King's Lynn
Drainage Board

King's Lynn Internal Drainage Board

Biodiversity Action Plan

2023-2028

1. Statement

This Biodiversity Action Plan (BAP) (Third Edition) has been prepared by the King's Lynn Internal Drainage Board in accordance with the commitment in the Implementation Plan of the Defra Internal Drainage Board Review of 2007 for internal drainage boards (IDBs) to produce their own Biodiversity Action Plans. It demonstrates the Board's commitment to fulfilling its duty as a public body to conserve and enhance biodiversity under various legislation and policy including, but not limited to, the Environment Act 2021, the Natural Environment and Rural Communities Act 2006, the 25 Year Environment Plan and Water Framework Directive.

Importantly, it reflects the Board's aspiration to maximise the support it provides to biodiversity, particularly priority UK species and habitats, and the wider environment in general through its day to day activities, by setting clear objectives, actions and targets.

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

…… Date ……..

Mr Brian Long

Chairman of the Board

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

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

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

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Further information is available on the Board’s website: www.wlma.org.uk

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Executive Summary:

Contributing to biodiversity is an important part of an Internal Drainage Board's role as a modern public authority. Never has there been greater focus on protecting and enhancing our biodiversity as there is today. Through the King's Lynn IDB water level management activities, the Board is uniquely placed to conserve and improve freshwater and wetland habitats, and to forge partnerships with organisations and landowners, to ensure sustainable water level management in lowland areas is undertaken in line with the Natural Environment and Rural Communities Act (2006) and the Environment Act (2021).

Biodiversity Action Plans (BAPs) provide IDBs with a formal mechanism to demonstrate and record their biodiversity contributions . The IDB BAP approach remains the most suitable tool to help IDBs meet their statutory conservation duties under the legislation, where some new approaches are being undertaken to protect and enhance our natural environment.

The Biodiversity Action Plan 2023-2028 although very similar in many respects to its two predecessors, but it now also represents a document which has been reviewed and updated to contain the most up to date legislation and policy. New objectives and action targets have been set following an audit of species and habitats within the internal drainage district, (as provided by the local records centre), to conserve and enhance biodiversity, whilst contributing to the Government's 25 Year Environment Plan and meeting the new legislative requirements.

The Biodiversity Action Plan 2023-2028 summarises the targets, objectives and actions for the following habitats and species, respectively:

- *Reedbed & Rivers Canals and Drains.*
- *Barn Owl and Kestrel, House Martins Swifts and Swallows, Tree Sparrow, European Eel, Bats, European Otter, European Water Vole, Adder Common Lizard and Grass Snake & Non-Native Invasives.*

2. Introduction

2.1. What is Biodiversity and why is it important?

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

Biodiversity is part of our natural capital, a vital resource providing:

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

This Biodiversity Action Plan is part of a much larger biodiversity framework that encompasses international, national and local levels of legislation and policy and which also include ecosystem services and climate change.

2.2. Legislative Background

When carrying out its functions, an IDB must pay particular regard to the effect on the environment. Some environmental legislation relates specifically to maintaining or restoring the condition of protected sites or protecting certain species, but there are also statutory duties for IDBs to conserve and enhance biodiversity in and alongside the watercourses they manage and the wider landscape.

The Natural Environment and Rural Communities Act 2006 places a duty on IDBs to conserve biodiversity. The Environment Act 2021, when enacted, extends this duty on IDBs to also enhance biodiversity and report periodically on its actions. Therefore, as a public authority, every IDB must consider what action it can take, consistently with the proper exercise of its functions, to further the conservation and enhancement of biodiversity in England.

Below is a list of key environmental legislation (by no means an exhaustive list) relevant to the work of IDBs:

- The Environment Act 2021
- Conservation of Habitats and Species Regulations 2017
- Eels (England and Wales) Regulations 2009

- Water Environment (Water Framework Directive) (England and Wales) Regulations 2003
- Natural Environment and Rural Communities Act 2006 (Section 40)
- The Environmental Impact Assessment (Land Drainage Improvement Works) (Amendment) Regulations 2017
- Land Drainage Act 1994
- Wildlife and Countryside Act 1981 (as amended)
- The Countryside and Rights of Way Act 2000
- The Protection of Badgers Act 1992
- Flood and Water Management Act 2010
- Salmon and Freshwater Fisheries Act 1975

2.3. Policy & Strategic Background

In 1992 at the United Nations Conference on the Environment and Development, commonly known as the Rio Earth Summit, the UK signed the Convention on Biological Diversity which pledged its commitment to contribute towards halting the worldwide loss of habitats and species and their genetic resources. At the 2010 biodiversity summit in Nagoya, Japan, the UK re-affirmed this commitment and the "Biodiversity 2020" white paper was developed setting out how those commitments would be put into action.

The 2010 report by Sir John Lawton "Making Space for Nature" set out that ecological networks were required in order to halt and reverse the declines seen in many threatened species and habitats. The report succinctly made clear that these ecological networks needed to be bigger, more frequent, better in quality, and more joined up in order to be successful in their ambitions.

The concept of Nature Recovery Networks featured in the Government's Biodiversity 2020 strategy (2011) and 25 Year Environment Plan (2018). The Environment Act 2021 and the development of Local Nature Recovery Strategies (LNRS) expands this concept by also take into account the value of the ecological services provided by non-priority species and habitats such as the carbon sequestration of wetlands, the flood alleviation of tree-planting in the uplands and the wellbeing benefits brought about by green space. As such, this BAP presents the actions planned by the IDB to support both priority and non-priority species.

International reports such as by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) have found that climate change in particular is considered to be one of the biggest threats to our biodiversity now, and in the future. Supporting the continuity, connectivity and quality of habitat through management, restoration and expansion may help even the less mobile species to adapt more easily to climate change. This BAP presents the actions the IDB can take to support climate resilience for biodiversity.

2.4. Purpose

This BAP has been produced to demonstrate how the IDB fulfils its legal obligations to conserve and enhance biodiversity and sets out targets and actions that contribute to local, national and international strategies and policies.

While the IDB has a statutory duty to have regard for the environment whilst carrying out their functions, for example on or within drainage assets such as watercourses and their banks, the IDB has also to give consideration to how they can contribute to the enhancement of the wider environment.

It is not within the scope of this document to set out the IDBs' objectives and actions in relation to wider environmental topics, such as reducing carbon emissions or reducing waste. However, strategies to address such topics may be mentioned in connection to the enhancement of habitats and species, such as peatland restoration and carbon sequestration.

The opportunity to work together to support and enhance biodiversity in partnership with other organisations is sought wherever possible, as the IDB recognises the additional value working in such ways can bring to the overall objectives.

The intention is that biodiversity is fully integrated into the Board's activities, policies and procedures such as annual maintenance programmes, capital works projects, training and communications.

2.5. Vision

The IDB's vision is:

A drainage district where thriving wildlife is an integral part of delivering efficient and effective water-level management.

2.6. Aims

The aims of this BAP are:

- To positively demonstrate that the Boards water course maintenance, water level management and capital works are undertaken in a manner that, whilst reducing flood risk and managing flows, also safeguards biodiversity and makes a positive contribution to the enhancement of the biodiversity and the natural environment;
- To ensure that opportunities for conservation and enhancement of biodiversity are fully considered throughout King's Lynn IDB's operations;
- To enable more effective monitoring and reporting of progress and outcomes;
- To ensure that Priority species and habitats receive effective action within defined targets within the King's Lynn drainage district;
- To identify targets and appropriate actions for other habitats and species of local importance within the drainage district. This includes invasive non- native species;

- To contribute to local environmental partnerships such as the Local Nature Partnership to ensure that programmes and priorities for biodiversity conservation are aligned and maintained in the long term;

- To contribute to the Local Nature Recovery Strategy and Local Nature Recovery Partnerships;

- To raise awareness within the IDB and locally of the need for biodiversity conservation, and to communicate with the local and wider community what actions the IDB are undertaking to support biodiversity.

3. The IDB BAP Process

3.1. The Biodiversity Audit

The King's Lynn IDB has conducted a biodiversity audit of its drainage district (Figure 1) and identified those habitats and species that would benefit from particular management or actions by the IDB.

This BAP focuses on nationally important priority habitats and species, that is to say those that have been deemed of 'principal importance' in England under the NERC Act 2006. However, those that are not priority species or habitats, but may be locally significant for a variety of reasons have also been considered. Invasive non-native species have also been included.

The information gathered, which is presented in later sections, has been used to develop this IDB's Biodiversity Action Plan.

3.2. Objectives, Targets and Actions

For each relevant habitat and species, conservation objectives have been identified. The action plan then details individual actions required to achieve the objectives, and associated monitoring and reporting of progress and impact.

In order for this BAP to be as effective as possible the targets and actions have been devised to be SMART (Specific, Measurable, Achievable, Relevant and Time-limited).

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

3.3. Monitoring and Reporting

Monitoring is the on-going process of regularly collecting and analysing relevant information to make sure the actions within the Plan are positively contributing towards the targets and to capture any additional benefit achieved. The Plan sets out how and when this monitoring will take place for example, to regularly review the progress of actions against the plan at Board meetings throughout the life of the plan.

The frequency and type of information reported is also defined by the Plan and includes the publication of progress reports in the public domain via the IDB's website and in accordance with the duty set out in the Environment Act 2021.

The overall plan will be updated at least every 5 years but as this is a dynamic document it may change more frequently. For example, in the light of routine monitoring, changes may be necessary to ensure an objective can be met.

4. The Biodiversity Audit

4.1. The King's Lynn Internal Drainage District

The drainage district location is bounded by sea defences, though some of the area abuts the Wash SSSI directly, at Heacham and Snettisham. The area runs south from Hunstanton and is bounded to the West by the River Nene and is bisected by the River Ouse at King's Lynn.

The King's Lynn IDB drains a population of approximately 100,000 individuals. It removes water from the easterly uplands, including the villages of Heacham, Ingoldisthorpe, Dersingham, Pott Row and Gayton and large residential and industrial areas of King's Lynn itself. To the west, the large fenland villages of Terrington St Clements, Clenchwarton and West Lynn are serviced by drainage board infrastructure along with many small outlying villages, homesteads and large areas of prime agricultural and arable land.

The following outlines the key details of the District:

- Total area of the drainage district: **35,785 ha**
- Catchment area draining to and including the District: **64,523 ha**
- Area of agricultural land: **31,466 ha**
- Area of other (non-agricultural) land: **4,319 ha**

Assets for which the Board has operational responsibility:

- Water level control structures: **15 number**
- Watercourses (maintained): **598 km**
- High Priority Watercourses, as defined by the Board: **371 km**
- Raised embankments: **38.2 km**
- Flood storage areas: **11.85 ha**
- Sustainable drainage systems (SuDS): **1**
- Pumping Stations: **15**
- Tidal Sluices: **9**

4.2. Map of Audit Area (Drainage District)

The area covered by the drainage district of the IDB is shown below in Figure 1.

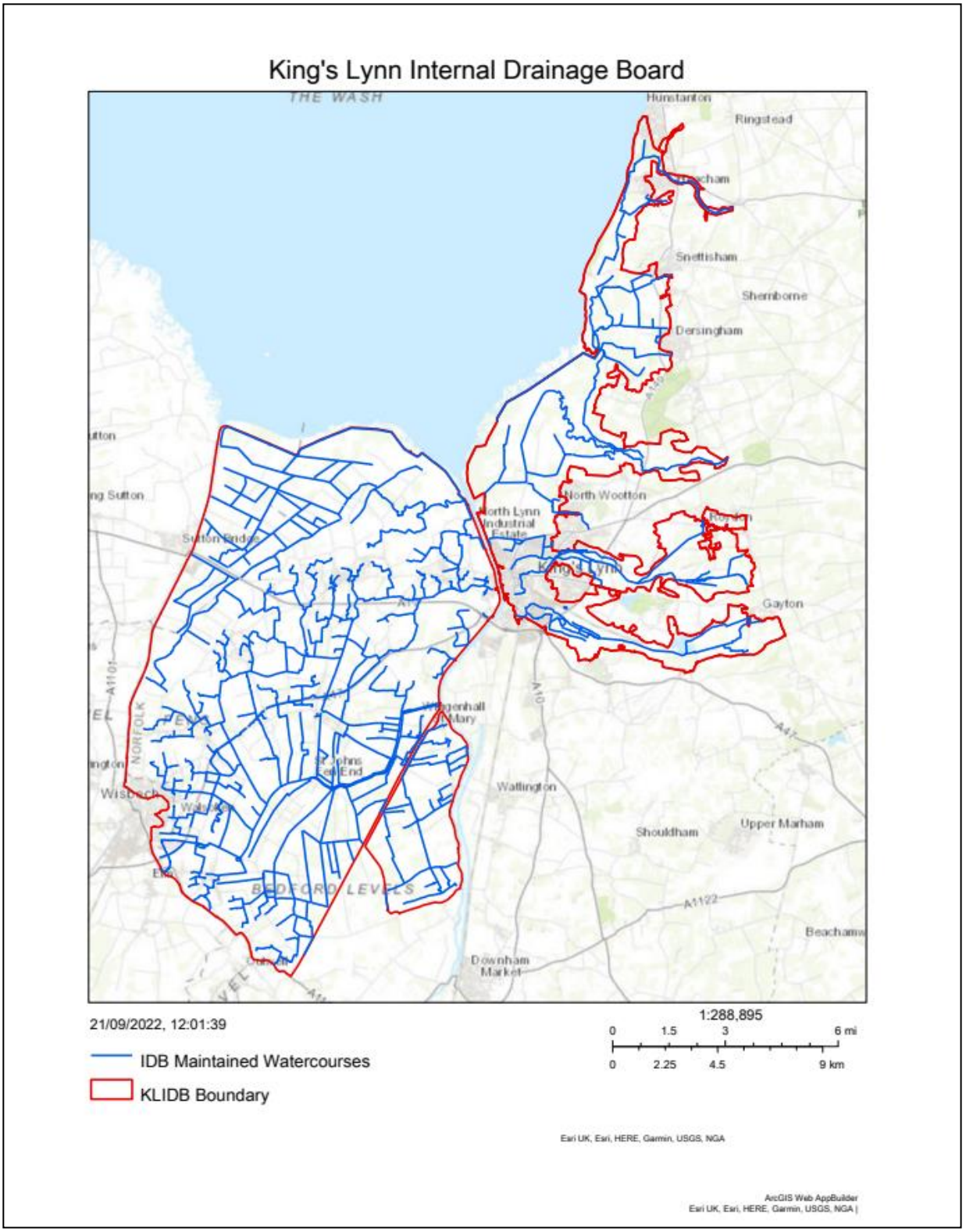


Figure 1. King's Lynn Internal Drainage District (*OS Licence : 100047016)*.

4.3. Geology

The King's Lynn IDB district displays two geologically distinct areas. The geology is also reflected in the topography of the district. If a line was to be drawn between King's Lynn and Downham Market, the area to the west can be described to consist of very flat fen deposits whereas the area to the east is that of a hilly chalky upland.

The fenland area is a flat peaty landscape at or below sea level which were deposited as a result of changing conditions since the last ice age. The marshland deposits are mostly that of calcareous estuarine silt and clay, much of which has been reclaimed from the Wash since the 17th Century. The soils have large water storage capacity and support extensive and intensively farmed arable land. The water table is relatively close to the surface and in some areas, groundwater may be brackish.

On reaching the edge of the flat fen on the east of the district, the upland rises substantially with gently rolling hills being an obvious feature. The upland part of the King's Lynn IDB district has a large presence of Chalk which plays a part in the hydrology of the area. This is overlain by deposits of quartz, Lower greensand and various clay deposits, layered down in the Cretaceous and Jurassic periods. The effects of glaciations and a covering of boulder clay also gives the area a topography distinct from the west of the area. Where glacial sands and gravel form the surface, wide and comparatively flat areas of heathland occur. Such areas are extracted for the comparatively fine sand and some areas constitute valuable nature reserves.

4.4. Landscape Character

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

The King's Lynn IDB falls under two of these National Character Areas, the Fens (Area 46) and North West Norfolk (Area 76). A map of the NCA's can be found in Appendix 1.

46. The Fens

The key characteristics of the Fens are:

- A hierarchy Large-scale, flat, open landscape with extensive vistas to level horizons and huge skies.
- A hierarchy of rivers, drains and ditches provide a strong influence throughout the area. Embanked rivers and roddons create local enclosure and elevation. Banks provide good grazing and grassland habitats.
- Modestly elevated 'islands' within fens provide isolated higher ground for most settlement. A higher proportion of grassland, tree cover and hedgerows are associated with these areas.
- Settled Fens or 'Townlands', in arc set back from the Wash, exhibit an ancient

medieval and irregular field pattern. Typically smaller-scale with scattered farmsteads and dispersed ribbon settlements along the main arterial routes.

- Peaty Fens drained in 17th century comprise large rectilinear fields of black soil. A geometric road and drainage pattern with major high-level drains, washes and associated pumping stations. Roads and rail links often on elevated banks.
- Area south of Lincolnshire Wolds most recently drained with Wolds providing marked 'Upland' horizon to north.
- Woodland cover sparse. Occasional avenues to roads, elsewhere isolated field trees have marked significance. Shelter belts including poplar, willow and leylandii hedges around farmsteads. Numerous orchards in Wisbech area.
- Fragments of relic wet fen areas at Wicken, Woodwalton and Holme.
- Built forms exhibit strong influence ranging from historic cathedrals and churches, like Ely and Boston to large agricultural and industrial structures. Domestic architecture displays combination of elegant Georgian brick houses and bland 20th century bungalows.
- Marshes directly adjacent to the Wash exhibit an exceptionally open aspect, broken only by a series of sea walls. Associated river outfall structures, tidal saltmarshes and mudflats.
- Rich and varied intensive agricultural land use including wide range of arable, root crops, bulbs, vegetables and livestock. Field laborers prevalent at harvesting. Horticultural glasshouses and general agricultural clutter a significant feature.
- Bronze Age, Iron Age and Roman landscapes emerging from below the falling peat. Very rich archaeology especially on fen margins.

76. North West Norfolk

The key characteristics of the North West Norfolk are:

- Large-scale arable and grassland landscape on big rolling upland terrain, with frequent long views over remnant heath and large belts of mixed woodland. Very open, apparently 'high' and remote, contrasting with smaller scale to east and within river valleys.
- Huge estates giving a unified and well-managed quality to the landscape, enhanced by the rectilinear network of late enclosure, contrasting with the open heath of the north/south Lower Greensand ridge on the western edge.
- Comparatively few, straight roads which often have wide verges especially in the northern part of the area and with uniform hawthorn hedges set well back and well-maintained. Few hedgerow trees or copses.
- Large and widely spaced villages, often clustered around a green or common, frequently with isolated outlying farms with Georgian farmhouses. Usually, clay tiled and in flint but with 'carstone' and/or chalk on the western escarpment.

4.5. Landscape Designations

Parts of King's Lynn IDB fall within the designation area of the North Norfolk Coast Area of Outstanding Natural Beauty (AONB) (See Figure 2).

The North Norfolk Coast Area of Outstanding Beauty covers intertidal, coastal and agricultural land with a total area of over 450km2. The AONB stretches from the silt expanses of the Wash in the west through the coastal marshes, soft cliffs and hinterland of North Norfolk, to the dune system at Winterton in the east.

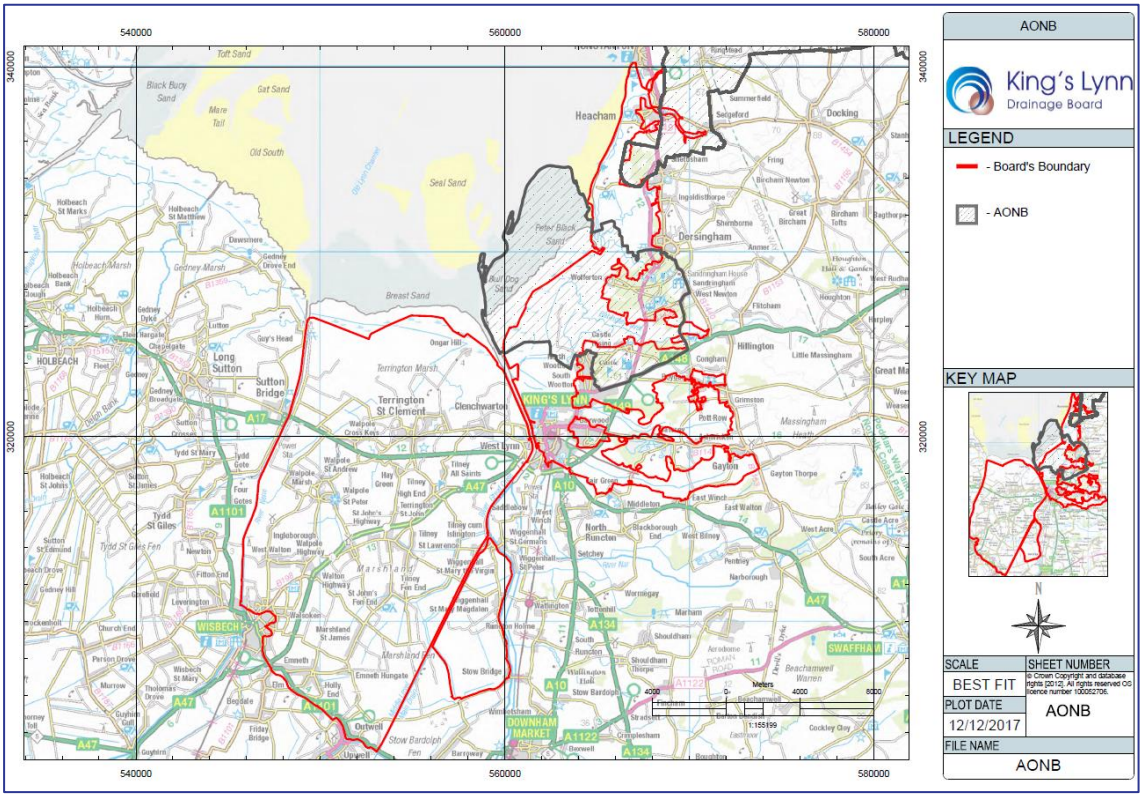


Figure 2. Kings Lynn Area of Outstanding Natural Beauty

4.6. Sites and Monuments

No information for sites and monuments was obtained as part of the audit. The Board hold some information on Sites and Monuments. The Board will continue to carry out searches prior to work, as required, to prevent any Sites or Monuments being missed. The Board consults with English Heritage and the Norfolk County Council Archaeology Service prior to Capital works taking place or where ground breaking in areas other than general maintenance is required. Relevant information on Sites and Monuments within the King's Lynn IDB catchment can be found on the Norfolk Heritage Explorer at https://www.heritage.norfolk.gov.uk/map-search

4.7. Tree Preservation Orders

The Board hold some information on Tree Preservation Orders (TPO's). The Board will continue to carry out searches prior to work, as required, to prevent any new Tree Preservation Orders being missed. Relevant information on TPO's within the King's Lynn IDB catchment can be found on the King's Lynn and West Norfolk District Council website at https://www.west-norfolk.gov.uk/homepage/327/tree_preservation_orders

4.8. Statutory Nature Conservation Sites

4.8.1 Internationally Designated Sites

The following internationally-designated conservation sites, relevant to the water level management* and/or maintenance activities of the IDB, are found within or adjacent to the drainage district.

Maps of the internationally designated nature conservation sites are shown in Appendix 2.

Table 1. Internationally designated sites within or adjacent to the IDB boundary

Site name	Designation	Associated WLMP?*	Features Relevant to IDB
The Wash	The Wash & Norfolk Coast SAC The Wash RAMSAR, The Wash SPA,	Yes, (Wash European Marine Site Plan)	• Littoral sediment
Dersingham Bog	Roydon Common and Dersingham Bog SAC, Dersingham Bog RAMSAR	Yes, Dersingham Bog	• Fen, marsh and swamp – lowland • Dwarf shrub heath – lowland • Earth heritage
Roydon Common	Roydon Common and Dersingham Bog SAC, Roydon Common RAMSAR	Yes, Roydon Common	• Fen, marsh and swamp – lowland • Dwarf shrub heath – lowland

*Further information regarding Water Level Management Plans (WLMPs) are given later in the document

4.8.2 Nationally Designated Sites

The following nationally-designated conservation sites, relevant to water level management and/or maintenance activities of the IDB, are found within the drainage district.

Maps of the nationally designated nature conservation sites are shown in Appendix 2.

Table 2. Nationally designated sites within or adjacent to the drainage district

Site name	Designation	Component of an International Site	Associated WLMP?*	Features Relevant to IDB
The Wash	SSSI, NNR	The Wash & Norfolk Coast SAC The Wash RAMSAR, The Wash SPA,	Yes	• Littoral sediment
Dersingham Bog	SSSI, NNR	Roydon Common and Dersingham Bog SAC, Dersingham Bog RAMSAR	Yes	• Fen, marsh and swamp – lowland • Dwarf shrub heath – lowland • Earth heritage
Roydon Common	SSSI, NNR	Roydon Common and Dersingham Bog SAC, Roydon Common RAMSAR	Yes	• Dwarf shrub heath – lowland • Fen, marsh and swamp – lowland

Islington Heronry	SSSI	No	No	• Broadleaved, mixed and yew woodland - lowland
Wiggenhall St Germans	SSSI	No	No	• Earth heritage
Leziate, Sugar and Derby Fens	SSSI	No	Yes, Leziate, Sugar and Derby Fens	• Neutral grassland – lowland • Dwarf shrub heath - lowland • Acid grassland - lowland

4.8.3 Local Nature Reserves

There are no Local Nature Reserves, which are designated by local authorities under Section 21 of the National Parks and Access to the Countryside Act 1949, found within the Boards area.

4.8.4 Non-statutory Nature Conservation Sites

A number of sites have been identified locally as being important for wildlife. Whilst these designations do not have statutory status, the sites are important for their contribution to biodiversity and planning policy requires that they are given consideration by the LPA in forming any decision. The following relevant Local Wildlife Sites are to be found within or bordering the drainage district. Data was sourced from the Norfolk Biodiversity Information Service (NBIS). Appendix 3 shows a map of the County Wildlife Sites within the King's Lynn IDB drainage district or bordering the drainage district.

Table 3. Non-Statutory sites within the drainage district

Non-Statutory sites (which are designated CWS's) within the drainage district				
Babingley Meadow	Boathouse Wood	Bogg's Whins	Castle Rising Wood	Clenchwarton Road
Coast nr. Snettisham	Dersingham Meadow	Dersingham-Wolferton Railway	Gaywood River and Watery Lane	Grimston Sewerage Works Meadow
Grimston Warren	Honington House Farm	Hudson's fen	Land north-west of Heacham	Life Wood & Ingoldisthorpe Com
Lynn Point	Middle Level Main Drain	Mill House Wood	Moore Common	North Hook Bridge
North of Wiggenhall	North-west of Heacham	Penny Wood	Reffley Spring Wood	Reffley Wood
Relict Heath nr Wood Farm	River Babingley	Roydon Meadow	Roydon Village Green	Shepherd's Port Meadow
Snettisham Common	South-east of Sedgeford	South of Dersingham Station	South of Gaywood Park	The Holt
The White House	Watchers Wood	Wolferton Wood	Wootton Carr	100 and 10 Acre Plantation

4.9. Habitat Audit Summary

This habitat audit summary lists the UK priority habitats that occur within the drainage district and are identified as likely to be influenced by the Board's activities. Also listed are habitats deemed to be of local importance and/or featured in local nature strategies that occur in the drainage district. Finally, brief notes are included on the potential for the IDB to maintain, restore or expand its important habitats.

Table 4. Habitat Audit Summary

National Priority Habitat	National Status & Extent	Local Priority Habitat	Local Status and Extent	Habitat of Importance for IDB	Extent, status and Location of Habitat of Importance within drainage district	IDB Potential for Maintaining, Restoring or Expanding Habitat (high/medium/low)
Coastal and Floodplain Grazing Marsh	A UK BAP priority habitat. The exact extent of grazing marsh in the UK is not known but it is possible that there may be a total of 300,000 ha. England holds the largest proportion with an estimate in 1994 of 200,000 ha.	Coastal and floodplain grazing marsh	Grazing marsh is an extensive habitat within Norfolk, estimated to cover some 29,500 ha.	Grazing marsh and associated ditch systems	Localised sections found within the following areas: Ken Hill, Heacham and along numerous ditch systems in the district.	**Low** – The IDB can maintain the condition through sensitive management, and landowner partnerships for extending areas
Lowland Fens	A UK BAP priority habitat. The UK is thought to host a large proportion of the fen surviving in the EU. As in other parts of Europe fen vegetation has declined dramatically in the past century.	Fens	Norfolk is particularly rich in fen habitats, supporting a large proportion of the UK total for some types. In intensively farmed lowland areas fens occur less frequently, are smaller in size and more isolated than in other parts of the UK.	Lowland Fen	Fen in the drainage district is scarcely spread, with areas in Heacham, near Boathouse Creek, Leziate Sugar and Derby Fens and Roydon Common.	**Low** – The IDB can maintain condition through sensitive management and landowner partnerships for maintaining and restoring areas
Reedbeds	A UK BAP priority habitat. In UK it is estimated that there is 12,000 ha over 1000 sites with most sites being less	Reedbeds	Rare - The RSPB Reedbed Inventory suggests that there is approx. 1,540 ha of reedbeds existing in Norfolk	Reedbeds	Reedbeds are narrow fringes particularly found along the edges of drains and there are roughly 6.29ha of reedbeds	**High** – The IDB can maintain what's already within the district through sensitive management.

	than 20ha. Increasing		- almost 30% of the UK resource. Most areas of reedbed are small and fragmented.		within the IDB district. They can be found in Heacham, along the Dersingham main drain and within the Smeeth load system.	There is potential to extend the habitat in the Smeeth load system
Rivers	A UK BAP priority habitat. This habitat type includes a very wide range of types, encompassing all natural and near-natural running waters in the UK. The Water Framework Directive is focusing work to improve surface freshwaters (including lakes, streams and rivers).	Rivers, Canals and Drains	Numerous Rivers and Streams flow through Norfolk	Rivers, Canals and Drains	River, Canals and particularly drains are found throughout the entire drainage district. The habitat supports a vast proportion of wildlife; otter and water vole can be regularly found, and Barn owl are prolific hunters along the complex matrix of linear freshwater features.	**High** – The IDB have a high ability to be able to maintain this habitat through sensitive management

4.10. Species Audit Summary

This species audit summary will include priority and other species including INNS that occur within the drainage district and are identified as likely to be influenced by the Board's activities. Also listed are species deemed to be of local importance and/or identified by local nature strategies. Finally, brief notes are included on the potential for the IDB to improve the status of the species in the drainage district.

Table 5. Species Audit Summary

Common & scientific name	National Status	Local Status	Location of Species of Importance within drainage district	IDB Potential for Maintaining or Increasing Species Population or Range (High/medium/low)
BIRDS				
Barn Owl *Tyto alba*	Decline in the species nationally up until the mid-1990's. The Barn owl is listed in Annexes II and IV of the EC Habitats Directive, Appendix I of the Berne Convention and is protected under Schedule 2 of the Conservation (Natural Habitats) Regulations (1994). Its protection is also covered in Schedule 1 & 9 of the WCA (1981)	The drainage district supports a significant population of barn owls, which use ditch banks, pastures and margins for foraging. The population may be limited by lack of nest sites. Rough-grassland margins provided by the banks of watercourses were recognised in 1987 as a vital resource for Barn Owls.	Throughout district	**High** - Monitor & maintain current nest box sites along drains
Breeding waders (Avocet *Recurvirostra avosetta,* Black-tailed godwit *Limosa limosa,* Curlew *Numenius arquata,* Lapwing *Vanellus vanellus,*	All Protected by the WCA (1981). Avocet, Oystercatcher & Redshank are classified in the UK as Amber under the Birds of Conservation Concern 4: the Red List for Birds (2021). Oystercatchers are listed as Near Threatened on the global IUCN Red List of Threatened Species. Black-tailed godwit, Curlew & Lapwing are UK BAP priority species, classified in the UK as Red under the Birds of Conservation Concern 4: the Red List for Birds (2021) &	The UK's breeding waders are in decline, due to a combination of habitat loss, unfavourable habitat management and predation.	Huge numbers of wading birds congregate around the mudflats of the Wash, in north-west Norfolk. Also present in lowland wetlands across Norfolk.	**Medium** – Maintain and increase species population via habitat enhancement

Oystercatcher *Haematopus ostralegus,* Redshank *Tringa tetanus)*	Listed as Near Threatened on the global IUCN Red List of Threatened Species.			
House martin *Delichon urbicum*	Protected by the WCA (1981) They are summer migrants to the UK. We have lost over half of our house martin population (-57%) since 1969, recent declines earn them a place on the Red List.	House martins are relatively common within Norfolk	Found around towns and villages, and most frequently seen in areas of mixed agriculture, near water and in the vicinity of woodland. The bird's mud nest is usually sited below the eaves of buildings.	**High** - potential to install house martin nest sites within the King's Lynn IDB area
Kestrel *Falco tinnunculus*	Classified in the UK as Amber under the Birds of Conservation Concern 4: the Red List for Birds (2015). The Kestrel has undergone an estimated 20% decline in numbers in the last 10-20 years. Protected under the WCA (1981) and listed in Annexes II and IV of the EC Habitats Directive, Appendix I of the Berne Convention and is protected under Schedule 2 of the Conservation (Natural Habitats) Regulations (1994)	In Norfolk kestrel are the most common bird of prey and their numbers are stable.	Throughout District	**High** - Monitor & maintain current nest box sites along drains
Kingfisher *Alcedo atthis*	Green listed species in the 'Birds of Conservation Concern' & Schedule 1 WCA (1981) Formerly declining along linear waterways until the mid-1980s, since recovered. Current estimate 3,800-6,400 pairs. Fairly widespread, becoming less common further north but following some declines last century, they are currently increasing	Kingfisher numbers in Norfolk have probably increased in recent years with milder winters undoubtedly enabling greater numbers to survive the winter.	Throughout District. They are found by still or slow flowing water such as lakes, canals and rivers in lowland areas. Occasionally they may visit garden ponds if of a suitable size.	**Low** – Kingfishers to be considered as a part of Capital Schemes works
Marsh Harrier *Circus aeruginosus*	Classified in the UK as Amber under the Birds of Conservation Concern 4: the Red List for Birds (2015). Protected by the WCA (1981) as schedule 1 listed birds.	In the early 19th Century they were abundant in Norfolk. However, by the latter part of the century they had become extinct in the UK through habitat loss and persecution. Marsh harriers bred sporadically in Norfolk from 1927 to	Throughout District	**Low -** IDB Potential to benefit species from Habitat Action Plans

		1975. Today more than 100 females nest in Norfolk each year. In winter more than 100 individuals may be seen at roosts around the county.		
Reed Bunting *Emberiza schoeniclus*	A UK BAP priority species Reed buntings are a UK resident and a farmland and wetland bird. UK conservation status: Amber Protected by the WCA (1981) The decrease of the reed bunting has occurred at the same time as decreases in the numbers and/or range of a suite of other farmland birds.	Some decline in recent years. Resident in Norfolk all year although some breeding birds may move south, and some wintering birds may arrive from north-west Europe and Scandinavia. Most breeding birds are found near water with the preferred habitats being reedbeds and marshy birch/willow/alder scrub on the margins of rivers, drains, ponds and gravel pits.	Limited records of reed bunting in the drainage district, which use reed fringes along the rivers, drains and ditches. They can be found in reedbeds along the Smeeth Lode system, Heacham and Dersingham main drain.	**Medium** – IDB potential to benefit species by maintaining current reedbeds within the King's Lynn IDB area through HAP, whilst potentially extending the Smeeth Lode reedbed system
Reed Warbler *Acrocephalus scirpaceus*	Widespread summer visitor to lowland central and southern England and Wales. Rarer in Scotland and Northern Ireland. Habitat: reedbeds UK conservation status: Green Protected by the WCA (1981)	It is a summer visitor to breed in the UK, with the largest concentrations in East Anglia and along the south coast.	Found within the reed fringes of the Smeeth Lode system and the Mill basin, particularly near dawn and dusk when sedge warblers are most active.	**Medium** – IDB potential to benefit species by maintaining current reedbeds within the King's Lynn IDB area through HAP, whilst potentially extending the Smeeth Lode reedbed system
Sedge warbler *Acrocephalus schoenobaenus*	UK conservation status: Amber Protected by the WCA (1981) Sedge warblers are found across the UK and are a summer visitor Habitat: reedbeds	Sedge warblers are a widespread summer visitor.	Found within the reed fringes of the Smeeth Lode system and the Mill basin, particularly near dawn and dusk when sedge warblers are most active.	**Medium** – IDB potential to benefit species by maintaining current reedbeds within the King's Lynn IDB area through HAP, whilst potentially extending the Smeeth Lode reedbed system
Swallow *Hirundo rustica*	UK conservation status: Green Protected by the WCA (1981)	Swallows are relatively common within Norfolk.	Swallows prefer areas of open pasture with access to water and quiet farm buildings. Large reedbeds in late summer and early autumn can be good places	**Medium** - Maintain population via potential to install swallow nest sites within the King's Lynn IDB area

	Swallow numbers in the UK have fluctuated over the last 30 years with pronounced regional variation in trends.		to look for pre-migration roosts.	
Swifts Apus apus	The European swift population is 4.4 - 12 million pairs, with the UK population standing at 85,000 breeding pairs (N.B. figure from 1988-1991). Between 1994 and 2006, the UK population declined by 29%. The swift is protected under the Wildlife and Countryside Act 1981 (as amended).	According to the BTO/JNCC/RSPB Breeding Bird Survey, the swift population appears to be stable in the east of England; however, it declined by 44% in the south-east between 1995 and 2008.	Throughout District	**Medium** – Maintain population via potential to install a Swift tower
Tree Sparrow *Passer montanus*	A UK BAP priority species The UK tree sparrow population has suffered a severe decline, estimated at 93% between 1970 - 2008. Main populations are now found across the Midlands, southern and eastern England. UK conservation status: Red Protected by the WCA (1981)	Patchily distributed across the county with main concentrations in north and mid Norfolk and the Brecks (RSPB/EN/BTO/Defra Farmland Bird Database). Unobtrusive and easily over-looked. The 1986 Norfolk Bird Atlas recorded tree sparrow in 36% of 2km squares.	Throughout District	**Medium** - Maintain population via potential to install nest box sites along drains
FISH				
European Eel *Anguilla Anguilla*	A UK BAP priority species Huge economic and ecological significance to UK waters. Decline in eel recruitment by 70% in the UK since the 1980's. The Eels (England and Wales) Regulations 2009 permit the Environment Agency to require an eel pass at locations where the passage of eels is impeded or likely to be impeded.	Declines in eel populations have been noted on rivers across Norfolk but the cause is not known. Pollution, over-fishing in the past, parasite infestation, and climate change have all been suggested as possible causes.	Eels are probably widespread through the Board's area.	**High** - Replace old pumps with new fish friendly equivalents as part of the refurbishment scheme when they are needed to be replaced
INVERTEBRATES				
Dragonflies *Anisoptera spp*.	Species richness has increased over time, especially in the northern half of Britain, but also in the south as new species arrive and colonize. A trend analyses showed that just over 40% of our resident and/or regular migrant dragonfly and damselfly species have increased in occupancy across Britain and Ireland, while just 11% have shown significant decline.	Present throughout Norfolk	Throughout District.	**Medium** - IDB Potential to benefit species from Habitat enhancement

Pollinators	Many species of bee, moth, butterfly, hoverfly, fly and beetle pollinate £690 million worth of crops annually. The European Red List reported that one in ten species of wild bee face extinction, and over the past 50 years, half the bee, butterfly and moth species studied in the 2013 State of Nature Report have declined.	Present throughout Norfolk.	Throughout District.	**Low** – Potential for maintaining by allowing Beekeepers to keep beehives on IDB land but needs to be investigated
TERRESTRIAL MAMMALS				
Bats (*Barbastella spp., Myotis spp., Eptesicus spp., Nyctalus spp., Pipistrellus spp., Plecotus spp*.)	Barbastelle, Noctule, Soprano pipistrelle & Brown long-eared are UK BAP priority species All bats and their roosts are protected by UK law and they are also covered by the EU Conservation of Habitats and Species Regulations 2010 as European Protected Species. All species protected under Schedule 5 of WCA 1981 and Schedule 2 of the Conservation of Habitats and Species Regulations 2017.	The distribution of bats is throughout the drainage district. *Barbastella spp*: Norfolk is one of the strongholds for this species *Myotis spp*: Generally all common and some local. *Nyctalus spp*: Thought to be declining in some areas. *Pipistrellus spp*: Common and Soprano pipistrelles are common, Nathusius' pipistrelles are rare. A strongly migratory species. *Plecotus spp*: Common	Widespread throughout the board's area, using the watercourses for foraging and commuting. Buildings and old culverts may be used for roosting.	**Medium to High** – Monitor bat boxes and look at opportunities to provide more suitable roosting sites e.g. more bat boxes at each pumping station
Eurasian Badger *Meles meles*	Very common UK species Protected in the UK under the Protection of Badgers Act (1992) and the WCA (1981).	There is some evidence that badgers are increasing in Norfolk but, in many areas of the county they remain scarce or absent.	Some field signs have been recorded throughout the board's area whilst out surveying.	**High** – Continue monitoring and recording any Badger setts seen in within the IDB district
European Otter *Lutra lutra*	A UK BAP priority species Otters are now protected under Schedule 5 of WCA 1981 and Schedule 2 of the Conservation of Habitats and Species Regulations 2010. Listed on Appendix I of CITES, Appendix II of the Bern Convention and Annexes II and IV of the Habitats Directive 1994. It is listed in the national Red Data book. Long term decline but now increasing.	Otters now use all major watercourses in Norfolk and populations appear to be recovering. There are significant records of otters throughout the drainage district.	Throughout District.	**High** – Investigate potential Otter bridge locations for surveying & look for opportunities to create artificial otter holts on suitable drains
European Water Vole *Arvicola*	A UK BAP priority species Water voles are now S41 species and listed under schedule 5 of the WCA	Water Vole are widespread across Norfolk and the population appears to be stable.	Water Voles are widespread through the Board's IDB area.	**High** – Appropriate management of watercourses & predator

amphibius	(1981). Long term decline. An estimate population size of 132,000 individuals in Great Britain. GB populations are inferred to have declined very rapidly over recent years, equating to a 50% decline over 17 years.			control, plus ongoing monitoring
REPTILES				
Adder *Vipera berus*	A UK BAP priority species Found across the country, protected in the UK under the WCA (1981). Priority Species under the UK Post-2010 Biodiversity Framework.	They are scarce across much of East Anglia, but there are strongholds that exist along coasts and heaths. Heathland habitat has declined in Norfolk and it is likely that with the loss of this habitat adders have also declined in numbers and range.	Adders are likely found within Leziate, Sugar and Derby Fens, Roydon common & Dersingham bog SSSI. (To be investigated)	**Medium** – Maintain species population/range by understanding where they are within the drainage district e.g. mat surveys
Common Lizard *Lacerta vivipara*	A UK BAP priority species The common lizard is the UK's most common and widespread reptile, Protected in the UK under the WCA (1981). Priority Species under the UK Post-2010 Biodiversity Framework.	Widespread across Norfolk.	Common lizards are likely found within Leziate, Sugar and Derby Fens, Roydon common & Dersingham bog SSSI. (To be investigated)	**Medium** – Maintain species population/range by understanding where they are within the drainage district e.g. mat surveys
Grass Snake *Natrix helvetica*	A UK BAP priority species Widespread in England and Wales but suffered from the loss of suitable habitat because of changes in farming practices and loss of land due to urbanisation Protected under the WCA (1981).	Widespread across Norfolk but in decline.	Grass snakes are likely found within Heacham, Reffley Reserve, Leziate, Sugar and Derby Fens & Roydon common. (To be investigated)	**High** - Increase species range/population by creating grass snake nesting piles along suitable drains and monitor them

4.11. Invasive Non-native Species Summary

The IDB has identified the following high risk aquatic and riparian invasive non-native species within the drainage district that are identified as likely to be influenced by, or impact upon the Board's activities.

Table 6: High risk aquatic invasive non-native species summary

Common & scientific name	Location within IDB if known	Year first recorded	Local status / Extent within drainage district	IDB potential for controlling species population or range
American Mink *Neovision vision*	Throughout the IDB area	2001	Mink can be found throughout the King's Lynn IDB area and throughout Norfolk.	Partnership working and volunteering with WLRT and provide advice to landowners.
Chinese Mitten Crab *Eriocheir sinensis*	Lynnsport, Eau Brink Pumping Station & Ingol Sluice	2006	Chinese Mitten crabs have been reported a handful of times in Norfolk, around the wash, along the north Norfolk coast and once in great Yarmouth. Their numbers are increasing within the drainage district.	Biosecurity measures, recording and partnership working with NNNSI.
Killer Shrimp *Dikerogammarus villosus*	None within the drainage district	N/A	Killer Shrimp are present in Norfolk within the Trinity Broads and the Norfolk Broads. There is currently no Signal Crayfish reported within the drainage district.	Biosecurity measures and recording.
Signal Crayfish *Pacifastacus leniusculus*	None with the drainage district	N/A	Signal Crayfish are common across Norfolk in the waterways and Rivers. There is currently no Signal Crayfish reported within the drainage district.	Biosecurity measures and recording.
Australian Swamp Stonecrop *Crassula helmsii*	Reffley resevoir	2021	Australian swamp stonecrop is common across Norfolk, but recordings across the drainage district are sparse.	Control measures on a case by case Basis, partnership working with NNNSI, biosecurity measures, recording and provide advice to landowners.
Floating Pennywort *Hydrocotyl ranunculoides*	No Floating Pennywort within the KLIDB district	N/A	The distribution of floating pennywort in Norfolk is largely restricted to the River Waveney, although there have been reported infestations from other isolated waterbodies in the east of the county. There is currently no Floating Pennywort reported within the drainage district.	Work in partnership where we can with landowners, biosecurity measures, recording, NNNSI partnership working and provide advice to landowners. Inform the EA.

Giant Hogweed *Heracleum mantegazzianum*	Heacham (North Beach Saltings), Gaywood, Wiggenhall St Mary Magdalen & Castle rising	1988	Giant hogweed is common across Norfolk. Most records of this plant occur in the east of the county, with the area to the south-east of Norwich having a particularly high density of infestations. Giant Hogweed can be found sporadically across the drainage district.	Control measures on a case by case basis, partnership working with NNNSI and landowners, provide advice to landowners, biosecurity measures, and recording.
Himalayan Balsam *Impatiens glandulifera*	North Wootton, Heacham & Middleton Tower	1988	The plant is now widespread in central and eastern Norfolk and is still expanding its range. It can be seen along the banks of rivers, in wet woodland and on waste ground, often growing in large dense clumps. Widespread distribution and found across the drainage district.	Partnership working with NNNSI and landowners, biosecurity measures, recording, partnership working and provide advice to landowners.
Japanese Knotweed *Fallopia japonica*	Throughout district	1988	Widespread distribution across Norfolk and the drainage district.	Control measures on a case by case basis, partnership working with NNNSI and landowners, provide advice to landowners, biosecurity measures, and recording.
Parrots Feather *Myriophyllum aquaticum*	Dersingham Bog, N.reserve & King's Lynn Sports Centre	2007	Parrot's feather is sparsely distributed across the whole of Norfolk, with marginally more records occurring in the east of the county. Parrot's feather is not common across the drainage district.	Biosecurity measures, recording a provide advice to landowners.
Water Fern *Azolla filiculoides*	Straight Drain – Gravel Bank, Tilney & Roydon	2006	Water fern has a widespread distribution across Norfolk. From the NBIS data, there is only 3 recordings of Water Fern across the drainage district.	Control measures on a case by case basis, partnership working with NNNSI and landowners, provide advice to landowners, biosecurity measures and recording.

4.12. Water Level Management Plans

Water Level Management Plans (WLMPs) provide a means by which the water level requirements for a range of activities in a particular area, including agriculture, flood defense and conservation, can be balanced and integrated. Guidance for the production of WLMPs by the operating authorities for sites of conservation interest was produced by MAFF/ Defra in 1992, 1999 and 2004. This guidance concentrated on SSSIs, especially those of international importance (SPA or SAC sites).

Where IDBs are the operating authority for sites, they may or may not actively manage the water levels.

The table below provides further details of the Water Level Management Plans for which the IDB has some involvement within their drainage district.

Table 7: Water Level management plans in operation within the drainage district

Site Name & Designation	Reason for WLMP (state main species or habitat)	WLMP lead and other key partners	Favorable/ unfavorable condition (related to water level management)	WLMP Last Updated
Dersingham Bog SSSI – component site of Roydon Common and Dersingham Bog candidate SAC & Dersingham Bog RAMSAR	Dersingham Bog is the largest and most intact example of an acid valley mire in East Anglia. Cotton grass is dominant in low lying areas with several uncommon species being present including round-leaved sundew and bog asphodel. Small bog pools are common in this zone. Areas of wet heath and marshy grassland also occur here and several rare mosses grow in this wet area.	KLIDB, NE	100% Unfavourable – recovering condition	2000
Leziate, Sugar and Derby Fens SSSI	Leziate Fen - Seasonally wet, rough grassland on thin acidic peats. Grasses include purple moor-grass and sheep's fescue with marsh pennywort, tormentil and heather. Damp furrows are dominated by creeping buttercup, lesser spearwort, water mint & meadowsweet. Sugar Fen - Damp birch woodland with frequent alder & small areas of fen grassland occur on the edges with southern marsh orchids. Derby Fen - Dry acid grassland and heath, dominated	KLIDB, NE	54.76% Unfavourable – recovering condition 45.24% Unfavourable – Declining condition	2001

	by sheep's fescue, purple moor-grass, heather and gorse. Rich chalk grassland = Lady's bedstraw, spiny restharrow, salad burnet, wild thyme and common spotted orchid. Otter and water vole are present throughout.			
Roydon Common SSSI – component site of Roydon Common and Dersingham Bog SAC & Roydon Common RAMSAR	Lowland mixed valley mire. The rare bog orchid is found here together with marsh fern and all three species of sundew. Flanking the mire is an area of wet heath, and calcareous fen is also present where the peats become more alkaline. Wet woodland and marshy grassland are also found on this site. Diverse insect fauna present - most wetland dependent. Many uncommon birds use the site for feeding, roosting and nesting.	KLIDB, NE, NWT	95.44% Unfavourable – recovering condition 4.56% Unfavourable – Declining condition	2000

5. Habitat and Species Action Plans

5.1. Introduction

Action plans comprise the objectives, targets and actions that the IDB has identified for each habitat and species to be included within the BAP. The following sections contain action plans for each of the habitats and species that have been prioritised by the IDB. A summary table of Biodiversity Action Plan Objectives can be found in Appendix 4 and a summary table of Habitat and Species Action Plans can be found in Appendix 5.

5.2. Habitat Action Plans

5.2.1 Reedbeds

5.2.1.1 National and Local Targets

Table 8:

National Targets	Local Targets
• Identify and rehabilitate by the year 2000 the priority areas of existing reedbed (targeting those of 2 ha or more) and maintain this thereafter by active management. • Create 1200 ha of new reedbed on land of low nature conservation interest by 2010. This should be in blocks of at least 20 ha: in areas near to existing habitat; linked with existing habitat wherever possible.	Norfolk BAP targets: • Maintain existing area and quality as a minimum. Identify and rehabilitate by the year 2010 the priority areas of existing reedbed which are not currently at favourable conservation status. • Create new reedbed to replace reedbeds likely to be lost due to changes to coastal management. These should be located as near as possible to existing sites on areas of current low nature conservation interest. • Create an additional 600 hectares of new reedbed safe from future threat of sea level rise within Norfolk by 2010. This will be on areas of current low nature conservation interest.

5.2.1.2 IDB Objectives

Table 9:

IDB Objectives	
1	Maintain and extend the current extent of Reedbed within the Board's Area.

5.2.1.3 IDB Actions

Table 10:

Action Plan						
Objective ref.	Action number	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	1a	Create a reed management policy.	Produce reed management policy	2026	Environment team and Ops team	LNRS
1	1b	Determine the extent and distribution of the existing reedbeds within the KLIDB district using ESRI maps and create an inventory list.	Produce map with site locations and an inventory list	Ongoing	Environment team	NBIS
1	1c	Maintain reedbed fringe habitat on the Boards drains where applicable to do so.	No. of SMO audits achieved	Ongoing	Ops team	LNRS
1	1d	Extend the current reedbed fringe habitat on the Boards drains where applicable to do so.	Area (ha) of new reedbeds created	Ongoing	Ops team	LNRS

5.2.2 Rivers, Canals and Drains

5.2.2.1 National and Local Targets

Table 11:

National Targets	Local Targets
N/A – no national targets set	Unknown

5.2.2.2 IDB Objectives

Table 12:

IDB Objectives	
2	Enhance and maintain habitat and species diversity on watercourses maintained by the Board.
3	Enhance and maintain the flora and fauna of the watercourses maintained by the Board.
4	Ensure compliance to Boards Standard Maintenance Operations (SMO) to maintain rivers and drains.

5.2.2.3 IDB Actions

Table 13:

Action Plan

Objective ref.	Action number	Action	Measurable / Indicators	Completion date	Action Lead	Partners
2	**2a**	Work with the planning department to review the boards culverting policy.	Reviews undertaken	2026	Environment team	Planning department
2	**2b**	Identify opportunities to record species present in the watercourses managed by the Board.	Number of records submitted	Ongoing	Environment team	NBIS
3	**3a**	Work in partnership with the EA to report pollution incidents within the IDD.	Partnership maintained	Ongoing	Environment team	EA
4	**4a**	The SMO will be reviewed on a 5-year basis.	SMO produced	2024	Environment team	
4	**4b**	Ensure compliance with the IDB SMO by auditing on identified number of maintenance works jobs annually, to ensure they are being carried out to an agreed standard across the whole board.	No. of audits undertaken	Annually	Environment team, Ops team	
4	**4c**	Review maintenance plan for the Gaywood River.	Review undertaken	2024/25	Environment team, Ops team	EA, NRT

5.3. Species Action Plans

5.3.1 Barn Owl and Kestrel

5.3.1.1 National and Local Targets

Table 14:

National Targets	Local Targets
Unknown	Norfolk BAP targets: • Create new and maintain the existing network of interlinked grassland habitats in the county of Norfolk. • Provide artificial nesting sites at about 2.5 km intervals on these habitat corridors, having regard for any existing breeding pairs. • Disseminate the levels of success that are being achieved. • Develop knowledge of Barn Owl distribution and abundance within the county and identify existing Species Recovery Areas. • Through the planning system, mitigate the impact of any site development or maintenance works on Barn Owls. • Provide advice on the use of rodenticides, road mortality and the ecological survey of Barn Owls. • Raise awareness of farmers, landowners and developers about the significance of Barn Owls in Norfolk and their obligations for the conservation of this 'Amber Listed' bird and for its statutory legal protection.

5.3.1.2 IDB Objectives

Table 15:

IDB Objectives	
5	Continue to enhance the range and population of Barn Owls and Kestrels through habitat enhancement and creating nesting opportunities, within the catchment area.

5.3.1.3 IDB Actions

Table 16:

Action Plan						
Objective ref.	Action number	Action	Measurable / Indicators	Completion date	Action Lead	Partners
5	**5a**	Continue to monitor nest boxes within the KLIDB area.	Number of boxes monitored	Ongoing	Environment team	WCP
5	**5b**	Continue to maintain, repair or replace nest boxes in the KLIDB area.	Number of boxes maintained, repaired or replaced	Ongoing	Environment team	WCP
5	**5c**	Adhere to SMO guidelines regarding Barn Owl and Kestrel.	No. of IDB audits	Ongoing	Ops team	

5.3.2 House martins, Swallows and Swifts

5.3.2.1 National and Local Targets

Table 17:

National Targets	Local Targets
Unknown	Unknown

5.3.2.2 IDB Objectives

Table 18:

IDB Objectives	
6	Enhance the species population and range by installing an artificial nest site or towers along suitable drains belonging to the IDB or near suitable pumping stations within the King's Lynn IDB district.

5.3.2.3 IDB Actions

Table 19:

Action Plan						
Objective ref.	Action number	Action	Measurable / Indicators	Completion date	Action Lead	Partners
6	**6a**	Determine the extent and distribution of the existing	Produce map with site	Ongoing	Environment	NBIS

		populations at the Board’s pumping stations and on key drains using ESRI maps and create an inventory list.	locations and an inventory list		team	
6	**6b**	Create a number of artificial nesting habitats where opportunities arise for House martins, Swallows and Swifts at pumping stations.	No. of artificial nesting sites	2028	Environment team	

5.3.3 Tree Sparrow

5.3.3.1 National and Local Targets

Table 20:

National Targets	Local Targets
• In the short term, halt or reverse the decline in numbers of the tree sparrow by the year 2003 so that the Breeding Bird Survey index is at least at 1996 levels. • In the long term, see a sustained recovery, so that the BBS index is at least 50% higher than 1996 levels, and a measurable increase in range is achieved, by 2008. • Expand the range from that of 1996, as measured by the frequency in random BBS squares, by 2008.	Norfolk BAP targets: • Maintain the current distribution of tree sparrow in Norfolk and by 2010 restore to any parts of the county that have lost breeding tree sparrow since 1986.

5.3.3.2 IDB Objectives

Table 21:

IDB Objectives	
7	Monitor and enhance Tree sparrow population and range by increasing potential nest site availability within the King's Lynn IDB district.

5.3.3.3 IDB Actions

Table 22:

Action Plan

Objective ref.	Action number	Action	Measurable / Indicators	Completion date	Action Lead	Partners
7	**7a**	Determine the extent and distribution of the existing populations at the Board's pumping stations and on key drains using ESRI maps and create an inventory list.	Produce map with site locations and an inventory list	Ongoing	Environment team	NBIS
7	**7b**	Install nest boxes at suitable sites within the IDB district.	No. of nest boxes installed	2026	Environment team	Landowners
7	**7c**	Monitor the proposed nest boxes sites.	Monitor activity at proposed nest sites	Annually	Environment team	Landowners
7	**7d**	Report nesting activity and nest box sites to the NBIS.	Number of records submitted	Annually	Environment team	NBIS, Landowners

5.3.4 European Eel

5.3.4.1 National and Local Targets

Table 23:

National Targets	Local Targets
Unknown	Unknown

5.3.4.2 IDB Objectives

Table 24:

IDB Objectives	
8	Contribute to the Eel Regulations legislative requirements and the Eel Management Plan.
9	Undertake eDNA water sampling for Eel.

5.3.4.3 IDB Actions

Table 25:

Action Plan						
Objective ref.	Action number	Action	Measurable / Indicators	Completion date	Action Lead	Partners

8	**8a**	Work in Partnership with the Environment Agency to assess the current status of eel populations at pumping stations within the Board's area.	No. of pumping stations where eel populations reviewed	Ongoing	Environment team	EA
8	**8b**	Work in Partnership with the Environment Agency to identify barriers to migration in the Board's Area and assess options for overcoming these.	Barriers to migration identified	Ongoing	Environment team	EA
9	**9a**	Undertake eDNA water sampling at pumping stations for fish, including Eel (As part of pumping station replacement).	No. of water samples collected	Ongoing	Environment team	EA
9	**9b**	Report eDNA results to NBIS.	Results reported	Ongoing	Environment team	NBIS

5.3.5 Bats

5.3.5.1 National and Local Targets

Table 26:

National Targets	Local Targets
• Maintain the current range of B. barbastellus in the UK at 681occupied 10 km squares.	Norfolk BAP targets: • Maintain the current range of B. barbastellus in Norfolk at 31 occupied 10 km squares2 (see Fig. 1)

5.3.5.2 IDB Objectives

Table 27:

IDB Objectives	
10	Understand the status, distribution and ecology of bats in the IDB district.
11	Maintain and enhance the current distribution and abundance of bats within the Board's area.

5.3.5.3 IDB Actions

Table 28:

Action Plan

Objective ref.	Action number	Action	Measurable / Indicators	Completion date	Action Lead	Partners
10	**10a**	Determine the extent and distribution of the existing populations at the Board's pumping stations and on key drains using ESRI maps and create an inventory list.	Produce map with site locations and an inventory list	Ongoing	Environment team	NBIS
10	**10b**	Investigate the potential to buy an in-situ bat detector for monitoring and surveying.	In situ bat detector bought	2024	Environment team	
10	**10c**	Survey and monitor bat presence around IDD as part of the BTO Norfolk Bat Survey.	Number of surveys undertaken	Ongoing	Environment team	BTO
10	**10d**	Ensure training is delivered to all environment officers.	Number of officers trained	Ongoing	Environment team	
11	**11a**	Install bat boxes for roosting and hibernation on or near suitable IDB structures.	Number of bat boxes installed	Ongoing	Environment team, Op's team	
11	**11b**	Continue to work with consultants for capital schemes involving bat mitigation and habitat enhancements.	Number of capital schemes delivered including bat mitigation and habitat enhancements	Ongoing	Environment team	Consultants, Landowners

5.3.6 European Otter

5.3.6.1 National and Local Targets

Table 29:

National Targets	Local Targets
• Maintain and expand existing populations. • By 2010 restore breeding otters to all catchments where they have been recorded since 1960.	Norfolk BAP targets: • Maintain and expand existing populations. • Ensure suitable conditions for otters on all major rivers by 2005.

5.3.6.2 IDB Objectives

Table 30:

IDB Objectives	
12	Maintain and enhance the range and population of otter within the Board's area.

5.3.6.3 IDB Actions

Table 31:

Action Plan						
Objective ref.	Action number	Action	Measurable / Indicators	Completion date	Action Lead	Partners

12	**12a**	Investigate the potential to undertake bridge surveys at sites within the KLIDB district.	No. of sites identified	Ongoing	Environment team	
12	**12b**	Identify potential sites for artificial otter holt creation within the Board's area and investigate potential sources of funding.	No. of sites identified	Ongoing	Environment team	

5.3.7 European Water Vole

5.3.7.1 National and Local Targets

Table 32:

National Targets	Local Targets
UK BAP targets = Maintain the current range & achieve an increase in range (both across 10km2 areas) • To arrest the decline and maintain the current distribution and status of the water vole. • To restore water voles to their pre 1970 range by 2010. • To ensure management of watercourses and wetlands in order to maintain the restore population.	Norfolk BAP targets: • To maintain the current distribution and abundance of the water vole in Norfolk. • To restore water vole populations throughout Norfolk by 2010. • To ensure the appropriate management of watercourses and wetlands which will facilitate the above.

5.3.7.2 IDB Objectives

Table 33:

IDB Objectives	
13	Control with a view to eradication of mink within the IDB catchment.
14	Better understand population and extent of water voles within the Boards area.
15	Ensure the appropriate sensitive management of watercourses which will facilitate the maintenance and enhancement of the current distribution and abundance of the water vole in the IDB District.
16	Maintain and enhance the current distribution and abundance of the water vole in the IDB District.

5.3.7.3 IDB Actions

Table 34:

Action Plan						
Objective ref.	**Action number**	**Action**	**Measurable / Indicators**	**Completion date**	**Action Lead**	**Partners**
13	**13a**	Maintain 10 remoti traps within the IDB district.	Catch per unit effort, No. of mink caught per year	Yearly	Environment team	WLRT
13	**13b**	Continue to contribute funding to the Water Life Recovery Trust (WLRT).	Funding contributed	Yearly	Environment team	WLRT
13	**13c**	Continue to work with the WLRT project on mink eradication.	No. of steering group/GLNP mink meetings attended each year	Yearly	Environment team	WLRT
14	**14a**	Undertake yearly recording by operational staff and report to local biodiversity record centers.	Number and location of records collected and submitted to local biodiversity records office	Yearly	Ops team	NBIS
15	**15a**	Ensure compliance with the IDB SMO by auditing 4 jobs per year jobs, to ensure they are being carried out sensitively and to an agreed standard across the Board.	Number of maintenance works audited	Yearly	Environment team, Ops team	
16	**16a**	Take opportunities to enhance water vole habitat where appropriate during Capital schemes.	Area (ha) of habitat enhanced	Ongoing	Environment team	NE, EA, NWT and Landowners

5.3.8 Adder, Common Lizard and Grass Snake

5.3.8.1 National and Local Targets

Table 35:

National Targets	Local Targets
Unknown	Unknown

5.3.8.2 IDB Objectives

Table 36:

IDB Objectives	
17	Maintain and where possible increase the range of Adder, Common Lizard and Grass Snake within the Board's area.

5.3.8.3 IDB Actions

Table 37:

Action Plan						
Objective ref.	Action number	Action	Measurable / Indicators	Completion date	Action Lead	Partners
17	17a	Determine the extent and distribution of the existing populations at the Board's pumping stations and on	Produce map with site locations and an	Ongoing	Environment team	NBIS

		key drains using ESRI maps and create an inventory list.	inventory list			
17	**17b**	Find potential sites / drains in the IDB area where reptile mats can be laid as a surveying exercise.	No. of adders, common lizards or grass snakes sighted	Ongoing	Environment team	
17	**17c**	Grass snakes - Using the distribution data, develop Hibernacula and egg laying sites at pumping stations or key locations where appropriate.	No. of produced egg laying sites	Ongoing	Environment team	
17	**17d**	In partnership with ARG UK (The Amphibian and Reptile groups of the UK), monitor the status of this species in certain key areas.	No. of sightings during the survey	Ongoing	Environment team	ARG UK

5.3.9 Non-native Invasive Species

5.3.9.1 National and Local Targets

Table 38:

National Targets	Local Targets
Unknown	Unknown

5.3.9.2 IDB Objectives

Table 39: IDB Objectives

IDB Objectives	
18	Promote the prevention, control and eradication of non-native invasive species within the Board's area.
19	Raise awareness of the presence and undertake control and/or eradication of mink in the catchment.

5.3.9.3 IDB Actions

Table 40:

Action Plan						
Objective ref.	**Action number**	**Action**	**Measurable / Indicators**	**Completion date**	**Action Lead**	**Partners**
18	**18a**	Continue partnership with the NBIS to receive up to date records of Invasives within the local area.	Partnership established and continued	Ongoing	Environment team	NBIS

18	**18b**	Determine the extent and distribution of the existing populations at the Board's pumping stations and on key drains using ESRI maps and create an inventory list.	Produce map with site locations and an inventory list	Ongoing	Environment team	NBIS
18	**18c**	Continue to contribute to and work in partnership with the Norfolk Non-Native Species Initiative.	Partnerships maintained	Ongoing	Environment team	NNNSI
18	**18d**	Train staff regularly on key non-native invasive species identification in order to report invasives.	Training sessions	Ongoing	Environment team	Staff, Contractors
18	**18e**	Maintain records for all species of concern using the 'iRecord' / ESRI app.	No. of reviews undertaken	Ongoing	Environment team, Ops team	NNNSI, Staff, Contractors
18	**18f**	Prevent the spread of Non-Native Invasive Species by regularly reviewing and ensuring robust biosecurity measures are being maintained across the Board.	Biosecurity measure undertaken	Ongoing	Environment team	Staff, Contractors
18	**18g**	Ensure availability and regular review of identification guides developed for key non-native species to be used by officers, staff and contractors on site.	Number of reviews undertaken	Ongoing	Environment team	NNNSI, Staff, Contactors
18	**18h**	Explore options for control/eradication of Mitten Crab within the Gaywood River.	No. of correspondences with NNNSI	Ongoing	Environment team	NNNSI
19	**19a**	Continue to work in partnership with Mink control/eradication groups.	No. of meetings per year	Ongoing	Environment team	WLRT
19	**19b**	Maintain 10 IDB traps within the catchment.	No. of traps maintained in the catchment	Ongoing	Environment team	WLRT
19	**19c**	Report catches to the WLRT.	No. of catches per year, Catch per unit effort	Ongoing	Environment team	WLRT

5.3.10 Working with Local Nature Recovery Strategies (LNRS)

The above list of Habitat and Species Biodiversity Action Plans are not exhaustive, the Environment team are always looking and open to new ideas and projects whilst also partnering with LNRS's. The King's Lynn IDB will look where funding is available to enhance a wide range of habitats and species within the catchment. The IDB is constantly looking to enhance habitats within its drainage district through regular maintenance, projects and capital schemes etc.

Below is a list of further actions which can be investigated to look for opportunities to engage with LNRS:

- Enhance areas of Woodland within the IDB drainage district via Tree Planting.
- Explore opportunities for working with partners on Peatland restoration.
- Look to enhance the Breeding wader habitat at Middleton Stop Flood storage area by installing Floating islands.
- Look for opportunities to manage Floodplains e.g. Osier Marsh

6. Procedural Action Plan

6.1. Introduction

A number of procedural targets and actions have been established to better integrate biodiversity considerations into IDB practices and procedures.

6.2. Objectives and Targets

Table 41:

	IDB Objectives
1	Ensure compliance to standard for biodiversity and protected species surveys
2	Ensure compliance to Board's Standard Maintenance Operations
3	Land Drainage Consent and Bylaws
4	Attend Local Biodiversity Forums and Meetings
5	Raising awareness
6	Recording
7	Communication
8	Monitoring

6.3. IDB Actions

Table 42:

Action Plan						
Objective ref.	**Action number**	**Action**	**Measurable / Indicators**	**Completion date**	**Action Lead**	**Partners**
1	**1a**	All works assessed using agreed standards of information to ensure that appropriate mitigation is delivered for capital/maintenance works and projects to enhance biodiversity.	License returns to NE / Number of audits undertaken	Ongoing	Environment team	NE, EA
1	**1b**	Environmental staff to undertake regular training.	Number of staff trained	Ongoing	Environment team	
2	**2a**	Assess an annual agreed percentage of maintenance works, to be carried out to an agreed standard and delivered across the whole board and integrated within the Quality Management System ISO14001.	Number of audits undertaken / QMS audit	Annually	Environment team	NE, EA
2	**2b**	Regular review on SMO to ensure compliance with updated guidelines and regulations.	5 year review undertaken	Ongoing		
3	**3a**	Through the application of Land Drainage Consents and Bylaws, seek to ensure that natural features of conservation interest and habitat importance are maintained or enhanced.	Review Planning and Bylaw strategy	2024		
4	**4a**	Communication and network opportunities with other organisations to facilitate actions for BAP Species and Habitats.	Meetings attended	Ongoing	Environment team	
4	**4b**	PR and lifting profile of Board.	Newspaper/magazine articles / website blogs	Ongoing		
5	**5a**	Biodiversity training days organised for staff and Board members.	Number of training days organised	Ongoing		
6	**6a**	Develop and populate a recording system for IDB priority species and habitats within the Board area, in conjunction with the Engineering team watercourse surveys.	iRecord reports	Ongoing	Environment team	NBIS
7	**7a**	A new environment and biodiversity section on the website.	Environment section produced	Ongoing		
7	**7b**	Share successes with media and promote public awareness.	Social media reaches, Newspaper/magazine articles / website blogs	Ongoing	ICT team, Environment Team, Ops Team	
8	**8a**	Continue to develop the WMA's record base and continue to work internally and in partnership with other organisations to ensure that	Partnership established with NIBIS	Ongoing		NBIS

		we have up to date information on species to help inform future works.				

7. Implementation

The actions within the BAP will be executed via the following means:

Planning for maintenance, capital and non-regular maintenance work will all take into consideration the Boards Biodiversity Action plan targets.

The Board, has part of the Water Management Alliance, has adopted the Environmental Management System ISO 14001, which also helps to integrate the Biodiversity Action Plan within the systems and work of the organisation.

A simple process will be put into place to record actions and help with the reporting. Any new data on habitats and species will be shared with the Norfolk Biological Record Centre.

Carbon Net Zero is a legislative commitment set out by the UK government to be achieved by 2050. The King's Lynn IDB will be instigating a carbon baselining exercise with a view to setting a target for achieving Carbon Net Zero on or before this date for all its operational and day to day activities.

8. Monitoring

Appropriate indicators have been set for each of the IDB's biodiversity actions. Indicators have been chosen which provide the IDB with ways of measuring both the current status of biodiversity and also ways of measuring achievements in delivering biodiversity objectives and targets. The individual action plans set out the indicators and measurables which will be used to assess progress and execution against the plan. The IDB will routinely monitor biodiversity actions using the indicators and measurables and will review actions and indicators at least annually.

The overall plan will be updated at least every 5 years but is a dynamic document so may change more frequently for example in the light of monitoring outcomes.

9. Reporting

The Board is responsible for ensuring that progress against the Plans' targets are routinely reported, at least annually, at Board meetings to allow the Board to discuss and review BAP activity and to modify the BAP and actions to meet the objectives where necessary.

Annual summary progress reports will detail which actions have been progressed according to the plan, any new opportunities identified, risks and issues affecting the objectives or actions, and the contribution actions have made towards achieving the objectives. Recommendations will be made in the light of the monitoring outcomes.

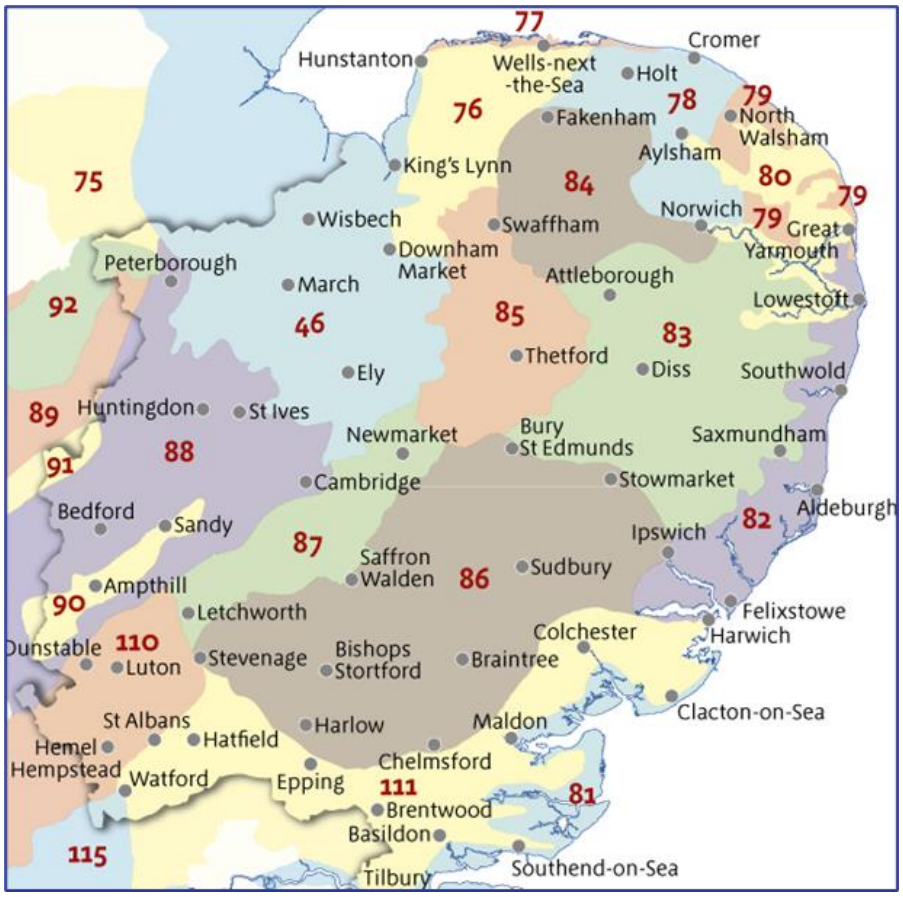
Making this information available to a wider audience is important in increasing the understanding of the importance of the Boards' actions regarding biodiversity and inspiring people about biodiversity. As such, the IDB will make the summary reports available externally in the following ways:

- In the public domain via the IDB's website;
- Provided to conservation partners to assist with further local biodiversity conservation planning;
- Provided to local authorities in order to contribute towards their legislative biodiversity reporting requirements including the NERC 2006 Act, Habitats Directive, Environment Act and the Local Nature Recovery Strategies;
- The Local Biological Records Centre.
- To the Board through a comprehensive review of the plan that will take place after five years.

10. Appendices

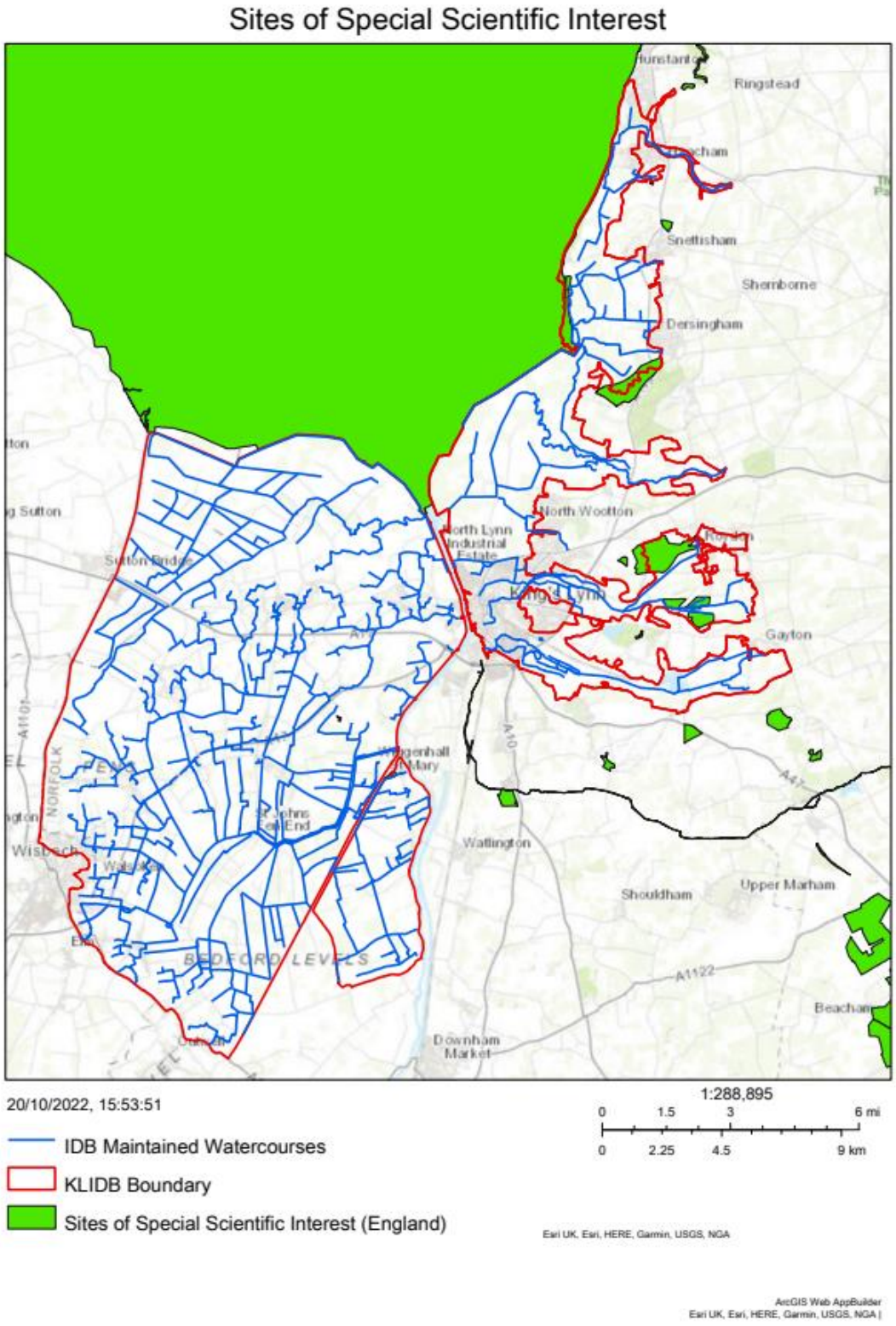
10.1. Appendix 1: Landscape Character

10.1.1 Map showing the limits of the National Character Areas (NCA's) within the KLIDB (The Fens (Area 46) and North West Norfolk (Area 76))

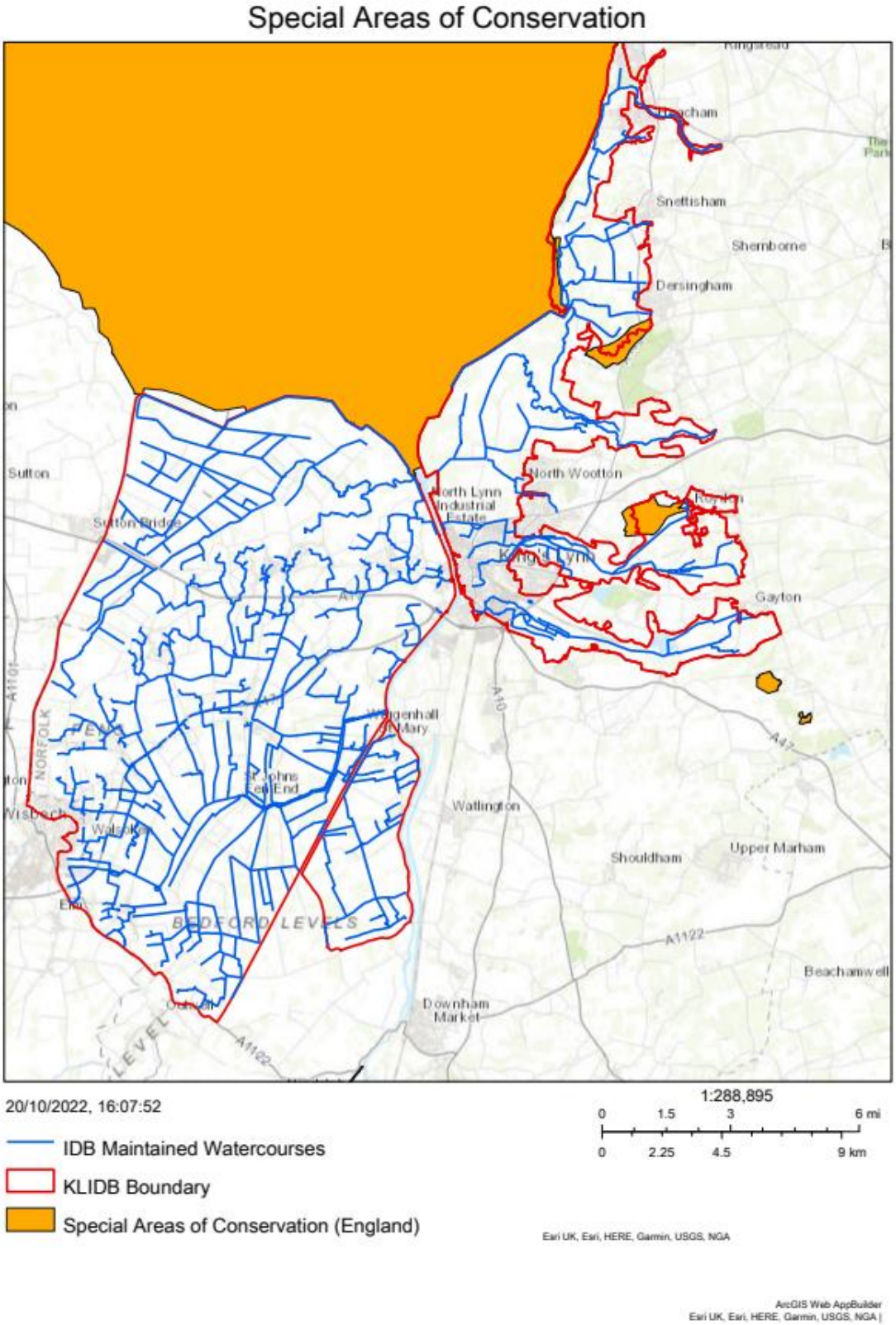


10.2. Appendix 2: Nationally, Internationally Designated Nature Conservation Sites

10.2.1 Map of Sites of Special Scientific Interest within the KLIDB boundary. (OS Licence: 100047016)

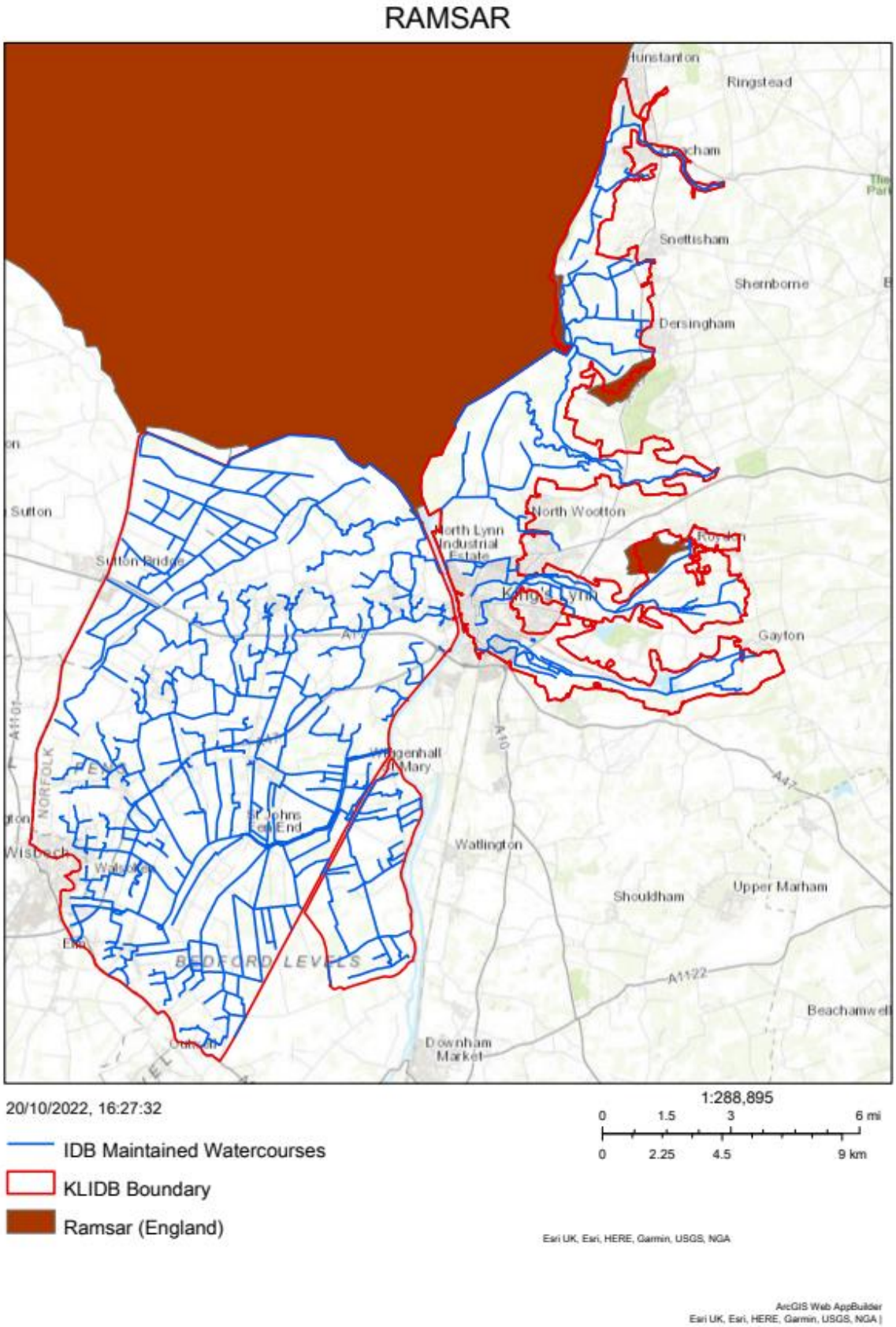


10.2.2 Map of Special Areas of Conservation within the KLIDB boundary. (OS Licence: 100047016)



10.2.3 Map of Special Protection Areas within the KLIDB boundary. (OS Licence: 100047016)

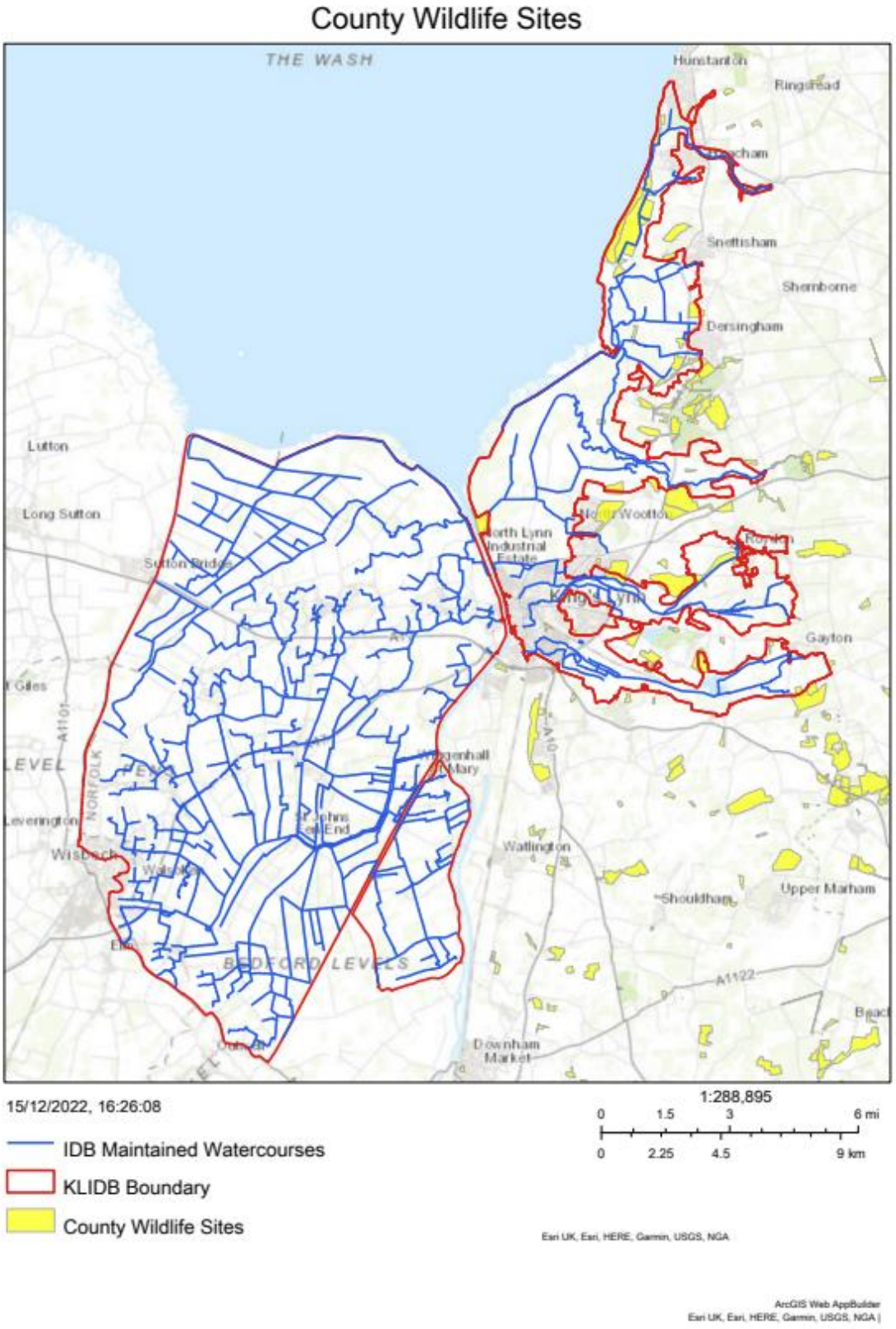
10.2.4 Map of RAMSAR sites within the KLIDB boundary. (OS Licence: 100047016)



10.3. Appendix 3: Non-Statutory Designated Sites

10.3.1 Map of County Wildlife Sites (CWS) within or bordering the KLIDB boundary.

(OS Licence: 100047016)



10.4. Appendix 4: Biodiversity Action Plan Objectives

King's Lynn IDB Habitats and Species Biodiversity Action Plan Objectives	
1	Maintain and extend the current extent of Reedbed within the Board's Area.
2	Enhance and maintain habitat and species diversity on watercourses maintained by the Board.
3	Enhance and maintain the flora and fauna of the watercourses maintained by the Board.
4	Ensure compliance to Boards Standard Maintenance Operations (SMO) to maintain rivers and drains.
5	Continue to enhance the range and population of Barn Owls and Kestrels through habitat enhancement and creating nesting opportunities, within the catchment area.
6	Enhance the species population and range by installing an artificial nest site or towers along suitable drains belonging to the IDB or near suitable pumping stations within the King's Lynn IDB district.
7	Monitor and enhance Tree sparrow population and range by increasing potential nest site availability within the King's Lynn IDB district.
8	Contribute to the Eel Regulations legislative requirements and the Eel Management Plan.
9	Undertake eDNA water sampling for Eel.
10	Understand the status, distribution and ecology of bats in the IDB district.
11	Maintain and enhance the current distribution and abundance of bats within the Board's area.
12	Maintain and enhance the range and population of otter within the Board's area.
13	Control with a view to eradication of mink within the IDB catchment.
14	Better understand population and extent of water voles within the Boards area.
15	Ensure the appropriate sensitive management of watercourses which will facilitate the maintenance and enhancement of the current distribution and abundance of the water vole in the IDB District.
16	Maintain and enhance the current distribution and abundance of the water vole in the IDB District.
17	Maintain and where possible increase the range of Adder, Common Lizard and Grass Snake within the Board's area.
18	Promote the prevention, control and eradication of non-native invasive species within the Board's area.
19	Raise awareness of the presence and undertake control and/or eradication of mink in the catchment.

10.5. Appendix 5: Biodiversity Action Plan Actions

King's Lynn IDB Habitats and Species Biodiversity Action Plan Actions		Partners	Date
REEDBED			
1a	Create a reed management policy.	LNRS	2026
1b	Determine the extent and distribution of the existing reedbeds within the KLIDB district using ESRI maps and create an inventory list.	NBIS	Ongoing
1c	Maintain reedbed fringe habitat on the Boards drains where applicable to do so.	LNRS	Ongoing
1d	Extend the current reedbed fringe habitat on the Boards drains where applicable to do so.	LNRS	Ongoing
RIVERS, CANALS AND DRAINS			
2a	Work with the planning department to review the boards culverting policy.	Planning department	2026
2b	Identify opportunities to record species present in the watercourses managed by the Board.	NBIS	Ongoing
3a	Work in partnership with the EA to report pollution incidents within the IDD.	EA	Ongoing
4a	The SMO will be reviewed on a 5-year basis.		2024
4b	Ensure compliance with the IDB SMO by auditing on identified number of maintenance works jobs annually, to ensure they are being carried out to an agreed standard across the whole board.		Annually
4c	Review maintenance plan for the Gaywood River.	EA, NRT	2024/25
BARN OWL AND KESTREL			

5a	Continue to monitor nest boxes within the KLIDB area.	WCP	Ongoing
5b	Continue to maintain, repair or replace nest boxes in the KLIDB area.	WCP	Ongoing
5c	Adhere to SMO guidelines regarding Barn Owl and Kestrel.		Ongoing
HOUSE MARTINS, SWALLOWS AND SWIFTS			
6a	Determine the extent and distribution of the existing populations at the Board's pumping stations and on key drains using ESRI maps and create an inventory list.	NBIS	Ongoing
6b	Create a number of artificial nesting habitats where opportunities arise for House martins, Swallows and Swifts at pumping stations.		2028
TREE SPARROW			
7a	Determine the extent and distribution of the existing populations at the Board's pumping stations and on key drains using ESRI maps and create an inventory list.	NBIS	Ongoing
7b	Install nest boxes at suitable sites within the IDB district.	Landowners	2026
7c	Monitor the proposed nest boxes sites.	Landowners	Annually
7d	Report nesting activity and nest box sites to the NBIS.	NBIS, Landowners	Annually
EUROPEAN EEL			
8a	Work in Partnership with the Environment Agency to assess the current status of eel populations at pumping stations within the Board's area.	EA	Ongoing
8b	Work in Partnership with the Environment Agency to identify barriers to migration in the Board's Area and assess options for overcoming these.	EA	Ongoing
9a	Undertake eDNA water sampling at pumping stations for fish, including Eel (As part of pumping station replacement).	EA	Ongoing
9b	Report eDNA results to NBIS.	NBIS	Ongoing

BATS			
10a	Determine the extent and distribution of the existing populations at the Board's pumping stations and on key drains using ESRI maps and create an inventory list.	NBIS	Ongoing
10b	Investigate the potential to buy an in-situ bat detector for monitoring and surveying.		2024
10c	Survey and monitor bat presence around IDD as part of the BTO Norfolk Bat Survey.	BTO	Ongoing
10d	Ensure training is delivered to all environment officers.		Ongoing
11a	Install bat boxes for roosting and hibernation on or near suitable IDB structures.		Ongoing
11b	Continue to work with consultants for capital schemes involving bat mitigation and habitat enhancements.	Consultants, Landowners	Ongoing
EUROPEAN OTTER			
12a	Investigate the potential to undertake bridge surveys at sites within the KLIDB district.		Ongoing
12b	Identify potential sites for artificial otter holt creation within the Board's area and investigate potential sources of funding.		Ongoing
EUROPEAN WATER VOLE			
13a	Maintain 10 remoti traps within the IDB district.	WLRT	Yearly
13b	Continue to contribute funding to the Water Life Recovery Trust (WLRT).	WLRT	Yearly
13c	Continue to work with the WLRT project on mink eradication.	WLRT	Yearly
14a	Undertake yearly recording by operational staff and report to local biodiversity record centers.	NBIS	Yearly
15a	Ensure compliance with the IDB SMO by auditing 4 jobs per year jobs, to ensure they are being carried out sensitively and to an agreed standard across the Board.		Yearly
16a	Take opportunities to enhance water vole habitat where appropriate during Capital schemes.	NE, EA, NWT and	Ongoing

		Landowners	
ADDER, COMMON LIZARD AND GRASS SNAKE			
17a	Determine the extent and distribution of the existing populations at the Board's pumping stations and on key drains using ESRI maps and create an inventory list.	NBIS	Ongoing
17b	Find potential sites / drains in the IDB area where reptile mats can be laid as a surveying exercise.		Ongoing
17c	Grass snakes - Using the distribution data, develop Hibernacula and egg laying sites at pumping stations or key locations where appropriate.		Ongoing
17d	In partnership with ARG UK (The Amphibian and Reptile groups of the UK), monitor the status of this species in certain key areas.	ARG UK	Ongoing
NON-NATIVE INVASIVE SPECIES			
18a	Continue partnership with the NBIS to receive up to date records of Invasives within the local area.	NBIS	Ongoing
18b	Determine the extent and distribution of the existing populations at the Board's pumping stations and on key drains using ESRI maps and create an inventory list.	NBIS	Ongoing
18c	Continue to contribute to and work in partnership with the Norfolk Non-Native Species Initiative.	NNNSI	Ongoing
18d	Train staff regularly on key non-native invasive species identification in order to report invasives.	Staff, Contractors	Ongoing
18e	Maintain records for all species of concern using the 'iRecord' / ESRI app.	NNNSI, Staff, Contractors	Ongoing
18f	Prevent the spread of Non-Native Invasive Species by regularly reviewing and ensuring robust biosecurity measures are being maintained across the Board.	Staff, Contractors	Ongoing
18g	Ensure availability and regular review of identification guides developed for key non-native species to be used by officers, staff and contractors on site.	NNNSI, Staff, Contactors	Ongoing
18h	Explore options for control/eradication of Mitten Crab within the Gaywood River.	NNNSI	Ongoing

19a	Continue to work in partnership with Mink control/eradication groups.	WLRT	Ongoing
19b	Maintain 10 IDB traps within the catchment.	WLRT	Ongoing
19c	Report catches to the WLRT.	WLRT	Ongoing