strategy or Partnership	Brief Summary of Role
The East Riding of Yorkshire Local Strategic Partnership	Local Strategic Partnerships (LSPs) are non-statutory, multi-agency partnerships, each one concerned with a particular local authority area. Their aim is to bring together different parts of the public, private, local community and voluntary sectors so that they can support each other and work more effectively together. The ultimate goal is to increase the quality of life in the area. The East Riding LSP was established in 2001. It has the key function of developing a plan for the ongoing sustainable development of the East Riding known as the Sustainable Community Plan for the East Riding (2006 – 2016). The LSP consists of the LSP Board, which is made up of nineteen members, and four Action Groups, and a series of Task Groups that work to the Action Groups. The Action Groups are as follows: • Sustainable Communities and Transport Action Group (includes the SNETG Task Group); • Children and Young People Action Group; • Healthier Communities and Older People Action Group; and • Safer and Stronger Communities Action Group.
The East Riding of Yorkshire Local Development Framework	The Local Development Framework (LDF) determines where and how we should build new places for people to live and work. It is used to make planning application decisions for investment and development proposals. The LDF will also help to deliver the spatial parts of the Sustainable Community Plan which relate to the use of land. This could include the creation of a sustainable economy and the provision of a range of affordable housing to meet the needs of local residents. The East Riding LDF is composed of a number of different Development Plan Documents (DPDs) and Supplementary Planning Documents (SPDs).
New performance framework including National Indicator 197 Local Sites	The New Performance Framework for Local Authorities streamlines the number of indicators that are used to assess Local Authority performance to a standard set of 198 indicators. National Indicator 197 (NI197) (see Table 3) is the biodiversity indicator. The implementation of NI197 is incorporated into ERYC's performance framework and will underpin the approach taken to the development of future programmes of Priority Habitat and Species management within Local Sites across the county, working with partners and seeking advice and guidance from the SNETG. The SNETG, East Riding of Yorkshire Biodiversity Partnership and ERY LWS Panel will have a significant role in bringing together the effective delivery of BAP targets within the Local Sites network. The implementation of the indicator will be undertaken using available partnership resources and those secured through any successful grant applications.
The East Riding Local Area Agreement	The Local Area Agreement (LAA) sets out the priorities for a local area agreed between central government, the local authority, the LSP and other key partners at the local level. LAAs can simplify the provision of central government funding, help join up public services and allow flexibility for local solutions to local circumstances (DCLG, 2008). In conjunction with the performance framework above, the East Riding LAA incorporates the delivery of NI197 as a local indicator.
The Humber Estuary Coastal Authorities Group (HECAG)	This Group is involved in the production of the second generation Shoreline Management Plan (SMP2): from Flamborough Head to Gibraltar Point and has significant opportunities for the integration of biodiversity needs and actions linked to the ERYBAP. The name of this Group changed to the North East Coastal Group in Autumn 2008.

Name of Policy Plan, Strategy or Partnership	Brief Summary of Role
Economic Regeneration Strategies	The Economic Regeneration Strategy for the East Riding and the individual Town Renaissance Plans and Partnerships have the ability to integrate ERYBAP actions into their policy approach and implementation.
Parish and Town Councils	As public bodies, these local Councils are required to implement the NERC Act biodiversity duty. There are many opportunities for the integration of biodiversity into action at a local level. This can be through the preparation of parish plans integrating LWS and Priority Habitats and Species actions that will contribute upwards to the ERYBAP targets and objectives.
The East Riding of Yorkshire Rural Partnership	The Rural Partnership has a remit to inform and influence on behalf of the Rural East Riding. The Partnership includes representatives from many sectors including farming, rural business, rural services, environment and the community and voluntary sectors. It produces a Rural Strategy that sets out key issues and objectives and rural-proofs plans, policies and programmes. It assists the LSP on the delivery of public sector activities in rural areas.
The East Riding Cultural Partnership	The Cultural Partnership supports the LSP in meeting its cultural objectives including associated activities set out in the East Riding Sustainable Community Plan (2006 – 2016). Members are from key public sector bodies, private, community and voluntary sectors to represent as many core cultural activities as possible including wildlife habitats, water environment and landscape.
Internal Drainage Boards	The Internal Drainage Boards (IDBs) are public authorities responsible for providing land drainage and flood protection in the East Riding. The Board for each IDB comprises a Partnership including elected members and members appointed by ERYC. As public bodies, IDBs have responsibilities under the NERC Act 2006 in the exercise of their functions. Many IDBs have their own environmental policies to ensure that the environment considerations are integrated into all land drainage works. All IDB's will also have to produce their own BAP by 2010, and this will be linked to the LBAP.
Neighbouring LBAP	The development of the ERYBAP will work with neighbouring LBAP's including the Hull LBAP, York LBAP and North Yorkshire's relevant LBAPs (i.e. Scarborough, Selby and Ryedale). Creating links with these neighbouring plans will help to strengthen the ability to achieve aims such as the development of strong network habitats. Linkages may also need to be made with the Lincolnshire BAP process regarding the Humber Estuary and action in the Humberhead Levels area.
Local universities, colleges and young people	Local universities and colleges including York, Hull and Bishop Burton provide a resource where staff may have specialist knowledge of species or habitats and students can undertake projects and research on local wildlife issues. The East Riding Youth Assembly is a democratic body for young people in the East Riding of Yorkshire, set up to allow young people a chance to discuss what is going on in the Council, and anything to do with young people, including the environment.

1.10 Developing Habitat Networks and Green Infrastructure

The significance of habitat networks, green infrastructure and green corridors is growing in national policy terms. Habitat networks are largely driven by the necessity to provide 'space for nature' due to climate change, which is highly significant in the East Riding, see Section 2.4. Green corridors provide accessible open green space that can include linear features such as river or transport corridors to provide 'green space for people.' Green infrastructure incorporates both habitat networks and green corridors to provide multi-functional green spaces. This means, therefore, that green infrastructure includes:

- existing valuable habitat networks and important sites for nature conservation;
- existing valuable accessible open green spaces;
- opportunities for the expansion and creation of new Priority Habitats to strengthen the habitat networks and reduce habitat fragmentation;
- recreational and tourism opportunities for people to have contact with biodiversity and open spaces within the wider landscape of the East Riding of Yorkshire;
- the historic environment, including listed buildings, their grounds and settings, and conservation areas which may contain valuable habitats; and
- the coast.

This list is not exhaustive and the LDF green infrastructure core strategy policy provides the full range of elements that make up green infrastructure.

Green infrastructure should also take account of a range of other important functions including the role that such networks can play in helping us to adapt to climate change through flood storage and alleviation and carbon sequestration. In addition green infrastructure may help to provide products from the land, contribute to health and wellbeing and have cultural and historic benefits. In certain locations some functions of green infrastructure may conflict with biodiversity and therefore careful consideration needs to be given to which functions are appropriate in any given area.

Significantly, strengthening and expanding green infrastructure in the East Riding has a key role in facilitating the movement of species between site based biodiversity in areas where semi-natural habitats are fragmented. This is essential to allow species to colonise new sites or replacement sites as climate conditions change and to allow genetic exchange between species meta-populations. Habitat networks help to reduce isolation of genetic populations of species and to allow for expansion.

The value of habitat networks in the East Riding can be strengthened through delivery of habitat creation, restoration and management targets and actions in the ERYBAP. This concept is supported by Government guidance in PPS9 Biodiversity and Geological Conservation (Paragraph 12) which indicates the value of habitat networks and the opportunities for wildlife to move between site based nature conservation interests and within the wider countryside. PPS9 states that local authorities should maintain networks, avoid their fragmentation and restore connectivity within networks where it has been previously lost.

Research undertaken by Defra in 2002 entitled *'The changing flora of the UK'* discusses the warming climate over the last 50 years and indicates that: "*Plants are not as mobile as many birds or butterflies. Major shifts in distribution as a result of climate change are likely to happen over longer periods of time unless the plants are spread by human activities…Climate change is expected to have an increasing impact of our flora in the future".* The Defra research discusses the variation of habitat types and connectivity between them as being vital to protect the range of our flora. It is logical, therefore, that there are knock-on implications for the distribution of our fauna as a result of the changing flora, for example, in terms of food sources and refugia that they provide to specific species of invertebrate.

There is clear evidence and guidance from the government, therefore, that green infrastructure and habitat networks are a necessary component of land use planning from the policy level through to day-to-day human activities. This needs to be instigated by and alongside human activity in order for biodiversity to survive, have the opportunity to move around and to help avoid species and habitat loss due to the changing climatic conditions.

The promotion, development and conservation of habitat networks and green infrastructure is a central aim of the ERYBAP.

The England Biodiversity Group has published a new framework to drive the work on Priority Habitats and Species in England. The framework aims to build on the strengths of the UK Biodiversity Action Plan (UK BAP), promote landscape-scale delivery and embed an ecosystem approach in the delivery of Biodiversity Action Plans.

The framework is organised around four main components:

1. England Biodiversity Strategy Workstreams. Implementation of the England Biodiversity Strategy is supported by six sector (e.g. coastal, marine farmland) and five crosscutting workstreams (e.g. communications, data). These groups aim to achieve the best possible policy environment for biodiversity delivery.

2. Biodiversity Integrated Groups (BIGs) will bring together habitat and associated species interests at an England level. Nine groups have been agreed to help set the standards for habitat-based working and identify and carry out landscape-scale delivery projects.

3. Targeted Species Recovery for those species actions that cannot be carried out through habitat-based work.

4. Regional and Local Delivery. Strong regional and local biodiversity partnerships and improved integration and alignment of national, regional and local work programmes.

The ERYBAP seeks to work within the new England Biodiversity Framework and integrate into regional partnership working taken forward through the Yorkshire and Humber Biodiversity Forum (YHBF).

1.11 Biodiversity Priority Areas

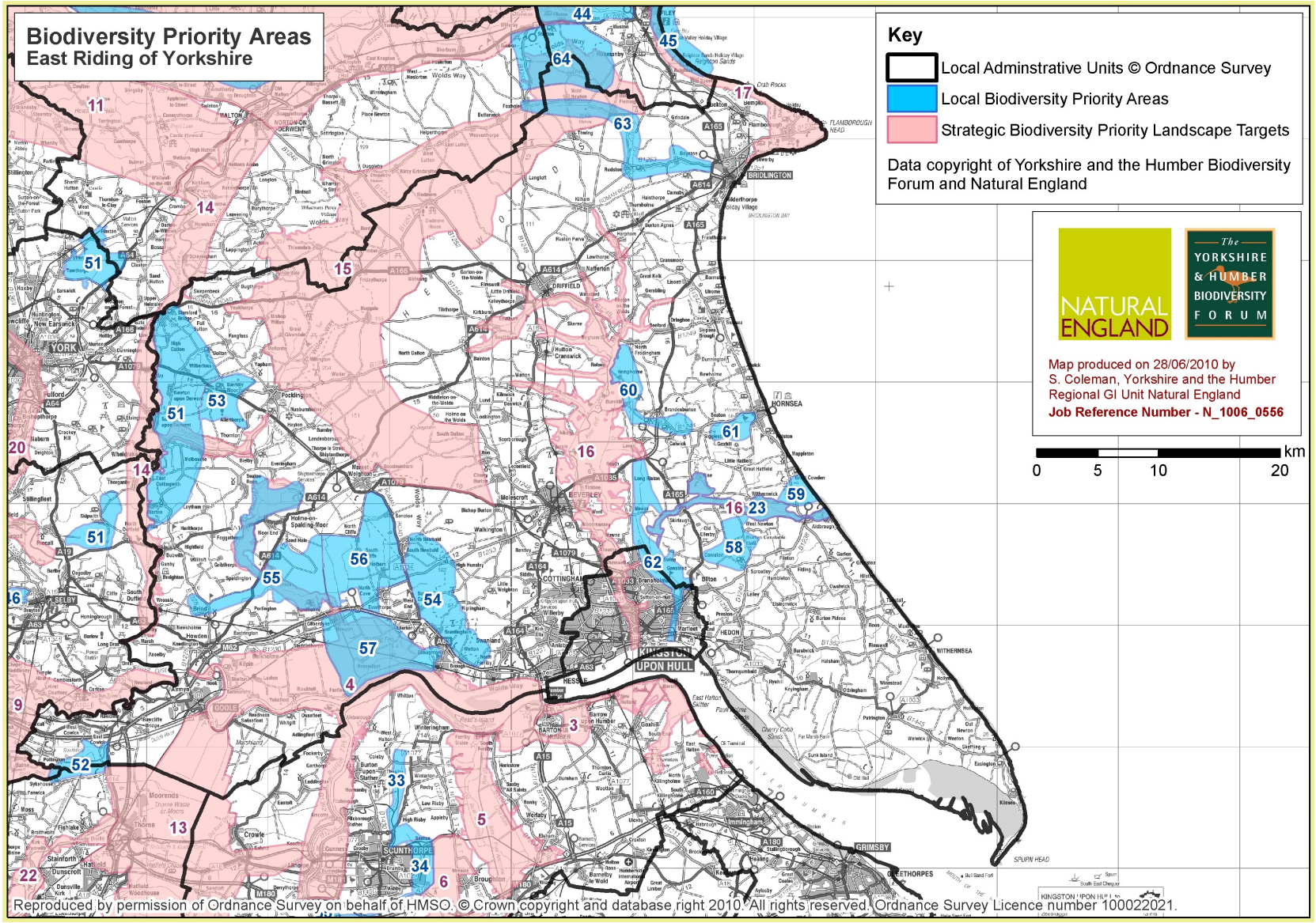
In 2009 Natural England published 'Securing Biodiversity' – A new framework for delivering action for Priority Habitats and Species (see Table 4 for details). Part of the purpose of the framework was to *achieve biodiversity enhancement across whole landscape and seascapes*. This new approach seeks to integrate the conservation of habitats and species within landscape scale areas.

Priority areas for landscape scale biodiversity delivery have been identified at a Yorkshire and local level. In the East Riding of Yorkshire twenty priority landscape scale biodiversity areas have been identified, of which six are Strategic Biodiversity Priority Landscape Targets identified as being important in Yorkshire and fourteen are local Biodiversity Priority Areas. Within the biodiversity priority areas project work should contribute to habitat and species targets for the area. Biodiversity enhancement should be concentrated through a range of delivery mechanisms e.g. agri-environment schemes, Green Infrastructure, enhancements through the planning system and other habitat and species based biodiversity projects. This does not mean that the areas outside of the Biodiversity Priority Areas are of no value for biodiversity, or should not have biodiversity enhancement work taking place, but projects and action may be more localised or targeted by other classification other than Priority Habitat. For example projects may seek to work with the farming community to improve the permeability of the countryside to wildlife, to conserve and enhance specific species or groups of species or focus on features of the landscape, such as village ponds or hedgerows.

The boundaries of the Biodiversity Priority Areas have been draw at a county scale to reflect the physio-geographic features of the landscape area. They have not however been precisely defined at a field boundary scale. Project work on or near the boundaries of the landscape areas should wherever possible seek to enhance habitat networks and connectivity with the wider countryside. Through the development of the East Riding Habitat and LWS Survey finer scale habitat networks will be produced that will also add definition to the boundaries of the Biodiversity Priority Areas to aid conservation planning and delivery at the field by field scale.

See Figure 2 for the locations of the Biodiversity Priority Areas in the East Riding. Please note that the numbering of these areas has been produced at Yorkshire wide scale and therefore is not sequential at the East Riding level.

Figure 2. Biodiversity Priority areas in the East Riding



Legend for Figure 2.

Local Biodiversity Priority Areas	Strategic Biodiversity Priority Landscape Targets
23 – Lambwath Meadows (now included in the River Hull Strategic Biodiversity Priority Landscape Targets)	4 – Inner Humber & Lower Trent
51 – Heathland restoration between Stensall and Skipwith Commons	13 – Humberhead Peatlands
52 – Went Ings	14 - Lower Derwent Valley
53 – Allerthorpe Common	15 – West Wolds
54 – South Wolds	16 – River Hull
55 – River Foulness	17 – North Yorkshire Coast & Flamborough Headland
56 – Cliffe Heathlands	
57 – Walling Fen	
58 – Burton Constable	
59 – Cowden Ranges	
60 – Wassand Estate / Hornsea Mere	
62 - Holderness Drain	
63 – Gypsy Race	
64 – East Wolds	

2.0 THE BIODIVERSITY OF THE EAST RIDING OF YORKSHIRE

2.1 Overview

The East Riding of Yorkshire is home to some of Britain's most important wildlife habitats. Well known examples include:

- the ancient flood meadows of the Lower Derwent Valley;
- the mudflats and saltmarshes of the Humber Estuary;
- the chalk headwater streams of the River Hull;
- the sand dunes of the Spurn Peninsula;
- the towering chalk cliffs of the Flamborough Headland; and
- the offshore chalk reef habitats of the North Sea.

These examples are known to increase the appeal of the East Riding to investors and tourists alike. Less well-known examples are the wildflower-rich valley slopes of the Yorkshire Wolds, the wetlands of the River Hull valley and the remnants of lowland heath in the eastern Vale of York. Closer to home, many species of conservation concern depend on farmland, village and urban habitats, of which the East Riding has many fine examples.

2.2 Description of Biodiversity in the East Riding of Yorkshire

In the **Vale of York**, the **River Derwent** forms the western boundary of the East Riding where it meets the City of York and the North Yorkshire districts of Ryedale and Selby. Itself a European Special Area of Conservation (SAC), designated for its otter population and its migratory fish, the Derwent overflows in winter onto the Ings, the most extensive area of unimproved flood-meadows remaining in Britain. Protected by a long list of UK and international designations (SSSI, NNR, SAC, SPA, Ramsar Site, see Table 6 for details of acronyms), the **Lower Derwent Valley** forms a mosaic of hay meadow, grazing marsh and floodplain swamp dissected by a network of ditches.

Most of the Ings have been cropped for hay in summer and grazed by livestock in autumn, year after year, for centuries. This very long continuity of traditional management has produced a very specific type of grassland, meadow foxtail – great burnet flood meadow, which is almost unique to the lowland river valleys of Yorkshire and central England. The East Riding resource of this type of grassland is nationally important, equating to around 5% of the UK resource. The vast majority of this habitat is in the Lower Derwent Valley, but with smaller areas near Howden and in the Lambwath valley in Holderness.

The meadows and wetlands of the Lower Derwent Valley also support nationally important breeding populations of rare birds such as black-necked grebe, garganey, pintail and quail and waders including lapwing, whimbrel, passage ruff and wintering golden plover. It is also said to support the largest population density of breeding barn owl in the UK (Colin Shawyer, pers. comm.). No longer a regular breeding bird anywhere in England, the globally endangered corncrake is an intermittent summer visitor to the valley. Alongside a wealth of hay meadow

flowers, the ditches and wetlands support important plant species, such as marsh stitchwort, greater water-parsnip and tubular water-dropwort. Around the villages of Thornton and Melbourne, peaty wet meadows support a more fen-like vegetation and there are small but significant areas of wet woodland.

The winter floods attract internationally important numbers of waterfowl, with average peak counts of just over 40,500 birds (SPA Citation, JNCC). Wigeon winter in internationally significant numbers and there are nationally important populations of whooper swan, several dabbling ducks and golden plover.

Away from the river floodplains, sandy areas of the Vale of York once supported extensive areas of lowland heathland. Most of this has been reclaimed for agriculture or forestry over the past 250 years. Within the East Riding, only around 129 hectares (ha.) still remain, principally at Allerthorpe and **South Cliffe Commons**. This figure includes 40 ha recently restored from cultivated or afforested land. Although it has been estimated that as much as 99% of lowland heath has been lost in the East Riding, the remaining sites still support characteristic wildlife such as adder, common lizard, heathers and *Sphagnum* mosses.

To the south of the Vale of York, **the Humberhead Level**s cover the very low-lying landscape around the confluence of the Trent and the Ouse. Perhaps the most famous habitat feature of this Natural Area is the **Humberhead Peatlands**, comprising **Thorne, Hatfield and Crowle Moors**. Although constituting England's largest expanse of lowland raised mire (an internationally rare habitat), large areas were industrially milled for peat in the late 20th Century. The East Riding part of the peatlands, Snaith & Cowick, Rawcliffe and Goole Moors, has been largely stripped bare but much of it still merits European protection as, in the official terminology, a *"degraded raised bog still capable of natural regeneration."*

Much of the Humberhead Levels is drained wetland converted to productive arable land in recent centuries, often by warping (deliberate flooding to deposit tidal sediment). Here and there remnants of fenland plant and invertebrate communities can be found. For example, at Howden Marsh Local Nature Reserve (LNR) and on the Market Weighton Canal at Oxmardyke and Broomfleet. Borrow pits or 'delphs' are a feature of Howdenshire. Excavated to provide spoil for building flood banks or embanking railways, these provide a range of wetland habitats from open water to reedbed and, in one location, a floating raft of *Sphagnum* mire. Clay extraction has also left a number of water bodies, some important for waterfowl, and gravel workings at North Cave are currently being restored as a wetland nature reserve by the Yorkshire Wildlife Trust.

Forming a broad crescent from Hessle to **Flamborough Head**, the **Yorkshire Wolds** represent England's most northerly chalk outcrop and is therefore a regionally important landscape area. Although rarely rising above 200 metres, the Wolds are indented with steep-sided dry valleys, which often support unimproved, flower-rich chalk grasslands. Far less extensive than they were historically, these still make up 2.4 to 3% of the UK resource of lowland calcareous grassland and represent biogeographically distinct 'northern chalk grasslands'. In addition to unimproved pastures, disused quarries, old railway lines and road verges on the Wolds provide significant

refuges for chalk grassland plant and invertebrate communities. Amongst the most notable species are frog orchid, purple milk-vetch, perennial flax and numerous specialist invertebrates, such as the dingy skipper butterfly.

Other features of the Wolds include small seepage-fed wetlands such as North Newbald Becksies and pockets of ash woodland. As in most of the East Riding, genuinely ancient woodlands are few and far between, but Millington Woods LNR supports a wide range of ancient woodland indicator plants and a few woods with thin, stony soils are stations for the Nationally Scarce baneberry, here at the southern edge of its restricted British range. When the open Wolds plateaux was enclosed, specialist pond-makers were employed to construct dew ponds in order to provide water for livestock. Sadly, many of these ingenuously designed ponds have disappeared but those that remain can be of considerable wildlife value, despite their isolated locations.

The Wolds meet the North Sea at **Flamborough Head and Bempton**, where chalk cliffs support internationally important seabird colonies. The cacophony of 200,000 seabirds during the breeding season is unforgettable and the Royal Society for the Protection of Birds (RSPB) quite rightly boast that its Bempton Cliffs reserve is "*easily the best place in England to see, hear and smell seabirds".* The Flamborough Head and Bempton Cliffs SPA/SSSI Seabird Monitoring Programme 2009 found that the breeding population of northern gannet was increasing, reflecting the national trend. The monitoring also found an increase in the breeding kittiwake population with 2009 being the best breeding productivity year since 2001, which bucks the national trends in decline of this species.

Although the seabird colonies are the most famous and obvious wildlife interest of the cliffs, other significant features include seepages, cliff-top grasslands (which combine elements of maritime, chalk and neutral grassland communities) and a number of rare invertebrates such as the chalk carpet moth and the water penny beetle. A variety of important littoral and marine habitats associated with the chalk are also present, extending up to 5 km offshore. There are larger numbers and a wider range of cave habitats at Flamborough than at any other chalk site in Britain (JNCC website). The importance of Flamborough for wildlife also contributes to the area's designation as a Heritage Coast.

For the remainder of the East Riding coast, boulder clay buries the chalk. The softness of this material results in rapid erosion rates. Along most of the coast, erosion is too severe and neighbouring land use too intensive to allow the development of significant semi-natural cliff top habitats. Here and there notable coastal habitat features occur such as at Buckton and areas of rough grassland and brackish marsh near Barmston.

On the southern edge of the Wolds around Driffield, the spring line at the base of the chalk irrigates a number of streams that feed into the River Hull. The **River Hull Headwaters** Site of Special Scientific Interest (SSSI) is a composite site, representing the most northerly chalk river system in Britain. The calcium-rich waters support scarce plants such as flat-stalked pondweed and river water-crowfoot, as well as valuable trout fisheries and rich invertebrate communities. Flanking the tributaries and upper reaches of the Hull are a number of wetlands including fens

between Driffield and Wansford, reedbeds and swamp at Pulfin Bog and man-made water bodies including borrow pits at High Eske and Watton Carrs and the water storage reservoirs at Tophill Low, managed as a nature reserve by Yorkshire Water with help from the Hull Valley Wildlife Group.

Within the wider Hull Valley, an extensive network of drainage dykes and the semi-improved floodplain pastures at Swine Moor and Figham Common provide significant wildlife habitats. The **Leven Canal** was dug through the former meres and fens of Leven Carrs and evidence of this connectivity with ancient wetland is provided by a rich aquatic and water-margin flora, including narrow small-reed at its only Yorkshire location (Crackles, 1990).

Some of the rarer fen plants recorded from the Hull Valley in the 1970s have not been found recently, but marsh fern and greater water parsnip survive very locally.

To the east of the Hull Valley, **the Plain of Holderness** is a gently undulating landscape of glacial till and moraines. Shallow lakes known as meres occurred into historic times in numerous hollows, with evocative names like Eel Mire Mere and Bittern Boom Mere. The Holderness meres disappeared as a result of land drainage, natural silting-up or coastal erosion, leaving the largest, at Hornsea, as the only significant natural water body remaining. **Hornsea Mere** is one of England's largest natural lowland lakes and is designated as a SSSI and, on account of its wintering waterfowl, a Special Protection Area (SPA). Lake edge swamps and reedbeds support important invertebrate communities including some very rare 'relict fen' species (Hammond, 2002), and there are tall-herb fens with milk parsley, greater water parsnip, purple small-reed and other species that bear a close resemblance to East Anglian wetlands.

The **Humber Estuary** drains a catchment of some 24,240 km² and provides the largest single input of freshwater from Britain into the North Sea. Around one third of the estuary is exposed mud or sand at low tide (JNCC website, 2007). The East Riding covers the whole of the north bank of the estuary as well as Parishes between Old Goole and the Trent confluence on the south bank of the tidal Ouse. The Humber Estuary is a SSSI, SAC, SPA and Ramsar Site as well as containing a statutory Wildfowl Refuge. Its mudflats, sandflats, saltmarshes and foreshore grazing marshes are of international importance for waterfowl and waders. The estuary itself is important for migratory fish moving to and from the sea including sea and river lampreys, eel, Atlantic salmon and smelt.

Historically, large areas of inter-tidal habitat and saltmarsh on the Humber have been reclaimed for agriculture (Sheppard, 1966), one result of which is the lack of any natural transition between freshwater, brackish and tidal wetlands. Saltmarsh development on the Humber is somewhat constrained by floodbanks, so that most areas are subject to flooding by at least the highest spring tides. Here and there, remnant creeks inland of the floodbanks, sluiced ditches and recently created ponds provide substitute 'transitional' habitats on a very small and localised scale; these are nonetheless very valuable for flowering plants, stoneworts, invertebrates and birds. Small areas of brackish marsh behind the Humber banks on the outer estuary support a distinctive flora including specialities such as divided sedge, long-bracted sedge and brackish

water-crowfoot (Cook, 1999). Elements of this rare 'brackish meadow' flora can be found further upstream at North Ferriby Ings, albeit subject to less saline influence.

'Managed re-alignment' is a recent strategy for coping with rising sea levels by moving floodbanks inland to allow controlled tidal flooding of reclaimed farmland. This has resulted in the re-creation of inter-tidal habitats at Paull Holme Strays.

The Humber floodbanks are characterised by species-poor swards of tall grasses, but in places they support a more distinctive flora and fauna, including some species at the northern edge of their British range such as stone parsley, narrow-leaved birdsfoot trefoil, Roesel's bush-cricket and, very recently, the Essex skipper butterfly.

Blacktoft Sands RSPB reserve holds the largest brackish-water reedbed in England, which supports birds such as bittern, water rail, marsh harrier and bearded tit. Although of artificial origin, saline lagoons flanking the estuary at Easington, Welton Waters and Blacktoft Sands represent a nationally-rare habitat with characteristic invertebrate communities.

The narrow **peninsula at Spurn**, increasingly vulnerable to tidal surges, supports a range of sand dune and shoreline habitats with characteristic plants such as sea holly, sea bindweed and rush-leaved fescue. Limited areas of fixed-dune support species-rich grassland and the peninsula is well-known for scarce or highly localised invertebrates such as the grass rivulet moth, the sand dune snail-killing fly and the ground beetle *Panagaeus bipustulatus*. Other important estuarine invertebrates include the sea aster colletes bee. The importance of Spurn Point for wildlife contributes to this area being designated as a Heritage Coast.

It should be noted that many species of conservation concern occur in the **wider East Riding landscape**. Much of the East Riding is agricultural land and, far from being a 'wildlife desert' as is sometimes assumed, many declining farmland species maintain regionally healthy populations in the County. Brown hare still occurs in most Parishes and water vole has a regional stronghold in agricultural drainage dykes in Holderness and the River Hull Headwaters. Birds such as barn owl, grey partridge, skylark, linnet, tree sparrow and corn bunting remain relatively widespread although local declines are evident. A number of Priority Species identified in the UK Biodiversity Action Plan (UK BAP) occur particularly in and around towns and villages including hedgehog, some bats, song thrush, house sparrow and common toad.

2.2.1 Designated Sites

There are twelve LNRs in the East Riding, three National Nature Reserves (NNRs), seventy-one SSSIs, five SACs, five SPAs and two Ramsar sites. These are listed in Table 6 below. Some of these sites are referred to within the preceding Overview (Section 2.1) and/or relevant habitat and species action plans (HAPs and SAPs). In addition to statutory designated sites, there are a number of non-statutory designated sites, called Local Wildlife Sites (LWS). At the time of publication there are currently over six hundred candidate LWS that are being surveyed on an

ongoing basis to establish a sound register of these sites. LWS have an important role in delivering biodiversity conservation and enhancement and this is covered in Section 1.8.3.

Table 6: Local, National and Internationally Designated Sites in the East Riding of Yorkshire

Designation level	Designation Type and Site Names		
Local	**Local Wildlife Site (LWS)**		
	LWS are present within all areas of the East Riding and represent a comprehensive network of sites of substantive nature conservation value. Currently there are over 600 candidate LWS that are being surveyed on an ongoing basis to establish a sound register of these sites. Some may be removed from the register and other new sites may be added following survey and consideration.		
	Local Nature Reserve (LNR)		
	Humber Bridge Country Park	Sigglesthorne Station	
	Eastrington Ponds	Southorpe	
	Flamborough Outer Head	Hudson Way	
	South Landing	Mayfield and Broom Park	
	Danes Dyke	Sugar Mill Ponds	
	Millington Wood	Howden Marsh	
National	**National Nature Reserve (NNR)**		
	Lower Derwent Valley	Spurn	
	Humberhead Peatlands (a small part of)		
	Site of Special Scientific Interest (SSSI)		
	Allerthorpe Common	Everthorpe Quarry	Millington Wood and
	Barn Hill meadows	Flamborough Head	Pastures
	Beckhead Plantation	Flamborough Railway	Newbald Becksies
	Bishop Wilton Deep	Cutting	Newton Mask
	Dale	Fordon Chalk Grasslands	Pocklington Canal
	Bishop Wilton Poor Land	Hoddy Cows Spring	Pulfin Bog
	Boynton Willow Garth	Hornsea Mere	Rifle Butts Quarry
	Brantingham Dale	Horse Dale and Holm Dale	River Derwent
	Bryan Mills Field	Hotham Meadow	River Hull Headwaters
	Burton Bushes	Humber Estuary	Roos Bog
	Cinquefoil Brow and	Keasey Dale	Skipsea Bail Mere
	Wood Dale	Kelsey Hill Gravel Pits	South Cliffe Common
	Cottam Well Dale	Kiplingcoates Chalk Pit	The Lagoons
	Derwent Ings	Lambwath Meadows	Tophill Low
	Dimlington Cliff	Leven Canal	White Carr Meadow
	Drewton Lane Pits	Melbourne and Thornton	Withow Gap, Skipsea
	Enthorpe Railway	Ings	Wyedale
	Cutting	Melton Bottom Chalk Pit	
International	**Special Area for Conservation (SAC)**		
	Flamborough Head	River Derwent	
	Lower Derwent Valley	Humber Estuary	
	Thorne Moor		
	Special Protection Area (SPA)		
	Hornsea Mere	Flamborough Head to Bempton Cliffs	
	Humber Estuary	Lower Derwent Valley	
	Thorne and Hatfield Moors		
	Ramsar (List of Wetlands of International Importance)		
	Lower Derwent Valley	Humber Estuary	

2.2.2 UK Biodiversity Action Plan Priority Habitats Present in the East Riding of Yorkshire

The inventory of UK BAP Priority Habitats was extensively revised in 2007. A thorough audit of those habitats present in the East Riding has yet to be undertaken, however, the ongoing East Riding of Yorkshire Broad Habitat and LWS Survey will identify and update existing knowledge on significant areas of Priority Habitats and provide a picture of the backdrop of broad habitats in which these sit.

On the basis of current knowledge, the East Riding supports a number of habitats which are important in a national (UK-wide) or regional (Yorkshire & Humber region) context. The key habitats known to occur within the county are summarised briefly in Table 7.

Table 7: UK Biodiversity Action Plan Priority Habitats in the East Riding of Yorkshire

Key

? Lack of available information to confirm presence of species or habitat, East Riding of Yorkshire Biodiversity Partnership to pursue as necessary.

Potential for habitat action plan to be developed by the East Riding of Yorkshire Biodiversity Partnership. If the habitat has not been identified for a HAP to be developed the habitat may not meet the criteria set out in Section 3.2.1.

UKBAP Broad Habitat	UKBAP Priority Habitat	Relevant ERYBAP HAPs (to date)	Examples in the East Riding	Associated UKBAP Priority Species in the East Riding	Other Associated Local Priority Species
Rivers and Streams	Rivers.	Rivers	River Hull Headwaters SSSI, River Foulness, River Derwent SAC, Pocklington Beck.	Otter, water vole, European eel, river lamprey, sea lamprey, smelt, spined loach, Atlantic salmon, brown trout, white-clawed crayfish.	Gadwell, teal, water rail, common sandpiper, kingfisher, sand martin, white-clawed crayfish, water shrew, natterer's bat
Standing Open Water and Canals	Eutrophic Standing Waters.	Standing open water and canals	Canals, parkland lakes, gravel pits, clay pits, drainage dykes; Hornsea Mere SSSI/SPA equals 230 ha of this habitat.	Otter, water vole, European eel, grass snake, tree sparrow, bittern, common toad,	Water shrew, tufted duck, ringed plover, green sandpiper, black tern, swift, palmate newt, small red-eyed damselfly
	Mesotrophic Lakes.		Hornsea Mere was formerly mesotrophic. ? Some flooded sand and gravel quarries in Holderness may provide mesotrophic conditions.		Large numbers of wintering wildfowl and passage little gull. Little grebe

UKBAP Broad Habitat	UKBAP Priority Habitat	Relevant ERYBAP HAPs (to date)	Examples in the East Riding	Associated UKBAP Priority Species in the East Riding	Other Associated Local Priority Species
	Ponds.	Ponds.	Field ponds, coastal ponds, borrow-pits.	Common toad, grass snake, great crested newt, greater water parsnip, water vole	Garganey, green sandpiper, water shrew, palmate newt
Arable & Horticultural	Arable field margins.	Arable farmland	Widespread throughout the County, especially where agri-environment schemes have been implemented. Also consider within-field habitats?	Brown hare, grey partridge, tree sparrow, yellowhammer, skylark, yellow wagtail, linnet, corn bunting, lapwing, curlew, annual knawel arable weeds; caraway, corn buttercup, shepherd's needle and cornflower	Golden plover, quail, red kite, barn owl, green woodpecker, common pipistrelle
Boundary & Linear Features	Hedgerows.	Hedgerows.	Widespread.	West European hedgehog, turtle dove, common starling, tree sparrow, hedge accentor, linnet, barn owl, yellowhammer, grey partridge, cuckoo, harvest mouse, brown hare	Several Priority moths, common pipistrelle, Natterer's bat, stock dove
Broadleaved, Mixed and Yew Woodland	Traditional orchards.	Traditional orchards.	A few small sites at Patrington and Pockthorpe ? To be investigated further.	Common bullfinch, song thrush.	Beetles Moths? common pipistrelle
	Wood-pasture & parkland.	**?**	? To be investigated further. Several historic parks exist (Sledmere Rise, Burton Constable, Bishop Burton, Burton Agnes, Leconfield, Londesborough Hall) but unclear if meet UK BAP definition.	Noctule bat, spotted flycatcher, West European hedgehog, brown hare	Natterer's bat

UKBAP Broad Habitat	UKBAP Priority Habitat	Relevant ERYBAP HAPs (to date)	Examples in the East Riding	Associated UKBAP Priority Species in the East Riding	Other Associated Local Priority Species
	Lowland beech and yew woodland.	Woodland.	Although beech is not considered native in the County, Crackles (1990) noted the presence of several rare beech-wood plants.	Song thrush	Mistle thrush, stock dove
	Wet woodland.	Woodland.	Thornton Ellers (Lower Derwent Valley SAC feature); Hornsea Mere.	Lesser spotted woodpecker, marsh tit, willow tit, lesser redpoll.	Woodcock
	Lowland mixed deciduous woodland.	Woodland	Millington Wood, Burton Bushes, Nut Wood	Brown long-eared bat, marsh tit, song thrush, common bullfinch, white-letter hairstreak, oak hook-tip and several other Priority moths. West European hedgehog.	Red kite, green woodpecker, wood-rust and many-flowered leskea (bryophyte)
Coniferous woodland	-	Woodland	Allerthorpe Wood.		
Acid Grassland	Lowland dry acidic grassland.	Lowland heathland and acid grassland	South Cliffe Common SSSI.	Woodlark (where woodland features present).	Meadow pipit
Calcareous Grassland	Lowland calcareous grassland.	Chalk grassland.	Restricted to Yorkshire Wolds.	Dingy skipper butterfly, forester moth, purple milk vetch, frog orchid, grey partridge, linnet, yellowhammer, red hemp-nettle, basil thyme, flat sedge, brown hare	Short-eared owl,

UKBAP Broad Habitat	UKBAP Priority Habitat	Relevant ERYBAP HAPs (to date)	Examples in the East Riding	Associated UKBAP Priority Species in the East Riding	Other Associated Local Priority Species
Neutral Grassland	Lowland meadows.	Neutral grassland.	Lower Derwent Valley, Priory Meadows, Lambwath Meadows.	Curlew, yellow wagtail, greater water-parsnip, skylark, grasshopper warbler, tubular water-dropwort, marsh stitchwort, brown hare.	Corncrake, quail, swallow,
Improved Grassland	Coastal and floodplain grazing marsh.	Coastal and floodplain grazing marsh.	Swine Moor, Figham Common, Thornton Ings, Broomfleet Island.	Reed bunting, yellow wagtail, curlew, Northern lapwing, black-tailed godwit.	Whooper swan, common shelduck, ruff, whimbrel, redshank
Dwarf Shrub Heath	Lowland heathland.	Lowland heathland and acid grassland	Allerthorpe Common, South Cliffe Common.	Tree pipit, woodlark, dunnock, twite, linnet, adder, common lizard, annual knawel, hairy canary fly (*Phaonia jaroschewskii)*, mining solitary bee (*Andrena tarsata*)	Rusty fork-moss? Forcipated pincerwort (bryrophyte), *Hilara gallica, Dolichopus migrans* (diptera), slow worm, common hawker, black darter
Fen, Marsh and Swamp	Purple moor-grass and rush pastures.	Fen, Marsh and Swamp	Melbourne Ings.	Marsh stitchwort.	
	Lowland fens.	Fen, Marsh and Swamp	River Hull Headwaters SSSI, Hornsea Mere SSSI, Thornton Ellers, Leven Canal, North Newbald, Becksies SSSI.	Reed bunting, narrow small-reed, a Northern marsh orchid (*D. purpurella cambrensis*), greater water parsnip.	Harvest mouse? Tubular water-dropwort, water rail, jack snipe, water pipit, water shrew, intermediate Hook-moss (bryophyte), variable damselfly, hairy dragonfly
	Reedbeds	Reedbed	Hornsea Mere SSSI, Leven Canal SSSI, Market Weighton Canal Washland, Saltmarsh Delph.	Great bittern, common grasshopper warbler, reed bunting, corn bunting, yellow wagtail, greater water-parsnip.	Harvest mouse? Marsh harrier, hen harrier, water rail, willow warbler, bearded tit.

UKBAP Broad Habitat	UKBAP Priority Habitat	Relevant ERYBAP HAPs (to date)	Examples in the East Riding	Associated UKBAP Priority Species in the East Riding	Other Associated Local Priority Species
Bogs	Lowland raised bog		Rawcliffe, Goole and Snaith and Cowick Moors (industrially milled bog).		Historically: large heath, nightjar? Anomalous flapwort and forcipated pincerwort (bryrophytes)
Inland Rock	Inland Rock outcrop and scree habitats		?		Peregrine falcon, chalk rock-bristle and English rock-bristle (bryophytes)
	Open mosaic habitats on previously developed land.		? Investigate the presence of important brownfield sites in the East Riding. Withernsea old gas works site. Pollington Quarry		Important for invertebrate
Supralittoral Rock	Maritime cliff and slopes.	Maritime cliff and slopes.	Chalk cliffs at Flamborough Head; soft-rock cliffs on Holderness coast and at Buckton.	Herring gull, chalk carpet moth, brindled ochre moth, carder bumblebee (*Bombus muscorum*)	Whitethroat, fulmar, gannet, shag, kittiwake, puffin
Supralittoral Sediment	Coastal sand dunes.		116 ha. at Easington, Spurn and Welwick (Selman *et al*, 1999).	Sand dune snail-killing fly, large nutmeg moth, grass rivulet moth, rosy minor moth. Prickly saltwort, flat sedge, dune snail-killing fly (*Salticella fasciata*), solitary silk bee (*Colletes halophilius*)	Twite, snow bunting, Moss carder – bee?
	Coastal vegetated Shingle.		Fragmentary occurrence at Spurn and Easington; not nationally significant (Selman *et al*, 1999).	Prickly saltwort, carder bumblebee (*Bombus muscorum*)	Little tern, ringed plover

UKBAP Broad Habitat	UKBAP Priority Habitat	Relevant ERYBAP HAPs (to date)	Examples in the East Riding	Associated UKBAP Priority Species in the East Riding	Other Associated Local Priority Species
Littoral Rock	Intertidal chalk.		?		Purple sandpiper
	Intertidal boulder communities.		?		
Littoral Sediment	Coastal saltmarsh.		465 ha. on the Humber (Selman *et al*, 1999).	Twite, skylark, linnet, scarce pug moth, sea aster colletes bee, divided sedge, solitary silk bee (*Colletes halophilius*)	Hen harrier, wigeon, golden plover, grey plover, knot, dunlin, bar-tailed godwit, brown hare, *Hennediella heimii* (bryophyte)
	Intertidal mudflats.		Humber SSSI/SPA/SAC.	Dark-bellied Brent goose, curlew, lapwing, black tailed godwit.	Pink-footed goose, common shelduck, wigeon, pintail, teal, oyster catcher, avocet, golden plover, grey plover,
	Seagrass beds.		Spurn Bight; last seen in 1996 but could re-colonise under favourable conditions according to Selman *et al*, 1999. However, *Zostera* now said to be increasing (YNU Bird Report, 2005).	Dark-bellied Brent goose.	
	Sheltered muddy gravels.		Muddy sub-tidal gravels occur at the mouth of the Humber at Spurn (Selman *et al*, 1999).		
Sub-littoral Rock	Sub-tidal chalk.		Off Flamborough Head (forms 15% of Britain's chalk shore and extends up to 15 km offshore) (Selman *et al*, 1999).	Common scoter	Eider, shag, turnstone.

UKBAP Broad Habitat	UKBAP Priority Habitat	Relevant ERYBAP HAPs (to date)	Examples in the East Riding	Associated UKBAP Priority Species in the East Riding	Other Associated Local Priority Species
	Sabellaria spinulosa Reefs.		Small reefs on north side of Flamborough Head (Selman *et al*, 1999) and found off Holderness Coast in low to moderate densities although not in a reef form (ICES, 2008).		
Sub-littoral Sediment	Sub-tidal sands and gravels.		Widespread marine habitat (Selman *et al*, 1999).	Common scoter	Ringed plover
	Horse mussel beds.		East of Flamborough Head (Selman *et al*, 1999).		
	Saline lagoons.	Saline lagoons.	Blacktoft Sands, Read's Island, Welton Waters (mostly fresh waters), Easington Lagoons (Selman *et al*, 1999). >44 ha. Resource (Selman *et al* 1999).	Dark-bellied Brent goose, black tailed godwit	Pintail, eider, shag, avocet, golden plover, grey plover, knot, dunlin, bar-tailed godwit, whimbrel, sandwich tern, roseate tern

2.2.3 Key UK Biodiversity Action Plan Species Present

The inventory of UK BAP Priority Species was extensively revised in 2007. A list of the UK BAP Priority Species that have been recorded as occurring in the East Riding of Yorkshire (based on local and national data and consultation with naturalists and recorders) is included in Appendix D.

On the basis of current knowledge, the East Riding supports populations of a number of species that are important in a national (UK-wide) or regional (Yorkshire & Humber region) context. Some of the key species that are considered to be unique and/or special to the East Riding are summarised in Table 8. This Table is not exhaustive.

Table 8: Key UK Biodiversity Action Plan Species Occurring in the East Riding of Yorkshire

Biotic Group	Summary Details
Mammals	The East Riding appears to support regionally important populations of **water vole** especially in Holderness and the Hull Valley; drainage ditches not connected to main rivers may be particularly valuable to this species due to the lower risk of predation by feral American mink. **Otter** also has a stronghold in the Lower Derwent Valley.
Birds	The East Riding supports the main regional wintering population of **dark-bellied brent goose** and, along with sites in North Lincolnshire, the only regular breeding populations of **bittern** found in reedbeds and wetland, which are also important for reed bunting. **Curlew, black tailed godwit** and sometimes **golden plover and knot** occur in internationally important numbers on the Humber Estuary outside the breeding season whilst the Lower Derwent Valley is a major lowland breeding stronghold for these waders. Inshore coastal waters may be of significant importance for passage populations of **roseate tern**. A number of declining farmland birds are likely to have regionally-important populations in the county including **grey partridge, tree sparrow, yellowhammer, skylark, yellow wagtail, linnet** and **corn bunting.** Woodland birds of importance in the county include **marsh tit** and **turtle dove**.
Fish	The Humber Estuary is a nationally important migration channel for **sea lamprey**, **river lamprey** and **Atlantic salmon**, en route to their breeding habitats in the Ouse tributaries. The River Hull is the only river in the Yorkshire and Humber region with unrestricted access to the entire catchment for eel and migratory fish. The Humber Estuary may also be significant for **smelt**. Just north of the estuary **spined loach** has been recorded on Pool Beck, Welton Ings.
Invertebrates	Coastal habitats are likely to be of regional importance for threatened insects such as the **moss carder bee**, the **sea aster colletes bee**, the **dune snail-killing fly** and the **scarce pug moth**. Although not exclusively coastal species, maritime habitats in the East Riding are also important for the **grass rivulet** and **chalk carpet** moths, although the later has not recently been recorded in its previous coastal locations.
Amphibians and Reptiles	Perhaps the most important site in the East Riding for amphibians and reptiles is Allerthorpe Common, which is the only significant site in the area that supports **adder**. It also has good populations of **palmate newt**, **slow worm** and **common lizard**. In the wider East Riding great crested newt, smooth newt, common toad, common frog and grass snake can all be found.
Vascular plants	The East Riding supports the only or principal regional populations of **slender hare's ear**, **narrow small-reed**, **divided sedge** and the marsh orchid ***Dactylorhiza purpurella cambrensis*** – although the current status of some of these is uncertain. The County also contains most of the known sites for **greater water parsnip** in the region, and is a regional stronghold for **marsh stitchwort**, **tubular water dropwort**, **prickly saltwort** and possibly other flowering plants.

2.2.4 Marine Habitats and Species

2.2.4.1 Overview

The marine habitats of the East Riding straddle a bio-geographical boundary set by the Flamborough Front that forms the northern limit of the Southern North Sea and the southern extent of the Northern North Sea. The presence of this front means the area can support a wide range of marine habitats and species, some of which are at either their southern or northern limit of distribution in the North Sea. In addition the differing geologies of these two areas also support very different communities, from the chalk and hard rock north of Flamborough to the soft sediments and sand and shingle bars of the Holderness Coast.

The East Riding's coastal waters are rich in plankton and support important spawning and nursery grounds for fish. General commercial netting for salmon is carried out between Spurn Point and Flamborough, however, fishing activity is almost continuous along the coast covering the whole of the coastal zone. The crab and lobster fisheries of the Holderness coast are important elements of the local economy (ERYC, 2002).

2.2.4.2 Flamborough

The chalk reefs of Flamborough Head are of international importance due to the rock type, their bio-geographic position and the influence of tides, waves and currents on reef topography and community structure. The only two other similar SAC sites are Thanet in Kent, and the Isle of Wight (Flamborough Head Management Plan, 2007).

The chalk reefs at Flamborough Head comprise horizontal ledges, vertical walls, broken rock and boulder fields, which extend from the intertidal rocky shores up to 6 km offshore into waters 30 m or more in depth. These are not coral reefs like those found in the Great Barrier Reef or the Red Sea, but a temperate ecosystem with a diverse wildlife associated with rock habitat which includes attached seaweeds, including kelp, and invertebrates such as sponges, sea firs, sea squirts, sea mats and molluscs. Usually associated with this 'living turf' on the seabed are a range of mobile animals, including starfish, crabs, lobsters and fish (Flamborough Head Management Plan, 2007).

The chalk reefs at Flamborough Head are also important, since specialist communities of lichens, seaweeds and invertebrates unique to chalk are found at the site. In addition, geological differences between the chalk on the north and south of the headland increase the variety of habitats and hence the biodiversity, through the presence of features such as gullies, outcrops, cobble fields, boulders and rock pools. The three main habitats of these chalk reefs are rocky shore, kelp forests and sub-tidal faunal turf (Flamborough Head Management Plan, 2007).

The sea caves at Flamborough Head are internationally important because of the large number and wide range of cave habitats, and for the species they support. They are the most extensive chalk caves in the UK. This is due to the geology of the harder chalk on the north and eastern

sides of the headland. Some of the caves are partly submerged at all stages of the tide, others dry out during low water and some lie above the high water mark but are heavily influenced by wave splash and salt spray from the sea. The chalk rock also facilitates the attachment of specialist encrusting and filamentous lichen/algal communities. There are over 200 sea caves, the largest caves known to extend for more than 50 m from their entrance on the coast, with a high proportion found on the north facing cliffs (Flamborough Head Management Plan, 2007).

2.2.4.3 The Holderness Coast

To the south of Flamborough Head the Holderness Coast stretches from Bridlington to Spurn. The marine habitats along the Holderness Coast are typically dynamic in nature, adapting and moving to the ever-changing conditions presented by dynamic sediment movement and coastal erosion. It is this dynamic sediment movement that feeds other natural features along this and other coasts to the South. The soft cliffs, mud and sand flats, beaches, dunes and even sub-tidal habitats are the products of and subject to the force of nature. These habitats are harsh but extremely valuable wildlife resources of great diversity and interest (English Nature, 1997).

The offshore marine habitats of the Holderness Coast are largely based on offshore gravels, with horse mussels, brittlestars and the bryozoan *Flustra foliacea* characterising the fauna. Sandier areas of substrate, especially towards the mouth of the Humber, have a fauna characterised by catworms. The muddy gravels at the mouth of the Humber are characterised by *Flustra*, sea urchins, whelks and horse mussels (English Nature, 1997).

Also off the coast off Holderness within the Prohibited Trawling Area (PTA) between Hornsea and Spurn Point, are extensive areas of habitat that may fall under the habitat definition for cobble/stony reef, which will be an important component of future offshore SAC designations. Guidelines and definitions for cobble/stony reef are currently under review by statutory agencies (ICES, 2008).

Sandy beaches fringe most of the Holderness coast. However, the beach is generally thin, seasonal and fragile with the underlying clay often exposed after storms. Little vegetation survives in such conditions. The fauna of the beaches of southern Holderness is typically species-poor and related to sediment type. An intertidal invertebrate survey carried out on the EC designated bathing beaches in the area found that the fauna consisted of amphipods and polychaete worms, with the distribution of communities depending on sediment particle size (English Nature, 1997).

Where and when organic detritus accumulates on the strandline mixed pioneer vegetation and animal communities develop, usually dominated by sea sandwort. Both the biomass and animal diversity of strandlines make this habitat an important part of the beach-shoreline ecosystem. They are exploited by a wide variety of plants and animals and can trigger the process of dune formation. At Easington and Spurn sandy shingle beach habitats form important nesting sites for ringed plover and little tern. The tide-line throughout the area is used by a number of species such as oystercatcher and gulls (English Nature, 1997).

Intertidal muddy sand habitats found at the mouths of estuaries such as the Humber typically contain dense populations of the polychaete worm *Arenicola marina*, with the bivalves *Baltic tellin* and cockle. The Humber mudflats are known to host an enormous and extremely productive invertebrates biomass. Bristle worms and ragworms form the greatest biomass and most productive species in the mid-shore mud zone in Spurn Bight. Whereas muddy substrates tend to have a large and highly productive biomass, coarse sands and gravelly areas generally support a comparatively sparse fauna. The muddy gravels at the mouth of the Humber are characterised by beds of the horse mussels, brittlestar and the erect bryozoan *Flustra* sp (English Nature, 1997).

The coastal and marine biodiversity of the East Riding of Yorkshire is worthy of particular attention and it is hoped that the implementation of the Marine and Coastal Access Act (2009) will lead to opportunities for Local Biodiversity Partnerships to get involved to add value to the conservation action occurring at the national level and by the bigger national organisations. The Act creates a new type of Marine Protected Area (MPA), called a Marine Conservation Zone (MCZ). MCZs will protect nationally important marine wildlife, habitats, geology and geomorphology. Net Gain has been established to work with stakeholders to identify MCZs in the English North Sea.

2.3 Global to Local – Biodiversity Trends, Threats and Losses

Whilst there are known significant environmental, economic and social benefits for the protection and safeguard of biodiversity (GHK Consulting, GFA Race Partners Ltd, March 2004), there are also significant threats that have resulted in losses to biodiversity. These threats are still causing losses at an alarming rate at all levels, from the global to local scales.

Global threats include climate change, the international trade of endangered species, agricultural intensification and changing agricultural practice, including potential threats from genetically modified organisms, plastic in the environment, the spread of introduced alien, non-native and invasive species, and the spread of diseases having detrimental effects on native wildlife e.g. *Chytridiomycosis* fungus of amphibians.

Halting and understanding these threats is important to everyone in their day-to-day life and activities. Local threats to biodiversity are summarised in Figure 3 below.

Figure 3: Local Threats to Biodiversity in the East Riding of Yorkshire

The East Riding is particularly susceptible to climate change and the resulting rising sea levels. Extensive areas around the Humber Estuary and in the Humberhead Levels that lie just above sea level will rely increasingly on flood defences to protect settlements and valuable agricultural land. Valuable inter-tidal estuarine wildlife habitats, already somewhat constrained by flood banks, will potentially be 'squeezed' by rising sea levels.

The enclosed river system of the River Hull Catchment means that nationally threatened species, such as water vole are surviving in healthy populations in this part of the East Riding (Traill. J. (2008) *pers comm.*). Invasive and alien species are significant threats to the River Hull catchment; the water vole population is under threat from mink and the associated riverine vegetation is under threat from invasive and alien plant species, such as Himalayan balsam, taking over the native vegetation. Conversely, however, the enclosed nature of this river means that there are major opportunities to eradicate such issues using a systematic management approach before they take hold.

High rates of water abstraction on the River Hull system is a significant threat to the flora and fauna of the river which has the potential to dry out wetland habitats in the catchment.

Informally, the national approach to the spread of invasive and alien species appears to focus upon retaining the currently 'clear' areas that do not have alien and invasive species strongholds. Whilst this is positive for enclosed systems, such as the River Hull referred to above, this is a major threat to the biodiversity value of the River Ouse where invasive species are already threatening to take hold. The implementation of the Water Framework Directive may provide opportunities to tackle this issue as the presence of such species is counter to good ecological status, which is required under the directive.

The safeguard of the remaining meadow foxtail – great burnet flood meadow in the East Riding flood meadows (approximately 90 ha) is globally significant. This is because there are believed to be less than 1,500 ha of this habitat remaining in England, which holds the vast majority of the world resource.

The potential biodiversity impacts of inappropriately cited mass planting of energy crops for bio-fuels and the pressures posed by intensive agriculture, such as eutrophication, including nitrogen deposition from the air.

Will genetically modified crops be a future threat to biodiversity in East Riding of Yorkshire? This is a global issue that has significant potential local effects.

In the marine environment, over-fishing is considered a major global issue. However, the impact of fishing on marine habitats in the region is poorly understood and requires further research and monitoring. The 'no take zone' (NTZ) near Flamborough Head is the second zone in the country to be set in place and the first in a non-island setting. This trial NTZ will test whether banning fishing activity in an area has any significant effect on the habitat quality and it will be reviewed after five years.

Inappropriately sited development can threaten valuable habitats and put species at risk of decline. Conversely, development can provide significant benefits for biodiversity with appropriate advice from an ecologist. Some species such as great crested newts and slow worms tend to colonise derelict and brown field sites, which makes them particularly vulnerable to disturbance when sites are developed.

The effects of plastics are a major issue in the marine environment in the East Riding and their potential effects upon breeding sea birds at Flamborough Head and Bempton Cliffs and cetaceans should be monitored.

Local threats to biodiversity, documented losses and climate change effects are reflected in more detail in the following Sections 2.3 – 2.4.

2.3.1 Changing Birdlife

Birds are perhaps our most well known wildlife and have been well-recorded in the East Riding since the 19th Century. Birds lost from the county include the Great Bustard in the early 19th Century (Nelson, 1907); this turkey-sized bird of wide open spaces disappeared as the open sheepwalks of the Wolds became enclosed. When a gamekeeper at Sledmere shot eleven bustards at once with his blunderbuss in 1808, he probably dispatched the last remnants of the East Riding population. The Great Bustard also became extinct across the UK, but is now being reintroduced on Salisbury Plain. Another bird of open landscapes, the stone curlew, had disappeared from sandy heaths such as Tollingham Moor and South Cliffe Common by the late 19th Century and from the Wolds by around 1920 (Bunce & Vaughan, 1997).

More recently birds that were once very common in the East Riding countryside have suffered significant declines. Tree sparrows have declined rapidly since the late 1970s, with the current UK population only three percent of the historic level. In the East Riding they still have strongholds at Flamborough Headland and around the River Hull catchment, but have declined across the area. Similarly corn bunting, or 'corn dumplings' as they are affectionately known in Yorkshire, have declined dramatically in modern times. Like tree sparrow they are now absent from many areas of farmland where they were once abundant throughout the UK. Small populations still exist in the East Riding in the Lower Derwent Valley, along the Holderness Coast and at Bempton. These national declines have placed both of these species on the conservation red list.

Recent positive trends, however, include the re-establishment of bittern, red kite and woodlark as regular breeding birds after long periods of absence. Buzzard and peregrine falcon have also expanded their ranges in the East Riding. New additions to the East Riding's birdlife are also appearing in response to climatic trends (see Section 2.4.2).

2.3.2 Butterflies and Bumblebees

Several butterfly species have disappeared from the East Riding including marsh fritillary, silver-spotted skipper, grizzled skipper, small blue and swallowtail (Frost, 2005). These are habitat specialists with exacting ecological requirements. By contrast, several other mobile butterflies that can exploit a variety of habitats have expanded their ranges considerably in the County in recent years, including marbled white, brown argus, comma and speckled wood. The Essex Skipper has colonised coastal grasslands around Spurn as a new addition to the regional butterfly fauna: as its name suggests, this is a southern species now expanding its range into Northern England.

At least five UK BAP Priority Species of bumblebee have become extinct in the East Riding (*Bombus distinguendus*, *B. ruderatus*, *B. humilis*, *B. ruderarius* and *B. sylvarum*) (Archer, 2002). This

reflects a serious decline in the abundance and diversity of bumblebees in Britain and indeed over much of Europe (Goulson et al, 2007), as well as a global trend for reduced diversity of pollinating insects (Dias *et al*, 1999). This has profound implications because bumblebees are significant pollinators of a range of flowering crops (oilseed rape, field beans, peas, runner beans, soft fruit and apples) (Goulson, 2006), as well as many wild flowers.

2.3.3 Local Plant Extinctions

At least 86 flowering plants and ferns have become extinct within the East Riding since modern botanical recording began at the end of the 18th Century. These have been identified using data from the *New Atlas of the British and Irish Flora* (Preston *et al*, 2002a) and the *Flora of the East Riding of Yorkshire* (Crackles, 1990). Findings are summarised in Table 9, which also gives an indicator of the mean soil fertility requirement of each group of plants.

Species associated with arable land, unimproved grassland, acidic mires and fens have been most prone to extinction. When species of acidic and base-rich mires are considered together, they constitute by far the largest group of locally extinct plants, comprising 21 species. This is in accord with findings for other parts of the region (Hammond, 2007) and emphasises the vulnerability of low nutrient wetlands.

Loss of arable plants reflects a nationwide trend since World War II; three of the arable plants lost from the East Riding are now extinct in Britain as a whole and four are identified as Priority Species for conservation in the UK BAP. Most of the species that have disappeared from grassland habitats depend on 'poor' soil conditions, reflected in the low nitrogen value. Five species of orchid are amongst the grassland plants considered to have disappeared from the East Riding.

The local extinction of woodland plants has been more marked in the East Riding than for other parts of Yorkshire. This is probably because the small area of woodland in the East Riding and the prevalence of relatively modern plantations has meant that specialised woodland plants have occurred in small, very localised populations which would always have been more vulnerable to extinction. Arguably, this suggests that extra efforts should be made to conserve other potentially vulnerable woodland species such as baneberry, a nationally scarce plant at the southern edge of its British range in the county.

Boundary habitats such as roadside verges, track sides, hedge banks and wood margins do not fit well into Biodiversity Action Plan (BAP) categories and are easily overlooked. A significant number of plants have been lost from such habitats although these include some ancient introductions, which were mainly found around villages. Small plants of open, infertile habitats such as stony or sandy field margins, bare ground on heathland and old walls have also been prone to disappear. The coastal flora, by contrast, has been relatively unaffected.

With the exception of a handful of species associated with nutrient-rich muddy places or waste ground around settlements, the great majority of locally extinct plants require low nutrient

conditions. This is apparent across habitats and irrespective of the soil type. This reflects a combination of the direct loss of nutrient poor habitats and is apparent in both aquatic and terrestrial habitats. This is a national trend apparent both in analysis of botanical atlas data and the nationwide Countryside Surveys (Preston *et al*, 2002b).

Table 9: Plant Extinctions in the East Riding of Yorkshire by habitat group (since modern botanical recording began at the end of the 18th Century).

Broad Habitat	No of Species
Arable	13
Unimproved grassland	12
Acidic mires & wet heaths	11
Fens	10
Woodland	9
Boundary habitats	9
Open habitats	8
Aquatics	8
Coastal	3
Drawdown zones/eutrophic water margins	3
Total	**86**

2.4 Climate Change

2.4.1 Overview

Our changing climate will have profound effects on biodiversity. Changes already evident in Britain and across Europe include an earlier onset of flowering, leafing and fruiting of trees; earlier flight periods amongst butterflies and moths; and earlier spawning by amphibians (Sparks *et al*, 1999; Menzel *et al*, 2006; Hopkins, 2007). Changes in the range of many species are also occurring. There is a general tendency for mobile, southern species with undemanding habitat requirements to expand their range northwards, whilst northern species contract their range (Hickling *et al*, 2006; Hopkins, 2007).

The East Riding is particularly susceptible to climate change. This is because Yorkshire is very much on the bio-geographical cusp between the warmer and drier lowlands of Eastern England and the cooler and wetter north and west. Some key issues relating to climate change and biodiversity in the East Riding are summarised as follows:

- rising sea levels resulting in loss of valuable habitats and changes in habitat type;
- rapidly eroding coastline resulting in loss of valuable habitats;
- low lying areas susceptible to flooding; and
- locally fragmented semi-natural habitats making them susceptible to further isolation and species extinctions.

Further information regarding these issues and the biodiversity effects on species and habitats can be found in Sections 2.4.2 and 2.4.3 below.

The climate of the East Riding has changed considerably since the end of the last Ice Age. In the warmest period following the retreat of the glaciers, temperatures were 2ºC higher than today. Water chestnut, today a plant of southern Europe, grew in the shallow post-glacial lakes of Holderness, as shown by preserved remains from Skipsea Bail Mere (Natural England SSSI citation). At this time, Yorkshire was still joined to Continental Europe by low-lying river deltas and marshes, prior to the submergence of the North Sea basin. What is new about today's changing climate is that change is occurring with completely unprecedented speed, allowing our much depleted and fragmented ecosystems neither time, nor space, to adapt.

The full impact of climate change on the East Riding remains unpredictable, but some trends are already apparent. Mean annual temperatures and sea levels in the Yorkshire and Humber region are rising. For example, mean sea levels in the Humber Estuary and along the Yorkshire Coast have risen at 1.5 to 3.6 mm per year during the last 80 years. By the 2080s, sea levels are expected to have risen between 6 and 82 cm (W.S. Atkins *et al,* 2002). Under a medium emissions scenario the central estimate of increase in summer mean temperature is 3.3ºC by the 2080s, it is unlikely to increase by less than 1.7ºC and is very unlikely to increase by more than 5.5ºC (Jenkins *et al*. 2009).

Likely effects will include wetter (but mild) winters with hot, droughty summers leading to increased seasonal soil moisture deficits. Frost and especially snow will become rare in most of the East Riding. This contrasts with the fact that, until quite recently, farmers on the Yorkshire Wolds would often have to haul feed across winter snowdrifts to livestock in outlying barns. Extreme weather events such as flash floods, tidal surges and storms could become more frequent.

Extensive areas around the Humber Estuary and in the Humberhead Levels lie just above sea level. Reliance will increase for flood defences to protect settlements and valuable agricultural land. In selected areas there may be a need to accommodate floodwaters both from fluvial and estuarine flooding. Managed realignment schemes can create significant areas of wetland habitat whilst potentially storing such floodwaters. Inter-tidal estuarine habitats, already somewhat constrained by flood banks, will be potentially 'squeezed' by rising sea levels. Heavier winter rain will help replenish aquifers. This will conflict with demands on groundwater in the summer months. There will be a need to balance abstraction against maintenance of base-flows in watercourses, such as the River Hull system and the Gypsey Race. The Internal Drainage Boards (IDBs) have an essential role in maintaining watercourses in lowland areas. The tidal locked main river system can only drain to the estuary twice daily on the low tide. As sea levels rise there is an incrementally diminishing period during which water can drain out of the system, this may lead to times when more water could back up within inland drainage channels between the tides placing pressure on the capacity of drainage systems. Simultaneously climate change is resulting in increased precipitation and the combined effect will be that a greater amount of water will need to drain in to the estuary in a shorter timescale. A possible solution to this problem is the creation of carefully managed water storage capacity in the drainage system, which may provide additional opportunities for increasing the area of floodplain and wet meadow that could have additional secondary benefits for wetland wildlife.

Climate change will also trigger indirect, but potentially profound impacts on biodiversity. Climate change will drive economic, agricultural and technological innovation, such as the introduction of novel crops, cultivation of bio-fuels and the need for large-scale renewable energy infrastructure (e.g. wind, hydro-electric and tidal power). The local impacts of these developments will need to be balanced against their contribution to mitigating global climate change. More positively, the massive global need for carbon-capture may well provide incentives for habitat creation. For example regenerating active bog formation on the Rawcliffe/Snaith Moors part of the Humberhead Peatlands is a key priority. There is also increasing evidence that small pond creation, on a sufficient scale, can play an important role in carbon-capture (Pond Conservation, 2008). Woodland planting may also help to lock up carbon thus taking out of the atmosphere and helping to offset climate change.

Due to the potential effects of climate change in the East Riding, a strategy was produced by relevant stakeholders (including ERYC) in 2005. This is known as the 'East Riding of Yorkshire Climate Change Strategy'. It considers the economic, social and environmental implications in an integrated fashion, linking with the Local Strategic Partnership (LSP). The strategy is under review and a replacement strategy is currently in preparation. The LDF will also aim to address climate change and this is incorporated into the East Riding LDF Vision.

2.4.2 Effects on Species

Within the East Riding of Yorkshire, there are relatively few 'northern' species of plants or invertebrates, although this partly reflects the severe depletion of habitats, such as wet heathland, peat bog and low-nutrient water bodies that are more common in the north and west of Britain. Northern plants and invertebrates present on the Humberhead Peatlands, such as bog rosemary, the large heath butterfly and the uniquely 'Baltic' assemblage of rare peatland flies and beetles (Skidmore, 2006) are likely to be vulnerable. Whilst such species could potentially benefit from restoration of the presently devastated, industrially milled areas within the East Riding sector of the peatlands, warmer conditions and associated hydrological stresses could counter-act this.

A considerable number of southern insects have precarious toeholds in the far south and east of Yorkshire, some occurring only in the mild, maritime climate around the Spurn Peninsula. Amongst these species, those which are restricted by climate rather than by habitat are most likely to expand their range. For example, Roesel's bush-cricket has long been known from tall grassland on embankments around Easington, its only site in northern England (Limbert, 1998). This is one of several grasshoppers and crickets that have expanded their British range rapidly in recent years and spread into new habitats (e.g. Widgery, 2002), so it may well become more widespread on road verges and flood banks in South Holderness in the future.

Like Roesel's bush-cricket, the distinctively marked ground beetle *Panagaeus bipustulatus* has its only northern outpost at Spurn. However, this is a specialised insect associated with calcareous grassland and sand dunes. Consequently it would have to be able to disperse across the inhospitable arable landscape of Holderness to colonise suitable habitats in the Wolds, which it may be unable to do without the creation of new connecting habitat networks.

There is good evidence of northwards expansion amongst more mobile groups of aquatic insects. Several southern dragonfly species that were almost unknown in Yorkshire fifteen or twenty years ago are now widespread in the East Riding, including the emperor, migrant hawker and ruddy darter. The east coast location has also facilitated colonisation of the East Riding by new additions to the British fauna, such as red-veined darter and small red-eyed damselfly. Similarly, a number of water bugs have expanded northwards since the mid-1990s, including new colonists of the East Riding, such as the saucer bug and water stick insect.

More conspicuous changes are occurring amongst the East Riding's birdlife as southern species spread northwards. The avocet is now a frequent sight along the Humber, with at least two regular breeding populations now established in the County. The little egret, until recently a very rare visitor, now breeds in southern England and small numbers of individuals can be seen regularly along the Humber. Further species that might establish themselves as regular East Riding breeding birds include Mediterranean gull and Cetti's warbler (the latter has already bred once). Based on trends in Continental Europe (Eaton *et al,* 2005), birds such as cattle egret and great reed warbler may become established around the Humber and in the Hull and Lower Derwent Valleys in the next few decades, provided there is sufficient suitable habitat for them.

Whilst newly arriving species might be regarded as interesting novelties, it should be remembered that they may well be under threat in the southern parts of their global range, as environmental conditions become unsuitable. Most Mediterranean coastal wetlands are expected to dry-up during the 21st Century (IPCC, 2001). The creation of large coastal wetlands may therefore be essential in providing 'space' for such species to shift their populations northwards. A significant shortcoming of current schemes is that they do not provide connectivity between estuarine and inland habitats. Flood banks rightly and understandably have to be rebuilt behind the scheme to protect important farmland and properties. In an ideal situation habitats would be allowed to develop grading between the coastal wetland to higher ground so that the range of species that are present on the site can adapt dynamically to environmental conditions, such as salinity and sea level. Opportunities for creating wildlife habitat behind flood banks may help to offset this effect.

Whilst southern birds are expanding northwards, migrants from Siberia and the Arctic, such as Bewick's swan and purple sandpiper are increasingly overwintering further north in Europe. Until very recently, the East Riding supported significant wintering populations of these birds.

Some climate related changes are complex. One of Europe's rarest seabirds, the globally endangered Balearic shearwater, is becoming a regular visitor off Flamborough Head in late summer and autumn on its annual migration. Indeed, the numbers seen in British waters are increasing. However, this reflects a northwards shift in feeding grounds caused by rising temperatures at the sea surface (Wynn *et al,* 2007), which is a disadvantage for the birds because they are driven to move greater distances from their breeding habitats on rocky islets in the Mediterranean.

Some species expanding their global range will be invasive or disease causing, potentially disrupting local ecosystems and traditional land use practices and potentially affecting rural economies and agriculture. The recent occurrence of midge-borne Blue-tongue Disease in cattle is one example of this. Some East Riding habitats, such as cliffs, dunes and strandlines are considered to be particularly vulnerable to invasion by alien plants as the climate warms (Hill *et al*, 1996).

2.4.3 Effects on Habitats

Some habitats are likely to be affected more by changes in temperature and rainfall patterns than others. Those associated with freely draining soils, such as drier types of heathland, acidic grassland and chalk grassland are likely to be sensitive to summer droughts and associated disturbances like wildfires. Fens and other wetlands are also drought-sensitive; whilst most plants can withstand temporary (though not long-term) dehydration, the vast majority of invertebrates must complete their life cycle each year. Some can simply re-colonise areas once more favourable conditions return, but others have poor powers of dispersal or may be too rare to stand much chance of re-establishing themselves. In 'ancient' wetlands, woodlands and other semi-natural habitats, populations of some plants and invertebrates may have survived in a restricted area for hundreds, or even thousands of years and these relict species may never return if they disappear due to climate-related changes. The potential for local species extinctions increases if the habitat networks do not exist to enable their ability to move and respond to local climatic changes.

One only has to look at chalk grasslands on the Yorkshire Wolds to see the impact of climatic factors. Those on north-facing banks experience cooler and more humid conditions and tend to have fewer lime-loving specialist plants because, over time, the calcium is dissolved from the upper layers of the soil. South-facing grasslands have a warmer, drier, sunnier micro-climate and have more affinity with 'classic' chalk downland in the south of England.

It is generally agreed that extreme weather events are becoming more frequent as a symptom of climatic instability. Droughts, fires, storms and flooding all have complex impacts on biodiversity. Coastal habitats are inherently sensitive, with storms and tidal surges periodically re-engineering the geomorphology such as the coastal habitats of the Spurn Peninsula, for example. In a wider context, more frequent storms could open-up dense woodland and increase the supply of decaying timber benefiting a wide range of plants, fungi, invertebrates and birds, but at a Parish level they could also demolish the few old hedgerow trees which support bat roosts or tree sparrow colonies. There is a clear need to increase the resilience of wildlife to extreme climatic events by making habitat networks larger and more connected, so that species can adapt. Valuable guidance along these lines has been published by Defra (Hopkins *et al*, 2007).

2.5 Habitat Networks

There are major opportunities for the establishment of habitat networks within the East Riding, particularly due to the significance of climate change for the county. The implementation of

habitat networks and green infrastructure in the East Riding can be led by the Local Development Framework (LDF) policy approach, defined on the Proposals Map and detailed within any Supplementary Planning Documents for biodiversity or habitat networks. Partnership working will be required to develop these approaches. The Sustainable Natural Environment Task Group (SNETG) and the East Riding of Yorkshire Biodiversity Partnership have a key role in defining the geographical locations of habitat networks and enabling connectivity between the habitat types to provide an overall comprehensive landscape scale approach. The ability of the East Riding of Yorkshire Biodiversity Action Plan (ERYBAP) to develop spatially driven habitat and species targets is a key opportunity to link with other strategies, policies and plans. Section 1.10 'Developing Habitat Networks and Green Infrastructure' provides further information on this.

The Yorkshire Wildlife Trust with other partners are developing a vision for Yorkshire and Humber ecological networks entitled Living Landscapes and have produced aspirational maps using best available data to map the existing ecological resource, identifying core areas where there is the greatest opportunity for reconnecting habitats and identifying where the links could be created. These are partly subjective and partly objective dependent on the available data.

The Yorkshire and Humber Biodiversity Forum has produced biodiversity opportunity maps that identify areas at a sub-regional level that can contribute towards regional targets for the restoration and creation of Priority Habitats, while ensuring they link to regional planning at a landscape-scale. The mapping methodology integrates regionally consistent habitat data-sets (i.e. the national habitat inventories and the England Habitat Networks), with wider stakeholder-led analysis to identify 'Biodiversity Opportunity Areas'. The mapped outputs identify core ecological networks alongside priority areas for landscapes-scale habitat restoration. They are a spatial representation of the regional 'vision' for wildlife and the focus for implementing action to deliver the BAP habitat targets for the Yorkshire and Humber Region. Local habitat networks should fit into this strategic picture but should add to the detail and resolution of the data so that conservation action can be planned and implemented at the field-by-field level.

Natural England are producing green infrastructure maps for the region to fulfil Policy YH8: (Green Infrastructure) of the Yorkshire and Humber Regional Spatial Strategy (Government Office for Yorkshire and The Humber, 2008). These maps will cover the wider remit of green infrastructure and incorporate landscape features, accessibility, tourism, education, economic growth, as well as biodiversity and others. It is intended that these maps will be used to inform LDFs. Biodiversity Priority Areas (see Section 1.11 and Figure 2) represent the most important landscape scale areas for biodiversity and capture the key parts of the wider East Riding habitat networks where most of the ERYBAP targets can be delivered. However, these areas will still need to be interconnected to each other and the wider countryside through increasing permeability through sustainable land management practices. The Campaign for the Farmed Environment (CFE) is a volunteer initiative to encourage the farming community to take up this challenge (see Section 2.6 for details).

The on-going East Riding of Yorkshire Broad Habitat and LWS Survey will generate significant data identifying the locations of significant sites between which habitat links can be developed. The survey will also allow local habitat networks to be identified where they already exist and also where these need to be strengthened. These data, coupled with existing statutory sites data can be used to take the East Riding towards a true functioning network of valuable habitats within which species and habitats can adapt, change and move according to prevailing environmental conditions, including climate change.

The Priority Habitat types in the East Riding of Yorkshire which lend themselves to this landscape scale approach are listed below:

- ponds;
- rivers;
- chalk grassland;
- neutral grassland; and
- marine/coastal habitats.

The distribution of locally characteristic ponds within the East Riding, including dew ponds, offers significant opportunities for the development of a 'pondscape approach'. The existing valuable chalk and neutral grassland resources feature within linear habitats, such as roadside verges, adjoining ditches and field margins. It is possible to visualise a landscape that integrates existing valuable wetland and grassland habitats with clusters of ponds, rivers, streams and swathes of species rich grassland connected and integrated within the wider landscape, incorporating other ERYBAP habitat mosaics supporting sustainable populations of Priority Species.

2.6 Opportunities for Biodiversity

The potential opportunities for biodiversity delivery through the East Riding of Yorkshire Biodiversity Partnership are great. Some of these opportunities are summarised below:

- the survey of LWS in the East Riding and the subsequent dissemination of the data to landowners gives the opportunity to deliver new conservation action on LWS with the agreement of landowners and the support of the East Riding of Yorkshire Biodiversity Partnership (see Section 1.8.3 and Figure 1);
- the River Hull as an enclosed catchment offers opportunities for eradicating invasive and alien species and for retaining existing valuable features, such as the eradication of Himalayan balsam and maintaining the water vole stronghold;
- set-aside was introduced by the EEC in 1992 as part of a package of reforms of the Common Agricultural Policy to prevent over production. In 2007, following significant rises in grain prices across Europe, the EU decided that the set-aside rate would be reduced to zero. Much of the land that had been set-aside and had become important for wildlife, especially farmland birds, is at risk of being lost. The CFE is an industry-led voluntary approach towards re-capturing the environmental benefits formerly provided by set-aside. This provides an opportunity to work with the farming community to improve the environmental management of their farms and to supplement the benefits previously provided by set-aside. The revised Higher Level and Entry Level Stewardship schemes

provide one way by which farmers can gain funding to provide such environmental benefits on their farms;

- the Country Mile Project offers opportunities for linear habitat expansion and connectivity between differing habitat types utilising wildlife rich verges and other linear habitats;
- the Yorkshire and Humber Woodland Strategy provides opportunities for woodland management, which can benefit biodiversity, in order to produce bio-wood fuel and bio-coppice;
- the East Riding LDF offers a major opportunity for setting the principles of habitat networks and green infrastructure in place through generic development policies and by working with the SNETG and the East Riding of Yorkshire Biodiversity Partnership in identifying a network of habitat networks on the Proposals Map and promoting its delivery through planning functions and other delivery mechanisms;
- the NERC Act 2006 biodiversity duty (see Table 2) may result in opportunities for new and cohesive biodiversity action to be undertaken across the full range of public bodies operating in the East Riding of Yorkshire. This includes Local, Town and Parish Councils, utility companies, IDBs and Primary Care Trusts;
- the restoration of minerals sites after extraction has finished poses a significant opportunity for the creation of new large-scale habitats, often including extensive wetlands; and
- working with partners to secure the delivery of positive biodiversity measures through local policy and strategy initiatives for the creation of habitats on a landscape scale.

It is likely that new opportunities will present themselves during the life of the BAP and the East Riding of Yorkshire Biodiversity Partnership will continue to monitor and review such opportunities as they arise and incorporate them into the BAP as necessary. Specific HAPs and SAPs will pick up specific relevant opportunities as appropriate.

3.0 ACTION PLAN STRUCTURE AND REPORTING FORMAT

3.1 Overview

The purpose of this section is to outline the systematic approach taken to the production of the Habitat Action Plans (HAPs) and Species Action Plans (SAPs) and the reporting and monitoring mechanisms for these. This is to provide clarity and consistency and to guide the production of any future HAPs or SAPs. It should be noted that there is a major review underway of the UK Biodiversity Action Plan (UK BAP) habitats and species lists. This means that existing HAPs and SAPs will be amended and new ones will be produced as appropriate. It is not intended to repeat any of the UK BAP targets or actions in the East Riding of Yorkshire Biodiversity Action Plan (ERYBAP) these are available from the UK BAP website (www.ukbap.org.uk). Similarly, at the regional level, the Regional Biodiversity Strategy will be used by the East Riding of Yorkshire Biodiversity Partnership to inform the relevant proportions of targets and actions that the county should incorporate into the ERYBAP, however, there is no repetition of the regional targets or actions in this document. The regional targets can be found on the Yorkshire and Humber Biodiversity Forum (YHBF) website and in the Regional Biodiversity Strategy.

The ERYBAP does not exist in a single report, plan or strategy; rather it takes the form of a 'folder' of different documents that fit under an overarching umbrella. This ERYBAP Strategy Document acts as the umbrella for all other documents; setting the overarching principles and background in which habitat and species statements and action plans, guidance notes and the web-based Biodiversity Action Reporting System (BARS) sit. Some of the documents will be non-time limited and will therefore be available as printed or electronic final versions. Other documents will be dynamic and thus will only be available online as electronic documents. Finally the BARS element will be solely a web-based system that will not be downloadable and will be ever-changing. Figure 4 shows how this folder based system will work for the ERYBAP.

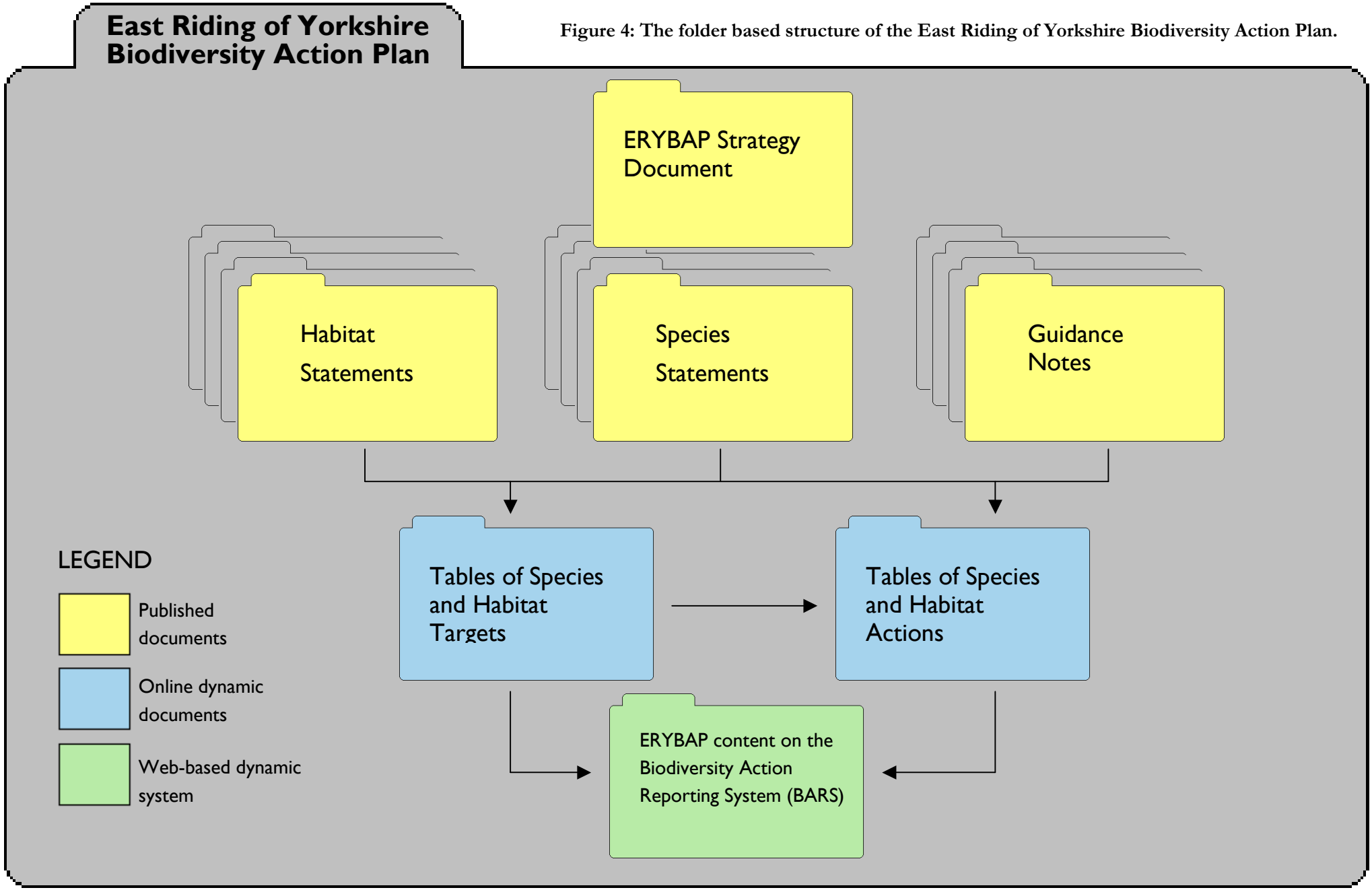


Figure 4: The folder based structure of the East Riding of Yorkshire Biodiversity Action Plan.

3.2 Criteria Used to Select Local Priority Habitats and Species for Statement and Action Plan Coverage

Habitats and species that have their own HAP or SAP within the ERYBAP have been selected by the East Riding of Yorkshire Biodiversity Partnership. The decision to include a particular habitat or species is based upon specific selection criteria, given in Sections 3.2.1 and 3.2.2. For each habitat or species there is a habitat/species statement and an associated action plan. The statement defines the vision for that particular habitat/species and the current conservation issues with objectives to achieve its conservation, whilst the action plan includes specific targets and actions designed to address these issues and achieve the vision and objectives. It is possible that in the future additional HAPs and/or SAPs will be added to the existing BAP, as conservation priorities change or the capacity of the East Riding of Yorkshire Biodiversity Partnership increases. Habitat and species statements will be fairly static once written, whilst the associated action plans will be dynamic as action and targets are achieved and refreshed by the Partnership on an ongoing basis.

3.2.1 Habitat Selection Criteria

Habitats for which action plans have been produced have been selected using one or more of the following criteria:

- the habitat is currently present in the East Riding of Yorkshire, or exists in a degraded form which is realistically restorable;
- it must be possible for the East Riding of Yorkshire Biodiversity Partnership to work on actions that directly or indirectly benefit the habitat;
- the habitat requires additional conservation action to that already actioned by the statutory authorities;
- the habitat exists outside of nationally or internationally designated areas (e.g. SSSI, SPA, SAC or Ramsar sites), as these sites should be managed through statutory processes;
- the habitat is on the UK BAP list and present in the East Riding or is of significant local importance; and
- the habitat has significant presence on Local Wildlife Sites (LWS) in the East Riding of Yorkshire.

Habitats that meet multiple criteria are more likely to be prioritised for the development of a HAP. The ERYBAP does not intend to duplicate work already ongoing in internationally or nationally designated sites, or any protection or consideration afforded by policy and legislation. However, through the East Riding Biodiversity Partnership we will try to develop, help to coordinate and join up existing biodiversity action in the East Riding, including that relating to statutory sites.

3.2.2 Species Selection Criteria

Wherever possible, actions that will benefit species are covered through the relevant HAP, in order that the number of SAPs is kept to a minimum. A SAP will therefore only be produced as

part of the ERYBAP when a particular species cannot be covered within one or more HAP(s), i.e. appropriate habitat management will only benefit some of the BAP species in the East Riding. This approach is in line with recent changes at the national level about how species actions will be dealt with within habitat action, taking an ecosystem approach.

For the production of a species statement and associated SAP, a particular species must meet one or more of the following criteria:

- it exists in the East Riding and cannot be covered by a HAP because it has specific and/or conflicting management requirements to those of the habitat(s) in which it exists;
- it is dependent upon a range or mosaic of habitats which are not normally found together, or are non-typical;
- the species is protected by national or international legislation and cannot be covered by a HAP;
- there is a unique method of conserving or enhancing the species population and/ or range through the planning system, due to the ecology of the species being linked to buildings, previously developed land or other development sites, for example, the presence of swallows and house martins in disused buildings and opportunities to provide habitat for these species as part of any re-development;
- it can act as a flagship species that will encourage greater public involvement or engagement with nature conservation and the delivery of the ERYBAP and engagement with the East Riding of Yorkshire Partnership;
- the species can be grouped together with other similar or related species to form a grouped SAP which will engage people in the conservation of a group of species that might otherwise be over-looked;
- a species which has demonstrated a requirement for urgent conservation focus due to a major decline in population or range, where direct action is within the capability of the East Riding of Yorkshire Biodiversity Partnership and has a reasonable chance of success;
- a species that is subject to a species re-introduction programme, or a planned re-introduction programme in the East Riding and is within the capability of the East Riding of Yorkshire Biodiversity Partnership, and
- the species is distinctive to the East Riding, or only occurs in the East Riding and a small number of other locations in the UK.

Species that meet multiple criteria are more likely to be prioritised for the development of a SAP. The ERYBAP does not intend to duplicate international and national guidance and legislation on protected species. However, through the East Riding Biodiversity Partnership we will try to develop, help to coordinate and join up existing biodiversity action in the East Riding, including that relating to protected species.

3.2.3 Local Significance

Local significance will be defined by how important the habitat or species is within the context of the relevant Joint Character Area (JCA) or Natural Area. The method by which local significance will be defined using presence in a particular area will be decided by the East Riding of Yorkshire

Biodiversity Partnership using local data and knowledge to reflect the extent, variation and quality of the nature conservation resource in the area.

3.3 Habitats and Species Action Plans Structure and Content

The ERYBAP will in effect act as a folder of documents in which HAPs and SAPs will sit under this overarching ERYBAP Strategy Document. HAPs and SAPs will be developed on an ongoing basis by the East Riding of Yorkshire Biodiversity Partnership as resources allow and opportunities arise (see Figure 4).

Each HAP or SAP is structured in the same way, to provide a consistent approach. Each species and habitat action plan is divided into a statement and an action plan. The statement is essentially the textual part of the SAP or HAP and includes an overview of the resource, which includes a vision for that habitat/species and a series of objectives to achieve that vision. The action plan for the habitat/species includes tables of targets and actions. Sections that are included in habitat and species statements and in their action plans are described in Table 10 below.

Table 10: Habitat/Species Statement and Action Plan Sections.

Document	Section Title	Definition
STATEMENT	Introduction	A description of the habitat/species and its importance in an East Riding context.
	Legal Status	Any legislation that specifically protects the habitat/species.
	The Resource	Statistics (where available) on the distribution and area/ population size of the habitat/species in East Riding and how this relates to the UK.
	Management	Methods for management of the habitat/species, with reference to best practice guidance where available.
	Threats	Current threats to the status in the East Riding.
	Potential for Enhancement	Opportunities to improve or increase the habitat/species resource in the East Riding.
	Current Action	A brief description of current projects and initiatives underway which benefit the habitat/ species.
	Links to other Species and Habitat Action Plans	A list of UKBAP and other ERYBAP habitats/species that are relevant to the habitat/species
	ERYBAP Objectives	Broad objectives designed to achieve the overall vision (taken from standard objectives).
	Lead Partner	The organisation(s) that will take the lead in ensuring delivery of ERYBAP actions.
	References	List of references used in the habitat/species statement.
ACTION PLAN	ERYBAP Targets	Key milestones towards the objectives (placed on BARS).
	ERYBAP Actions	Specific actions that individually contribute to a particular target (placed on BARS).

3.3.1 Habitat and Species Visions

Each habitat and species statement begins with a vision statement, which outlines succinctly what overall achievement(s) the East Riding of Yorkshire Biodiversity Partnership would like to see for that particular habitat or species. These are designed to be inspirational and are linked to the more specific objectives detailed at the end of the habitat or species statement, but are not exhaustive of these.

3.3.2 Habitat and Species Statements

The Habitat and Species Statements provide descriptive text that includes the vision, an introduction, available information on the East Riding resource (area and locations of existing habitat, species population and geographical range), current threats, potential for enhancement and current action. Each statement also includes a list of associated UK Biodiversity Action Plan and ERYBAP habitats and species and a list of partner organisations that will ensure the delivery of the agreed actions. A lead partner organisation(s) will be identified where appropriate.

3.3.3 Objectives

Although the ERYBAP has specific objectives for each habitat and species, they will be drawn from generic standard objectives given in Table 11 (HAPs) and Table 12 (SAPs) respectively. The objectives are not time-limited and each one may be achieved through a number of targets and actions. It should be noted that the qualifiers in brackets are optional and will be included only where appropriate.

Table 11: Generic Standard Objectives for HAPs

Code	Objective of Action Plan	Qualifier(s)
Obj. 1	No loss of……	Habitat name
Obj. 2	Maintain the quality of areas of……which are currently in good condition (at …….).	Habitat name (Location name(s))
Obj. 3	Improve examples of ……..which are currently in poor condition (at …….).	Habitat name (Location name(s))
Obj. 4	Restore …. .on sites where it historically occurred (especially at …….).	Habitat name (Location name(s))
Obj. 5	Creation of …… on sites where suitable environmental conditions exist (especially at …….).	Habitat name (Location name(s))
Obj. 6	Manage ……. in order to resist the adverse effects of probable climate change.	Habitat name
Obj. 7	Work to reduce the fragmentation or isolation of ……..	Habitat name
Obj. 8	Undertake species management to maintain the ecological value and integrity of ……. (i.e. conservation of important Priority Species or control/ removal of invasive species).	Habitat name

Table 12: Generic Standard Objectives for SAPs

Code	Objective of Action Plan	Qualifier(s)
Obj. 1	No significant reduction in the East Riding population of……	Species name
Obj. 2	Maintain the current geographic distribution of…… (at …….).	Species name (Location name(s))
Obj. 3	Improve management to provide opportunities for …….. where sites of known occurrence are currently in poor condition (especially at …….).	Species name (Location name(s))
Obj. 4	Re-introduce …….. to sites where it historically occurred (especially at …….).	Species name (Location name(s))
Obj. 5	Creation of suitable conditions for …… on sites where appropriate.	Species name
Obj. 6	Work to reduce the fragmentation or isolation of populations of …….	Species name

3.3.4 Targets

Targets represent key milestones towards the overall objectives, and are set within the context of the regional targets, whilst taking a pragmatic local approach to what is deliverable within the East Riding and within the means of the Partnership. Once baseline data allows, targets will be set using quantifiable baseline habitat data. Targets are not site specific or strictly time-limited in the sense that they will be valid for the life of the ERYBAP (10-15 years), however they may be achieved sooner and thus require revising as appropriate.

The targets relate directly to the objectives for that habitat or species. Different types of target relating to habitats include create, enhance quality, maintain extent, maintain quality and restore. Habitat targets are composed of the target type, the amount of habitat or number of sites, habitat type and target date, such as in the examples 'create 10 hectares (ha) of woodland by 2020' and 'enhance quality of neutral grassland at three sites by 2020'. The location qualifier allows a broad area to be specified for a target; this might be a natural area or Joint Character Area (JCA), e.g. the Wolds.

Species target types include (re)introduce, establish *ex-situ* conservation programme, increase geographical range, increase population size, maintain geographical range and maintain population size. Species targets are composed of the species, target type, numerical value (of individuals, breeding pairs, occupied sites, etc) and date, as in the examples 'increase geographical range of water vole by five sites by 2020' and 'increase population size of barn owl by ten breeding pairs by 2020'.

Targets will eventually be achieved by the ongoing achievement of actions 'chipping away' at them until it will be necessary for new targets to be set for that habitat or species by the East Riding of Yorkshire Biodiversity Partnership.

Details of targets for each Action Plan can be found in the respective HAP or SAP.

3.3.5 Actions

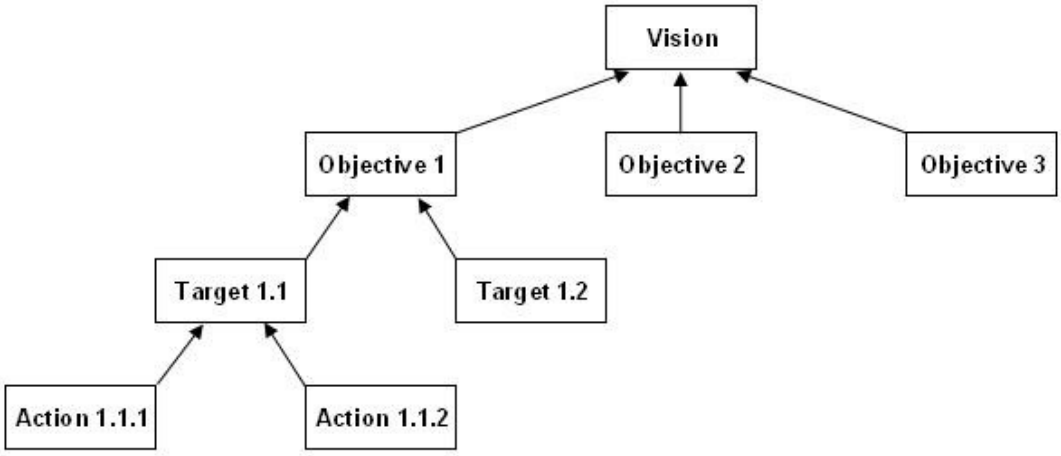
Actions break down the targets into smaller, more specific measures that individually contribute to a particular target. Actions are 'SMART' (Specific, Measurable, Achievable, Realistic and Time-limited). The essential differences between actions and targets is that actions are much more specific, often relating to specific sites, and are more tightly time-limited (usually 3-5 years). The timescales for actions are therefore shorter and this time-limited element of the actions is much more critical than it is for targets. Actions also differ from targets in that they have one or more organisation assigned to them, who takes responsibility for ensuring the action is completed by the specified date. The SMART nature of actions will assist with monitoring progress and reporting using the BARS (see Section 3.4.1). It should be possible for ERYBAP actions to be costed out so that external funding applications can be made to allow projects to be completed to deliver the ERYBAP. Indeed several external funding bodies specify that as a condition of their funding biodiversity action must be monitored through BARS linked to the relevant Local Biodiversity Action Plan (LBAP).

The East Riding of Yorkshire Biodiversity Partnership has the role of reviewing and monitoring actions and in deciding which actions will be submitted for inclusion in the ERYBAP following ratification, via an open forum. Partner organisations will be able to submit new actions to the Partnership for inclusion in the ERYBAP at any time. Actions will be removed from the ERYBAP as and when they have been completed; to be replaced by new similar actions towards the same target until that target has been achieved. The BARS will allow completed actions to be stored for monitoring and reporting.

Details of actions for each habitat or species can be found in the respective HAP or SAP.

3.3.6 Target and Action Hierarchical Coding Structure

The objectives, targets and actions each have an alpha-numeric code, which follows a hierarchical structure in order that actions are linked to particular targets, which are in turn linked to particular objectives that help to deliver the overall vision for that species or habitat. For example, the Ponds HAP objective P2 'Maintain the quality of species-rich ponds' has the associated targets P-T2.1 and P-T2.2, with target P-T2.1 being to 'Maintain the quality of species-rich ponds where they exist on Local Nature Reserves'. Achievement of these targets will work towards achieving the objective. Each of these targets also has a number of actions (for example P-A2.1.1 'Ensure appropriate management of ponds at Humber Bridge Country Park Local Nature Reserve), which, when complete, will help achieve the target. The diagram below illustrates the generic hierarchy of vision, objectives, targets and actions.



It should be noted that if a given habitat or species does not require one of the objectives because it is not relevant, such as 'improve management,' this will be omitted in the objectives table. As the numbering is following a standard approach, this means that the numbering of targets and actions is not always sequential; moreover it is unique to the relevant objectives, targets and actions required.

3.4 Reporting

3.4.1 Biodiversity Action Reporting System (BARS)

The Biodiversity Actions Reporting System (BARS) is a nationally developed internet-based database, designed to support the full process of biodiversity action planning. It is recognised as a best-practice tool for biodiversity action reporting and planning and is used at all levels of the UK Biodiversity Action Planning framework. This includes writing a plan, monitoring its implementation and reporting internally and externally. The main aim of BARS is to enable Local Biodiversity Action Plan (LBAP) partnerships (such as the East Riding of Yorkshire Biodiversity Partnership), Lead Partners or Agencies and steering groups to enter action plans, record progress towards targets and actions, enter details about problems encountered in plan

implementation, and generate a range of reports on targets and actions. Using the system has a number of other advantages, including the following:

- improved integration and communication between local and national action plans;
- dissemination of good practice across the biodiversity community, through communicating the types of activities underway and by providing an opportunity to learn from the experience of others;
- LBAP activities set in the national context through, for example, viewing contributions to national targets;
- forward planning and prioritisation of activities; and
- users able to assess the full range of BAP-related activities that are underway in a given area, whether the activity is initiated nationally or locally.

The reporting structure required by BARS is the driver for the hierarchical structure of the HAPs and SAPs. The East Riding of Yorkshire Biodiversity Partnership aims to fully utilise BARS through support from ERYC's biodiversity officer and the local records centre, the North and East Yorkshire Ecological Data Centre. The Partnership will also encourage and advocate the use of BARS by partners and other organisations in reporting their biodiversity action, whether it is covered by the ERYBAP or not. This will allow a complete picture to be built up of biodiversity action in the East Riding so that overall action for habitats and species can be collated.

3.4.2 Responsibilities and Reporting Scales from National, Lead Partner and LBAP Levels

Reporting of progress with biodiversity actions and targets is achieved through the use of BARS. There are three main user groups of BARS, these are:

- at the national level there are Lead Partners and steering group members for UK Priority Habitat and Species action plans. These organisations and individuals have ultimate responsibility for overseeing the delivery of the UK plans and reporting on their implementation;
- LBAP partnerships (such as the East Riding of Yorkshire Biodiversity Partnership). These often involve a diverse partnership of local authorities and other organisations. Each LBAP should have a co-ordinator, who is responsible for ensuring the co-ordination of organisations delivering LBAP actions and reports progress using BARS; and
- Organisations who are delivering BAP actions, either through LBAP partnerships or through the UK BAP, or who are carrying out BAP work independently. For example some organisations, such as the Environment Agency, have their own BAP that sits outside of UK and LBAPs. Officers of these organisations may report progress directly to the UK Biodiversity Action Plan, or through a corporate BAP. Organisations delivering their own BAP actions outside of the UK BAP or LBAPs can also report progress using BARS.

Without the use of BARS this hierarchy can become easily confused and double reporting of action can become an issue, especially for organisations who report action at the national level and are also involved with LBAPs. In addition some biodiversity action will be reported via systems linked to specific delivery mechanisms such as Environmental Stewardship.

3.4.3 Criteria for the Inclusion of Action in the ERYBAP

The delivery of any conservation works for a habitat or species in this BAP will be based upon the 'adding value' aim and guiding principle of the BAP. In practice, this means that the East Riding of Yorkshire Biodiversity Partnership has a series of guidelines that it will use to determine inclusion of an action within BARS and on the relevant habitat or species action plan.

Actions/activities will be reported through the ERYBAP if:

- they contribute to the conservation of the habitat or species through one or more organisations that form the East Riding of Yorkshire Biodiversity Partnership;

- they constitute a habitat or species that have incurred losses through development control and the planning system i.e. the loss will be reported. Subsequent mitigation and/or compensation for the loss of an existing feature or resource as part of development control within the planning system will also be reported. Whilst this does not constitute biodiversity gain, it is considered significant to be able to quantify losses and compensatory measures in BARS to provide a complete picture of the status of valuable BAP habitats and species;

- reporting of planning enhancement measures in-line with PPS9 that are over and above any mitigation or compensation measures, i.e. enhancement measures will be reported as a gain against identified targets and actions;

- the work covers a feature, habitat or species within a statutory designated site (i.e. SSSI, SAC, SPA and Ramsar) that is either distinctly different from the key reasons for designation or does not fall within the site conservation objectives. Reporting of the work will be included in the BAP, however, this should be identified in advance and proposed either by Natural England or the landowner of the site (e.g. biodiversity work on a geological SSSI or species work on a habitat SSSI); or

- they constitute an action or suite of actions that has been identified for an LWS and has been agreed by the landowner.

The guidelines for not including conservation action and activities within the ERYBAP targets, actions or BARS are if:

- it will be reported by one of the other reporting systems in operation by the large statutory organisations. This includes Genesis for Environmental Stewardship, England Woodland Grant Scheme (EWGS) systems, Environment Agency habitat creation activities generated as a result of large scale flood defence works, or similar large scale works;

- the habitat and species work lies within the core business of a statutory agency including statutory designated sites and their own national BAP responsibilities, unless the work is beyond the remit of the statutory agency's role i.e. lies beyond the key reasons for site designation and management objectives, as identified in the site's citation;

- it will be reported through BARS at the national or regional plan level by the lead organisation for that particular SAP or HAP. For example the Environment Agency is the lead agency for water vole at a national level and will report directly into BARS. The East Riding of Yorkshire Biodiversity Partnership will not permit action to be reported at both the national and ERYBAP level so as to avoid double counting; or

- the action was already completed or underway prior to the publication of the ERYBAP or constitutes future action that does not yet have the ability to be implemented or reported.

The East Riding of Yorkshire Biodiversity Partnership may delegate or agree that action to add value to these delivery mechanisms may well be best taken forward by a more localised plan such as a Parish, Town or organisational BAP.

3.4.4 Adding Value to Agri-environment and Other Delivery Mechanisms

Significant value can be added to agri-environment and other delivery mechanisms without double reporting of efforts in BARS, especially if appropriate processes are put in place to assist. Relevant agri-environment schemes and other delivery mechanisms that this approach can be applied to may include the following:

- Entry Level Stewardship (ELS) (new and existing agreements);
- Organic Entry Level Stewardship (OELS) (new and existing agreements);
- Higher Level Stewardship (HLS) (new and existing agreements);
- Countryside Stewardship Scheme (CSS) (existing agreements only, scheme is being replaced by ELS and HLS);
- Habitat Schemes (HS) (existing agreements only, scheme is being replaced by ELS and HLS);
- England Woodland Grant Scheme (EWGS) (new and existing agreements);
- Woodland Grant Scheme (WGS) (existing agreements only, scheme is being replaced by EWGS);
- Planning obligations, conditions and development control measures (new and existing agreements);
- Environment Agency flood defence schemes (new and existing schemes); and
- other strategic plans where the ERYBAP could add value (for example the Environment Agency River Basin District eel management plans).

With landowner consent, details could be forwarded to the East Riding of Yorkshire Biodiversity Partnership by the decision making organisation, or the individual responsible for determining an agri-environment application or other scheme if:

- part, or all, of an agri-environment scheme application fails. The East Riding of Yorkshire Biodiversity Partnership can subsequently seek to progress the action under the ERYBAP through a new project, or as part of an existing project for that habitat or species;

- an agri-environment scheme application would be successful, but Natural England has insufficient funds to cover the proposed capital costs. The East Riding of Yorkshire Biodiversity Partnership would try to secure additional funds through external funding

applications, or by volunteer labour or materials. This would allow the application to go ahead in full where it may have been rejected or only partially implemented; this is clearly adding value to an existing delivery mechanism;

- an agri-environment agreement is due to come to an end and no renewal is proposed. The East Riding of Yorkshire Biodiversity Partnership can seek alternative funding for continuing positive habitat management work that has already begun. This will be especially pertinent to CSS and HS agreements and potentially other historic agri-environment agreements; and

- an Environment Agency flood defence project or other engineering project has the capacity to provide additional habitat or species benefits over and above the scheme's required mitigation and enhancement measures. The East Riding of Yorkshire Biodiversity Partnership could investigate opportunities for implementing the measures if they provide a significant contribution to one or more of the ERYBAP HAPs or SAPs.

The Sustainable Natural Environment Task Group (SNETG) and the East Riding of Yorkshire Biodiversity Partnership will jointly determine and agree which actions are appropriate to take forward from those that are passed to the East Riding of Yorkshire Biodiversity Partnership from other delivery mechanisms. Any proposals that have been denied funding from another delivery mechanism must be specifically linked to one of the ERYBAP HAPs or SAPs and fit the criteria outlined above.

3.5 Monitoring & Review of the ERYBAP

The East Riding of Yorkshire Biodiversity Partnership will monitor the progress of the BAP on at least an annual basis. The Partnership will be guided by the SNETG (see Section 1.8.1 for details of their role) and will be able to monitor the BAP progress through collation and interpretation of BARS data. Minor refreshes of the document, for example annual checks for accuracy and to update the content, will be made in consultation with the East Riding of Yorkshire Biodiversity Partnership.

The BAP will be fully reviewed on a 5-10 year cycle, with reporting of action on a two yearly basis, allowing for more regular monitoring. Matters that will be taken into account to guide the 5-10 year review process are:

- reference to the prevailing UK biodiversity Priority Habitat and Species lists;
- the Regional Biodiversity Strategy for Yorkshire & the Humber;
- the success or otherwise of current targets and implementation of actions;
- the ability to capitalise upon any significant opportunities that present themselves will generate a review of the existing approach to a habitat or species. For example, these could be partnership, financial, planning gain or land availability opportunities; and
- changes in best practice regarding the production, implementation and role of BAPs in England and the UK.

3.6 Funding & Resources to Deliver the ERYBAP

The ERYBAP is a document of the East Riding of Yorkshire Biodiversity Partnership. Funding may come from a variety of sources, dependant on the target action. This may be from partner organisations or from other sources such as agri-environment schemes, woodland grant schemes, European funding (e.g. LEADER), landfill tax credits or the Heritage Lottery Fund. Funding may be available for projects with multiple benefits such as flood alleviation or public amenity that may have opportunities for biodiversity gain. Agri-environment schemes are one of the main mechanisms for delivering gains for biodiversity on farmland. For example during 2005 to 2010 Environmental Stewardship funded the restoration of just over 400 ha of species-rich, semi-natural grassland in the Yorkshire Wolds and over 6,000 m of new hedgerows planted in Holderness. New funding sources for biodiversity may become available in the future. There may also be more specific local funds available within the East Riding of Yorkshire for biodiversity projects.

3.7 Biodiversity Data Management

The North and East Yorkshire Ecological Data Centre (NEYEDC) collate, manage and disseminate biodiversity data for the East Riding of Yorkshire, as well as the City of Hull and North Yorkshire (including the Yorkshire Dales and North York Moors National Parks). NEYEDC manages the species and habitat data in line with current standards as defined by the National Biodiversity Network (NBN) to ensure consistent quality. The ERYC currently has an annual Memorandum of Agreement with the NEYEDC, which includes provision for NEYEDC to provide data services related to the ERYBAP, including support for the use of BARS.

Other biodiversity data exists with recorders, naturalists and surveyors who do not currently submit their data to the NEYEDC. The East Riding of Yorkshire Biodiversity Partnership aims to work with these groups in order that their data can be used to inform the conservation of important flora, fauna and habitats within the East Riding area. Data from local recorders and the East Riding Biodiversity Partnership can also be used to inform the local planning system. Desktop studies can highlight the presence of protected and notable species and draw upon such locally collected data provided it is properly validated. The Partnership recognises the valuable expertise and knowledge that specific species group recorders hold and wishes to work closely with these.

3.8 Guidance Notes

3.8.1 Background

The SNETG has identified that a suite of comprehensive Guidance Notes would be appropriate to help provide useful guidance on the translation of the East Riding of Yorkshire Biodiversity Action Plan (ERYBAP) to ensure effective implementation by people in day-to-day life. These guidance notes are to cover specific topics that are crosscutting and cannot be easily actioned within HAPs or SAPs. They could inform the development of Supplementary Planning

Documents (SPDs) that could help to translate the delivery of the ERYBAP through the appropriate Local Development Framework (LDF) biodiversity policy and are as follows (not exhaustive and to be produced as resources and capacity allows by the Partnership, the Council or another group as appropriate):

- Local Wildlife Sites in the East Riding of Yorkshire;
- agriculture and biodiversity;
- creating a functional habitat network for the East Riding;
- biodiversity and development;
- alien and invasive species;
- wildlife friendly gardening;
- biodiversity data, recording and evidence base; and
- others as appropriate.

Each guidance note should include an introduction, list of key stakeholders, a 'dos and don'ts' section and a list of references. The inclusion of other sections will vary depending on the subject of the guidance note (for example the Alien and Invasive Species guidance note includes a section on Ecology and East Riding Distribution). Like HAPs and SAPs these guidance notes will be developed on an ongoing basis through the East Riding of Yorkshire Biodiversity Partnership, the Council or another group as appropriate in response to demand and opportunities or issues that might arise.

Not all of the above would be appropriate for informing SPDs which must conform with the East Riding Statement of Community Involvement and national planning legislation from the Town and Country Planning (Local Development) (England) (Amendment) Regulations 2004 and the Town and Country Planning (Local Development) (England) (Amendment) Regulations 2008. If any biodiversity SPDs are adopted they would be monitored through the LDF process.

3.8.2 Implementation, Monitoring and Review of Guidance Notes

The guidance notes provide advice on particular topics that relate to, or affect biodiversity. A number of actions are required in order for the advice to be implemented. Where action is required, this will be achieved through the completion of actions listed under the relevant habitat or species action plan. For example there may be actions relating to the control of Himalayan balsam included in the Woodland HAP, as this invasive species covered in the alien and invasive species guidance note often occurs in woodland habitat, especially along watercourses.

Progress with actions arising from guidance notes will be reported using BARS, with the HAP or SAP within which the actions are included. Upon review of the ERYBAP, the guidance notes will be revised if necessary to reflect changing policy or species status.

4.0 ACKNOWLEDGMENTS

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5.0 REFERENCES AND BIBLIOGRAPHY

Allen, J. H. (2008) Ecological Assessment of Yorkshire Coast Prohibited Trawling Areas: Report to North Eastern Sea Fisheries Committee. Institute of Estuarine and Coastal Studies, University Hull.

Anon (2006). The Ramsar Convention Manual – A Guide to the Convention on Wetlands (Ramsar, Iran, 1971). 4th Edition.

Archer, M.E. (2002). The Wasps, Ants and Bees (Hymenoptera: Aculeata) of Watsonian Yorkshire. Yorkshire Naturalists' Union.

Amphibian and Reptile Group (ARG) UK website www.arg-uk.org.uk

Boothby, J. (ed) (1999) Ponds and Pond Landscapes of Europe. The Pond Life Project, Liverpool.

British Standards Institute (2006). Planning to Halt the Loss of Biodiversity. Biodiversity Conservation Standards for Planning in the United Kingdom. Code of Practice.

Bunce, H.O. & Vaughan, R. (1997). The Disappearance of the Stone-curlew *Burhinus oedicnemus* as a Breeding Bird in Yorkshire. *The Naturalist*, 122: 33-43.

Centre for Ecology and Hydrology (2004) Information Sheet 27: Ragwort. CEH website (www.ceh.ac.uk)

Centre for Ecology and Hydrology (2004) Information Sheet 22: Azolla filiculoides Water Fern. CEH website (www.ceh.ac.uk)

Cook, P.J. (1999). The Flora of the Holderness Coast and Humber Estuary. *Yorkshire Naturalists' Union Bulletin* 34 (Supplement): 7-12.

Countryside Survey 2000 website (www.countrysidesurvey.org.uk)

Crackles, F.E. (1990). *Flora of the East Riding of Yorkshire*. Hull University Press: Hull.

Crofts, A. & Jefferson, R.G. (1999). *The Lowland Grassland Management Handbook*. 2nd edition. The Wildlife Trusts.

DCLG (October 2007). The New Performance Framework for Local Authorities & Local Authority Partnerships: Single Set of National Indicators. The Stationery Office.

DEFRA website (http://www.defra.gov.uk/fish /freshwater/ crayfish.htm)

DEFRA Rural Development Service & Central Science Laboratory (2005) Rural Development Service Technical Advice Note 02: Mink

Dias, B.S.F., Raw, A. & Imperatri-Fonesca, V.L. (eds) (1999). International pollinators initiative – the Sao Paulo Declaration on pollinators: Report on the recommendations of the workshop on the conservation and sustainable use of pollinators in agriculture with emphasis on bees. Brazilian Ministry of the Environment: Brazilia.

Direct Gov website: http://www.direct.gov.uk/en/HomeAndCommunity/InYourHome/PestAndWeedControl/DG_10037530

Doncaster Metropolitan Borough Council (January 2007). Doncaster Local Biodiversity Action Plan - Introduction and Overview.

East Riding of Yorkshire Council (2002) *East Riding Integrated Coastal Zone Management Plan*, East Riding of Yorkshire Council, Beverley.

East Riding of Yorkshire Council Local Development Framework Core Strategy – Preferred Approach (June 2010).

East Riding Validation Checklists for Biodiversity and Geological Conservation (November 2007).

Eaton M.A., Noble D.G., Hearn R.D., Grice P.V., Gregory R.D., Wotton S., Ratcliffe N., Hilton G.M., Rehfisch M.M., Crick H.Q.P. and Hughes J. (2005). *The state of the UK's birds 2004*. BTO, RSPB, WWT, CCW, EN, EHS and SNH.

England Biodiversity Group (2008) Securing biodiversity: A new framework for delivering Priority Habitats and Species in England. Natural England, Sheffield.

English Nature. (1997). *Yorkshire Wolds Natural Area Profile*. English Nature, York.

English Nature (1997) *Bridlington to Skegness Maritime Natural Area Profile*, English Nature, Peterborough.

Environment Agency Website www.environment-agency.gov.uk

Environment Agency (2003) Guidance for the Control of Invasive Weeds in or Near Fresh Water. EA, Bristol

Environment Agency (undated) The Knotweed Code of Practice. EA, Bristol

Flamborough Head Management Plan (2007) *Flamborough Head Management Plan*, Flamborough Management Scheme, Bridlington.

Frost, H.M. (ed). (2005). *The butterflies of Yorkshire*. Butterfly Conservation Yorkshire.

Fry, M. (ed) (2008) *A Manual of Nature Conservation Law*, Clarendon Press, Wotton-under-Edge.

Fuller, R.M. (1987). The Changing Extent and Conservation Interest of Lowland Grasslands in England and Wales: A Review of Grassland Surveys 1930-1984. *Biological Conservation* 40, 281-300.

Goulson, D. (2006). The Demise of the Bumblebee in Britain. *Biologist*, 53: 2-7.

Goulson, D., Lye, G.C. & Darvill, B. (2008). Decline and Conservation of Bumble Bees. *Annual Review of Entomology*, 53: 191-208.

Government Office for Yorkshire and The Humber (2008). The Regional Spatial Strategy for Yorkshire and The Humber to 2026. London: TSO.

Hammond, M. (2002). A Preliminary Survey of the Aquatic Coleoptera of Hornsea Mere, East Yorkshire (England), including the Rediscovery of *Hydroporus scalesianus* in Yorkshire. *Latissimus* 15: 1-3.

Hammond, M. (2007). Habitat Loss in the Swale and Ure Washlands Since 1700, with an Analysis of Extinctions from the Local Flora. Unpublished Report to Natural England and North Yorkshire County Council.

Hammond, M. (2000). *Ryedale Biodiversity Audit, 2000*. Ryedale District Council: Malton.

Hammond, M. (2007). *Sphagnum* Mire Development in a Railway Borrow Pit in East Yorkshire. *In*: Meade, R. & Humphries, N. (eds). *Minerals extraction and wetland creation*. Natural England: Peterborough.

Hammond, M. and Merritt, R. (2008). Water beetles of the Yorkshire and Humber Region: An interim report. (Unpublished report to Environment Agency).

Hawke, C.J. & Rose, P.V. (1996). Reedbed Management for Commercial and Wildlife Interests. RSPB, Sandy.

Hayfield, C. & Brough, M. (1986). Dewponds and Pondmakers of the Yorkshire Wolds. *Folk Life*, **25**: 74-90.

Henderson, A. (ed) (2001). Recent Yorkshire stonewort records, Part 8. *Yorkshire Naturalists' Union Bulletin*, 35: 31-35.

Hickling, R., Roy, D.B., Hill, J.K., Fox, R. & Thomas, C.D. (2006). The Distributions of a Wide Range of Taxonomic Groups are Expanding Northwards. *Global Change Biology*, 12: 450-455.

Hill, M.O., Mountford, J.O., Roy, D.B. & Bunce, R.G.H. (1999). *ECOFACT 2 Technical Annex – Ellenberg's indicator values for British plants.* Institute for Terrestrial Ecology: Monks Wood.

Hill, M.O., Wright, S.M., Dring, J.C., Firbank, L.G., Manchester, S.J. & Croft, J.M. (1996). *The potential for spread of alien species in England following climate change.* English Nature Research Report No. 90. English Nature: Peterborough.

HMSO (1994) Biodiversity: The UK Action Plan. HMSO, London.

Hopkins, J. (2007). British Wildlife and Climate Change: 1. Evidence of change. *British Wildlife*, 18: 153-159.

Hopkins, J.J., Allison, H.M., Walmsley, C.A., Gaywood, M. & Thurgate, G. (2007). *Conserving biodiversity in a changing climate: guidance on building capacity to adapt*. DEFRA.

IPCC (2001). Climate Change 2001: Impacts, Adaptation and Vulnerability. Cambridge University Press: Cambridge.

Jenkins, G.J., Murphy, J. M., Sexton, D. S., Lowe, J. A.., Jones, P. and Kilsby, C. G. (2009). *UK Climate Projections: Briefing report.* Met Office Hadley Centre, Exeter, UK.

Lane, A.C. (2000), Bats of the Humber Estuary and Holderness Coast. *Yorkshire Naturalists' Union Bulletin*, 34 (Supplement): 33-37.

Lillie, M. & Gearey, B. (1999). The Palaeoenvironmental Survey of the Rivers Aire, Ouse, Wharf and Derwent. *In*: van de Noort, R. & Ellis, S. (eds) *Wetland Heritage of the Vale of York: an archaeological survey*. Humber Wetlands Project, University of Hull: Hull.

Limbert, M. (1998). Review of the genus *Metrioptera* (Orthoptera: Tettigoniidae) in Yorkshire. *The Naturalist*, 123: 103-111.

Menzel, A., Sparks, T.H., Estrella, N., Koch, E., Aasa, A., Ahas, R., Alm-Kübler, K. Bissolli, P., Braslavská, O., Briede, A., Chmielewski, F.M., Crepinsek, Z., Curnel, Y., Dahl, Å., Defila, C., Donnelly, A., Filella, Y., Jatczak, K., Måge, F., Mestre, A., Nordli, Ø., Peñuelas, J., Pirinen, P., Remišová, V., Scheifinger, H., Striz, M., Susnik, Van Vliet, A.J.H., Wielgolaski, F-E., Zach, S., & Zust, A. (2006). European phenological response to climate change matches the warming pattern. *Global Change Biology*, 12: 1969–1976.

Millennium Ecosystems Approach (2005). The Millennium Ecosystems Assessment www.millenniumassessment.org

National Biodiversity Network Gateway website www.searchnbn.net

Nelson, T.H. (1907). *The birds of Yorkshire*. 2 vols. A. Brown: London.

North Somerset Council (adopted 2007). North Somerset Replacement Local Plan

Nottingham City Council (adopted November 2005). Nottingham Local Plan.

ODPM, (2005). Planning Policy Statement Note 9. Biodiversity and Geological Conservation. HMSO.

ODPM, (2004). Planning Policy Statement Note 12 Local Development Frameworks.

Palmer, M.A. & Roy, D.B. (2001). An Estimate of the Extent of Dystrophic, Oligotrophic, Mesotrophic and Eutrophic Standing Fresh Water in Great Britain. JNCC Report No. 317.

Pond Conservation (2000). www.pondconservation.org.uk/News/pressreleases2008/pondstrapmorecarbonthantheworldsoceans.htm

Preston, C.D., Pearman, D.A. & Dines, T.D. (eds) (2002a). *New Atlas of the British and Irish Flora*. Oxford University Press: Oxford.

Preston, C.D., Telfer, M.G., Arnold, H.R., Carey, P.D., Cooper, J.M., Dines, T.D., Hill, M.O., Pearman, D.A., Roy, D.B. & Smart, S.M. (2002b). *The changing flora of the UK*. DEFRA: London.

Rodwell, J.S., Morgan, V., Jefferson, R.G. & Moss, D. (2007). *The European context of British lowland grasslands*. JNCC Report No. 394. Joint Nature Conservation Committee: Peterborough.

Selman, R., Dodd, F. and Bayes, K. (1999) A Biodiversity Audit of Yorkshire and the Humber. Yorkshire & Humber Biodiversity Forum.

Shepherd, (1966). *The draining of the marshlands of South Holderness and the Vale of York*. East Yorkshire Local History Series, 20. East Yorkshire Local History Society: York.

Sheppard, J.A. (1966). The Draining of the Marshlands of South Holderness and the Vale of York. East Riding Local History Society: York.

Skidmore, P. (2006). A Brief Review of the Invertebrate Fauna of Thorne and Hatfield Moors. *Yorkshire Naturalists' Union Bulletin* 45 (Supplement): 49-54.

Sparks, T., Crick, H., Woiwood, I. & Beebee, T. (1999). Climate Change and Phenology in the United Kingdom. Pp. 53-55 in Green, R.E., Harley, M., Spalding, M. & Zockler, C. (1999). *Impacts of climate change on wildlife*. RSPB: Sandy.

Widgery, J.P. (2002) (ed). Orthoptera Recording Scheme for Britain and Ireland: Newsletter 28 (August 2002).

Williams, P., Biggs, J., Whitfield, M., Thorne, A., Bryant, S., Fox, G. & Nicolet, P. (1999). *The Pond Book*. The Ponds Conservation Trust: Oxford.

Woodland Trust (undated) Specification No. 4.6: Herbicide Control of Rhododendron and Laurel. Woodland Trust website (www.woodland-trust.org.uk)

W.S. Atkins, Stockholm Environment Institute & The Met Office (2002). *Warming up the region: Yorkshire and Humber climate change impact scoping study*. W.S. Atkins report for Yorkshire Forward.

Wynn, R.B., Josey, S.A., Martin, A.P., Johns, D.G. and Yesou, P. (2007) Climate-Driven Range Expansion of a Critically Endangered Top Predator in Northeast Atlantic Waters. *Biology Letters*, 3: 529-532.

Yorkshire and Humber Biodiversity Forum (2009) Yorkshire and Humber Regional Biodiversity Strategy.

APPENDICES

APPENDIX A

KEY THEMES FOR THE EAST RIDING OF YORKSHIRE BIODIVERSITY ACTION PLAN

Key Themes for the East Riding of Yorkshire Biodiversity Action Plan (ERYBAP)

The Sustainable Natural Environment Task Group (SNETG) has identified several key themes that will guide the delivery of the East Riding of Yorkshire Biodiversity Action Plan (ERYBAP). These principles relate to the ERYBAP's coverage, position in relation to other major delivery mechanisms and delivery at designated sites including statutory and non-statutory site systems. The themes are as follows:

Adding Value – The ERYBAP should not duplicate, or seek to coordinate conservation effort that is already being undertaken by the statutory organisations, or by the delivery mechanisms that they administer. Similarly, the ERYBAP and the East Riding of Yorkshire Biodiversity Partnership should not report through the biodiversity action reporting system (BARS) everything that is going on in the East Riding of Yorkshire in terms of biodiversity as a coordination exercise. The Partnership may, however, act as a forum through which information about initiatives in support of biodiversity are collated.

The Partnership should focus on developing action plans, which add value to what is already taking place in the sub-region as a result of the actions of statutory agencies, through targeted positive additional actions that make the best use of the collective resources of the Partnership.

Coordination of local action – Where existing local action is contributory to the milestones/targets identified by the Partnerships, then it should, where possible, be adopted by the East Riding of Yorkshire Biodiversity Partnership as an integral part of a habitat action plan (HAP) or species action plan (SAP), supported through the Partnership and reported through BARS. Where actions occur which are in parallel to, but not within an ERYBAP action plan, they should not be reported by the Partnership, but may be included as relevant context within a habitat or species statement. When supporting projects the members of the Partnership should prioritise projects that are formulated within the Biodiversity Action Plan (BAP) framework and contribute positively to an action plan and make the biggest gains.

National Targets – In 2006 these were devolved from a UK level to coverage at the individual country scale (i.e. England, Scotland, Wales and Northern Ireland). These targets are also now structured to fit within standard allocated categories (e.g. restore, maintain, create) and are quantified, with the aim of making assessment more objective and linkages with Local Biodiversity Action Plan (LBAP) targets easier. There have also been new types of target aimed at increasing habitats resilience in light of a changing climate.

There has been limited progress with targets for habitat restoration and enhancement and that there is a need for larger scale habitat restoration and better engagement with regional bodies to deliver the targets.

Regional Targets – National habitat targets have been disaggregated to the regions. Natural England, on behalf of the Yorkshire and Humber Biodiversity Forum, has developed a 'Regional Delivery Plan' that aims to achieve the Yorkshire and Humber Region's part of the UK

Biodiversity Action Plan (UK BAP) Habitat targets by 2015. As part of this process an Audit of progress on Habitat targets was published in 2009. Through consultation with LBAPs the regional habitat targets have been revised and disaggregated to a sub-regional level.

APPENDIX B

TERMS OF REFERENCE FOR THE SUSTAINABLE NATURAL ENVIRONMENT TASK GROUP (SNETG)

The East Riding of Yorkshire Sustainable Natural Environment Task Group
Terms of Reference

Preamble

The East Riding of Yorkshire Sustainable Natural Environment Task Group (SNETG) has existed since 2006 in its current form and since 2002 as the Natural Environment Task Group. The SNETG is currently made up of an informal group of representatives of the local authority, statutory agencies and non-governmental organisations who are collectively responsible for developing and coordinating natural environment activities in the East Riding of Yorkshire area.

A need was identified for a more formal statement of the SNETG's aims and the powers it has to achieve them. These are articulated in these Terms of Reference.

1. Name

1.1 The name of this organisation shall be the Sustainable Natural Environment Task Group (SNETG).

1.2 The SNETG shall carry out the functions detailed in paragraph 2.4.

2. Purpose & Functions

2.1 The SNETG is one of the four task groups of the Sustainable Communities Action Group that reports to the East Riding of Yorkshire Local Strategic Partnership Board. The Local Strategic Partnership is charged with the delivery of the Community Plan entitled "Our East Riding" (2006-2016) and coordinating the efforts of partners to provide the best service for local people. The latter will be largely achieved through Local Area Agreements (LAAs).

2.2 The principal themes to be covered by the SNETG have been identified as:
- Biodiversity (including geodiversity)
- Coastal and flood management
- Pollution of air, land and water
- Environmental enhancement and management
- Natural resource protection

2.3 The SNETG's purpose shall be to:
- Share good practice by acting as a focus for natural environment expertise.
- Raise awareness of biodiversity and nature conservation issues.
- Support and guide the work of relevant officers within the East Riding of Yorkshire Council, including the Biodiversity Officer, Senior Coastal Officer, Rural Development team members and others.
- Influence plans and projects by seeking ways in which to improve the conservation, management and enhancement of the natural environment.
- Oversee the production of the revised Local Biodiversity Action Plan and the development of an associated Biodiversity Partnership to implement the plan.
- Contribute to the Local Biodiversity Action Plan network, passing information through the Sub-Regional Coordinator of the Regional Biodiversity Forum.
- Support the collection, interpretation and management of ecological data.
- Contribute to regional and sub-regional biodiversity initiatives.
- Contribute towards the achievement of all relevant objectives and targets outlined in the Community Plan "Our East Riding" and Local Area Agreements.

2.4 The functions of the SNETG shall be to:

- Guide and steer the natural environment agenda of the Sustainable Communities Action Group, and any SNETG sub-committees or working groups.
- Promote the multiple benefits of the conservation and enhancement of the natural environment.
- Agree core values and priorities of the SNETG.
- Receive, and facilitate the development of, proposals for projects from SNETG partners.
- Provide a demonstration of good practice.
- Contribute towards the identification and seeking of strategic funding for project work.
- Encourage community engagement.
- Nominate members of the SNETG to serve on consultative groups, working parties, forums etc. as necessary.
- Elect a Chair and Vice-Chair, using the procedure outlined in paragraph 5.1.
- Adopt new member organisations into the SNETG, using the procedure outlined in paragraph 5.1.
- Secure and encourage widespread regional and sub-regional representation.

3. Membership

3.1 Membership of the SNETG shall be sought from all organisations and individuals relevant to the purposes and activities of the group. Members of the SNETG shall attend as representatives of their organisation, but are expected to act in the interests of the wider group when decision-making.

3.2 Conflicts of interest should be made known as they arise during debates.

3.3 It shall be the aim of the SNETG to secure a balanced representation from all parts of the East Riding of Yorkshire and reflecting all fields of natural environment related activity.

3.4 The SNETG shall invite representatives to be members of the group, as appropriate, and for an unlimited period of time. The SNETG shall also consider those willing to join the group.

3.5 The number of representatives from each constituent organisation of the SNETG shall be determined by existing SNETG members. Representation by constituent organisations shall be kept to a minimum with multiple representatives being limited to those circumstances in which specific expertise is required, or a particular project or issue to be discussed.

4. SNETG Meetings & Procedures

4.1 The SNETG shall meet no less than four times a year. Extraordinary meetings of the SNETG may be called by the Chair, or in his/her absence, the Vice-Chair, if required.

4.2 Should a formal vote be required on any issue, this shall be determined on a simple majority basis of those present at the meeting. In the event of a tie, the Chair of the meeting shall have an additional casting vote.

4.3 No business shall be transacted by the SNETG unless a quorum is present. A quorum shall be no less than 4 members of the SNETG entitled to vote upon the business to be conducted at any meeting.

5. Officers

5.1 The SNETG shall have the following officers/members: -

- Chair.

One member of the SNETG shall be elected as Chair of the group. Nominations for this role shall be sought from within the SNETG and, in circumstances where there is more than one member nominated, the Chair shall be elected by means of a secret ballot on a simple majority basis. The Chair shall serve for a maximum term of three years and then stand down for a period of no less than one year.

- Vice-Chair.

One member of the SNETG shall be elected as Vice Chair of the group. Nominations for this role shall be sought from within the SNETG and, in circumstances where there is more than one member nominated, the Vice Chair shall be elected by means of a secret ballot on a simple majority basis. The Vice Chair shall serve for a maximum term of three years and then stand down for a period of no less than one year.

- SNETG Members.

Membership of the SNETG shall be limited to those community groups, local authorities, national and regional agencies, voluntary and environmental NGOs, businesses and key individuals with a commitment to the aims and functions outlined in paragraphs 2.3 and 2.4. New members shall be co-opted on an informal invitation basis. There shall be no maximum or minimum length of term of office for SNETG members.

5.2 The duties of these officers shall be to: -

(a) Chair

- Lead and effectively manage the business of SNETG meetings and provide clear direction and focus in all such meetings.
- Promote effective decision-making and constructive debate during meetings.
- Ensure that any sub-committees or working groups of the SNETG are properly chaired, structured and run in accordance with agreed Terms of Reference.
- Uphold and promote the aims and objectives of the SNETG and its Terms of Reference, and to interpret these whenever necessary.
- Be forward thinking and pro-active in establishing the future direction of SNETG business.
- Invite new members to join the SNETG, as appropriate.
- Represent the SNETG, as required, at all relevant Sustainable Communities Action Group and Local Strategic Partnership Board meetings (or sub-groups of these).
- Deploy a casting vote in the event of tied voting.
- Take urgent action between meetings in the best interests of the SNETG.
- Circulate draft agendas and invite suggestions for additional agenda items from SNETG members in advance of each meeting.
- Ensure that accurate minutes of all SNETG meetings, and any sub-committees or working groups, are kept and submitted to the Local Strategic Partnership.
- Endeavour to attend all meetings.

(b) Vice-Chair.

- Deputise fully in the absence of the Chair.
- Support the general activities of the Chair, as outlined in paragraph 5.2 (a).
- Work actively with the Chair to coordinate the work of the SNETG and any sub-committees or working groups.
- Uphold and promote the aims and objectives of the SNETG and its Terms of Reference.
- Endeavour to attend all meetings.

(c) SNETG members:

- Uphold and promote the aims and objectives of the SNETG, and its Terms of Reference.
- Endeavour to complete any actions or activities that are assigned during SNETG meetings.
- Endeavour to attend all meetings.

6. Secretariat

6.1 The East Riding of Yorkshire Council shall act as the secretariat to the SNETG. The secretariat duties shall be to:

- Promote the work of the SNETG and ensure that it effectively influences, and forms part of, the Community Plan and Local Area Agreements.
- Act as the first 'point of contact' for those seeking information regarding the activities of the SNETG.
- Keep and maintain a database of information regarding SNETG members.
- Provide technical/administrative support to the duties of the Chair and Vice Chair of the SNETG.
- Advise on issues of governance relating to the wider East Riding of Yorkshire Local Strategic Partnership.
- Coordinating the flow of information from the SNETG to relevant parties (the LSP Board, departments of the East Riding of Yorkshire Council etc).

7. Amendments to the Terms of Reference

7.1 Amendments to these Terms of Reference may be proposed by means of a formal resolution made by any existing SNETG member.

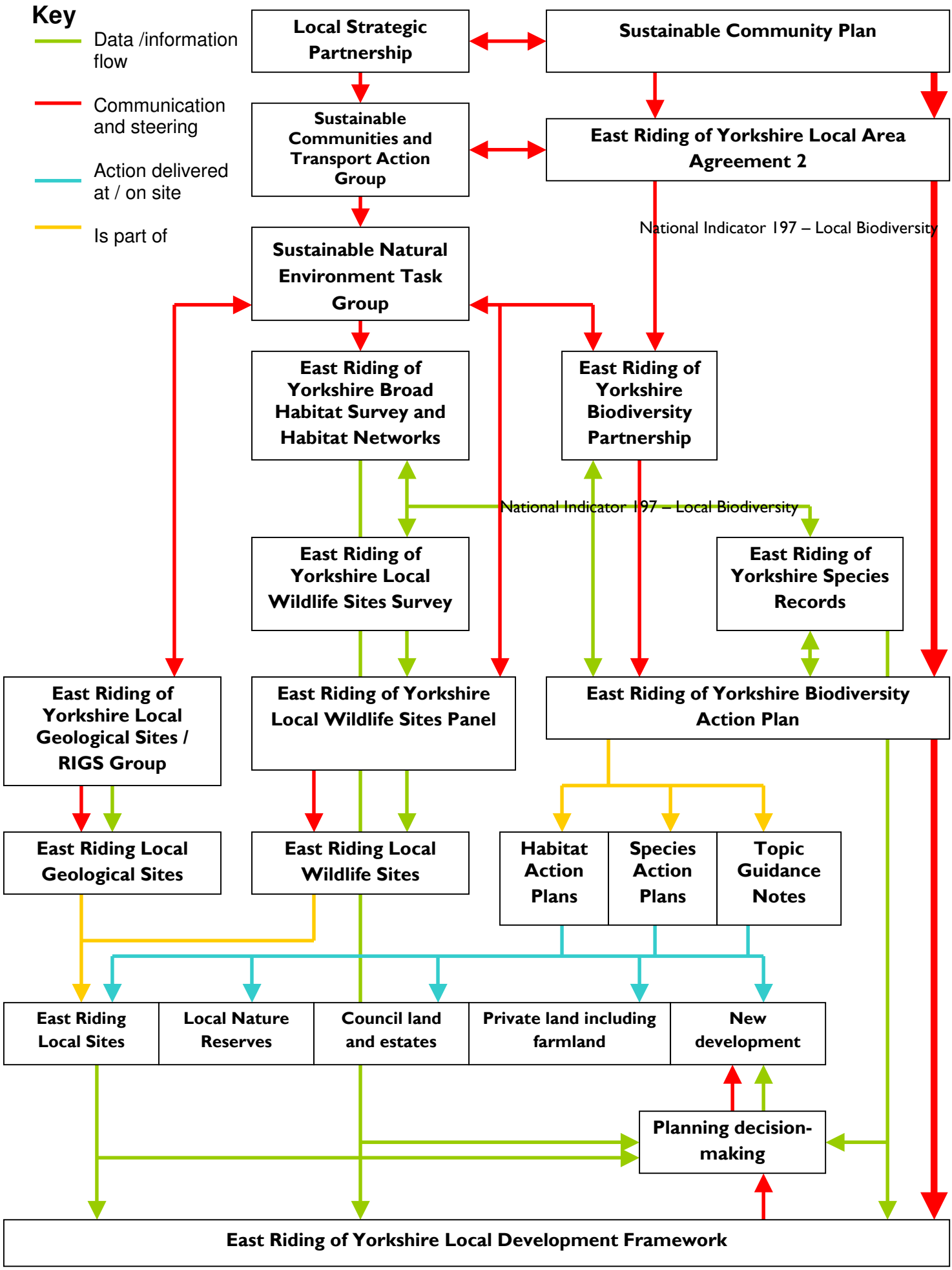
7.2 In order to adopt an amendment, the resolution must secure the support of a two-thirds majority of the SNETG, subject to confirmation by a simple majority vote.

8. Ratification

8.1 These Terms of Reference were established by a simple majority vote of those attending the SNETG meeting of Thursday 27th September 2007 at Beverley, East Riding of Yorkshire.

APPENDIX C

STRUCTURE DIAGRAM SHOWING BIODIVERSITY CO-ORDINATION IN THE EAST RIDING OF YORKSHIRE


Key
Data /information flow
Communication and steering
Action delivered at / on site
Is part of
Local Strategic Partnership
Sustainable Community Plan
Sustainable Communities and Transport Action Group
East Riding of Yorkshire Local Area Agreement 2
National Indicator 197 – Local Biodiversity
Sustainable Natural Environment Task Group
East Riding of Yorkshire Broad Habitat Survey and Habitat Networks
East Riding of Yorkshire Biodiversity Partnership
National Indicator 197 – Local Biodiversity
East Riding of Yorkshire Local Wildlife Sites Survey
East Riding of Yorkshire Species Records
East Riding of Yorkshire Local Geological Sites / RIGS Group
East Riding of Yorkshire Local Wildlife Sites Panel
East Riding of Yorkshire Biodiversity Action Plan
East Riding Local Geological Sites
East Riding Local Wildlife Sites
Habitat Action Plans
Species Action Plans
Topic Guidance Notes
East Riding Local Sites
Local Nature Reserves
Council land and estates
Private land including farmland
New development
Planning decision-making
East Riding of Yorkshire Local Development Framework

APPENDIX D

LIST OF UK BIODIVERSITY ACTION PLAN AND LOCAL PRIORITY SPECIES THAT HAVE BEEN RECORDED AS OCCURRING IN THE EAST RIDING OF YORKSHIRE (BASED ON LOCAL AND NATIONAL DATA AND THROUGH CONSULTATION WITH RECORDERS AND NATURALISTS)

PROCESS FOR PRODUCING THE LOCAL PRIORITY SPECIES LIST

The Priority Species list below has been compiled from data made available by Local Records Centres as members of the Yorkshire & Humber Environmental Data Network (http://www.yhedn.org.uk) and from data made available online by other recording groups through the National Biodiversity Network (NBN) Gateway (http://data.nbn.org.uk). In addition the resulting list of species has been refined and consulted on with naturalists and recorders for particular species groups.

SECTIONS

The Table below shows UK Biodiversity Action Plan (BAP) Species that have been recorded in the East Riding along with other species that are felt to be locally important in the local context based on the opinion of local recorders and naturalists. For each species the scientific and common name is given along with the taxonomic group it is from. If the species has a designation then this is listed in the fourth column. Designations include UK BAP status, inclusion on a red list or conservation status list such as red data book (RDB) or protected status, such as inclusion on the Wildlife and Countryside Act (1981).

This list is based on best available data at the time of publication and maybe subject to change through further consultation.

Scientific Name	Common Name	Taxonomic Group	Designations
Bufo bufo	Common Toad	amphibian	UK BAP Priority Species 2007
Triturus cristatus	Great Crested Newt	amphibian	UK BAP Priority Species 2007 W&C Act (1981) Habitat Regs (1994)
Lissotriton helveticus	Palmate newt	amphibian	
Crex crex	Corn crake	bird	Red list UK BAP Priority Species W&C Act (1981) Schedule 1
Cygnus olor	Mute swan	bird	
Cygnus cygnus	Whooper swan	bird	Amber list
Anser brachyrhynchus	Pink-footed goose	bird	Amber list

Scientific Name	Common Name	Taxonomic Group	Designations
Branta bernicla bernicla	Dark-bellied brent goose	bird	Red list race UK BAP Priority Species 2007
Tadorna tadorna	Common shelduck	bird	Amber list
Anas penelope	Wigeon	bird	Amber list
Anas strepera	Gadwall	bird	Amber list
Anas crecca	Teal	bird	Amber list
Anas platyrhynchos	Mallard	bird	Amber list
Anas acuta	Pintail	bird	Amber list
Anas querquedula	Garganey	bird	Amber list W&C Act (1981) Schedule 1
Anas clypeata	Shoveler	bird	Amber list
Aythya farina	Pochard	bird	Amber list
Aythya fuligula	Tufted duck	bird	Amber list
Somateria mollissima	Eider	bird	Amber list
Melanitta nigra	Common scoter	bird	Red list UK BAP Priority Species 2007 W&C Act (1981) Schedule 1
Bucephala clangula	Goldeneye	bird	Amber list
Mergellus albellus	Smew	bird	Amber list
Perdix perdix	Grey partridge	bird	Red list UK BAP Priority Species 2007
Coturnix coturnix	Quail	bird	Amber list W&C Act (1981) Schedule 1
Gavial stellata	Red-throated diver	bird	Amber list W&C Act (1981) Schedule 1
Tachybaptus ruficollis	Little grebe	bird	Amber list
Podiceps nigricollis	Black-necked grebe	bird	Amber list W&C Act (1981) Schedule 1
Fulmarus glacialis	Fulmar	bird	Amber list

Scientific Name	Common Name	Taxonomic Group	Designations
Puffinus mauretanicus	Balearic shearwater	bird	Red list Critically endangered on IUCN Red List UK BAP Priority Species 2007
Morus bassanus	Gannet	bird	Amber list
Phalacrocorax aristotelis	Shag	bird	Amber list
Botaurus stellaris	Great bittern	bird	Red list UK BAP Priority Species 2007 W&C Act (1981) Schedule 1
Mivus milvus	Red kite	bird	Amber list W&C Act (1981) Schedule 1
Circus aeruginosus	Marsh harrier	bird	Amber list
Circus cyaneus	Hen harrier	bird	Red list W&C Act (1981) Schedule 1
Falco tinnunculus	Kestrel	bird	Amber list
Falco peregrinus	Peregrine falcon	bird	W&C Act (1981) Schedule 1
Rallus aquaticus	Water rail	bird	
Haematopus ostralegus	Oyster catcher	bird	Amber list
Recurvirostra avosetta	Avocet	bird	Amber list W&C Act (1981) Schedule 1
Charadrius hiaticula	Ringed plover	bird	Amber list
Pluvialis apricaria	Golden plover	bird	Amber list
Pluvialis squatarola	Grey plover	bird	Amber list
Vanellus vanellus	Lapwing	bird	Red list UK BAP Priority Species 2007
Calidris canutus	Knot	bird	Amber list
Calidris maritima	Purple sandpiper	bird	Amber list W&C Act (1981) Schedule 1
Calidris alpina	Dunlin	bird	Red list
Philomachus pugnax	Ruff	bird	Red list W&C Act (1981) Schedule 1

Scientific Name	Common Name	Taxonomic Group	Designations
Lymnocryptes minimus	Jack snipe	bird	Amber list
Gallinago gallinago	Snipe	bird	Amber list
Scolopax rusticola	Woodcock	bird	Amber list
Limosa limosa	Black-tailed godwit	bird	Red list UK BAP Priority Species 2007 W&C Act (1981) Schedule 1
Limosa lapponica	Bar-tailed godwit	bird	Amber list
Numenius phaeopus	Whimbrel	bird	Red list W&C Act (1981) Schedule 1
Numenius arquata	Curlew	bird	Amber list UK BAP Priority Species 2007
Actitis hypoleucos	Common sandpiper	bird	Amber list
Tringa ochropus	Green sandpiper	bird	Amber list W&C Act (1981) Schedule 1
Tringa totanus	Redshank	bird	Amber list
Arenaria interpres	Turnstone	bird	Amber list
Stercorarius parasiticus	Arctic skua	bird	Red list UK BAP Priority Species 2007
Rissa tridactyla	Kittiwake	bird	Amber list
Hydrocoloeus minutus	Little gull	bird	Amber list W&C Act (1981) Schedule 1
Larus glaucoides	Iceland gull	bird	Amber list
Larus hyperboreus	Glaucous gull	bird	Amber list
Larus marinus	Great black-backed gull	bird	Amber list
Sterna albifrons	Little tern	bird	Amber list W&C Act (1981) Schedule 1
Chlidonias niger	Black tern	bird	Amber list W&C Act (1981) Schedule 1
Sterna sandvicensis	Sandwich tern	bird	Amber list
Sterna hirundo	Common tern	bird	Amber list

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Sterna dougallii	Roseate tern	bird	Red list UK BAP Priority Species 2007 W&C Act (1981) Schedule 1
Uria aalge	Guillemot	bird	Amber list
Alca torda	Razorbill	bird	Amber list
Fratercula arctica	Puffin	bird	Amber list
Columba oenas	Stock dove	bird	Amber list
Streptopelia turtur	Turtle dove	bird	Red list UK BAP Priority Species 2007
Cuculus canorus	Cuckoo	bird	Red list UK BAP Priority Species 2007
Tyto alba	Barn owl	bird	Amber list W&C Act (1981) Schedule 1
Asio flames	Short-eared owl	bird	Amber list
Apus apus	Swift	bird	Amber list
Alcedo atthis	Kingfisher	bird	Amber list W&C Act (1981) Schedule 1
Picus viridis	Green woodpecker	bird	Amber list
Bendrocopos minor	Lesser-spotted woodpecker	bird	Red list UK BAP Priority Species 2007
Lullula arborea	Wood lark	bird	Amber list UK BAP Priority Species 2007 W&C Act (1981) Schedule 1
Alauda arvensis	Sky lark	bird	Red list UK BAP Priority Species 2007
Riparia riparia	Sand martin	bird	Amber list
Hirunda rustica	Swallow	bird	Amber list
Delichon urbicum	House martin	bird	Amber list
Anthus trivialis	Tree pipit	bird	Red list UK BAP Priority Species 2007

Scientific Name	Common Name	Taxonomic Group	Designations
Anthus pratensis	Meadow pipit	bird	Amber list
Anthus spinoletta	Water pipit	bird	Amber list
Motacilla flava	Yellow wagtail	bird	Red list UK BAP Priority Species 2007
Prunella modularis	Dunnock	bird	Amber list UK BAP Priority Species 2007
Phoenicurus phoenicurus	Redstart	bird	Amber list
Turdus philomelos	Song thrush	bird	Red list UK BAP Priority Species 2007
Turdus viscivorus	Mistle thrush	bird	Amber list
Locustella naevia	Grasshopper warbler	bird	Red list UK BAP Priority Species 2007
Sylvia communis	Whitethroat	bird	Amber list
Phylloscopus trochilus	Willow warbler	bird	Amber list
Muscicapa striata	Spotted flycatcher	bird	Red list UK BAP Priority Species 2007
Panurus bairmicus	Bearded tit	bird	Amber list W&C Act (1981) Schedule 1
Poecile Montana	Willow tit	bird	Red list UK BAP Priority Species 2007
Poecile palustris	Marsh tit	bird	Red list UK BAP Priority Species 2007
Sturnus vulgaris	Starling	bird	Red list UK BAP Priority Species 2007
Passer domesticus	House sparrow	bird	Red list UK BAP Priority Species 2007
Passer montanus	Tree sparrow	bird	Red list UK BAP Priority Species 2007

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Carduelis cannabina	Linnet	bird	Red list UK BAP Priority Species 2007
Carduelis flavirostris	Twite	bird	Red list UK BAP Priority Species 2007
Carduelis cabaret	Lesser redpoll	bird	Red list UK BAP Priority Species 2007
Pyrrhula pyrrhula	Bullfinch	bird	Amber list UK BAP Priority Species 2007
Coccothraustes coccothraustes	Hawfinch	bird	Amber list UK BAP Priority Species 2007
Plectrophenax nivalis	Snow bunting	bird	Amber list W&C Act (1981) Schedule 1
Emberiza citrinella	Yellowhammer	bird	Red list UK BAP Priority Species 2007
Emberiza schoeniculus	Reed bunting	bird	Amber list UK BAP Priority Species 2007
Emberiza calandra	Corn bunting	bird	Red list UK BAP Priority Species 2007
Charadrius dubius	Little ringed plover	bird	W&C Act (1981) Schedule 1
Anguilla anguilla	European Eel	bony fish (Actinopterygii)	UK BAP Priority Species 2007
Osmerus eperlanus	Smelt	bony fish (Actinopterygii)	UK BAP Priority Species 2007
Pleuronectes platessa	Plaice	bony fish (Actinopterygii)	UK BAP Priority Species 2007
Salmo salar	Atlantic Salmon	bony fish (Actinopterygii)	UK BAP Priority Species 2007
Cobitis taenia	Spined locah	bony fish (Actinopterygii)	UK BAP Priority Species

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Salmo trutta	Brown/Sea Trout	bony fish (Actinopterygii)	UK BAP Priority Species 2007
Lophopus crystallinus	Crystal Moss-animal	bryozoan	UK BAP Priority Species 2007
Cetorhinus maximus	Basking Shark	cartilagenous fish (Chondrichthyes)	UK BAP Priority Species 2007 W&C Act (1981)
Austropotamobius pallipes	Freshwater White-clawed Crayfish	crustacean	UK BAP Priority Species 2007 W&C Act (1981)
Centaurea cyanus	Cornflower	vascular plant	UK BAP Priority Species 2007
Clinopodium acinos	Basil Thyme	vascular plant	UK BAP Priority Species 2007
Salsola kali subsp. kali	Prickly Saltwort	vascular plant	UK BAP Priority Species
Scleranthus annuus	Annual Knawel	vascular plant	UK BAP Priority Species
Astragalus danicus	Purple milk-vetch	vascular plant	UK BAP Priority Species
Blysmus compressus	Flat sedge	vascular plant	UK BAP Priority Species
Galeopsis angustifolia	Red hemp nettle	vascular plant	UK BAP Priority Species
Sium latifolium	Greater Water Parsnip	vascular plant	UK BAP Priority Species
Stellaria palustris	Marsh stitchwort	vascular plant	UK BAP Priority Species
Carum carvi	Caraway	vascular plant	UK BAP Priority Species
Ranunculus arvensis	Corn buttercup	vascular plant	UK BAP Priority Species
Scandix pecten-veneris	Shepherd's Needle	vascular plant	UK BAP Priority Species
Oenanthe fistulosa	Tubular Water-Dropwort	vascular plant	UK BAP Priority Species 2007

Scientific Name	Common Name	Taxonomic Group	Designations
Coeloglossum viride	Frog orchid	vascular plant	UK BAP Priority Species
Carex divisa	Divided sedge	vascular plant	UK BAP Priority Species
Gnaphalium slyvaticum	Heath cudweed	vascular plant	
Limonium vulgare	Sea-lavender	vascular plant	
Trifolium suffocatum	Suffocated clover	vascular plant	
Ruppia cirrhosa	Spiral tasselweed	vascular plant	
Bupleurum tenuissimum	Slender hare's ear	vascular plant	
Calamagrostis stricta	Narrow small-reed	vascular plant	UK BAP Priority Species
Dactylorhiza purpurella cambrensis	Marsh orchid	vascular plant	
Acrotrichis arnoldi		insect - beetle (Coleoptera)	RDB - Insuff known
Acrotrichis subcognata		insect - beetle (Coleoptera)	
Amara famelica		insect - beetle (Coleoptera)	RDB - Rare
Aphodius plagiatus		insect - beetle (Coleoptera)	Nationally Notable B
Arena tabida		insect - beetle (Coleoptera)	RDB - Insuff known
Atheta difficilis		insect - beetle (Coleoptera)	Nationally Notable
Atheta marina		insect - beetle (Coleoptera)	
Atomaria morio		insect - beetle (Coleoptera)	RDB - Insuff known
Atomaria puncticollis		insect - beetle (Coleoptera)	RDB - Insuff known
Bledius dissimilis		insect - beetle (Coleoptera)	RDB – Indeterm

Scientific Name	Common Name	Taxonomic Group	Designations
Brudinia meridionalis		insect - beetle (Coleoptera)	
Carabus monilis		insect - beetle (Coleoptera)	UK BAP Priority Species Nationally Notable B
Carpelimus foveolatus		insect - beetle (Coleoptera)	Nationally Notable
Chlaenius nigricornis		insect - beetle (Coleoptera)	
Chrysolina graminis	Tansy Beetle	insect - beetle (Coleoptera)	UK BAP Priority Species 2007 Nationally Notable A
Corticeus unicolor		insect - beetle (Coleoptera)	RDB – Rare
Corylophus cassidoides		insect - beetle (Coleoptera)	
Corylophus sublaevipennis		insect - beetle (Coleoptera)	
Cryptorhynchus lapathi		insect - beetle (Coleoptera)	Nationally Notable B
Ctenicera pectinicornis		insect - beetle (Coleoptera)	Nationally Notable A
Curculio betulae		insect - beetle (Coleoptera)	Nationally Notable B
Cypha discoidea		insect - beetle (Coleoptera)	Nationally Notable
Dolichosoma lineare		insect - beetle (Coleoptera)	Nationally Notable B
Donacia clavipes		insect - beetle (Coleoptera)	Nationally Notable B
Donacia impressa		insect - beetle (Coleoptera)	Nationally Notable A
Donacia sparganii		insect - beetle (Coleoptera)	Nationally Notable A
Donacia thalassina		insect - beetle (Coleoptera)	Nationally Notable B
Dromius longiceps		insect - beetle (Coleoptera)	
Drupenatus nasturtii		insect - beetle (Coleoptera)	Nationally Notable B

Scientific Name	Common Name	Taxonomic Group	Designations
Georissus crenulatus		insect - beetle (Coleoptera)	Nationally Notable A
Graptodytes billneatus		insect - beetle (Coleoptera)	RDB – Rare
Hapliplus apicalis		insect - beetle (Coleoptera)	Nationally Notable B
Helochares obscurus		insect - beetle (Coleoptera)	RDB - Rare
Helochares punctatus		insect - beetle (Coleoptera)	Nationally Notable B
Hypera diversipunctata		insect - beetle (Coleoptera)	RDB - Rare
Ilybius aenescens		insect - beetle (Coleoptera)	Nationally Notable B
Ilybius fenestratus		insect - beetle (Coleoptera)	Nationally Notable B
Ilybius guttiger		insect - beetle (Coleoptera)	Nationally Notable B
Lamprinodes saginatus		insect - beetle (Coleoptera)	Nationally Notable A
Lampyris noctiluca		insect - beetle (Coleoptera)	
Magdalis armigera		insect - beetle (Coleoptera)	
Magdalis barbicornis		insect - beetle (Coleoptera)	Nationally Notable A
Magdalis carbonaria		insect - beetle (Coleoptera)	Nationally Notable B
Magdalis cerasi		insect - beetle (Coleoptera)	Nationally Notable B
Mycetophagus piceus		insect - beetle (Coleoptera)	Nationally Notable B
Notaris bimaculatus		insect - beetle (Coleoptera)	Nationally Notable B
Notaris scirpi		insect - beetle (Coleoptera)	Nationally Notable B
Ochthebius auriculatus		insect - beetle (Coleoptera)	Nationally Notable B
Ochthebius marinus		insect - beetle (Coleoptera)	Nationally Notable B

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Oedostethus quadripustulatus		insect - beetle (Coleoptera)	Nationally Notable A
Panagaeus cruxmajor	Crucifix Ground Beetle	insect - beetle (Coleoptera)	UK BAP Priority Species 2007 RDB - Endng
Parephotistus nigricornis		insect - beetle (Coleoptera)	RDB – Rare
Phaedon concinnus		insect - beetle (Coleoptera)	Nationally Notable B
Phymatodes testaceus		insect - beetle (Coleoptera)	
Platyrhinus resinosus		insect - beetle (Coleoptera)	Nationally Notable B
Platystethus nodifrons		insect - beetle (Coleoptera)	Nationally Notable
Pogonus chalceus		insect - beetle (Coleoptera)	
Pretostichus anthracinus		insect - beetle (Coleoptera)	Nationally Notable B
Pselactus spadix		insect - beetle (Coleoptera)	Nationally Notable B
Pselaphaulax dresdenis		insect - beetle (Coleoptera)	Nationally Notable
Pterostichus gracilis		insect - beetle (Coleoptera)	Nationally Notable B
Pterostichus oblongopunctatus		insect - beetle (Coleoptera)	Nationally Notable B
Ptomaphagus varicornis		insect - beetle (Coleoptera)	RDB - Insuff known
Pyrochroa coccinea		insect - beetle (Coleoptera)	Nationally Notable B
Pyropterus nigroruber		insect - beetle (Coleoptera)	Nationally Notable A
Sillis ruficollis		insect - beetle (Coleoptera)	Nationally Notable B
Stenus palustris		insect - beetle (Coleoptera)	Nationally Notable B
Sunius bicolour		insect - beetle (Coleoptera)	RDB - Insuff known

Scientific Name	Common Name	Taxonomic Group	Designations
Tachys bistriatus		insect - beetle (Coleoptera)	Nationally Notable B
Uleiota planate		insect - beetle (Coleoptera)	Nationally Notable A
Aricia agestis	Brown Argus	insect - butterfly	UK BAP Priority Species 2007
Melanargia galathea	Marbled White	insect - butterfly	
Coenonympha tullia	Large Heath	insect - butterfly	UK BAP Priority Species 2007
Erynnis tages	Dingy Skipper	insect - butterfly	UK BAP Priority Species 2007
Neozephyrus quercus	Purple Hairstreak	insect - butterfly	
Callophrys rubi	Green Hairstreak	insect - butterfly	
Satyrium w-album	White-letter Hairstreak	insect - butterfly	UK BAP Priority Species 2007
Agrotis ripae	Sand Dart	insect - moth	
Apamea oblonga	Crescent Striped	insect - moth	
Charissa obscurata	Annulet	insect - moth	
Chortodes elymi	Lyme Grass	insect - moth	
Chortodes fluxa	Mere Wainscot	insect - moth	
Clostera pigra	Small Chocolate-tip	insect - moth	
Cucullia asteris	Star-wort	insect - moth	
Arctia caja	Garden Tiger	insect - moth	UK BAP Priority Species 2007
Asteroscopus sphinx	Sprawler	insect - moth	UK BAP Priority Species 2007
Blepharita adusta	Dark Brocade	insect - moth	UK BAP Priority Species 2007
Deltote uncula	Silver Hook	insect - moth	
Eupithecia pygmaeata	Marsh Pug	insect - moth	
Celaena leucostigma	Crescent	insect - moth	UK BAP Priority Species 2007
Dasypolia templi	Brindled Ochre	insect - moth	UK BAP Priority Species 2007
Eupithecia valerianata	Valerian Pug	insect - moth	

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Hydraecia petasitis	Butterbur	insect - moth	
Ennomos erosaria	September Thorn	insect - moth	UK BAP Priority Species 2007
Mythimna litoralis	Shore Wainscot	insect - moth	
Polymixis flavicincta	Large Ranunculus	insect - moth	
Scopula emutaria	Rosy Wave	insect - moth	
Scotopteryx bipunctaria	Chalk Carpet	insect - moth	
Sideridis albicolon	White Colon	insect - moth	
Synanthedon culiciformis	Large red-belted Clearwing	insect - moth	
Synanthedon formicaeformis	Red-tipped Clearwing	insect - moth	
Synanthedon tipuliformis	Currant Clearwing	insect - moth	
Orthonama vittata	Oblique Carpet	insect - moth	UK BAP Priority Species 2007
Synanthedon vespiformis	Yellow-legged Clearwing	insect - moth	
Xanthia gilvago	Dusky-lemon Sallow	insect - moth	UK BAP Priority Species 2007
Xestia agathina	Heath Rustic	insect - moth	UK BAP Priority Species 2007
Phaonia jaroschewskii	Hairy Canary	insect - true fly (Diptera)	UK BAP Priority Species 2007
Hilara gallica		insect - true fly (Diptera)	
Dolichopus migrans		insect - true fly (Diptera)	
Salticella fasciata	Snail-killing fly	insect - true fly (Diptera)	
Andrena tarsata	Mining solitary bee	Hymenoptera	
Colletes halophilus	Solitary silk bee	Hymenoptera	
Bombus muscorum	Carder bumblebee	Hymenoptera	
Acompus rufipes		True Bugs - Heteroptera	
Agnocoris reclairei		True Bugs – Heteroptera	

Scientific Name	Common Name	Taxonomic Group	Designations
Aneurus avenius		True Bugs – Heteroptera	
Aphelocheirus aestivalis		True Bugs – Heteroptera	
Atractotomus mirificus	Woodroffe	True Bugs – Heteroptera	
Brachysteles parvicornis		True Bugs – Heteroptera	
Buchananiella continua	Buchanan White	True Bugs – Heteroptera	
Capsodes gothicus		True Bugs – Heteroptera	
Capsus wagneri		True Bugs – Heteroptera	
Ceratocombus coleoptratus		True Bugs – Heteroptera	
Chlamydatus pullus		True Bugs – Heteroptera	
Cimex pipistrelli		True Bugs – Heteroptera	
Conostethus griseus		True Bugs – Heteroptera	
Coranus subapterus	Heath Assassin Bug	True Bugs – Heteroptera	
Dufouriellus ater		True Bugs – Heteroptera	
Europiella artemisiae		True Bugs – Heteroptera	
Europiella decolor		True Bugs – Heteroptera	
Eysarcoris venustissimus	Woundwort shieldbug	True Bugs – Heteroptera	
Fieberocapsus flaveolus		True Bugs – Heteroptera	
Hallodapus rufescens		True Bugs – Heteroptera	

Scientific Name	Common Name	Taxonomic Group	Designations
Himacerus (Stalia) boops		True Bugs – Heteroptera	
Himacerus mirmicoides	Ant Damsel Bug	True Bugs – Heteroptera	
Kalama tricornis		True Bugs – Heteroptera	
Lamproplax picea		True Bugs – Heteroptera	
Legnotus picipes		True Bugs – Heteroptera	
Liorhyssus hyalinus		True Bugs – Heteroptera	
Lygus maritimus		True Bugs – Heteroptera	
Macrodema microptera		True Bugs – Heteroptera	
Megalonotus praetextatus		True Bugs – Heteroptera	
Mesovelia furcata		True Bugs – Heteroptera	
Micronecta scholtzi		True Bugs – Heteroptera	
Myrmedobia distinguenda		True Bugs – Heteroptera	
Nysius cymoides		True Bugs – Heteroptera	
Nysius senecionis senecionis		True Bugs – Heteroptera	
Orthotylus (Melanotrichus) moncreaffi		True Bugs – Heteroptera	
Orthotylus (Melanotrichus) rubidus		True Bugs – Heteroptera	
Pseudoloxops coccineus		True Bugs – Heteroptera	
Saldula fucicola		True Bugs – Heteroptera	

Scientific Name	Common Name	Taxonomic Group	Designations
Scolopostethus puberulus		True Bugs – Heteroptera	
Stenodema (Brachystira) trispinosa		True Bugs – Heteroptera	
Stictopleurus abutilon		True Bugs – Heteroptera	
Adarrus multinotatus		Plant Hoppers - Auchenorhyncha	
Agallia brachyptera		Plant Hoppers – Auchenorhyncha	
Anakelisia fasciata		Plant Hoppers – Auchenorhyncha	
Anoscopus albiger		Plant Hoppers – Auchenorhyncha	
Anoscopus histrionicus		Plant Hoppers – Auchenorhyncha	
Arboridia parvula		Plant Hoppers – Auchenorhyncha	
Batracomorohus irroratus		Plant Hoppers – Auchenorhyncha	
Cicadula frontalis		Plant Hoppers - Auchenorhyncha	
Cicadula ornata		Plant Hoppers – Auchenorhyncha	
Criomorphus williamsi		Plant Hoppers – Auchenorhyncha	
Delphacinus mesomelas		Plant Hoppers – Auchenorhyncha	
Edwardsiana avellanae		Plant Hoppers – Auchenorhyncha	
Edwardsiana frustrator		Plant Hoppers – Auchenorhyncha	
Edwardsiana geometrica		Plant Hoppers – Auchenorhyncha	
Edwardsiana nigroloba		Plant Hoppers – Auchenorhyncha	

Scientific Name	Common Name	Taxonomic Group	Designations
Edwardsiana ulmiphagus		Plant Hoppers – Auchenorhyncha	
Eupteryx origani		Plant Hoppers – Auchenorhyncha	
Florodelphax leptosoma		Plant Hoppers – Auchenorhyncha	
Idiocerus herrichii		Plant Hoppers – Auchenorhyncha	
Idiodonus cruentatus		Plant Hoppers – Auchenorhyncha	
Kelisia guttulifera		Plant Hoppers – Auchenorhyncha	
Kelisia pallidula		Plant Hoppers – Auchenorhyncha	
Kelisia sabulicola		Plant Hoppers – Auchenorhyncha	
Kosswigianella exigua		Plant Hoppers – Auchenorhyncha	
Opsius stactogalus		Plant Hoppers – Auchenorhyncha	
Ossiannilssonola callosa		Plant Hoppers – Auchenorhyncha	
Paraliburnia adela		Plant Hoppers – Auchenorhyncha	
Populicerus nitidissimus		Plant Hoppers – Auchenorhyncha	
Psammotettix putoni		Plant Hoppers - Auchenorhyncha	
Psammotettix sabulicola		Plant Hoppers – Auchenorhyncha	
Ribautiana debilis		Plant Hoppers – Auchenorhyncha	
Stiroma affinis		Plant Hoppers – Auchenorhyncha	
Stiroma bicarinata		Plant Hoppers – Auchenorhyncha	

Scientific Name	Common Name	Taxonomic Group	Designations
Struebingianella lugubrina		Plant Hoppers – Auchenorhyncha	
Coenagrion pulchellum	Variable Damselfly	Odonata	
Brachytron pratense	Hairy Dragonfly	Odonata	
Erythromma viridulum	Small Red-eyed Damselfly	Odonata	
Aeshna juncea	Common Hawker	Odonata	
Sympetrum danae	Black Darter	Odonata	
Lampetra fluviatilis	River Lamprey	jawless fish (Agnatha)	UK BAP Priority Species 2007
Petromyzon marinus	Sea Lamprey	jawless fish (Agnatha)	UK BAP Priority Species 2007
Balaenoptera acutorostrata	Minke Whale	marine mammal	UK BAP Priority Species 2007 W&C Act (1981)
Balaenoptera physalus	Fin Whale	marine mammal	UK BAP Priority Species 2007 W&C Act (1981)
Lagenorhynchus acutus	White-Sided Dolphin	marine mammal	UK BAP Priority Species 2007 W&C Act (1981)
Lagenorhynchus albirostris	White-Beaked Dolphin	marine mammal	UK BAP Priority Species 2007 W&C Act (1981)
Phoca vitulina	Common Seal	marine mammal	UK BAP Priority Species 2007 W&C Act (1981)
Halichoerus grypus	Grey Seal	Marine mammal	W&C Act (1981)
Phocoena phocoena	Harbour Porpoise	marine mammal	UK BAP Priority Species 2007
Omphiscola glabra	Mud Pond Snail	mollusc	UK BAP Priority Species 2007
Pseudanodonta complanata	Depressed river mussel	mollusc	UK BAP Priority Species 2007

Scientific Name	Common Name	Taxonomic Group	Designations
Anguis fragilis	Slow-worm	reptile	UK BAP Priority Species 2007 W&C Act (1981)
Lacerta vivipara	Viviparous Lizard	reptile	UK BAP Priority Species 2007 W&C Act (1981)
Natrix natrix	Grass Snake	reptile	UK BAP Priority Species 2007 W&C Act (1981)
Vipera berus	Adder	reptile	UK BAP Priority Species 2007 W&C Act (1981)
Arvicola terrestris	Water Vole	terrestrial mammal	UK BAP Priority Species 2007 W&C Act (1981)
Erinaceus europaeus	West European Hedgehog	terrestrial mammal	UK BAP Priority Species 2007
Lepus europaeus	Brown Hare	terrestrial mammal	UK BAP Priority Species 2007
Lutra lutra	European Otter	terrestrial mammal	UK BAP Priority Species 2007 W&C Act (1981) Habitat Regs (1994)
Micromys minutus	Harvest Mouse	terrestrial mammal	UK BAP Priority Species 2007
Neomys fodiens	Water shrew	terrestrial mammal	
Pipistellus pipistrellus	Common pipistrelle	terrestrial mammal	W&C Act (1981) Habitat Regs (1994)
Myotis nattereri	Natterer's bat	terrestrial mammal	W&C Act (1981) Habitat Regs (1994)

APPENDIX E

GLOSSARY

Glossary of Acronyms, Abbreviations and Technical Terms

Please Note – Not all of the terms listed below have been used in the East Riding of Yorkshire Biodiversity Action Plan (ERYBAP), but they have been included as they are broadly relevant to the biodiversity sector and may be useful to know for wider reading in the subject area.

AA Appropriate Assessment; the process of assessing the impacts of a plan, strategy, proposal or development on a European designated site, such as a SPA or SAC. Required as part of the Habitats Regulations, 1994.

Acid As apposed to calcareous or alkaline. Habitats can either be acid or calcareous depending on the underlying geology and soils and this has a profound effect on the plants and therefore the animals that can live in an area. Acid conditions are largely restricted in the East Riding to peatlands and to the sandy habitats in the Vale of York area.

API Aerial Photograph Interpretation; a process used to map broad habitat types remotely to produce habitat maps that can be used to set habitat targets and to develop habitat networks and identify gaps in these. This method is being used in the East Riding to produce basic data on the type and amount of habitats that exist in the area.

ASNW Ancient semi-natural woodland; a very important habitat that is rare in the East Riding and once lost is practically impossible to re-create. It is characterised by rare indicator species that are absent from newly create woodland e.g. wood anemone.

BAP Biodiversity Action Plan; a framework for achieving the conservation of biodiversity based on the targeting of resources towards Priority Habitats and Species. BAPs can be prepared at a range of scales from the country to the regional and local level. They can even be used by specific organisations to coordinate how they can contribute towards the conservation and enhancement of wildlife.

BARS Biodiversity Action Reporting System; BARS is the UK's Biodiversity Action Plan online web-based reporting system. It includes national, local and company Biodiversity Action Plans (BAPs) and the Biodiversity Strategies and Action Plans of all four countries (http://www.ukbap-reporting.org.uk/).

Biodiversity An acronym for biological diversity. "Biological diversity" is the variability among living organisms from all sources including, inter alia, 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 (http://www.ukbap.org.uk/). Biodiversity is subtly different to other similar terms such as wildlife as it also includes human beings, manmade habitats and domesticated livestock.

Biodiversity Partnership
A broad ranging group of individuals, organisations and companies from the public and private sector that work together for the conservation and enhancement of biodiversity, often for a given geographic area be that at the national, regional or local scale. They are responsible for the development, implementation and review of their respective biodiversity action plan.

Biogenetic Nature Reserve
An international designation that relates to a site's role in preserving a particular element of a species genetic diversity or for its species diversity. There is only one example of this type of site in the East Riding, which is Millington Wood.

BTCV British Trust for Conservation Volunteers (http://www2.btcv.org.uk).

CA Countryside Agency; one of the Government agencies that now forms part of Natural England and was responsible for Countryside access provision and enjoyment amongst other things.

Calcareous As apposed to acid. Habitats can either be acid or calcareous depending on the underlying geology and soils and this has a profound effect on the plants and therefore the animals that can live in an area. In the East Riding the chalk rock type of the Wolds gives rise to many different calcareous habitats including chalk grassland and woodland.

Community All of the interacting organisms living together in a habitat.

Country Mile The Country Mile Project aims to protect, enhance and restore the wildlife rich verges of the East Riding and to raise the profile of protected and important verges in the East Riding of Yorkshire area with key groups, e.g. utilities companies and encourage the improved management of these sites.

CROW The Countryside and Rights of Way Act 2000; with regards to biodiversity this act introduced stronger powers for the management and protection of SSSIs and made it a duty for all Government departments to have regard for biodiversity in carrying out their functions.

CSS Countryside Stewardship Scheme; an old agri-environment scheme that paid farmers to manage their land for the benefit of wildlife (amongst other benefits). CSS is now closed to new applications, but many agreements still have a number of years to run. Farmers will then have the option to apply for Environmental Stewardship, the main current agri-environment scheme.

DCLG The Department of Communities and Local Government.

Defra The Department for Environment Food and Rural Affairs, which is the government department with overarching responsibility for biodiversity.

DPD Development Plan Document; one of the types of document that sit within the new Local Development Framework process.

EA The Environment Agency; a government agency that falls within the Defra family of agencies and is responsible for protecting and improving the environment in England and Wales. They are responsible for ensuring that air, land and water are protected from pollution and managed appropriately.

EIA Environment Impact Assessment; a process by which the impacts of a development, project or scheme on the environment can be assessed and predicted so that they can be removed or minimised. For some types of development these are a statutory requirement and biodiversity is a key part of any EIA.

ELS Entry Level Stewardship; an element of Environmental Stewardship that pays farmers for relatively basic measures that famers can undertake to benefit wildlife on their farm. The scheme is non-competitive and the uptake of the scheme has been substantial with over half of the East Riding covered by ELS agreements.

EMS European Marine Site; where a SPA, or a SAC incorporate sub-tidal and/or intertidal areas, they are also referred to as "European marine sites".

East Riding East Riding of Yorkshire

ERYBAP East Riding of Yorkshire Biodiversity Action Plan

ERYC East Riding of Yorkshire Council

EN English Nature; the old government agency responsible for nature conservation, now a central part of Natural England.

EPS European Protected Species as included on one or more Schedules of the Habitats Directive.

ES Environmental Stewardship; an agri-environment scheme that pays for farmers to deliver improvements on their land for wildlife and the environment. ES is broken down into entry and higher levels and an organic entry level scheme.

EWGS England Woodland Grant Scheme; is the Forestry Commission's suite of grants designed to develop the co-ordinated delivery of public benefits from England's woodlands.

FC The Forestry Commission; the government department responsible for the protection and expansion of Britain's forests and woodlands.

FWAG Farming and Wildlife Advisory Group; a charity organisation that provides land management advice to farmers for the benefit of wildlife. They often get involved with assisting with agri-environment applications and practical habitat management issues.

GI Green infrastructure is the physical environment within and between our cities, towns and villages. It is a network of multi-functional open spaces, including formal parks, gardens, woodlands, green corridors, waterways, street trees and open countryside. It comprises all environmental resources, and thus a green infrastructure approach also contributes towards sustainable resource management. Ecological networks are part of GI and represent one of the functions that GI provides to society.

GIS Geographic Information Systems; is a collection of computer hardware, software and geographic data used to analyse and display geographically referenced information. GIS is a very powerful tool for managing and manipulating ecological data.

Green Corridor
A corridor of green space, including areas that are important for biodiversity as well as open green spaces such as playing and sports fields, roadside verges and other areas. A constituent part of what makes up Green Infrastructure.

Habitat The place where a population of a plant, animal or other species makes its home, characterised by its physical and chemical characteristics. East Riding examples include chalk grassland, woodland and ponds.

Habitat Network
A connected network of linked areas of habitat that allow species to move and migrate, especially in response to changing conditions. They can be made up of nodes; larger areas of habitat and linking linear habitat corridors. The term 'functional habitat network' refers to a habitat network that is sufficiently connected and coherent to allow the effective movement of species and the survival of sufficient habitat to allow the conservation of biodiversity.

HAP Habitat Action Plan; plans within a Biodiversity Action Plan that identify targets and actions needed to stabilise and improve the status of habitats with high conservation value.

HECAG Humber Estuary Coastal Authorities Group; the group responsible for developing the second Shoreline Management Plan for the East Riding and surrounding coastline. The name of this Group changed to the North East Coastal Group in Autumn 2008.

HEDC Humber Environment Data Centre; a local records centre that provides data for the Humber Estuary and falls under the remit of the North and East Yorkshire Ecological Data Trust. Works with HINCA to provide and manage data for Humber industries.

HEY Woods Hull and East Yorkshire Woodland Initiative; aims to increase woodland cover and to improve the management of existing trees, woods and associated habitats in the City of Hull and the East Riding of Yorkshire. The East Riding is the least wooded County in England.

HINCA Humber Industry Nature Conservation Association; a partnership with industry and business on the Humber developing, implementing and demonstrating practical ways of integrating nature conservation into commercial operations.

HLS Higher Level Stewardship; an element of Environmental Stewardship that pays farmers for specific management options for landscape, archaeology, access or nature conservation. Aims to deliver significant environmental benefits in high priority situations and areas. It is discretionary and concentrates on the more complex types of management, where land managers need advice and support and where agreements need to be tailored to suit local circumstances.

HS Habitat Schemes are an old pilot version of agri-environment (existing agreements only, scheme is being replaced by ELS and HLS).

ICZM Integrated Coastal Zone Management; is an internationally recognised process that advocates a joined up approach to the management of the coastal zone. It seeks to promote sustainable levels of economic growth and social activity while protecting the coastal environment.

IDB Internal Drainage Board; are independent bodies responsible for land drainage in areas of special drainage need that operate under the Land Drainage Act 1991. As a public body IDBs have a duty to have regard to the conservation of biodiversity and thus many are producing their own biodiversity action plans.

JCA England has been divided into areas with similar landscape character, these have been called Joint Character Areas.

JNCC Joint Nature Conservancy Council; JNCC is the statutory adviser to Government on UK and international nature conservation.

LAA Local Area Agreement; a three year agreement, based on local Sustainable Community Strategies, that sets out the priorities for a local area agreed between Central Government, represented by the Government Office (GO), and a local area, represented by the local authority and other key partners through Local Strategic Partnerships (LSPs).

LBAP Local Biodiversity Action Plan; e.g. the East Riding of Yorkshire Biodiversity Action Plan. Each Local Authority area usually has its own LBAP.

LDF The Local Development Framework (LDF) is a non-statutory term used to describe a folder of documents, which includes all the local planning authority's local development documents. An LDF is comprised of:

- Development Plan Documents (which form part of the statutory development plan)
- Supplementary Planning Documents

The local development framework will also comprise of:

- the Statement of Community Involvement
- the Local Development Scheme
- the Annual Monitoring Report
- any Local Development Orders or Simplified Planning Zones that may have been added (http://www.planningportal.gov.uk).

LGS Local Geological Site; a non-statutory local wildlife designation previously known as Regionally Important Geological Sites (RIGS).

LNR Local Nature Reserve; a non-statutory site that is designated for its role in allowing people to access and enjoy nature including educational access. This includes biological and geological interest. Distinctly different to Local Wildlife Sites.

LRC Local Record Centre; an organisation set-up to collate and disseminate all kinds of biodiversity data for a single given area. These can be local authority or wildlife trust based, or independent charitable trusts. In a few cases they are ran as part of joint services between neighbouring Local Authorities. In the East Riding the LRC is the North and East Yorkshire Ecological Data Centre, an independent charitable trust.

LS Local Site, a non-statutory local designation and the collective term for Local Wildlife and Geological Sites.

LSP Local Strategic Partnership; an overall partnership of people that brings together organisations from the public, private, community and voluntary sector within a local authority area, with the objective of improving people's quality of life (http://www.planningportal.gov.uk).

LWS Local Wildlife Site; a non-statutory local wildlife designation previously known as Sites of Importance for Nature Conservation (SINC). Essentially a planning designation that allows sites of substantive nature conservation value to be identified and given material consideration as part of any planning decision or strategic spatial planning. Local Sites systems (including LWS) are comprehensive rather than representative, as is the case for SSSIs. LWS can also help to target resources for supporting landowners to conserve biodiversity. They impose no additional legal controls or management restrictions on landowners.

LWS Panel A group set-up to assist with the process of considering sites for the designation of Local Wildlife Site, often using specific written site selection guidelines or criteria. They are made up of a partnership of different individuals form different groups who have the expertise to know what is considered of substantive nature conservation for the area that the panel works in. The East Riding of Yorkshire LWS Panel was set-up in 2007.

Meta-population A population of a species that is made up of small dispersed populations that are linked through movements of individuals e.g. great crested newts exist in meta-populations at different ponds linked by the movement of individuals over land between water bodies.

MPA Marine Protected Area; have primarily been set up to help conserve marine biodiversity, in particular species and habitats of European and national importance. The main types of MPA in the UK are Special Areas of Conservation (SACs) for habitats of European importance, Special Protection Areas (SPAs) for birds, and Marine Nature Reserves (MNRs) for nationally important habitats and species. There are also a number of voluntary and non-statutory MPAs.

MPZ Marine Protection Zone; similar to MPAs, but a more widely used international term.

Natura 2000 A collective term for the European sites designated under the Habitats and Birds Directives (SPAs and SACs).

NBN National Biodiversity Network; the overarching biodiversity data network in the UK.

NE Natural England; government body responsible for nature conservation and formed in 2006 through the Natural Environment and Rural Communities Act. Is part of the Defra family of Government agencies.

NERC Natural Environment and Rural Communities Act, 2006 – introduced the duty for all public bodies to have regard for the conservation of biodiversity in carrying out their functions and formed Natural England.

NEYEDC North and East Yorkshire Ecological Data Centre; the Local Record Centre that collates, manages and disseminates biodiversity data for the East Riding of Yorkshire area (www.neyedc.org,uk). Falls under the North and East Yorkshire Ecological Data Trust.

Neutral In-between calcareous and alkaline. Habitats can either be acid or calcareous, or somewhere in between depending on the underlying geology and soils and this has a profound effect on the plants and therefore the animals that can live in an area. Acid conditions are restricted in the East Riding to peatlands and to the sandy habitats in the Vale of York area.

NI197 National Indicator 197; a national indicator introduced in 2007 to assess Local Authorities and their partners in terms of their performance in relation to biodiversity. Based on the proportion of local sites in active conservation management.

NNR National Nature Reserve

NR Nature Reserve

NVC National Vegetation Classification; a standard national system for comprehensively classifying the different plant communities of the British Isles, sometimes also known as Phase 2 survey versus Phase 1 surveys (see below for details).

OELS Organic Entry Level Stewardship; similar to ELS but scores more points and is only open to organic accredited farms.

OS Ordnance Survey; the national mapping supplier.

PAS2010 Publicly Available Specification 2010; a piece of guidance for the consideration of biodiversity in the planning system.

pH The measure of how acid a soil or solution is. Low pH soils are more acid, higher pH soils are alkaline with neutral soils being around pH 7.

Phase 1 Habitat Survey
A specific survey methodology developed by the Joint Nature Conservation Committee (JNCC) that provides broad habitat coverage of a given area using standard habitat codes.

Pondscape A network of ponds linked together by appropriately managed terrestrial habitats, perhaps including wet grasslands or wetland habitats that make the movement of associated species easier.

Population A group of individuals of the same species living in a particular area.

PPS Planning Policy Statement; national government planning guidance. PPS9 covers planning guidance for biodiversity and geological conservation.

Priority Habitat
Habitats that have been identified with the highest conservation value and are at risk, such as those with a high rate of decline. Priority Habitats are therefore a focus for conservation, targeted action and resources.

Ramsar Refers to a wetland site of international importance designated under the international wetland convention that was signed in the Iranian city of Ramsar

RBS Regional Biodiversity Strategy; produced by the Yorkshire and Humber Biodiversity Forum to set priorities for the conservation of biodiversity and to inform other regional strategies.

RFS Regional Forestry Strategy; provides regional vision for the management of trees and woodland in Yorkshire and the Humber.

RIGS Regionally Important Geological Sites; a non-statutory local geology designation now also known as Local Geological Sites

RSPB The Royal Society for the Protection of Birds

RSS Regional Spatial Strategy; the overarching spatial plan for the region.

SAC Special Area of Conservation; as designated by the European Habitats Directive for high habitat value.

SAP Species Action Plan; an action plan for the conservation of a particular species or group of species.

SCaTAG Sustainable Communities and Transport Action Group; one of the four action groups of the East Riding of Yorkshire Local Strategic Partnership.

SEA Strategic Environmental Assessment; A process of systematically appraising the environmental opportunities and constraints of a project, and identifying and managing its implications. SEA is a statutory requirement of certain plans and programmes, under the Environmental Assessment of Plans and Programmes Regulations, 2004.

SINC Sites of Importance for Nature Conservation; a non-statutory local wildlife designation now known as Local Wildlife Sites

SMART Specific, Measurable, Achievable, Realistic and Time-bound; applicable to actions in the ERYBAP.

SMP Shoreline Management Plan; provide a large-scale assessment of the potential risk of flooding and coastal erosion along a given stretch of coast and presents policies to guide future decision-making about coastal defence management.

SNETG Sustainable Natural Environment Task Group; the steering group for the ERYBAP and part of the East Riding of Yorkshire Local Strategic Partnership sitting under the Sustainable Communities and Transport Action Group.

SPA Special Protection Area [for birds]; as designated under the European Habitats directive for the conservation of birds.

SPD Supplementary Planning Document; documents within the Local Development Framework that provide further policy and guidance on particular topics. For example in some areas biodiversity SPD has been developed to give further guidance on the consideration of wildlife in the planning system.

Species One of the basic units of taxonomic classification; a group of organisms capable of interbreeding to produce fertile offspring. For example birds is a species group or family as they are known, whereas barn owl is a species of bird.

SSSI Site of Special Scientific Interest; a nationally important and protected area as defined by Natural England and designated under the Wildlife and Countryside Act, 1981.

SUDS Sustainable Urban Drainage System; a sequence of management practices and control structures designed to drain surface water in a more sustainable fashion than some conventional techniques. These can also provide secondary benefits for wildlife if designed sympathetically.

UK BAP The United Kingdom Biodiversity Action Plan (UK BAP) is the highest level of biodiversity action planning in this Country. It was produced in 1994 following the UK Government signing up to the Convention on Biological Diversity and it sets the overall targets that other Biodiversity Action Plan, including the ERYBAP contribute to.

Vergescape Vergescapes encompass the range of different habitats that are associated with the roadside verge. These might include all or some of the following; ditch, stream, scrub, woodland, hedgerow, wetland, stone-wall or earth bank. This variety of different habitats can lead to higher biodiversity and their linear nature can make them especially important as habitat corridors linking other areas of habitat or designated sites.

VNR Verge Nature Reserve; areas in the East Riding that have been identified for the verge habitats they contain, most commonly for the wildflower grassland habitats they hold. The Council through the Country Mile Project has worked to try and get these sites into active conservation management. A GIS layer of these sites is available to inform the work of public bodies and utilities companies.

WES Wildlife Enhancement Scheme; an old payment scheme offered to landowners of SSSIs for management of the site towards favourable condition. Now replaced by HLS.

WFD Water Framework Directive; an important European Directive seeking to get all water bodies into good ecological status.

WGS Woodland Grant Scheme; the old scheme for payment to create woodland, replaced by EWGS.

YHBF Yorkshire and Humber Biodiversity Forum; the regional biodiversity partnership.

YHEDN Yorkshire and Humber Ecological Data Network; the project towards the harmonisation and integration of the region's local records centres so that regional datasets can be provided and better standards of data management promoted.

YNU Yorkshire Naturalists Union; the overarching body for amateur naturalists in the Yorkshire region. Instrumental in the recording of species in the region.

YWT Yorkshire Wildlife Trust

APPENDIX F

EAST RIDING OF YORKSHIRE BIODIVERSITY PARTNERSHIP

East Riding of Yorkshire Biodiversity Partnership

This is a list of the organisations that have signed up to be part of the East Riding of Yorkshire Biodiversity Partnership and provide support to the development of the East Riding of Yorkshire Biodiversity Action Plan. The Partnership also has a number of individual members whose names have not been included here. The list is correct at the time of press.

Angling Trust (Marine) Yorkshire Division / Hull and District Angling Association
Beverley Friends of the Earth
Beverley Naturalists' Society
Boothferry Road Community Project
Bransholme Enterprises
British Dragonfly Society
British Horse Society
British Trust for Conservation Volunteers (BTCV)
Butterfly Conservation Yorkshire
Carstairs Countryside Trust
Consultecol
Cottingham Parish Council
Cottingham Wild Spaces Group
CPRE East Riding
Defence School of Transport (MOD)
Derwent Valley Conservation Group
East Riding Local Strategic Partnership
East Riding of Yorkshire and Kingston upon Hull Joint Local Access Forum
East Riding of Yorkshire Council
East Riding of Yorkshire Council (Environmental Operations)
East Riding of Yorkshire Council Rural Development & Programmes
East Riding of Yorkshire Council Rural Policy & Partnerships
East Riding of Yorkshire Rural Partnership
East Yorkshire Bat Group
East Yorkshire Botany Club
East Yorkshire Chalk Rivers Trust
East Yorkshire Federation of Womens' Institutes
East Yorkshire Red Kites
East Yorkshire RIGS Group
Environment Agency
Farming & Wildlife Advisory Group (FWAG)
Ferriby Conservation Society
Flamborough Bird Observatory
Forestry Commission
Forum for Sustainable Farming
Foston-on-the-Wolds Parish Council
Friends of the Earth
Friends of the Sugar Mill Ponds
Game and Wildlife Conservation Trust
Golder Associates (UK) Ltd
Government Office for Yorkshire & the Humber
Hull and East Yorkshire Woodland Initiative (HEY Woods)
Hull and East Yorkshire Hospitals

Hull Biodiversity Partnership
Hull Geological Society
Hull Naturalists
Hull Valley Wildlife Group
Humber Advisory Group
Humber Ecological Data Centre
Humber Industry Nature Conservation Association (HINCA)
Humberside Police
Hutton Cranswick Parish Council
Kilham Parish Council
Langtoft Parish Council
Lower Ouse Internal Drainage Board
Market Weighton Internal Drainage Board
Ministry of Defence
Mires Beck Nursery
National Farmers' Union (NFU)
Natural England
Natural England Humber Land Management Team
North Cave Wetlands
North East Yorkshire Ecological Data Centre
North Eastern Sea Fisheries Committee
North Yorkshire County Council
Pocklington and Wolds Gateway Partnership
Ponds Conservation Trust
R. H. Leonard Ltd
Ramblers' Association (East Yorkshire and Derwent Area)
Royal Society for the Protection of Birds (RSPB)
Shire Group of Internal Drainage Boards
Southfield Conservation Area Group (SCAG)
Spurn Bird Observatory Trust
Swanland Parish Council
Swanland Village Association
Swanland Wildlife Group
Thorne and Hatfield Moors Conservation Forum
University of Hull
Voice International
Wold Ecology
Wolds Barn Owl Group
Woodland Trust
Yorkshire and Humber Biodiversity Forum
Yorkshire Mammal Group
Yorkshire Naturalists' Union
Yorkshire Wildlife Trust