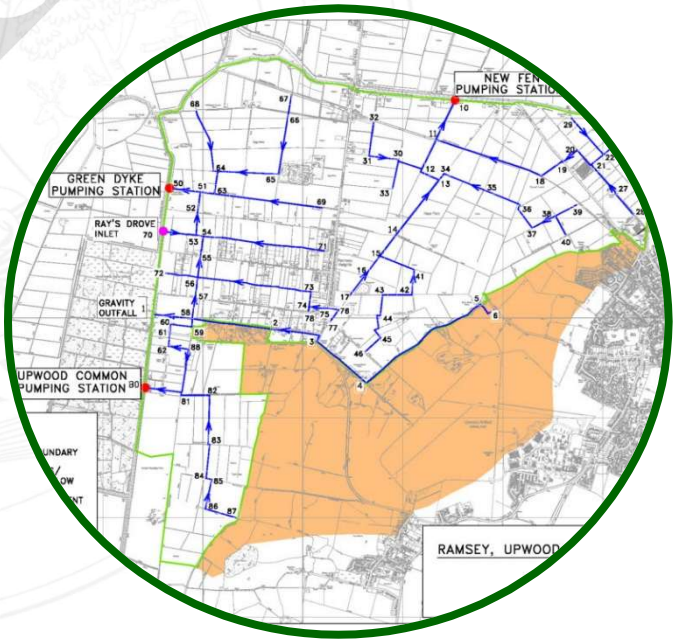
Biodiversity Action Plan

2026 – 2031



Ramsey Upwood & Great Raveley

Internal Drainage Board

1. Statement

This Biodiversity Action Plan (BAP) has been prepared by the Middle Level Commissioners on behalf of Ramsey Upwood and Great Raveley Internal Drainage Board. It demonstrates the Board's commitment to fulfilling its duty as a public body, in accordance with the Environment Act 2021, to conserve and enhance biodiversity whilst exercising their statutory functions.

Importantly, it reflects the Board's aspiration to maximise the outcomes for 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, and then taking action. It also highlights the recognition of its vital role in contributing towards a wider thriving natural environment.

The Board has adopted this Biodiversity Action Plan as one of its policies and is committed to its implementation. It will be reviewed annually and updated every 5 years.

Signed …….. Date ……

AC Roberts

Chairman of the Board

Note: 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.middlelevel.gov.uk

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2. Executive Summary

The UK is one of the most nature impoverished countries on the planet and Cambridgeshire is one of the most nature depleted counties in the UK. It's no wonder that protecting and improving biodiversity and the environment are higher than ever on the political agenda. The Government is looking for strong and proactive environmental delivery from Public Authorities to contribute towards their own challenging statutory environmental targets. The public services provided by Ramsey Upwood and Great Raveley Internal Drainage Board (IDB) are no exception.

All IDBs will increasingly be expected to implement more sustainable approaches to water level and flood risk management. Proactively contributing to biodiversity conservation and enhancement is a vital part of this and is a statutory requirement of Ramsey Upwood and Great Raveley IDB, as a modern Public Authority. Through their water level management activities, Ramsey Upwood and Great Raveley IDB is well placed to conserve and enhance a great range of habitats and species, particularly those associated with freshwater, riparian and wetland habitats.

Biodiversity Action Plans (BAPs) provide IDBs with a formal mechanism to demonstrate and record their contribution to biodiversity conservation and enhancement. While biodiversity conservation thinking has evolved and some new approaches are being taken to protect and enhance our nature, the IDB BAP approach remains the most suitable tool to help IDBs to deliver their statutory conservation duties.

This revised BAP takes into account the most up to date legislation, policy and best practice, and includes current local strategies, plans and priorities for nature conservation. An up-to-date biodiversity audit has also been completed which has identified the valuable habitats and species within the district, but also sets out objectives to achieve improved biodiversity in general. These new and challenging targets and objectives have been set to ensure that the IDB continues to contribute to the Government's 25 Year Environment Plan and meet the associated new legislative requirements.

3. Introduction

3.1. 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 clean 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.

3.2. Legislative Background

When carrying out its functions, an IDB must pay particular regard to the effects their actions have on the natural 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 general, 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 extends this duty to also include the enhancement of biodiversity, and associated statutory reporting to demonstrate the actions they have taken to do so. 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
- Hedgerow Regulations 2024

3.3. 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.

Also in 2010, the 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 Government's Biodiversity 2020 strategy was published in 2011 and set out the ambition to halt overall loss of England's biodiversity by 2020. The publication of the 25 Year Environment Plan (2018) followed along with the fist UK Environmental Improvement Plan; a more long-term strategy for nature recovery beyond 2020. The Environment Act 2021 further provided for the development of Local Nature Recovery Strategies (LNRS) and along with the EIP, helps to better define the priorities, targets, and goals for successful nature recovery. The enhancements IDBs can make to their management of their arterial networks of drainage channels across the landscape are key to delivering these goals.

Importantly, These policies and strategies 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.

Numerous national and international reports have recognized and reaffirmed 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 of our drainage ditches 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.

3.4. UK Biodiversity Indicators

The latest (Dec 2025) update of the UK Biodiversity Indicators (UKBIs), produced each year by DEFRA and JNCC, give a snapshot of the current status of biodiversity in the UK, and track trends over time, showing whether aspects of biodiversity are improving, declining, or remaining stable.

The UKBIs are used in reporting the UK's progress against goals and targets agreed under the **Convention on Biological Diversity (CBD).** The UKBIs include 39 indicators, comprising 68 measures in total.

The overall summary for 2025 concludes that more indicators are deteriorating or showing no change than improving, over both the long and short term.

The table below is an extract of the full list of indicators and measures and includes those that could be influenced by the activities of the IDB. Regardless of the current status or trend of the indicator, its

presence in the UKBIs is sufficient reason for it to be recognized by IDBs as one that should be a priority for action and therefore included as part of this BAP.

Table 1: Extract of the UKBI summary table of trends and status of indicators and measures as at December 2025

Key:	Deteriorating	Improving	Little or no overall change	Not assessed / Insufficient data

Indicator	Measure	Long term period	Short term period
Birds of the wider countryside and at sea	All bird species	1970 to 2024	2019 to 2024
	Breeding birds on farmland	1970 to 2024	2019 to 2024
	Breeding birds in woodland	1970 to 2024	2019 to 2024
	Breeding wetland birds	1975 to 2024	2019 to 2024
	Breeding seabirds	1986 to 2024	2019 to 2024
	Wintering waterbirds	1975/1976 to 2023/2024	2018/2019 to 2023/2024
	Breeding upland birds	1994 to 2024	2019 to 2024
Insects of the wider countryside (butterflies)	All species of butterfly	1976 to 2024	2014 to 2024
	Habitat specialist butterflies	1990 to 2024	2014 to 2024
	Generalist butterflies	1990 to 2024	2014 to 2024
	Farmland specialist butterflies	1990 to 2024	2014 to 2024
	Woodland specialist butterflies	1990 to 2024	2014 to 2024
Mammals of the wider countryside (bats)	Change in the abundance of bat populations	1999 to 2023	2018 to 2023
Plants of the wider countryside in the UK	Arable field margins		
	Bog and wet heath		
	Broadleaved woodland and hedges		
	Lowland grassland		
Status of priority species: distribution	Priority species distribution		
Status of priority species: relative abundance	Priority species abundance	1970 to 2023	2018 to 2023
Status of threatened species: species of European importance	Conservation status of species of European importance	2007 to 2019	2013 to 2019
Area of land in agri-environment schemes	Area of land under higher-level or targeted agri-environment schemes	1992 to 2022	2017 to 2022
Extent and condition of protected areas	Total extent of protected areas on land	1950 to 2025	2020 to 2025
	Condition of Areas or Sites of Special Scientific Interest		
Habitat connectivity	Habitat connectivity		
Status of threatened habitats: habitats of European importance	Conservation status of habitats of European importance	2007 to 2019	2013 to 2019
Surface water status	Percentage of UK surface water bodies in High or Good ecological status	2009 to 2024	2019 to 2024
Expenditure on UK and international biodiversity	Non-governmental organisation and private sector spending on biodiversity in the UK	2010/2011 to 2023/2024	2018/2019 to 2023/2024
Integration of biodiversity considerations into business activity	Proportion of medium and large UK businesses with ISO 14001 certification		
Pressure from invasive species	Number of terrestrial species establishments	1969 to 2024	
	Number of freshwater species establishments	1969 to 2024	
	Rate of establishment	1920 to 2022	2017 to 2022
Awareness, understanding and support for conservation	Awareness, understanding and support for conservation		
Status of pollinating insects	Change in the distribution pollinators in the UK		
Biodiversity data for decision making	Cumulative number of records in the National Biodiversity Network		
	Number of publicly accessible records at 1 square kilometre resolution or better		
Biodiversity information for conservation decision making	Number of records downloaded		2019 to 2024
	Number of download events		2019 to 2024
	Number of NBN Atlas users		2019 to 2024

3.5. 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.

3.6. Vision

The IDB's vision is:

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

3.7. Aims

The aims of this BAP are:

- To ensure that opportunities for conservation and enhancement of biodiversity are fully considered throughout the 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 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 and strategies such as the Local Nature Recovery Strategies to ensure that programmes and priorities for biodiversity conservation are aligned and maintained in the long term;
- To raise awareness, within the IDB and locally, of the need for biodiversity conservation and reporting, and to communicate with the local and wider community about what actions the IDB is undertaking to support biodiversity.

4. The IDB BAP Process

4.1. The Biodiversity Audit

Middle Level Commissioners on behalf of Ramsey Upwood and Great Raveley 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 audit 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.

4.2. Objectives and Actions

Conservation and enhancement ***objectives*** have been identified for each included habitat and species. The action plan then details individual ***actions*** required to achieve the objectives, and the associated monitoring and reporting of progress and impact.

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

Procedural 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.

4.3. Monitoring and Reporting

Monitoring is the on-going process of regularly collecting and analysing relevant information to determine whether the actions within the Plan are positively contributing towards the objectives, and to capture any additional benefit achieved. The Plan sets out how and when this monitoring will take place 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 or local strategy introductions, changes may be necessary to ensure an objective can be met.

5. The Biodiversity Audit

5.1. The Ramsey Upwood and Great Raveley Internal Drainage District

The drainage district is located south-central of the Middle Level Area in the county of Cambridgeshire.

The following outlines the key details of the District:

- Total area of the drainage district: **1295 ha**
- Catchment area draining to and including the District: **1900 ha**
- Area of agricultural land: **1220 ha**
- Area of other (non-agricultural) land: **75 ha**

NOTE: The IDB catchment includes an area of higher land which drains via gravity into the IDB ditches (see Figure 1). Because there are no channels within these areas, the IDB has less presence, and therefore less control or influence over the conservation of the features within the area. However, it is important to note that the features mentioned within these higher land areas still benefit from the downstream channel maintenance and water level management activities of the IDB.

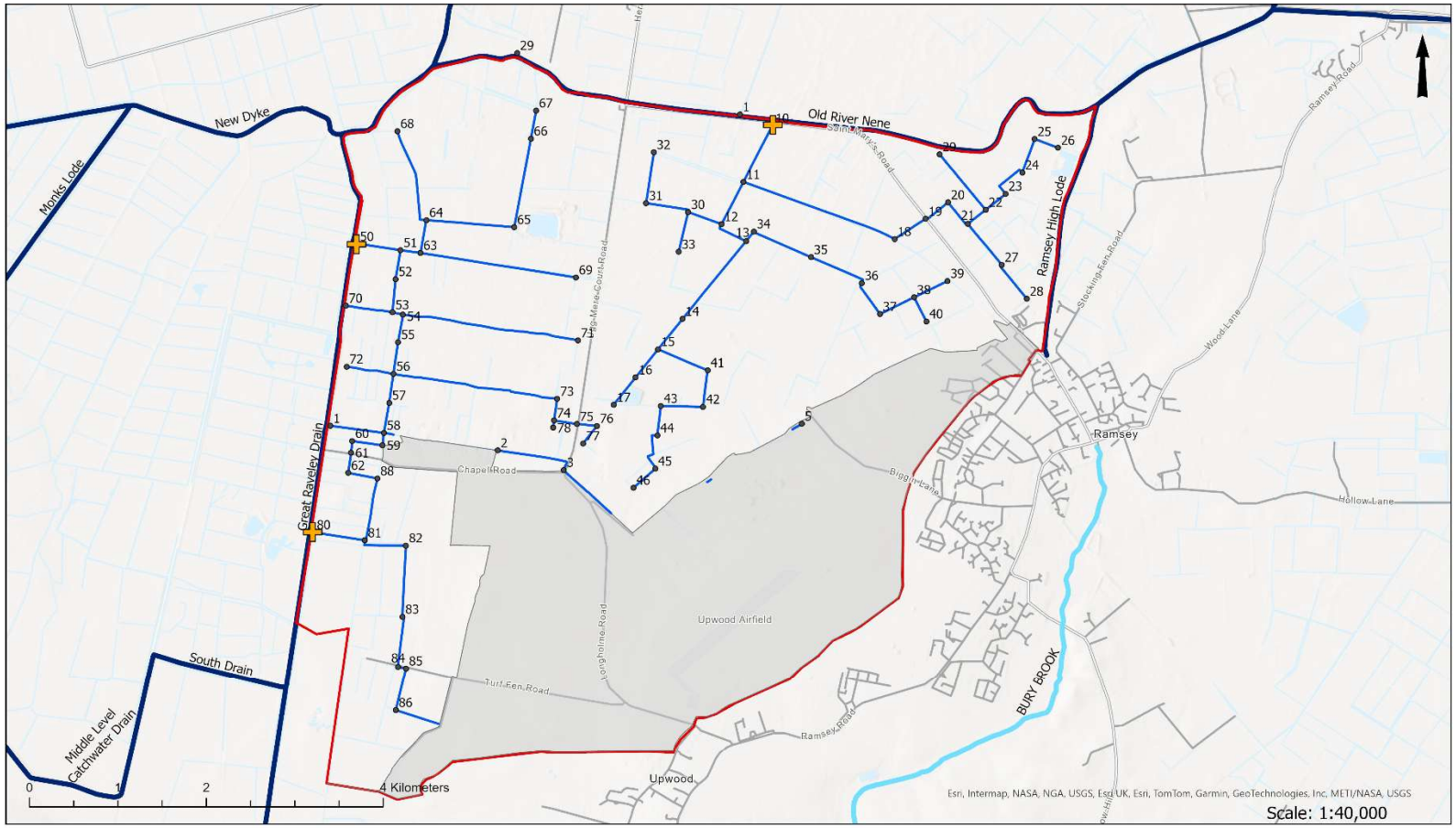
Assets for which the Board has operational responsibility:

- Water level control structures: 2
- Watercourses (maintained): 27 km
- Raised embankments: 1.3 km
- Reservoirs: N/A
- Sustainable drainage systems (SuDS): N/A
- Pumping Stations: 3
- Extent of “other” land owned: TBC

Assets within or adjacent to the District that are maintained by the Environment Agency:

- Main Rivers: 0 km
- Raised embankments/flood walls: 0 km
- Pumping Stations: N/A

5.2. Map of Audit Area (Drainage District)



PROJECT TITLE Ramsey Upwood and Great Raveley BAP 2026-2031	AUTHOR AFL	LEGEND Main Drains EA rivers Drain Nodes IDB Drains Ramsey Upwood and Great Raveley RUGR Highland Area Pumping Stations
DRAWING TITLE Ramsey Upwood and Great Raveley IDB area map	CHECKED BY	
	DATE 30/04/2026	

Figure 1: Map of Ramsey Upwood and Great Raveley IDB District

5.3. Geology, Soils & Peat

Table 2: Geology, soils & peat found within the Ramsey Upwood and Great Raveley District

Geology Layer	Description	Related Map
Bedrock	Oxford Clay Formation-Mudstone. These sedimentary rocks are shallow-marine in origin. They are detrital, ranging from coarse- to fine-grained (locally with some carbonate content) forming interbedded sequences.	**N/A**
Superficial Geology	**North of District:** Predominantly lacustrine deposits-Peat, organic mud and calcareous mud. These sedimentary deposits are lacustrine in origin, they are detrital, generally fine-grained (but can include layers of coarser material) and typically form thinly-laminated beds. There is a band of tidal flat deposits, 1-Clay and silt. These sedimentary deposits are shallow-marine in origin. They are detrital, generally coarse-grained forming beaches and bars in a coastal setting. **South of District:** Oadby Till Member-Diamicton. These sedimentary deposits are glacigenic in origin, they are detrital, created by the action of ice and meltwater, they can form a wide range of deposits and geomorphologies associated with glacial and inter-glacial periods during the Quaternary.	**N/A**
Soils	**North of District:** The rateable area of the District is dominated by loamy and sandy soils with naturally high groundwater and a peaty surface. There is a small area of Fen peat soils in the north-east of the District. **South of District:** The Highland area is dominated by lime-rich loamy and clayey soils with impeded drainage.	**Figure 2**
Peat	The northern half of the district is dominated by shallow to moderately deep peat deposits. Peat is absent from the Highland area. The following sources have been interrogated: • BGS Boreholes data - https://mapapps2.bgs.ac.uk/geoindex/home.html?layer=BGSBoreholes&_ga=2.93480798.298319960.1728295174-1769537369.1728295174 • England Peat Map - https://england-peat-map-portal-ncea.hub.arcgis.com/ • Soil Surface Map (below) - LandIS - Land Information System - Soilscapes soil types viewer	**Figure 3**

5.4. Local Geological Sites (Table 3 – See figure 5)

Feature Name	Designation	Desc.	Features Relevant to IDB
Ramsey Heights Brick Kiln and Clay Pits	Local Geological Site	The site has the remains of a small scale industrial brick kiln and several small Jurassic Oxford Clay pits (now flooded) plus the remains of buildings used by the brick workers. It is a publicly accessible nature reserve with education facilities.	Adjacent to the Catchwater so consider the site objectives during works

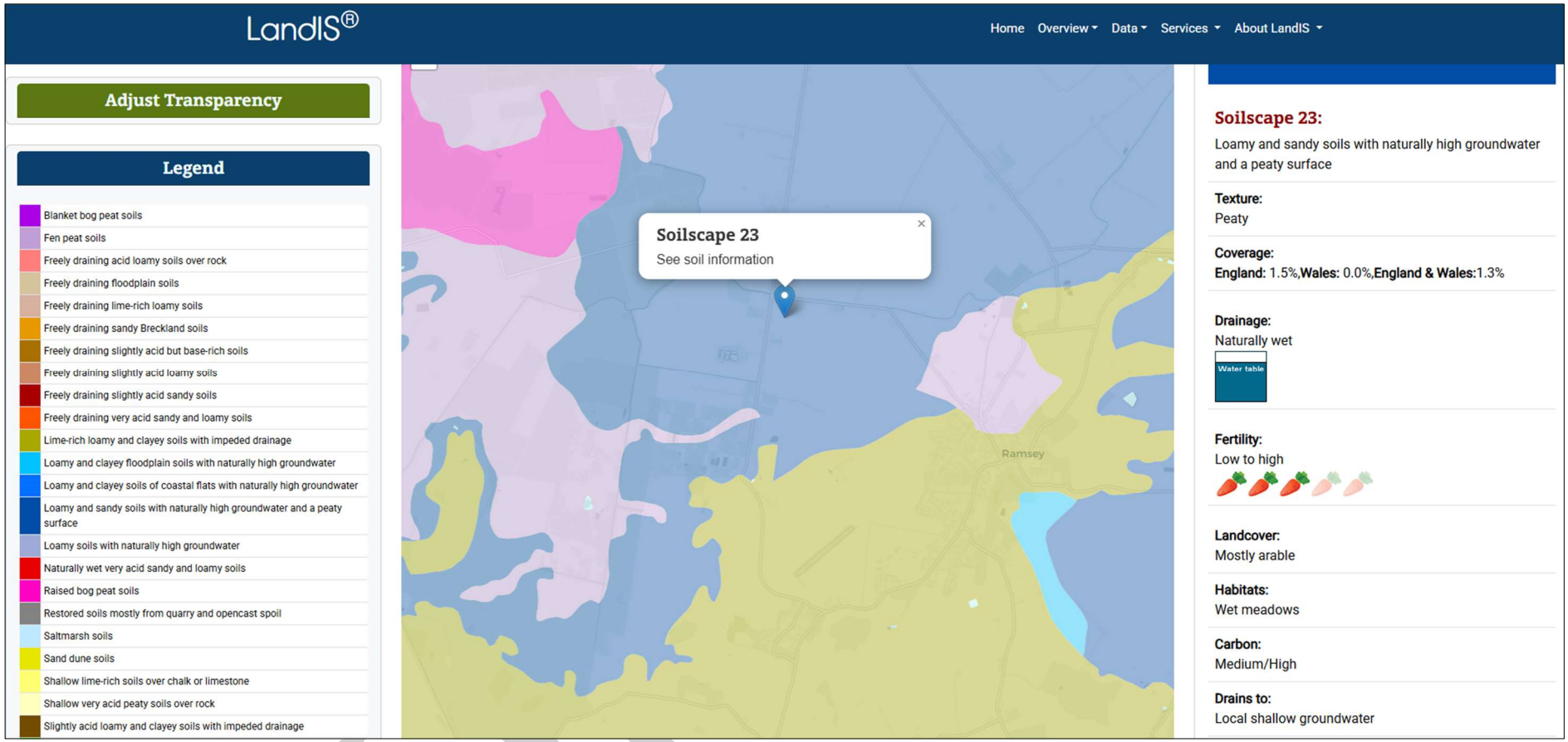


Figure 2: Ramsey Upwood and Great Raveley IDB map of soil types

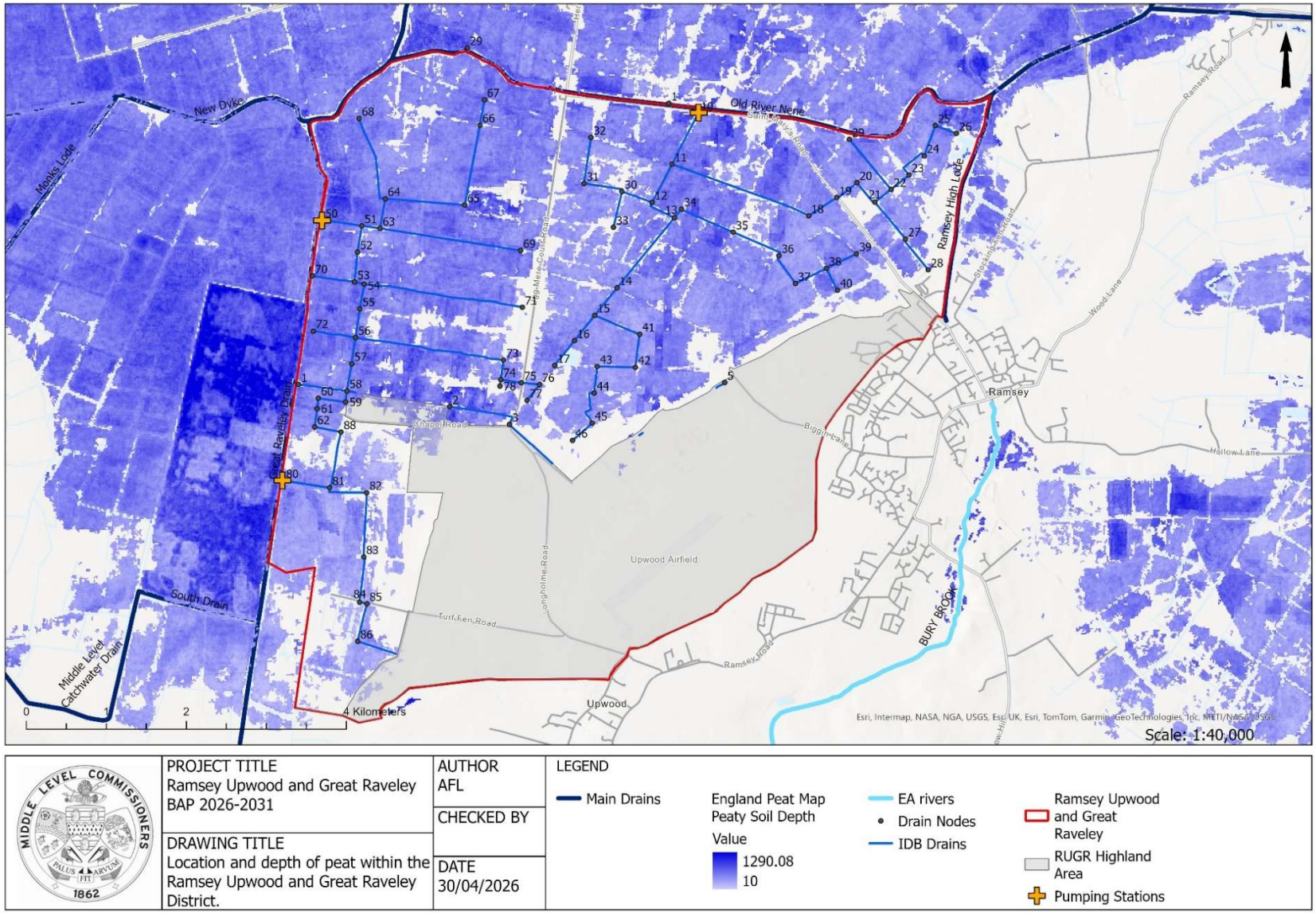


Figure 3: Location and depth of peaty soils across the Ramsey Upwood and Great Raveley District

5.5. 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. For each NCA, there is a prepared profile that characterises the wildlife and natural features, identifies the influences that act upon those features and sets objectives for nature conservation.

Ramsey, Upwood & Great Raveley IDB sits across the Beds & Cambs NCA in the south and within the Fens NCA in the north as shown in figure 4 below. The NCA's have a number of environmental enhancement targets defined within them, called Statements of Environmental Opportunity, (SEO). As part of this BAP, these have been reviewed and those that can be influenced or controlled by the IDB have been included as part of the BAP objectives. The full list of environmental opportunities for both NCA's are included in Appendix I, but a summary is as follows:

The Fens Statements of Environmental Opportunity (SEO):

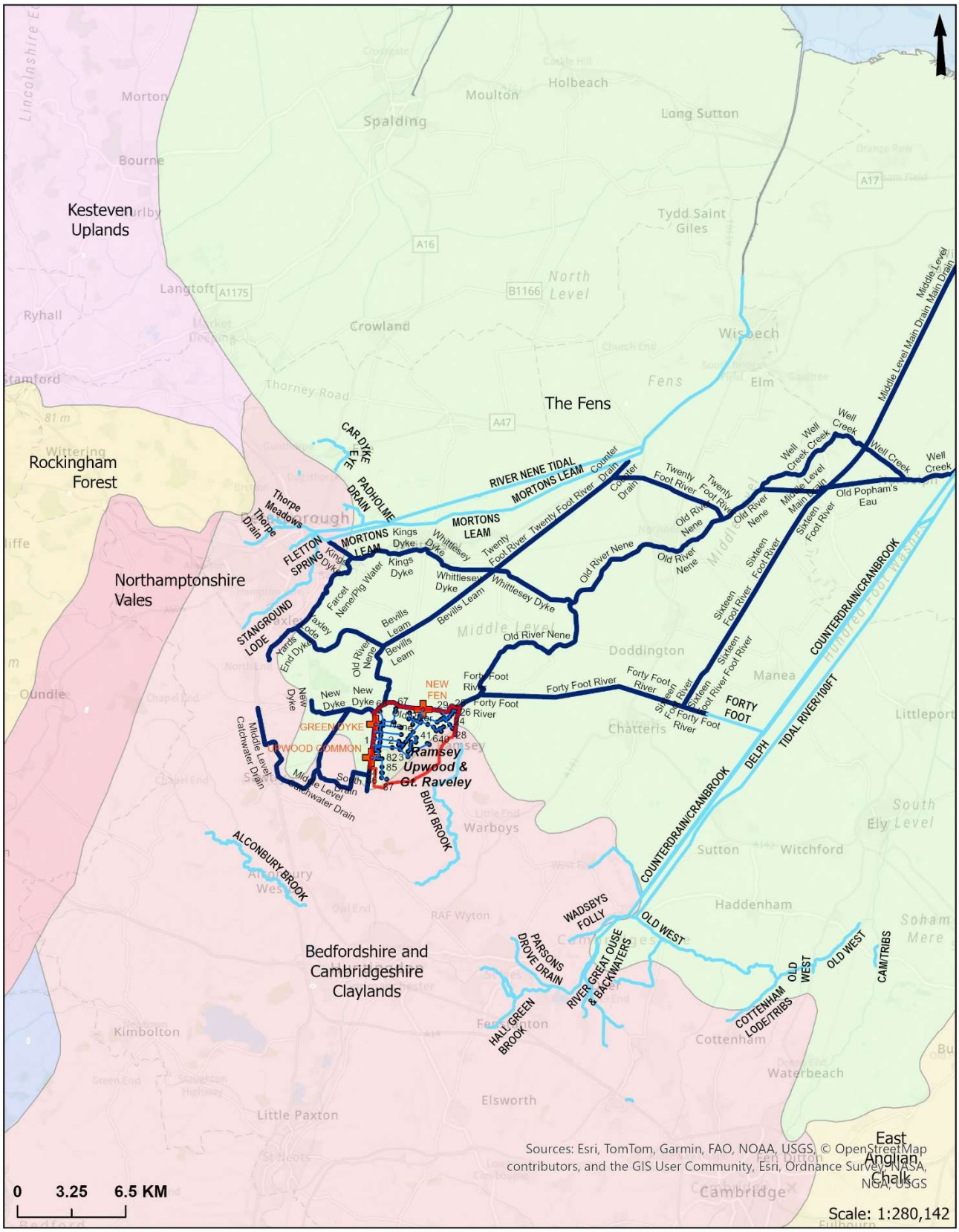
- **SEO 1:** Manage the agricultural landscape and soils which allow the Fens to be a major provider of food and horticultural produce, while seeking to enhance opportunities for biodiversity.
- **SEO 2:** Manage the core wetland complexes and increase their connectivity by enhancing the main rivers, waterways and their associated riparian habitats and improve recreational access opportunities to the Fens.
- **SEO 3:** Plan for the creation of new coastal landscapes in the Wash area that are adapted and resilient to the impact of climate change, for the benefit of people and wildlife.
- **SEO 4:** Conserve, manage and enhance the Fens landscape and increase educational opportunities to access its geodiversity, archaeology and cultural heritage to enhance enjoyment and understanding for those who live and work in and visit the Fens.

Bedfordshire and Cambridgeshire Claylands Statements of Environmental Opportunity (SEO)

- **SEO 1:** Maintain and manage a sustainable and productive claylands arable landscape, while managing, expanding and linking woodlands, hedgerows and other semi-natural habitats to benefit biodiversity, improve soil and water quality, and ameliorate climate change by promoting good agricultural practice.
- **SEO 2:** Protect aquifers and enhance the quality, state and structure of the River Great Ouse, its valley and tributaries, habitats, waterbodies and flood plain by seeking to enhance their ecological, historical and recreational importance while taking into account their contribution to sense of place and regulating water flow, quality and availability.
- **SEO 3:** Plan and create high-quality green infrastructure to help accommodate growth and expansion, linking and enhancing existing semi-natural habitats. Regenerate the post-industrial landscapes of the Forest of Marston Vale and Peterborough to improve and create new opportunities for biodiversity, recreation, timber and biomass provision while strengthening sense of place, tranquillity, resilience to climate change, and people's health and wellbeing.
- **SEO 4:** Protect, conserve and enhance the cultural heritage and tranquillity of the Bedfordshire and Cambridgeshire Claylands NCA, including its important geodiversity, archaeology, historic houses, parkland, and Second World War and industrial heritage, by improving interpretation and educational opportunities to increase people's enjoyment and understanding of the landscape.

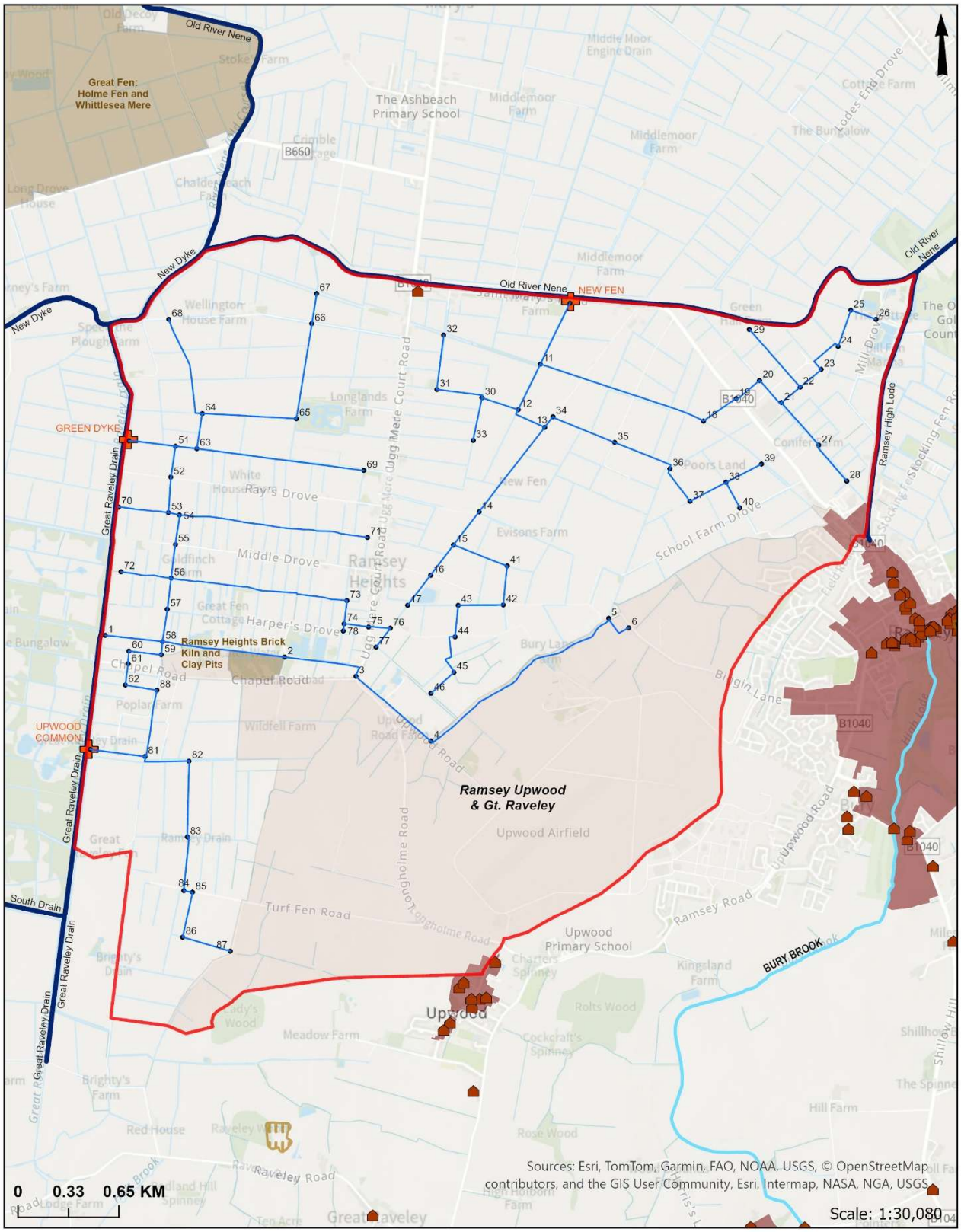
5.6. Sites and Monuments (Table 4 – See figure 5)

Feature Name	Designation	Desc.	Features Relevant to IDB
Church of St Mary	Grade II Listed Building	Church of St Mary, Ramsey - 1330458 | Historic England	Not near an IDB drain so unlikely to be impacted by any works.
Ramsey Conservation Area	Conservation Area	Ramsey Conservation Area.cdr	Directly adjacent to the IDB boundary but not near an IDB drain so unlikely to be affected by any works.
Upwood Conservation Area	Conservation Area	Conservation Areas - Huntingdonshire.gov.uk	Directly adjacent to the IDB boundary but not near an IDB drain so unlikely to be affected by works.



© Middle Level Commissioners. All Rights Reserved.	**PROJECT TITLE:** Ramsey, Upwood & Great Raveley IDB Biodiversity Action Plan (BAP)	**AUTHOR:** Sofi Lloyd	**Legend**
	DRAWING TITLE: Ramsey Upwood & Great Raveley IDB & Heritage Features	**CHECKED BY:**	MLC Main Drains; IDB pumping stations; Drain nodes; Ramsey Upwood & Gt. Raveley,high
		DATE: 11/05/2026	NCA Name: Bedfordshire and Cambridgeshire Claylands; East Anglian Chalk; Kesteven Uplands; Northamptonshire Vales; Rockingham Forest; The Fens; Yardley-Whittlewood Ridge
			Ramsey Upwood & Gt. Raveley; EA Rivers; All IDB Drains

Figure 4: Map of Ramsey Upwood and Great Raveley & NCA Areas



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	DRAWING TITLE: Ramsey Upwood & Great Raveley IDB & Heritage Features	**CHECKED BY:**	
		DATE: 11/05/2026	

Figure 5: Map of heritage features within Ramsey Upwood and Great Raveley IDB area

5.7. Tree Preservation Orders

There are a small number of protected trees within the Ramsey Upwood and Great Raveley IDB Area, mainly situated in the south and east of the district where it overlaps with the settlements of Ramsey and Upwood. There are a small number of tree preservation orders in the north of the district where it adjoins the village of Ramsey Saint Mary. Works close to points **5-6, 40 and 28** may need to consider impacts to protected trees and if impacts can no be avoided then a permit from the Local Authority will be needed prior to commencing works.

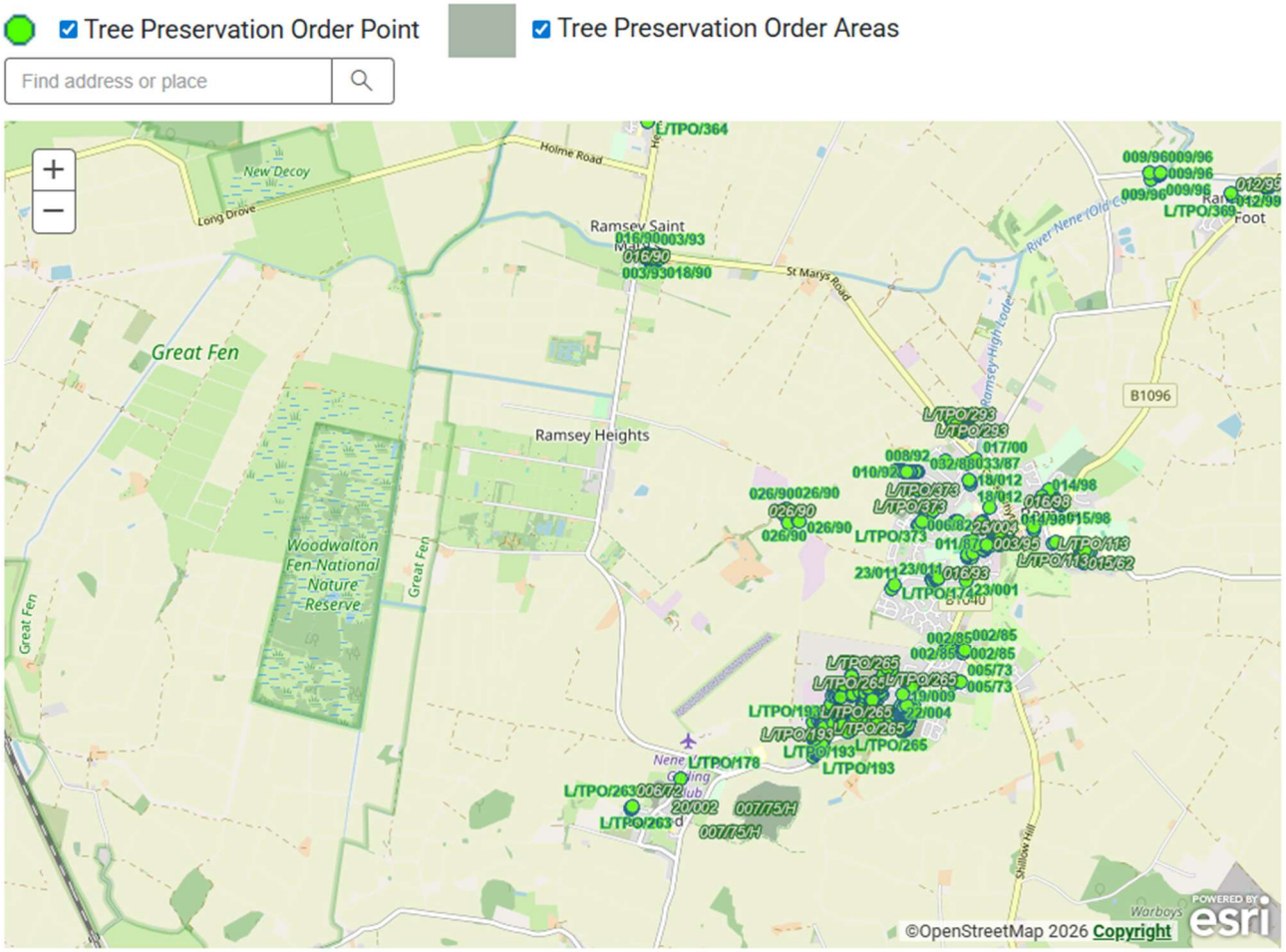


Figure 6 Map of Protected Trees locations within Ramsey Upwood and Great Raveley IDB. Source: [Tree Preservation - Huntingdonshire.gov.uk]

5.8. Statutory Nature Conservation Sites

5.8.1 Internationally Designated Sites (Table 5 – see figure 7)

Site Name	Assoc. WLMP?*	Desc.	Features Relevant to IDB	Related Map
Woodwalton Fen Ramsar	N	**Ramsar criterion 1** The site is within an area that is one of the remaining parts of East Anglia which has not been drained. The fen is near natural and has developed where peat-digging took place in the 19th century. The site has several types of open fen and swamp communities. **Ramsar criterion 2** The site supports two species of British Red Data Book (RDB) plants: fen violet Viola persicifolia and fen wood-rush Luzulla pallidula. Woodwalton also supports a large number of wetland invertebrates including 20 RDB species. Aquatic beetles, flies and moths are particularly well represented.	Directly adjacent to the western boundary of the district. RUGR has one gravity outfall and two pumping stations that connect the district to the Great Raveley Drain, which provides water resources for Woodwalton Fen. There may therefore be some connectivity between the district and the designated site.	Figure 7
Fenland SAC	N	**Annex I habitats that are a primary reason for selection of this site:** 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) 7210 Calcareous fens with Cladium mariscus and species of the Caricion davallianae. **Annex II species (listed on the Natura 2000 Standard Data Form for the SAC) present as a qualifying feature, but not a primary reason for selection of this site:** 1149 Spined loach (Cobitis taenia) 1166 Great crested newt Triturus cristatus	Directly adjacent to the western boundary of the district. RUGR has one gravity outfall and two pumping stations that connect the district to the Great Raveley Drain, which provides water resources for Woodwalton Fen. There may therefore be some connectivity between the district and the designated site.	Figure 7

5.8.2 Nationally Designated Sites (Table 6 – see figure 7)

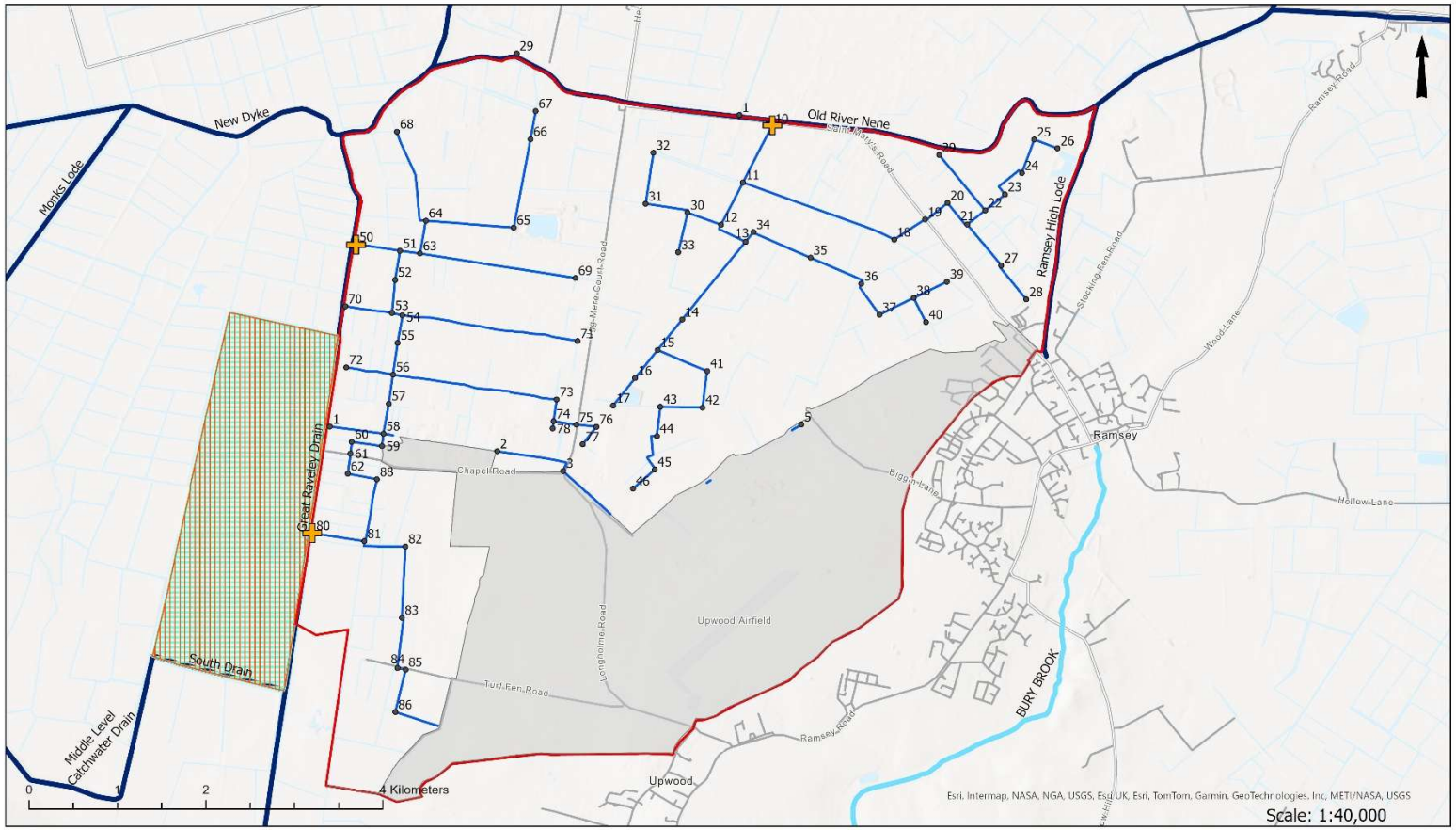
Site Name	Assoc. WLMP?*	Desc.	Features Relevant to IDB	Related Map
Woodwalton Fen SSSI	Y	Designated as holding a range of plant communities characteristic of relict areas of East Anglian fen.	Directly adjacent to the western boundary of the district. RUGR has one gravity outfall and two pumping stations that connect the district to the Great Raveley Drain, which provides water resources for Woodwalton Fen. There may therefore be some connectivity between the district and the designated site.	Figure 8
Woodwalton Fen NNR	N	Notable for its variety of fen species and as a stronghold for number of rare and vulnerable species.	Directly adjacent to the western boundary of the district. RUGR has one gravity outfall and two pumping stations that connect the district to the Great Raveley Drain, which provides water resources for Woodwalton Fen. There may therefore be some connectivity between the district and the designated site.	Figure 8

5.8.3 Local Nature Reserves (LNR)

N/A

5.8.4 Non-statutory Nature Conservation Sites (Table 7 – see figure 8)

Site Name	Assoc. WLMP?*	Desc.	Features Relevant to IDB	Related Map
Ramsey Heights Nature Reserve County Wildlife Site	N	The site qualifies as a CWS because it is a Grade B site in the JNCC Invertebrate Site Register and contains water bodies where more than 50 individual great crested newts can be counted at night or bottle trapped during the breeding season.	Directly adjacent to the Catch Water drain, Connectivity to the drain may provide important commuting and foraging opportunities for wildlife within the CWS and improve habitat connectivity between the CWS and larger designated sites.	
Upwood Protected Roadside Verge	N	Rich wildflower habitats	Not near an IDB drain so unlikely to be influenced by IDB activity	

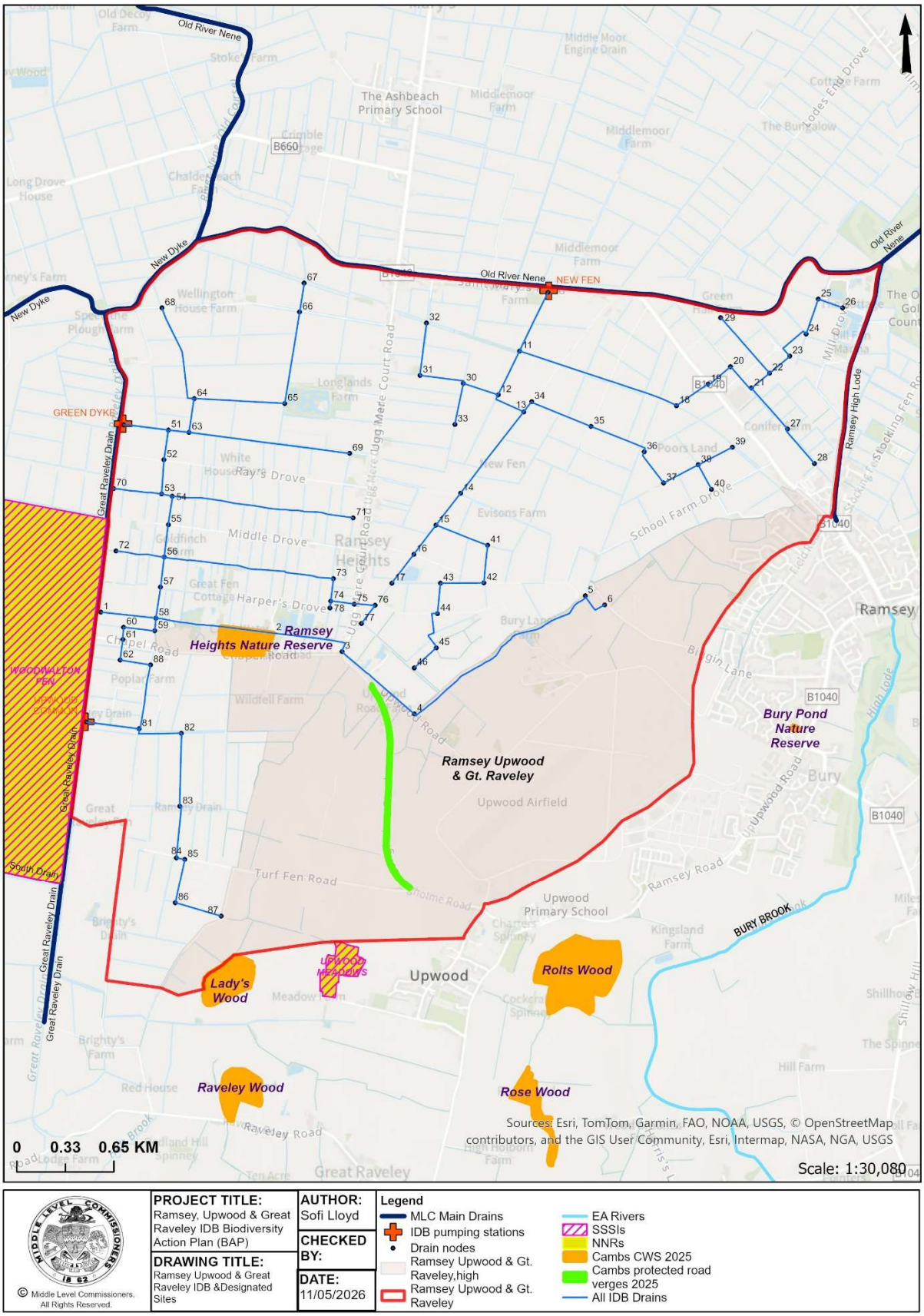


MIDDLE LEVEL COMMISSIONERS 1862	PROJECT TITLE Ramsey Upwood and Great Raveley BAP 2026-2031	AUTHOR AFL
		CHECKED BY
	DRAWING TITLE International designated nature sites surrounding Ramsey Upwood and Great Raveley IDB	DATE 30/04/2026

LEGEND

- SAC
- Ramsar
- Main Drains
- EA rivers
- Drain Nodes
- IDB Drains
- Ramsey Upwood and Great Raveley
- RUGR Highland Area
- Pumping Stations

Figure 7: Map of internationally designated nature sites adjoining Ramsey Upwood and Great Raveley IDB.



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	DRAWING TITLE: Ramsey Upwood & Great Raveley IDB &Designated Sites	**CHECKED BY:**	MLC Main Drains; IDB pumping stations; Drain nodes; Ramsey Upwood & Gt. Raveley,high; Ramsey Upwood & Gt. Raveley; EA Rivers; SSSIs; NNRs; Cambs CWS 2025; Cambs protected road verges 2025; All IDB Drains
		DATE: 11/05/2026	

Figure 7: Map of nationally and locally designated sites near and within Ramsey Upwood and Great Raveley IDB

5.9. Habitat Audit Summary

This habitat audit summary lists the UK and priority habitats that occur within the drainage district. A map of the Priority Habitats polygons within the district are shown in Figure 9. Linear and more general priority habitats are not mapped. Brief notes are included on the potential for the IDB to maintain, restore or expand the habitats present. its important habitats.

Table 8: Habitat Audit Summary

National Priority Habitat	National Status & Extent	Habitat classification	National Targets	Local Priority Habitat	Local Status and Extent	Local Targets	IDB Potential for Maintaining, Restoring or Expanding Habitat (high/medium/low)
No Main Habitat	N/A	A “main" habitat type cannot be assigned but potentially significant habitats are still present	Protecting 30% of land and sea by 2030	Habitat Mosaic (LNRS)	31.66ha Additional habitats predominantly ponds.	**M1** - Improve the diversity of habitats at a landscape and site-scale to increase the diversity and abundance of species and make them more resilient to climate change.	**Low** – Not on land owned or managed by the IDB or in close proximity to an IDB drain. Use IDB networks to encourage its retention, favourable management and support its expansion/improvement if appropriate.
Deciduous Woodlands	967,000 ha in England	**BNG:** Woodland **UKHab:** W1f7 Lowland mixed deciduous woodland	By 2050 achieve a minimum of 16.5% of land covered by woodland/trees outside woodland Annual planting of 30,000 hectares (ha) of new woodland per year.	Woodland (LNRS)	11.77ha recorded in fragmented patches through the district.	**Wo1** - better manage woodlands to improve resilience and structural diversity. **Wo3** - expand and connect existing areas of woodland to increase woodland biodiversity and help combat climate change	**Med** – Habitats adjacent to IDB ditches so could be influenced by water levels but are privately owned. Look for opportunities to support and encourage the favourable management of the habitat including via complimentary channel management.
Lowland Fens	Estimated 25,785 ha remain in England, predominately in East Anglia, the Broads and Anglesey, highly fragmented	**BNG:** Lowland Fens (Wetland) **UKHab:** Lowland Fens f2a	Aim to meet priority habitat definition for lowland raised bog and ‘good condition’ as per BNG habitat condition assessments.	Wetland (LNRS)	3.71 ha largely concentrated on the north western boundary of the district, along the old River Nene.	**We3** - enhance and create floodplain wet grassland sites to better support breeding and wintering wetland birds	**Med** – Habitats adjacent to IDB ditches so could be influenced by water levels but are privately owned. Look for opportunities to support and encourage the favourable management of the habitat including via complimentary channel management.

Traditional Orchard	24,600 to 27,000 ha	**BNG:** Traditional Orchard **UKHab:** Grassland – Traditional Orchard	4,700 hectares of traditional orchards to be created or brought into favourable condition (25YEP)	Woodland (LNRS)	0.61 ha t in small and fragmented patches. Locally very rare.	**W0 8** - Improve the management of traditional orchards and seek to expand them where possible.	**Low –** Not near an IDB channel so unlikely to be impacted by IDB activity
Rivers & Streams	n/a	Fen Main Drains and drainage ditches	WFD - Improving at least 75% of waters to Good Ecological Status or Potential by 2027	Rivers, chalk streams & drainage ditches (LNRS)	Locally abundant	**RD5 -** enhance the network of fenland farm drainage ditches by providing habitat buffers and improving water quality	**High** – Manage ditches according to best practice & SOPs to maximise opportunities for biodiversity
Arable Field Margins	N/A	**UKHab:** C1a Arable field margins		Farmed Landscape (LNRS)	Locally abundant	**F1** - Increase the presence and quality of biodiversity rich arable field margins around farmland to improve the diversity of farmland species and provide habitat that is connected and more resilient to climate change.	**Med –** Encourage landowners in IDB network to establish good quality stewardship field margins
Hedgerows	Approx. 390,000km in England	**BNG:** Hedgerow **UK Hab:** Native Hedgerow H2	Create or restore 30,000 miles of hedgerows by 2037 and 45,000 miles by 2050	Farmed Landscape (LNRS)	Locally occasional	**F4** - Increase the presence of hedgerows around farmland to control run-off, improve the abundance and diversity of farmland species and provide habitat that is connected and more resilient to climate change	**Med** – Retain hedgerows within IDB control and manage favourably. Encourage the retention and favourable management of hedgerows on private and community land. Identify opportunities for hedgerow creation and/or gapping up where appropriate..

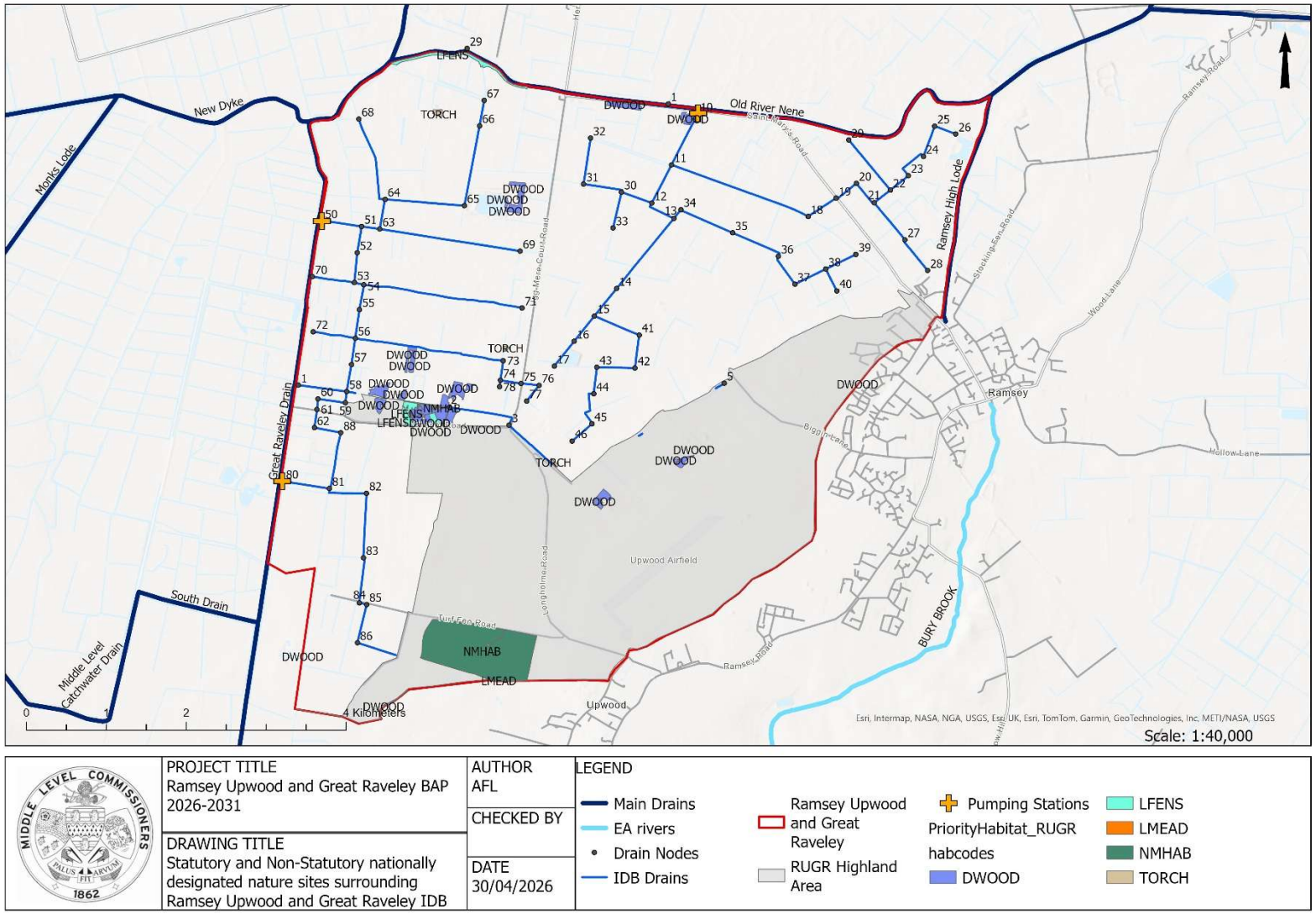


Figure 8: Priority habitats within Ramsey Upwood and Great Raveley IDB

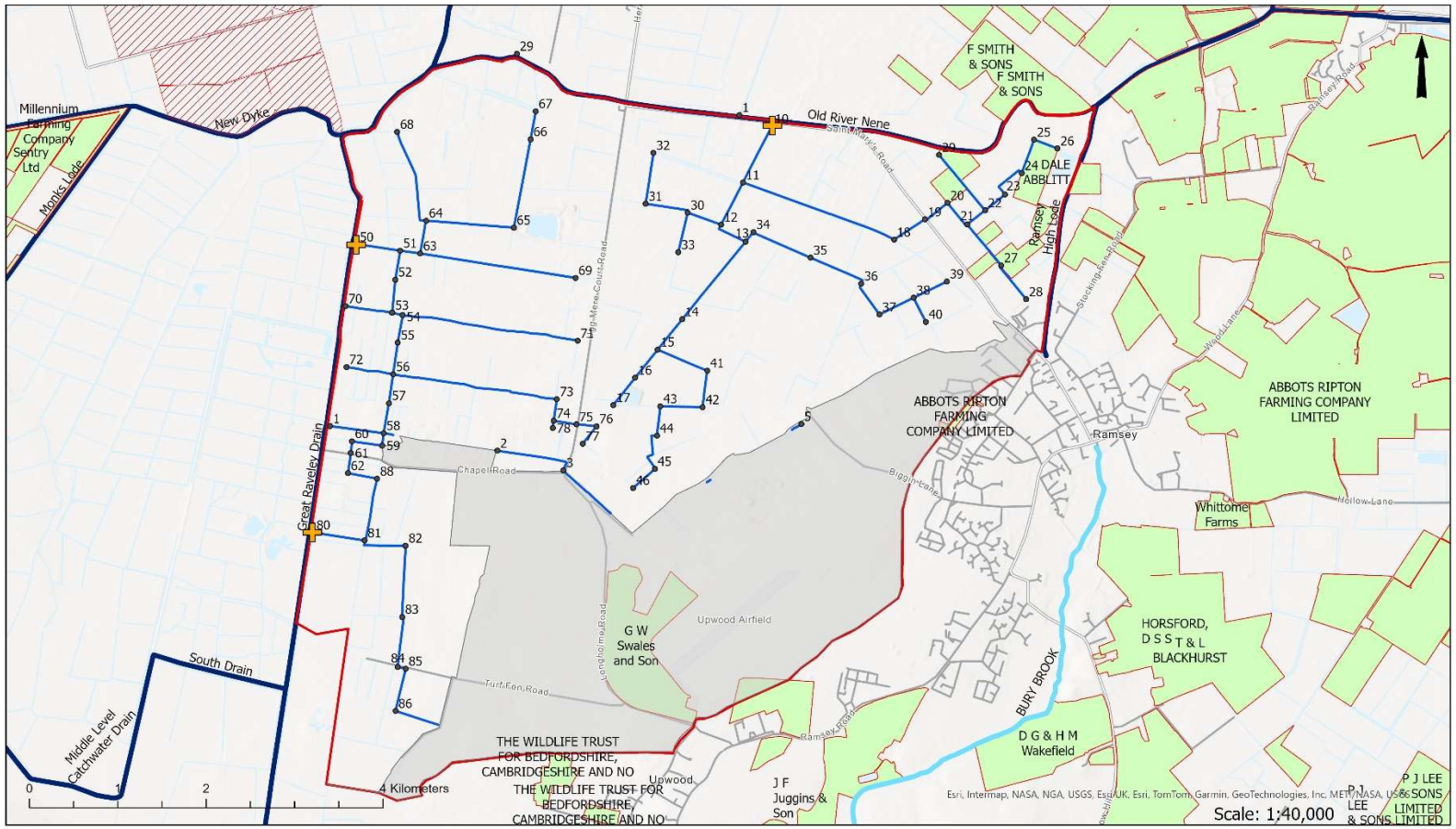


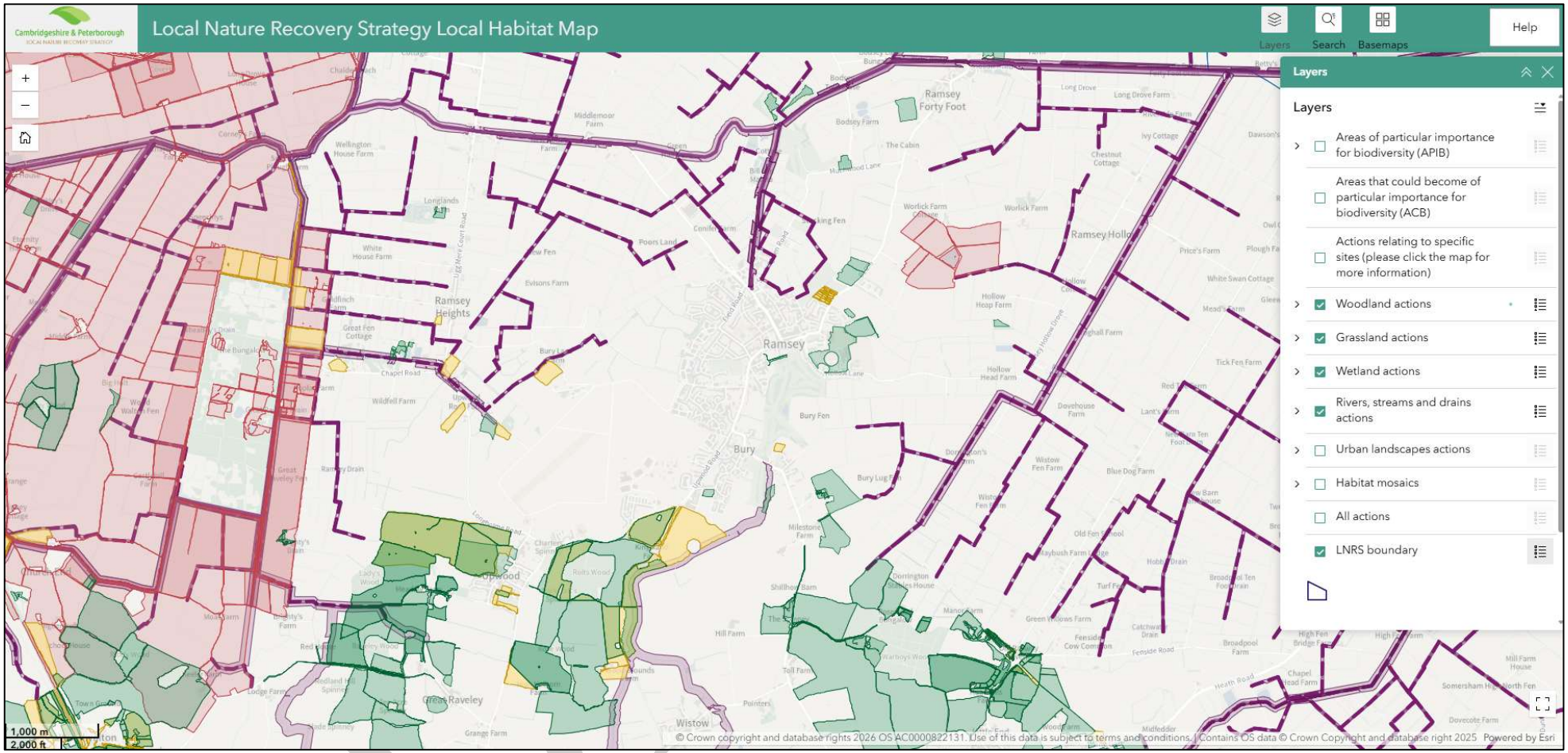
Figure 9: Countryside and Environmental Stewardship provisions within Ramsey Upwood and Great Raveley IDB

The Local Nature Recovery Strategy (LNRS) for Cambridgeshire, published on the 23rd December 2025, identifies a number of additional habitats that are of importance for conservation and creation within Cambridgeshire. There is potential for some such habitats to be created or restored within the IDB District. Those which could be directly influenced and/or supported by the Boards' activities have been mapped in the LNRS in Figure 11 and/or are detailed in the below table.

Table 9: LNRS habitats prioritized for action that are relevant to IDB Activities

LNRS Priority Habitat	Local Targets	IDB Potential for Supporting / Influencing Habitat (high/medium/low)
Fen Droves (LNRS)	**U3B**– Map the locations of fen droves and identify remaining biodiversity hotspots, including for locally significant species such as elms and scarce invertebrate species. **F4B -** Identify all fen droves with important populations of elms or assemblages of invertebrate species and prioritise the protection and enhancement of the hedgerows and associated grasslands.	**High** – Use local knowledge within IDBs to map and identify ownership, provenance and status. Encourage and support landowners in IDB network to retain, survey, protect and enhance, particularly those adjacent to IDB drains or used to access and/or maintain IDB drains.
Wetlands	**We6A** – create a range of wetland habitats including wet grassland, reedbeds and ponds around the Fens reservoir **We5A** – enhance existing former sand and gravel pits sites through best practice management to maintain areas of open water, fringing reedbeds and other wetland habitats such as pollard willows and wet woodland for wetland birds, invertebrates and flora. Reduce nutrient enrichment and pollution and where necessary reprofile edges to create shallow sloping margins and bare areas for natural regeneration.	**High** – While the land is not owned by the IDB, the water levels within it can be influenced by the activities of the IDB. Encourage and support landowners in IDB network to create new wetland mosaics adjacent to IDB watercourses so new areas buffer the existing high-quality Ouse Washes habitats
Rivers & Streams	**RD1A** – establish natural or semi–natural buffer zones 50 metres wide adjacent to all rivers and streams to improve river water quality, and consequently their biodiversity value and ecological functionality. Within such buffer zones, appropriate measures should be introduced which both enhance biodiversity and reduce sediment or pollutant run off into the water. Restore the biodiversity and natural function of the river / stream through restoration of the channel, reconnecting rivers with floodplains and creating backwaters and backchannels to provide fish spawning and riparian habitats along the river. **RD5A** – maximise opportunities for nature in fen drainage ditches by choosing nature–supporting and enhancing maintenance and management approaches such as enhancing in channel habitats to provide more habitat for wetland wildlife alongside managing flood risk and water levels. **RD5B** – establish uncultivated riparian buffer zones at least 15 metres wide from the top of the bank (including the 9-metre internal drainage board bylaw maintenance corridor). Plant or promote low growing, non–woody vegetation such as diverse grasses or wet grassland mixes that are compatible with regular ditch maintenance operations, to provide habitats for nature	**High** –Encourage and support landowners in IDB network to create and maintain riparian buffers. Manage IDB ditches according to the SOPs and best practice to maximise opportunities for wildlife.
Woodlands	**Wo3A** – improve biodiversity by creating mixed deciduous woodland consisting of appropriate native or climate change tolerant (European only) species to increase resilience and diversity. Such newly created woodlands are to be within 2.5 kilometres of existing woodland, though in practice should be much closer (ideally within 500 metres). Newly created woods would ideally form a woodland block (or group of woodlands within 200 metres of each other) which are at least 40 hectares in size. Woodland creation would be expected over approximately 80% of the site area mapped under this measure, with the remaining 20% a mosaic of other complementary habitats such as species–rich grassland, scrub, ponds, and individual trees. **Wo1A –** enhance the management of unmanaged woodlands with a minimum size of 1 hectare to UK Forestry Standards to achieve a varied structure and greater diversity.	**Low –** not on IDB-owned land and unlikely to be influenced by Board Activities. However the Board may identify and encourage opportunities for tree planting, particularly on the highland where better tree cover will help infiltration and slow surface water flows into the Catch Water. Additionally, and not mapped but known anecdotally, some small and fragmented linear stretches of woodland along the Catch Water from Biggin Lane, running west, which may benefit from implementation of a management plan to conserve and enhance existing tree cover.

LNRS Priority Habitat	Local Targets	IDB Potential for Supporting / Influencing Habitat (high/medium/low)
Grassland	**G3A –** deliver wider environmental benefits such as runoff reduction, water quality enhancement and potential access to nature, by creating species–rich grasslands in appropriate locations. **G2B –** improve biodiversity by creating species–rich neutral grassland adjoining to, and up to 500 metres from, existing designated and other neutral grassland sites. There is no minimum size threshold, but larger sites are preferable (in combination with other complementary habitats) and there should be a realistic ambition for site to become priority habitat in the future.	**Low –** not on IDB land but supporting and encouraging riparian landowners to create or enhance species-rich grassland along IDB watercourses, even as a buffer strip, may help to improve the quality of runoff reaching IDB drains and would help to improve habitat connectivity across the district, particularly between designated sites.



KEY: = Woodland, = Grassland, = Wetland Mosaic, = Rivers & streams

Figure 11. Mapped Priority Habitat Action Opportunities as detailed in the Cambridgeshire LNRS (published: 23rd December 2025) in Ramsey Upwood and Great Raveley IDB, available from this link: Local Nature Recovery Strategy or https://experience.arcgis.com/experience/a1963a7dc51c4c259a8d19832b63f461 https://www.cambridgeshire.gov.uk/residents/climate-change-energy-and-environment/improving-the-natural-environment/cambridgeshire-and-peterborough-local-nature-recovery-strategy#local-nature-recovery-strategy-published-5-0

5.10. Species Audit Summary

There are 191 protected, priority or other notable species that have previously been recorded within the district, as reported by the Local Environmental Records Centre (LERC). Of these, 76 species are associated with the habitats the Board manages and so could be influenced by the Boards' activities. A table listing these species is provided below.

Table10: Rare, protected, notable and priority species previously recorded within the drainage district:

Taxon	Common Name	Scientific Name	Conservation Status	Potential for IDBs to influence	Species Info
Bird	Corn Bunting	*Emberiza calandra*	*Sect.41, UKBAP, LNRS*	Moderate. Rotationally manage ditch vegetation to maximise diversity which will support better numbers of inverts for chick food. Encourage cereal retention options in stewardship agreements next to ditches. Record sightings.	*A key farmland indicator species. Has had a dramatic decline nationally and has been lost from many areas of the county but still remains in good numbers locally. Availability of invertebrates in summer and seeds in the winter are key to its abundance. Manage ditch vegetation to maximise diversity which will support better numbers of inverts.*
	Turtle Dove	*Streptopelia turtur*	*Sect.41, UKBAP, LNRS*	Yes. Retain dense mature scrub stands i.e. bramble near water and manage extent rather than remove. Retain bankside trees and pollard rather than remove. Retain marginal and bank vegetation as much as possible and cut banks rotationally outside of bird nesting season. Trim hedges outside bird nesting season. Encourage farmers to establish stewardship margins alongside hedgerows and ditches for foraging. Record sightings.	*Hedge & scrub nesters*
	Lapwing	*Vanellus vanellus*	*Sect.41, UKBAP, LNRS*	Limited. Promote uptake of environmental stewardship riparian buffer strip options to provide insect-rich foraging near nest sites.	*Ground nester in farmland. One of the most strongly declining birds in Europe but Cambs. is a stronghold*
	Kingfisher	*Alcedo atthis*	*WCA1i, LNRS*	Yes. Check and maintain artificial nest sites. Retain bank-side trees / scrub as fishing perches and as a refuge for small fish which the bird eats. Record sightings.	*Check and maintain artificial nest sites. Retain bank-side trees / scrub as fishing perches and as a refuge for small fish which the bird eats.*
	Grasshopper Warbler	*Locustella naevia*	*Sect.41, UKBAP, LNRS*	Yes. Promote uptake of environmental stewardship riparian buffer strip options	*Prefers sites with a mixture of habitats including grassland, scrub and reedbed/wetland areas, therefore a good indicator of relatively wild habitats.*
	Barn Owl	*Tyto alba*	*CPASI, WCA1i, LNRS*	Yes. Manage existing boxes, fund and install new ones where necessary and support box surveys. Retain areas of taller bank veg to support small mammals.	*Species is still under threat from a range of factors relating to agricultural intensification and urbanisation. Erect and manage Barn Owl Boxes.*
	Swift	*Apus apus*	*CPASI, LNRS*	Yes. Fund nest boxes and manage ditches to provide insect-rich foraging near nest sites.	*Associated with buildings for nesting but may forage along drains and margins*
	Redwing	*Turdus iliacus*	*WCA1i*	Retain marginal and bank vegetation as much as possible and cut banks rotationally outside of bird nesting season. Encourage farmers to establish stewardship margins alongside hedgerows and ditches for foraging. Maximise plant diversity for invertebrate abundance. Record sightings.	*Hedge & scrub nesters*
	Lesser Spotted Woodpecker	*Dryobates minor*	*Sect.41, UKBAP*		*Nest in holes in trees near water*
	Yellowhammer	*Emberiza citrinella*	*Sect.41, UKBAP*		*Ground, or near to, nesting birds with broods into late August. Favour ditch edges and grass margins.*

Bird	Marsh Harrier	*Circus aeruginosus*	*WCA1i*	Retain marginal and bank vegetation as much as possible and cut banks rotationally outside of bird nesting season. Encourage farmers to establish stewardship margins alongside hedgerows and ditches for foraging. Maximise plant diversity for invertebrate abundance. Record sightings.	*Ground-nesters using reedbeds and grassy margins*
	Spotted Flycatcher	*Muscicapa striata*	*Sect.41, UKBAP*		*Dense hedge and scrub nesters*
	Linnet	*Linaria cannabina*	*Sect.41, UKBAP*		*Ground & low scrub/hedge nesters*
	Bullfinch	*Pyrrhula pyrrhula*	*Sect.41, UKBAP*		*Dense hedge and scrub nesters*
	House Sparrow	*Passer domesticus*	*Sect.41, UKBAP*		*Dense hedge nesters*
	Cuckoo	*Cuculus canorus*	*Sect.41, UKBAP*		*Will often use a reed warbler's nest to lay and egg for them to raise so can be present in nests in reeds.*
	Song Thrush	*Turdus philomelos*	*Sect.41, UKBAP*		*Nest low in hedges and scrub*
	Dunnock	*Prunella modularis*	*Sect.41, UKBAP*		*Hedge & scrub nesters*
	Tree Sparrow	*Passer montanus*	*Sect.41, UKBAP*		*Hedge & scrub nesters*
	Reed Bunting	*Emberiza schoeniclus*	*Sect.41, UKBAP*		*Ground, or near to, nesting birds with broods into late August. Favour ditch edges and grass margins.*
	Lesser Redpoll	*Acanthis cabaret*	*Sect.41, UKBAP*		*Tree nester in wet woodlands*
	Bewick's Swan	*Cygnus columbianus bewickii*	*Sect.41, UKBAP, WCA1i*	Limited. Identify opportunities to support wetland creation and conservation.	*Overwintering population in the Fens. Sensitive to wetland loss and modification.*
	Curlew	*Numenius arquata*	*Sect.41, UKBAP*	Limited. Identify opportunities to support wetland creation and conservation.	*Ground nesters in rough/damp pasture*
	Hobby	*Falco subbuteo*	*WCA1i*	Retain marginal and bank vegetation as much as possible and cut banks rotationally outside of bird nesting season. Encourage farmers to establish stewardship margins alongside hedgerows and ditches for foraging. Maximise plant diversity for invertebrate abundance. Record sightings.	*Tree nesters hunting across open habitats*
	Yellow Wagtail	*Motacilla flava*	*Sect.41, UKBAP*		*Ground nesters in damp channel margins and banks and agricultural margins.*
	Quail	*Coturnix coturnix*	*WCA1i*	Limited. Encourage establishment and retention of arable margins.	*Spring and summer visitors favouring arable farmland and open grassland.*
Flowering Plant	Fen Pondweed	*Potamogeton coloratus*	*CPASI, NS, LNRS*	Yes. Maintain a programme of rotational bank cutting and desilting little and often to support aquatic, marginal and terrestrial plants. Where found, and/or diversity is high, identify the historic management regime and maintain it as closely as possible to retain valuable species or make informed improvements to regime to enhance the stand. Look for in surveys, record presence & inform LERC.	*Fenland is the British stronghold. Shallow calcareous water. Most records in the Wicken and Whittlesey areas. Wetland habitats such as ponds and drains. All IDB surveys*
	Common Meadow-rue	*Thalictrum flavum*	*CPASI*		
	Grass-wrack Pondweed	*Potamogeton compressus*	*NS, RLENG.EN, RLGB.EN, Sect.41, UKBAP*		

Flowering Plant	Good-King-Henry	*Chenopodium bonus-henricus*	*RLENG.VU, RLGB.VU*	Yes. Maintain a programme of rotational bank cutting and desilting little and often to support aquatic, marginal and terrestrial plants. Where found, and/or diversity is high, identify the historic management regime and maintain it as closely as possible to retain valuable species or make informed improvements to regime to enhance the stand. Look for in surveys, record presence & inform LERC.	*perennial herb, forming patches on disturbed, nutrient-rich soil around farm buildings and ruins, and on roadsides and waste ground.*
Insect - Beetle (Coleoptera)	Hydraena palustris	*Hydraena palustris*	*RLGB.Lr(NT)*	Yes. Invertebrates use a wide range of plants as hosts for their larval stage and for feeding and egg laying in their adult stages. Aim to create and maintain the most diverse sward possible on banks, channel margins and in channel to support them by following a rotational vegetation management regime. Retain trees, hedgerows and scrub and plant more where possible. Look for in surveys, record presence & inform LERC.	*Predominantly found in moist environments such as moss, leaf litter, and damp soil.*
Insect - Butterfly	Wall	*Lasiommata megera*	*RLGB.Lr(NT), Sect.41, UKBAP*		
	Small Heath	*Coenonympha pamphilus*	*RLGB.Lr(NT), Sect.41, UKBAP*		
Insect - Dragonfly (Odonata)	Scarce Chaser	*Libellula fulva*	*RLGB.Lr(NT)*		
Insect - Moth	White Ermine	*Spilosoma lubricipeda*	*Sect.41, UKBAP*		
	Blood-vein	*Timandra comae*	*Sect.41, UKBAP*		
	Sallow	*Cirrhia icteritia*	*Sect.41, UKBAP*		*Assoc with ditches and streams*
	Dusky Brocade	*Apamea remissa*	*Sect.41, UKBAP*		
	Small Square-spot	*Diarsia rubi*	*Sect.41, UKBAP*		
	Rosy Rustic	*Hydraecia micacea*	*Sect.41, UKBAP*		
	Grey Dagger	*Acronicta psi*	*Sect.41, UKBAP*		
	Large Nutmeg	*Apamea anceps*	*Sect.41, UKBAP*		
	Rustic	*Hoplodrina blanda*	*Sect.41, UKBAP*		
	Mottled Rustic	*Caradrina morpheus*	*Sect.41, UKBAP*		
	Lackey	*Malacosoma neustria*	*Sect.41, UKBAP*		
	Dark-barred Twin-spot Carpet	*Xanthorhoe ferrugata*	*Sect.41, UKBAP*		
	Dot Moth	*Melanchra persicariae*	*Sect.41, UKBAP*		

Insect - Moth	Mouse Moth	*Amphipyra tragopoginis*	*Sect.41, UKBAP*	Yes. Invertebrates use a wide range of plants as hosts for their larval stage and for feeding and egg laying in their adult stages. Aim to create and maintain the most diverse sward possible on banks, channel margins and in channel to support them by following a rotational vegetation management regime. Retain trees, hedgerows and scrub and plant more where possible. Look for in surveys, record presence & inform LERC.	
	Beaded Chestnut	*Agrochola lychnidis*	*Sect.41, UKBAP*		
	Buff Ermine	*Spilosoma lutea*	*Sect.41, UKBAP*		
	Cinnabar	*Tyria jacobaeae*	*Sect.41, UKBAP*		
	Garden Dart	*Euxoa nigricans*	*Sect.41, UKBAP*		
	Oak Hook-tip	*Watsonalla binaria*	*Sect.41, UKBAP*		
	Knot Grass	*Acronicta rumicis*	*Sect.41, UKBAP*		
	Crescent	*Helotropha leucostigma*	*Sect.41, UKBAP*		
	Garden Tiger	*Arctia caja*	*Sect.41, UKBAP*		
	Small Emerald	*Hemistola chrysoprasaria*	*Sect.41, UKBAP*		
	Brown-spot Pinion	*Anchoscelis litura*	*Sect.41, UKBAP*		
	Shoulder-striped Wainscot	*Leucania comma*	*Sect.41, UKBAP*		
	Dark Brocade	*Mniotype adusta*	*Sect.41, UKBAP*		*Prefers damp habitats*
	Brindled Beauty	*Lycia hirtaria*	*Sect.41, UKBAP*		
	Ghost Moth	*Hepialus humuli*	*Sect.41, UKBAP*		*Open damp grassland species*
	Dusky Thorn	*Ennomos fuscantaria*	*Sect.41, UKBAP*		*Assoc with Ash trees*
	Powdered Quaker	*Orthosia gracilis*	*Sect.41, UKBAP*		*Damp, grassy, and marshy habitats.*
	Centre-barred Sallow	*Atethmia centrago*	*Sect.41, UKBAP*		
	Minor Shoulder-knot	*Brachylomia viminalis*	*Sect.41, UKBAP*		
	Bulrush Veneer	*Calamotropha paludella*	*Nb*		
	Green-brindled Crescent	*Allophyes oxyacanthae*	*Sect.41, UKBAP*		
	Large Wainscot	*Rhizedra lutosa*	*Sect.41, UKBAP*		
Reptile	Grass Snake	*Natrix helvetica*	*Sect.41, UKBAP, WCA5*	Yes. Manage channels according to the SOP. Retain & create suitable habitat. Record sightings.	
	Common Lizard	*Zootoca vivipara*	*Sect.41, UKBAP, WCA5*		
Terrestrial Mammal	Water Vole	*Arvicola amphibius*	*RLGB.EN, Sect.41, UKBAP, WCA5, LNRS*	Yes. Manage ditches according to the SOPs to ensure no burrows are damaged and marginal vegetation is maintained for optimal wv habitat. Manage bank face vegetation rotationally to maintain/develop a favourable & diverse sward as optimal habitat for wv. Continue support for mink control project. Record in surveys.	*IDB ditches are stronghold for them. Ensure water levels of at least 30cm are maintained all year round, keeping summer/winter level fluctuations as small as possible. Retain marginal vegetation for refuge. Fund and support mink trapping.*

	Hedgehog	*Erinaceus europaeus*	*RLGB.VU, Sect.41, UKBAP, LNRS*	Yes. More associated with mosaic habitats but IDBs must be mindful not to disturb scrub patches / weed screen piles / leaf piles after October as they may be hibernating. Fund hedgehog hotels, encourage leaf piles and don't keep things "tidy". Record sightings.	*More associated with mosaic habitats but IDBs must be mindful not to disturb scrub patches / weed screen piles / leaves after October as they may be hibernating. Fund hedgehog hotels, encourage leaf piles and don't keep things "tidy".*
	Harvest Mouse	*Micromys minutus*	*RLGB.Lr(NT), Sect.41, UKBAP, LNRS*	Yes. Retain areas of uncut undisturbed marginal and bank vegetation for refuge and foraging and manage rotationally.	*GB Red List Near Threatened. Thought to have declined significantly due to agricultural intensification. Not commonly recorded in Cambs. and Pboro so population levels are unknown.*
	Otter	*Lutra lutra*	*HabRegs2, Sect.41, UKBAP, WCA5*	Yes. Manage channels according to the SOP. Retain & create suitable habitat. Record sightings and field signs.	
	Brown Hare	*Lepus europaeus*	*Sect.41, UKBAP*	Yes. Retain areas of uncut undisturbed marginal and bank vegetation for refuge and foraging and manage rotationally.	
Terrestrial Mammal - Bat	Soprano Pipistrelle	*Pipistrellus pygmaeus*	*HabRegs2, Sect.41, UKBAP, WCA5*	Yes. Retain mature bank-side trees to provide suitable roosts for bats. Trim or pollard trees rather than remove them. Install bat boxes on bank-side trees or elsewhere in the district to improve roost provision. Provide bat boxes	
	Common Pipistrelle	*Pipistrellus pipistrellus*	*HabRegs2, WCA5*	Yes. Retain mature bank-side trees to provide suitable roosts for bats. Trim or pollard trees rather than remove them. Install bat boxes on bank-side trees or elsewhere in the district to improve roost provision. Provide bat boxes	

In addition, there are 88 species identified by the Local Nature Recovery Strategy (LNRS) that are a priority for nature conservation within Cambridgeshire. Some of these species are commonly associated with the habitats that the Board manages. While there are no known recent records of these species being present within the district, there is potential for them to be found, or for them to colonise, either naturally or via translocation if the habitats they prefer are managed favourably. There is therefore potential for the conservation status of these species across the county to be influenced by the activities of the Board.

Table 11: Species identified by the Local Nature Recovery Strategy (LNRS) for Cambridgeshire as being a conservation priority in the county:

Taxon	Common Name	Scientific Name	Conservation Status	Potential for IDBs to influence	Species Info
Amphibian	Pool Frog	*Pelophylax lessonae*	*WACA-Sch5_sect9.4b*	Low. Create ponds where possible	
Bird	Grey Partridge	*Perdix perdix*	*Sect.41, UKBAP, LNRS*	Limited. Promote uptake of environmental stewardship riparian buffer strip options. Record sightings.	*Localised breeding species in the county, with the main populations in Cambs in the South Cambs chalk areas. Promote Environmental stewardship alongside IDB drains for a number of reasons*
	Black-tailed Godwit	*Limosa limosa*	*WCA1i, LNRS*	Yes. Seek local conservation projects to support / fund.	*ID opportunities for IDBs near Ouse and Nene washes to become involved in/fund conservation projects or create wetland sites*
	Common Crane	*Grus grus*	*CPASI, LNRS*	Moderate. Look for opportunities to create and/or restore reedbeds and wetland habitats. Manage ditches to maximise diversity.	*Now over a dozen pairs and a wintering population in excess of 80 individuals, making Cambs and Pboro a key county. Continued management of existing and creation of new areas of mixed wetland will bolster breeding numbers further - IDB action.*
	Corn Bunting	*Emberiza calandra*	*Sect.41, UKBAP, LNRS*	Moderate. Rotationally manage ditch vegetation to maximise diversity which will support better numbers of inverts for chick food. Encourage cereal retention options in stewardship agreements next to ditches. Record sightings.	*A key farmland indicator species. Has had a dramatic decline nationally and has been lost from many areas of the county but still remains in good numbers locally. Availability of invertebrates in summer and seeds in the winter are key to its abundance. Manage ditch vegetation to maximise diversity which will support better numbers of inverts.*
	Bittern	*Botaurus stellaris*	*Sect.41, UKBAP, WCA1i, LNRS*	Moderate. Look for opportunities to create and manage reedbeds such as old pump drains. Record sightings.	*Look for opportunities to create and manage reedbeds such as old pump drains.*
	Black-necked Grebe	*Podiceps nigricollis*	*Bern-A2*	Moderate. Look for opportunities to create and/or restore reedbeds and wetland habitats. Manage ditches to maximise diversity.	
	Garganey	*Spatula querquedula*	*Bird-Amber*		
	Redshank	*Tringa totanus*	*BirdsDir-A2.2*		
	Yellow Wagtail	*Motacilla flava*	*Sect.41, UKBAP*	Retain marginal and bank vegetation as much as possible and cut banks rotationally outside of bird nesting season. Encourage farmers to establish stewardship margins alongside hedgerows and ditches for foraging. Maximise plant diversity for invertebrate abundance. Record sightings.	*Ground nesters in damp habitat & farmland*

Bird	Snipe	*Gallinago gallinago*	*UK Amber List, LNRS*	Yes. Look for opportunities to create / restore reedbeds and wetland habitats	*Requiring wet grassland / water meadow. IDBs Look for opportunities to restore / create reedbeds & wet grasslands and/or support conservation efforts within the district.*
Fish	Brook lamprey	*Lampetra planeri*	*RLGB NT, SFWF, HabsRegs, LNRS*	Limited. Look for presence during surveys.	*A positive indicator for rivers and streams. It tends to be observed in the headwaters of smaller waterbodies (but may be present in the middle reaches of rivers). The species has a larval form which requires unpolluted and stable silt beds, thus if a river supports brook lamprey it could be considered as one that is in a better ecological condition and is exhibiting stability and naturalness of the river environment.*
	European Eel	*Anguilla anguilla*	*UKBAP. RL Critically Endangered. SPI UK. Eel Regs, LNRS*	Yes. Retain marginal vegetation for eel refuge and foraging. Only desilt centre 2/3rds of channel.	*Spends most of its life in European rivers which flow into the Atlantic, Mediterranean and Baltic seas, and migrate to the western sub-tropical Atlantic where it breeds. Retain marginal veg as refuge for them.*
	Spined Loach	*Cobitis taenia*	*Sect.41, UKBAP, LNRS*	Yes. Desilt little and often to provide diversity of substrate for the filter-feeders	*Appears to be restricted to Trent, Welland, Witham, Nene and Great Ouse, with their associated waterways. Moreton's Leam is thought to contain the highest recorded density of spined loach in the UK and is designated an SAC for this reason, as are Ouse Washes Counter Drain and Old Bedford River. Have been found on occasion in the Middle Level system. Desilt little and often*
Flowering Plant	Cambridge Milk-parsley	*Selinum carvifolia*	*RLENG.EN, RLGB.EN, WCA8, LNRS*	Yes. Maintain a programme of rotational bank cutting and desilting little and often to support aquatic, marginal and terrestrial plants. Where found, and/or diversity is high, identify the historic management regime and maintain it as closely as possible to retain valuable species or make informed improvements to regime to enhance the stand. Look for in surveys, record presence & inform LERC.	*Known to be present in an IDB drain near Ramsey*
	Dyer's Greenweed	*Genista tinctoria*	*CPASI, RLENG.VU, LNRS*		*Good indicator of old permanent grassland of interest (including verges), particularly in the clay areas of Cambs and Pboro. Number of sites in Cambs and Pboro has been declining in recent decades and it is still under threat as many populations are small. Pboro IDBs*
	Fen Ragwort	*Jacobaea paludosa*	*NR, RLENG.CR, RLGB.CR, Sect.41, UKBAP, WCA8, LNRS*		*Look for reintro sites, particularly in vegetated drains, old pump drains, dead end drains, reedbed peripheries etc.*
	Greater Bladderwort	*Utricularia vulgaris agg.*	*RLENG.LC, RLGB.LC., LNRS*		*Good indicator of high-quality wetland habitats as it is susceptible to eutrophication. At risk where populations are small. Look for in surveys*

Flowering Plant	Greater Water-parsnip	*Sium latifolium*	*NS, RLENG.EN, RLGB.EN, Sect.41, UKBAP, LNRS*	Yes. Maintain a programme of rotational bank cutting and desilting little and often to support aquatic, marginal and terrestrial plants. Where found, and/or diversity is high, identify the historic management regime and maintain it as closely as possible to retain valuable species or make informed improvements to regime to enhance the stand. Look for in surveys, record presence & inform LERC.	*Fenland characteristic species. Found parts of the Ouse Washes. Small populations remain vulnerable. Look for in surveys*
	Heath Dog-violet	*Viola canina subsp. ruppii*	*RLGB EN. RLENG EN., LNRS*		*In Woodwalton Fen, Holme fen & RUGR IDB only.*
	Large-flowered Hemp-nettle	*Galeopsis speciosa*	*RLENG.VU, RLGB.VU, LNRS*		*Found in peaty fields and disturbed fen. Look out for in surveys*
	Lesser Water-plantain	*Baldellia ranunculoides*	*CPASI, RLENG.VU, RLGB.Lr(NT), LNRS*		*Only a few sites now have significant numbers. Under threat from a range of factors. Survey for them annually.*
	Long-stalked Yellow-sedge	*Carex lepidocarpa*	*RLGB LC. RLENG LC. , LNRS*		*Strong indicator of high-quality wet fen meadow habitats. Likely less than ten sites in Cambs and Pboro where it still occurs, at some of those in small numbers. Look for in surveys*
	Meadow Thistle	*Cirsium dissectum*	*CPASI, LNRS*		*Strong indicator of high-quality wet fen meadow habitats. Perhaps less than five sites in Cambs and Pboro where it still occurs. Look for in IDB surveys*
	Milk-parsley	*Thysselinum palustre*	*RLGB VU. RLENG VU., LNRS*		
	Meadow Saxifrage	*Saxifraga granulata*	*RedList_ENG_post2001-LC*		*Occasionally found on banks or in floodplains, indicator of good quality unimproved grasslands*
	Tasteless Water-pepper	*Persicaria mitis*	*CPASI, NS, RLENG.VU, RLGB.VU, LNRS*		*Found in the Ouse and Nene Washes and only found in a few sites outside of these and has been lost from some locations. Found in wet places in open vegetation, typically on nutrient-rich mud and peat that is exposed by a rapid 'drawdown' of water in the summer. Look out for in Ouse washes IDBs*
	Narrow-leaved Water-dropwort	*Oenanthe silaifolia*	*CPASI, NS, LNRS*		*Characteristic flood meadow species. Mostly restricted to a few sites in the River Great Ouse valley area. IDBs near Ouse washes only*
	Tubular Water-dropwort	*Oenanthe fistulosa*	*RLENG.VU, RLGB.VU, Sect.41, UKBAP, LNRS*		*Found in areas with winter flooding, including flood meadows and ponds. Look for around Nene and Ouse Washes IDBs*
	Water-violet	*Hottonia palustris*	*CPASI, RLENG.VU, RLGB.VU, LNRS*		*Found in still, shallow, base-rich, clear and not eutrophic waterbodies so it is a positive indicator. Found in fenland drains, although has declined here. Look for in surveys*
	Opposite-leaved Pondweed	*Groenlandia densa*	*CPASI, RLENG.VU, RLGB.VU, LNRS*		*Typical of shallow nutrient-poor calcareous waters. Mostly found in fen drains. Look for in surveys*
	Fen Orchid	*Liparis loeselii*	*Bern-A1*		
	Early Marsh-orchid	*Dactylorhiza incarnata*	*RedList_ENG_post2001-LC*		
	Slender Tare	*Ervum gracile*	*RedList_GB_post2001-VU*		
	Bog Pimpernel	*Lysimachia tenella*	*RedList_GB_post2001-LC*		
	Grass-poly	*Lythrum hyssopifolia*	*WACA-Sch8*		
	Oxlip	*Primula elatior*	*NS-excludes*		
	Marsh Valerian	*Valeriana dioica*	*RedList_ENG_post2001-NT*		

Flowering Plant	Great Burnet	*Sanguisorba officinalis*	*NI_Priority*	Yes. Maintain a programme of rotational bank cutting and desilting little and often to support aquatic, marginal and terrestrial plants. Where found, and/or diversity is high, identify the historic management regime and maintain it as closely as possible to retain valuable species or make informed improvements to regime to enhance the stand. Look for in surveys, record presence & inform LERC.	*Characteristic flood meadow and positive old grassland indicator species (although can be found in woodland). Associated with sites of natural history interest in Cambs and Pboro and has declined significantly. Many populations are small and so are under threat from destruction or neglect.*
	Saw-wort	*Serratula tinctoria*	*RedList_ENG_post2001-LC*		*Strong indicator of a range of old species-rich habitats, including grassland and woodland edges. Has declined significantly nationally and locally. At the eastern edge of its range in Cambs and at many sites numbers are small so these populations are under threat. Now may only be present at less than ten sites in Cambs and Pboro.*
	Flat-sedge	*Blysmus compressus*	*Scottish_Biodiversity_List*		
	Fibrous Tussock-sedge	*Carex appropinquata*	*NS-excludes*		
	Marsh Helleborine	*Epipactis palustris*	*W(NI)O-Sch8_part1*		
	Common Cottongrass	*Eriophorum angustifolium*	*RedList_ENG_post2001-VU*		
	Fen Wood-rush	*Luzula pallescens*	*RedList_GB_post2001-CR*		*Found in Holme Fen, Needs ground disturbance*
	Fly Orchid	*Ophrys insectifera*	*England_NERC_S.41*		
	Marsh Lousewort	*Pedicularis palustris*	*RedList_ENG_post2001-VU*		
	Common Butterwort	*Pinguicula vulgaris*	*RedList_ENG_post2001-VU*		
	Hampshire Dandelion	*Taraxacum akteum*	*NR-excludes*		
	English Dandelion	*Taraxacum anglicum*	*RedList_ENG_post2001-VU*		
	Marsh Dandelion	*Taraxacum palustre*	*RedList_ENG_post2001-VU*		
	Water Germander	*Teucrium scordium*	*WACA-Sch8*		
	Fen Violet	*Viola stagnina*	*RedList_GB_post2001-CR*		
	Marsh Stitchwort	*Stellaria palustris*	*RLENG.VU, RLGB.VU, Sect.41, UKBAP, LNRS*		*Strong old wet grassland indicator. Present at less than ten sites in Cambs and Pboro and at risk in many of them. Look for in surveys near Nene, Ouse and WWF*
	Pepper-saxifrage	*Silaum silaus*	*CPASI, LNRS*		*Strong indicator of old species-rich grassland, especially damp grassland. Many populations are small and so are under threat from a lack of appropriate management and potentially development where sites are not protected. Look for in surveys*

Insect - Beetle	Eyed Longhorn beetle	*Oberea oculata*	*NR-includes*	Yes. Invertebrates use a wide range of plants as hosts for their larval stage and for feeding and egg laying in their adult stages. Aim to create and maintain the most diverse sward possible on banks, channel margins and in channel to support them by following a rotational vegetation management regime. Retain trees, hedgerows and scrub and plant more where possible. Look for in surveys, record presence & inform LERC.	
	Mud Beetle	*Sphaerius acaroides*	*RedList_GB_post2001-EN*		
Insect - Butterfly	Grizzled Skipper	*Pyrgus malvae*	*RLGB.VU, Sect.41, UKBAP, LNRS*		*Active management is needed to maintain suitable habitat where the suitable food plants grow (such as Creeping Cinquefoil, Agrimony and Wild Strawberry). Relatively open, patchy grassland seems to be preferred where there is some periodic disturbance. This includes land by railway lines and brownfield sites.*
	Black Hairstreak	*Satyrium pruni*	*RedList_GB_post2001-EN*		
	Large Copper	*Lycaena dispar*	*WACA-Sch5_sect9.5a*		
	Swallowtail	*Papilio machaon*	*WACA-Sch5_sect9.4b*		
Insect - Caddis Fly (Trichoptera)	Erotesis baltica	*Erotesis baltica*	*NR-includes*	Yes. Invertebrates use a wide range of plants as hosts for their larval stage and for feeding and egg laying in their adult stages. Aim to create and maintain the most diverse sward possible on banks, channel margins and in channel to support them by following a rotational vegetation management regime. Retain trees, hedgerows and scrub and plant more where possible. Look for in surveys, record presence & inform LERC.	
Insect - Moth	Four-spotted	*Tyta luctuosa*	*Nationally Scarce. UKBAP, LNRS*		*Food plant is field bindweed so dependent on early successional habitats which are threatened by inappropriate management and eutrophication. May be more widespread and common than previously thought but more surveys are required to establish this.*
	Marsh Carpet	*Gagitodes sagittata*	*RLEN EN., LNRS*		*Present south of Benwick and Doddington & west of Coates.*
	Reed Leopard	*Phragmataecia castaneae*	*RLGB VU. UKBAP, LNRS*		*Long-standing populations known only at Wicken Fen and Chippenham Fen but recorded from a few other sites in this area of the county. The larval food plant is common reed.*
	White-spotted Pinion	*Cosmia diffinis*	*Sect.41, UKBAP, LNRS*		*Caterpillar feeds on elms. Disappearing from almost all its range except Cambs, which now comprises over three-quarters of its current British range.*
	Silver Barred	*Deltote bankiana*	*RedList_GB_Pre94-VU*		*Restricted distribution nationally. Species of fens, coastal marshes and bogs. Long-standing populations known only at Wicken Fen and Chippenham Fen in Cambs and Pboro.*
Insect - Orthopteran	Great Green Bush Cricket	*Tettigonia viridissima*	*CPASI, LNRS*		*Populations with sustainable numbers may only be present in less than five sites in Cambs and Pboro. Found in rough grassland with some scrub or on woodland edges. Look for in surveys near Nene and Ouse washes and WWF*
	Large Marsh Grasshopper	*Stethophyma grossum*	*England_NERC_S.41*		
Insect - Beetle	Agabus uliginosus	*Agabus uliginosus*	*Nb, RLGB.Lr(NT), LNRS*		*Potentially a flagship species for seasonal pools. Found in a range of wetlands in isolated ponds or in seasonally flooded fen. Found at Wicken Fen, Woodwalton Fen and a relatively small number of sites outside of these. Look out for in surveys*
	Agabus undulatus	*Agabus undulatus*	*CPASI, RLGB.Lr(NT), LNRS*		*Most often found in fenland drains. Suitable flagship species for improved drain management as it is a distinctive species that is relatively recognisable Look out for in surveys*

Insect - Beetle	Donacia dentata	*Donacia dentata*	*RLGB.VU, LNRS*	Yes. Invertebrates use a wide range of plants as hosts for their larval stage and for feeding and egg laying in their adult stages. Aim to create and maintain the most diverse sward possible on banks, channel margins and in channel to support them by following a rotational vegetation management regime. Retain trees, hedgerows and scrub and plant more where possible. Look for in surveys, record presence & inform LERC.	*Very few known sites in Cambs and Pboro. Found in larger drains and rivers and feeds mainly on Arrowhead, Sagittaria sagittifolia. Relatively large and identifiable. Look out for in surveys*
Insect - Spider	Rosser's Sac-spider	*Clubiona rosserae*	*NL, LNRS*		*Only found in 1-2 sites in Britain, with recent records only at Chippenham Fen. Found in fens amongst cut sedge and reeds and in sedge tussocks.*
	Pardosa paludicola	*Pardosa paludicola*	*NR-includes*		
	Zora armillata	*Zora armillata*	*NR-includes*		
Mollusc	Large-mouthed Valve Snail	*Valvata macrostoma*	*RLGB LC. RLENG ? , LNRS*	Limited. Look for presence during surveys.	*Look for in surveys*
	Taylor's Spire Snail	*Marstoniopsis insubrica*	*RLUK Rare, LNRS*		*IDBs along the Ouse washes*
	Witham Orb Mussel	*Sphaerium solidum*	*NL, LNRS*		*IDBs along the Ouse washes*
	Desmoulin's Whorl Snail	*Vertigo (Vertigo) moulinsiana*	*HabDir-A2**		
Reptile	Adder	*Vipera berus*	*WACA-Sch5_sect9.5a*	Yes. Manage channels according to the SOP. Retain & create suitable habitat. Record sightings.	
Stonewort	Great Tassel Stonewort	*Tolypella prolifera*	*RLGB.EN, Sect.41, UKBAP, LNRS*	Yes. Maintain a programme of rotational bank cutting and desilting little and often to support aquatic, marginal and terrestrial plants. Where found, and/or diversity is high, identify the historic management regime and maintain it as closely as possible to retain valuable species or make informed improvements to regime to enhance the stand. Look for in surveys, record presence & inform LERC.	*Found in small alkaline water bodies which prefers slow-moving water and tends to grow in deeper water. A spring or summer annual and often occurs in quantity after ditch clearances.*
	Hedgehog Stonewort	*Chara aculeolata*	*RLGB VU, UKBAP, NR, LNRS*		*Only in some of the old Pboro brick pit sites in Cambs and Pboro. A freshwater species tolerant of slightly brackish water.*
	Bearded Stonewort	*Chara canescens*	*WACA-Sch8*		
	Dwarf Stonewort	*Nitella tenuissima*	*RedList_GB_post2001-EN*		
	Tassel Stonewort	*Tolypella intricata*	*RedList_GB_post2001-EN*		
Terrestrial Mammal - Bat	Western Barbastelle	*Barbastella barbastellus*	*HabRegs2, RLGB.VU, Sect.41, UKBAP, WCA5, LNRS*	Yes. Retain mature bank-side trees to provide suitable roosts for bats. Trim or pollard trees rather than remove them. Install bat boxes on bank-side trees or elsewhere in the district to improve roost provision. Provide bat boxes	*Thought to prefer pastoral landscapes with a mixture of deciduous woodland and other habitats. Roost mainly in cracks in trees.*
Tree	Dark-leaved Willow	*Salix myrsinifolia*	*RLENG.LC, RLGB.LC., LNRS*	Limited. Look for presence during surveys. Retain where present	*Cambs holds the majority of the of the remaining southern / eastern England (likely) native sites for the species (less than five sites). Found in wet riverside woodland and fens. Look out for in surveys*
	Elm (various)	*Ulmus spp.*	*RedList_ENG_post2001-LC*	Yes. Map droves across district	*Map droves and record Elm locations*
	Black-poplar	*Populus nigra subsp. betulifolia*	*CPASI, LNRS*	Yes. Look for planting opportunities. Identify those existing and conserve.	*One of the rarest native trees in Cambs and Pboro. Under threat because of a lack of natural reproduction opportunities. Most trees present now are thought to have been planted but maybe not all. Natural habitat is river floodplains. Look for planting opportunities*

5.10.1 The Hull International Fisheries Institute (HIFI), EDNA Surveys

Between 2021 and 2023, the Hull International Fisheries Institute (HIFI) collected and analysed Environmental DNA (EDNA) samples from channels within almost all IDB catchments in the Middle Level and surrounding areas. The aims of the project were; to gain a better understanding of the presence and distribution of the endangered European Eel within IDB pumped catchments, to better inform and focus conservation efforts and regulation in areas where eels are already present, as well as to better understand their habitat requirements, identify and remediate the obstacles to eel passage and welfare. The EDNA studies also identified the presence of a number of other species, which have been detailed below. It is important to understand that these samples and results only represent a snapshot in time. The presence or absence of any EDNA of any particular species is not conclusive proof of their presence or absence in the channel at any other time. But it does give us a good understanding of what species the habitats managed by the IDB are capable of supporting.

The studies demonstrate that eel had not been present in Ramsey Upwood and Great Raveley channels around the time the EDNA samples were taken, however ongoing best practice management of the channels is likely improve their attractiveness for eel in the future.

Table 12: Species identified by the EDNA studies undertaken in the Ramsey Upwood and Great Raveley IDB Catchment:

IDB/Pumping Station	Samples Taken	Mammal & Reptile Species Identified	Species Richness	Species Richness Range*	Fish Species Identified	Species Richness	Species Richness Range*
Green Dyke	10	1. Chinese Water Deer 2. Eurasian Otter 3. Water Vole	**3**	**0-7**	1. Northern Pike 2. Three-spined stickleback 3. Nine-spined stickleback 4. Perch Zander	**4**	**1-13**
New Fen	10	1. Smooth Newt 2. Red Fox 3. Common Shrew 4. Water Vole 5. Brown Rat	**5**	**0-7**	1. Spined Loach 2. Roach 3. Rudd 4. Tench 5. Three-spined stickleback 6. Nine-spined stickleback 7. Perch Zander	**7**	**1-13**

IDB/Pumping Station	Samples Taken	Mammal & Reptile Species Identified	Species Richness	Species Richness Range*	Fish Species Identified	Species Richness	Species Richness Range*
Upwood Common	7	1. Chinese Water Deer 2. Eurasian Otter 3. Badger 4. Water Vole 5. Brown Rat	**5**	**0-7**	1. Spined Loach 2. Common Bream 3. Roach 4. Tench 5. Northern Pike 6. Nine-spined stickleback 7. Ruffe 8. Perch Zander	**8**	**1-13**

*The range provided is the greatest and lowest species richness across all IDB sites sampled. A total of 29 fish and 31 mammal and amphibian species were detected in all samples taken.

Note: Samples were only taken up to the point when eels were detected. Some of the smaller sites were only sampled once.

5.11. Invasive Non-native Species Summary

The IDB has identified the following aquatic and riparian invasive non-native species within or adjacent to the drainage district that are identified as likely to be influenced by, or impact upon the Board's activities. Some INNS species records have been excluded as they are not considered to be any greater detriment to the habitats managed by IDBs than some similar native species, and they are common throughout the district and Middle Level area so would be very difficult to control and/or eradicate. Only the most recent record from each specific location has been included.

Table 13: Aquatic & riparian invasive non-native species summary

Taxon Group	Common Name	Scientific Name	Location	Most Recent Date Recorded	Designations	Management Recommendations
Crustacean	*Crangonyx pseudogracilis/floridanus*	*Crangonyx pseudogracilis/floridanus*	*Great Raveley Drain, Woodwalton Fen*	28/04/2014		*Observe stringent biosecurity procedures to prevent spread. Familiarise with species recognition. Encourage all IDB networks to recognise and report sightings of the species to the board ecologist straight away so it can be managed swiftly.*
Fern	*Water Fern*	*Azolla filiculoides*	*Great Raveley Drain, Woodwalton Fen*	22/10/2011	*WCA9ii*	
Flowering Plant	*Butterfly-bush*	*Buddleja davidii*	*Ramsey*	30/04/2011		
	Canadian Waterweed	*Elodea canadensis*	*Woodwalton*	06/07/2011	*WCA9ii*	
	Fringed Water-lily	*Nymphoides peltata*	*Woodwalton*	06/07/2011	*CPASI, NS*	
	Japanese Knotweed	*Fallopia japonica*	*Ramsey*	02/05/1970	*WCA9ii*	
	Least Duckweed	*Lemna minuta*	*Great Raveley Drain, Woodwalton Fen*	06/04/2013		
	Nuttall's Waterweed	*Elodea nuttallii*	*Great Raveley Drain, Woodwalton Fen*	06/04/2013	*WCA9ii*	
Mollusc	*Zebra Mussel*	*Dreissena polymorpha*	*Great Raveley Drain, Woodwalton Fen*	06/04/2013		
Terrestrial Mammal	*American Mink*	*Neovison vison*	*Great Raveley Drain, Woodwalton Fen*	25/02/2012	*WCA9i*	

5.12. Water Level Management Plans

There are no Water Level Management Plans (WLMP) within the drainage district.

6. Habitat and Species Action Plans

6.1. Introduction

The following sections detail the objectives that the IDB has defined for each of the habitats and species that have been identified as a priority in the biodiversity audit, and that have the most potential to be influenced by the Boards activities, and the associated actions that will help to deliver each objective.

6.2. Habitat Action Plans

6.2.1 IDB Ditches

6.2.1.1 IDB Ditch Objectives:

1. *Develop and regularly review an Operations Manual to help to define the most favourable channel maintenance approaches for flood risk management and biodiversity, on a reach-by-reach basis.*
2. *Maximise the biodiversity value of IDB channels, banks and margins through sensitive management, all designed to support a wide range of species.*
3. *Enhance channel biodiversity via non-routine works where opportunities arise*

6.2.1.2 IDB Ditch Actions

Objective ref.	Action no.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	1a	Categorise / review categorisation of all IDB channels by flood risk to determine maintenance intensity and approach and document reasoning	• Map with channels coloured by risk category	2026 then annually	IDB	
			• Supporting table for above with reasoning	2026 then annually	IDB	
			• Minuted review of any changes from previous years categorisation and approval of current determination at Board Meeting ahead of works	2026 then annually	IDB	

6.2.1.2 IDB Watercourses Actions Cont.

	1b	Define/redefine and deliver most appropriate vegetation management approach/intensity for each IDB channel reach to manage flood risk and maximise opportunities for biodiversity. Favour the retention and rotational management of marginal and bank vegetation wherever possible.	• Map with planned veg management approach defined for each reach	2026 then annually	IDB	Ecologist
			• Documented confirmation that works were carried out in line with plan for each reach and if not, reasons why.	2026 then annually	IDB	Contractor
			• Minuted review of any changes to previous approach and approval of plan ahead of works at Board Meeting	2026 then annually	IDB	Ecologist
	1c	Define/redefine and deliver most appropriate desilting approach/intensity for each IDB channel reach to manage flood risk and maximise opportunities for biodiversity. Aim for regular and light desilting on a 3-year rotation approx. to mimic natural scour in periodic high flows.	• Map with desilting approach defined for each reach	2026 then annually	IDB	Ecologist
			• Documented confirmation that works were carried out in line with plan for each reach and if not, reasons why.	2026 then annually	IDB	Contractor
			• Minuted review of any changes to previous approach and approval of plan ahead of works at Board Meeting	2026 then annually	IDB	Ecologist
2	**2a**	Undertake routine channel maintenance in line with standard operating procedures (SOPs), best practice and in compliance with a range of environmental law.	• Spot checks during and after routine maintenance for SOP compliance	Annually	Ecologist	
			• Minuted report to the Board of compliance non/compliance for maintenance undertaken	Annually	Ecologist	
	2b	Survey a different sample reach of channel each year to benchmark biodiversity. Aim to identify areas of high biodiversity value and which areas could benefit from enhancement. Also aim to identify any correlation between diversity, habitat quality and management approaches.	• Chanel survey results and recommendations included in Board papers with summary review each year.	2026 then annually	Ecologist	IDB
			• Results of surveys submitted to LERC			
3	**3a**	Ensure all non-routine channel works are assessed for environmental and ecological constraints and opportunities in advance of works. Identify and design-in opportunities to enhance channels using natural engineering approaches i.e. vegetated coir roll for bank toe stabilisation, hydroseeding, vegetated berms and diverse seed mixes.	• Minuted review of planned non-routine works and ecol. assessment requirements for forthcoming year at each Board Meeting. • Extent of habitat enhanced as a result of non-routine works reported annually in Board papers	2026 then Annually	IDB	Ecologist

6.2.2 Reedbeds

6.2.2.1 Reedbeds Objectives

1. *Retain, enhance and increase the extent of reedbeds within the District by encouraging and supporting private landowners to do so, and creating or supporting the creation of new reedbeds where possible and appropriate in and around IDB channels.*

6.2.2.2 Reedbeds Actions

Objective ref.	Action no.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	**1a**	Identify and map any existing patches of reedbed within IDB control and develop a plan to manage them favourably	• Map of reedbeds & plan of enhancement opportunities	2026	IDB	Ecologist
	1b	Identify and take opportunities to create new reedbeds in the IDB system i.e. ditch junctions, channel margins, berm creation, dead-end channels or old pump drains. Even small patches of a few metres are valuable as stepping stones.	• Map of reed bed creation opportunities	2026-27	IDB	Ecologist / Landowners
	1c	Identify existing reedbed owners / managers adjacent to IDB watercourses and make contact to ascertain if the IDB can do anything to support the favourable management / conservation status of the habitat	• No. of reedbed owners / managers contacted	2027	IDB	Ecologist / Landowners
	1d	Publish a note on the website detailing the value of Reedbeds for biodiversity in the District, particularly for priority birds and invertebrates, and encouraging the retention, favourable management and creation of the habitat, and signpost further advice & information	• Published note on website	2026	IDB	Ecologist
	1e	Include brief flyer with rate demands promoting the retention, favourable management, creation and importance of Reedbeds, particularly for priority birds and invertebrates, within the District and signpost further advice and guidance	• Flyer with rate demand	2027	IDB	Ecologist
	1f	Audit the extent of reedbeds at the start and end of the BAP period	• Extent of reedbed in the district calculated	2026-31	Ecologist	IDB

6.2.3 Ponds / Open Water

6.2.3.1 Ponds / Open Water Objectives

2. *Retain, enhance and increase the number ponds & open water within the District, to serve as stepping stones for aquatic and riparian species, by encouraging and supporting landowners/managers to create more and manage them favourably*

6.2.3.2 Ponds Actions

Objective ref.	Action no.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	**1a**	Publish a note on the website detailing the value of ponds and open water for biodiversity in the District and encouraging the retention, favourable management and creation of ponds, and signpost further advice & information.	• Ponds note on website	2028	Ecologist	IDB
	1b	Include brief flyer with rate demands promoting the retention, favourable management, creation and importance of ponds within the District, particularly near IDB watercourses to act as stepping stones for wildlife, and signpost further advice and guidance	• Flyer sent out with rate demand	2029	Ecologist	IDB
	1c	Audit the number of ponds in the District at the start and end of the BAP period	• No of ponds created in district in BAP Period	2026 & 2030	IDB	Ecologist

6.2.4 Hedgerows

6.2.4.1 Hedgerow Objectives

1. *Identify and map all hedgerows within the district and confirm ownership and if/how the IDB currently interacts with them, particularly those with IDB ditches adjacent to them.*

2. *Retain, enhance, connect and increase the extent of hedgerows within the District by encouraging and supporting private landowners to do so, and creating managing hedgerows favourably where possible and appropriate, near IDB channels.*

6.2.4.2 Hedgerow Actions

Objective ref.	Action no.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	1a	Identify all hedgerows in the district and their owners / managers adjacent to IDB watercourses or on access routes to them, and make contact to ascertain if the IDB can do anything to support the favourable management / conservation status of the habitat	• Map of hedgerows & listed owners	2026	IDB	Ecologist
2	2a	Identify and take opportunities to plant new hedgerows in the IDB system, particularly to reconnect separate hedgerows, using identified priority species, with trees	• Map of new connecting hedgerow opportunities	2026-27	IDB	Ecologist / Landowners
	2b	Develop and publish a “no net loss” hedgerow policy to be enforced though the consenting process	• Published hedgerow policy available on the website	2027	IDB	Ecologist/IDB
	2c	Publish a note on the website detailing the value of hedgerows for biodiversity in the District, and encouraging the retention, favourable management and planting of new connecting hedgerows, and signpost further advice & information	• Published note on website	2026	IDB	Ecologist
	2d	Include brief flyer with rate demands promoting the retention, favourable management, creation and importance of hedgerows within the District and signpost further advice and guidance	• Flyer with rate demand	2027	IDB	Ecologist
	2e	Audit the extent of hedgerows at the start and end of the BAP period	• Extent of hedgerow in the district calculated	2026-31	Ecologist	IDB

6.2.5 Fen Droves

6.2.5.1 Fen Droves Objectives

1. *Identify and map all existing and defunct Droves within the district and confirm ownership, provenance and status, particularly those with IDB ditches adjacent to them and those that IDBs use as access to inspect and maintain assets.*
2. *Retain, protect and enhance Droves within the District by encouraging and supporting private landowners/managers to do so.*

6.2.5.2 Fen Droves Actions

Objective ref.	Action no.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	1a	Liaise with/enlist assistance of community groups, IDB members and rate payers to develop a register and map of Fen Droves within the district	• Map with Droves highlighted	2026-7	IDB	Ecologist / Community Groups
			• Supporting table detailing drove ownership, provenance, status i.e. PRoW. and any other relevant history	2026-8	IDB	Ecologist / Community Groups / Landowners
	1b	Publish findings of Fen Droves Register project within local community	• Publication of map and drove history via Parish News or similar and IDB website	2027-8	IDB	Ecologist / Community Groups
			• Summary of project findings in Board Report	2028	IDB	Ecologist
			• Provide map and details to LERC	2028	IDB	Ecologist
2	2a	Support/encourage biodiversity surveys of Fen Droves, particularly those along IDB ditches, to identify any enhancements that could be made to maximise biodiversity. **Annual channel biodiversity surveys could be expanded to incorporate this.*	• Number of survey reports with current & historic management approaches detailed along with enhancement recommendations made, provided to relevant landowner	2026-31	IDB / Ecologist	Ecologist / Community Groups / Landowners
			• Number of surveys & summary published in Board Reports			
			• Number of survey results sent to LERC			

6.2.6 Arable Field Margins

6.2.6.1 Arable Field Margins Objectives

1. *Retain, enhance and increase the extent of arable field margins within the District by encouraging and supporting private landowners to do so, particularly adjacent to IDB drains, and encourage the establishment of new arable field margins wherever possible.*

6.2.6.2 Arable Field Margins Actions

Objective ref.	Action no.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	**1a**	Publish details on the IDB website of the benefits of retaining and creating good quality arable field margins for the IDB and for biodiversity and signpost further advice, including LNRS habitat opportunity map	• Post on the website	2026-27	IDB / Ecologist	
	1b	Develop a brief flyer encouraging the retention, enhancement and creation of field margins for the benefit of IDBs and biodiversity & signpost further advice, , including LNRS habitat opportunity map, and send with rate demands	• Flyer sent out with rate demand	2027 & 2029	IDB / Ecologist	Ecologist
	1c	Audit the extent of arable field margins at the start and end of the BAP period	• Map of extent of field margins in 2026 & 2031	2026 & 2030	IDB	Ecologist & Landowners/LNRS owner

6.3. Species Action Plans

6.3.1 Notes on species without specific actions

Some species have not been detailed specifically in this section, as actions to provide more, and better quality, habitat for them are delivered via other actions, mainly habitat and procedural actions. Such species include a range of flora that will be better supported via standard operating procedures (SOPS) for ditches, which aim to retain marginal and bank-side vegetation and manage it rotationally. Actions for habitats also encourage retention, creation and favourable management which will be of benefit to a range of species, such as the creation of arable field margins and reedbeds. Also, annual surveys aim to identify, record, report and protect many priority plant and animal species. SOPs and best practice IDB habitat management will also optimize opportunities for reptiles, many birds, invertebrates, other mammals, eels and fish.

6.3.2 Birds

6.3.2.1 Birds Objectives:

1. *Maximise habitat availability and quality for all birds that use IDB channels and margins for foraging and nesting, through sensitive routine channel maintenance activities*
2. *Improve opportunities for particular priority birds within the IDB District that could be impacted by IDB activities, with specific provisions*
3. *Improve understanding of bird population trends in District by recording and reporting bird sightings, particularly for priority birds*
4. *Protect and enhance bird habitats through non-routine works*

6.3.2.2 Birds Actions

Objective ref.	Action no.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	1a	Define and publish **standard operating procedures (SOPs)** for routine maintenance activities, in line with legislation and best practice, that consider birds, including: • Retention and rotational management of marginal vegetation fringes • Bank-side tree and scrub retention and management, • Rotational bank vegetation cutting • Scheduling work outside the nesting season i.e. mid-August onwards	• Published SOPs available on website which consider birds covering: ~ Channel vegetation management, ~ Bank vegetation management inc. trees and scrub, ~ Desilting, ~ Herbicide use	2026	IDB	Ecologist
2	2a	Map, retain, protect and increase bank-side trees for **KINGFISHERS** as fishing perches wherever possible, favouring trimming for access and conveyance rather than removal.	• Important Kingfisher fishing areas mapped & made available to works operatives	2027	Ecologist / IDB	Landowners, Community
			• No. of important Kingfisher areas equal or greater at end of BAP period	2031	IDB	Ecologist, Landowners, Community
	2b	Map, retain, manage, protect and create **KINGFISHER** nesting sites along IDB watercourses	• Kingfisher nest sites mapped & made available to works operatives	2027	IDB	Ecologist, Landowners, Community
	2c	Map existing **BARN OWL BOXES** within the district, maintain existing boxes, fund and install new ones either on IDB assets or by liaising with private landowners and communities	• Map of Barn Owl boxes in district	2027	IDB	Ecologist, Landowners, Volunteers, Community
			• Number of boxes maintained each year reported in Board Report	Annually	IDB	Ecologist, Landowners, Volunteers, Community
			• No. of Barn Owl boxes in district equal or greater at end of BAP period	2027-2031	IDB	Ecologist, Landowners, Volunteers, Community

2	2d	Install on IDB assets, or encourage the installation of **SWIFT NEST BOXES** on private and community assets near IDB channels by funding next boxes and providing installation assistance where necessary	• Promotion of swift nest box installation and provision via website, community news and rate demands	2028	IDB	Ecologist
			• Number of swift boxes installed and map of them	Ongoing	IDB	Ecologist, Community, Landowners
3	3a	Encourage and support bird **SURVEYS.** **RECORD AND REPORT SIGHTINGS** of birds, particularly priority birds, and encourage others via IDB networks to do the same	• Publication to encourage surveys, recording and reporting to the ecologist and/or **iRecord** via: ~ Board Report ~ IDB website ~ Rate demand ~ Community communications	2026	IDB	Ecologist, Community, Landowners
			• Mapped sightings across the IDB District published with Board report	Annually	IDB	Ecologist
4	4a	Ensure all non-routine channel and asset works are assessed for impacts to birds and mitigations and enhancements are designed-in ahead of works, particularly scheduling works outside nesting season. Enhancements could include retaining valuable habitat, artificial nest box provision and using green engineering such as coir roll and enhanced seed mixes.	• Minuted review of planned non-routine works and ecol. assessment requirements for forthcoming year at each Board Meeting. • Enhancements that benefit birds as a result of non-routine works reported annually in Board papers	2026 then Annually	IDB	Ecologist

6.3.3 Mammals

6.3.3.1 Mammals Objectives:

1. *Maximise habitat availability and quality for all mammals but particularly priority mammals, that use IDB channels and margins for foraging and refuge, through sensitive routine channel maintenance activities*
2. *Improve opportunities for particular priority mammals within the IDB District that could be impacted by IDB activities, with specific provisions*
3. *Improve understanding of mammal population trends in District by recording and reporting sightings, particularly for priority mammals*
4. *Protect and enhance mammal habitats through non-routine works*

6.3.3.2 Mammals Actions

Objective ref.	Action no.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	**1a**	Define and publish **standard operating procedures (SOPs)** for routine maintenance activities, in line with legislation and best practice, that consider mammals, including: • Retention and rotational management of marginal vegetation fringes • Bank-side tree and scrub retention and sensitive management, • Rotational bank vegetation cutting • Scheduling work outside sensitive seasons	• Published SOPs available on IDB website which consider **WATER VOLES, OTTERS, HEDGEHOGS AND BATS** at least, covering: ~ Channel vegetation management, ~ Bank vegetation management inc. trees and scrub, ~ Desilting, ~ Herbicide use	2026	Ecologist	IDB
2	**2a**	Support **WATER VOLE** conservation through the mink control project	• Funding provided to support mink control project	Annually	IDB	Waterlife Recovery Trust
			• Number of mink control rafts hosted or funded on IDB watercourses	Annually	IDB	Waterlife Recovery Trust
			• Publication to promote the mink control project via posts on website, rate demand notices, Board meetings and community communications and no. of volunteers recruited	Ongoing	IDB	Waterlife Recovery Trust, MLC

	2b	Identify and protect known or potential **OTTER** holts (refuges) and create or support the creation of more along appropriate IDB channels	• Known and potential otter holts (refuges) mapped & made available to works operatives	2027	IDB	Ecologist, Landowners, Community
			• No of otter holts increasing along IDB channels	Ongoing	IDB	Ecologist, Landowners, Community
			• Promotion of otter holt creation and retention via website, community news and rate demands	2028-2030	IDB	Ecologist
	2c	Identify and protect known and potential **BAT** roosts (in trees and structures) along or near to IDB watercourses and install or support the installation of bat boxes in appropriate places along or near to IDB channels	• Known and potential bat roosts in trees and structures mapped & made available to works operatives	2027	IDB	Ecologist, Landowners, Volunteers, Community
			• No. of bat roost provisions increasing along IDB channels	Annually	IDB	Ecologist, Landowners, Volunteers, Community
			• Promotion of bat roost retention and bat box installation via website, community news and rate demands	2027-2031	IDB	Ecologist, Landowners, Volunteers, Community
3	**3a**	Encourage and support mammal **surveys,** particularly priority mammals. Record and report **sightings** of mammals, particularly priority mammals, and encourage others via IDB networks to do the same	• Publication to encourage recording and reporting to the ecologist and/or **iRecord** via ~ Board Report ~ IDB website ~ Rate demand ~ Community communications	Ongoing	IDB	Ecologist, Community, Landowners, Volunteers
			• Mapped sightings across the IDB District & (non-sensitive elements) published with Board report	Annually	IDB	Ecologist

4	**4a**	Ensure all non-routine channel and asset works are assessed for impacts to mammals and mitigations and enhancements are designed-in ahead of works, particularly scheduling works outside sensitive seasons. Enhancements could include retaining valuable habitat, creation of artificial refuges and boxes, provision and use of green engineering such as coir roll and enhanced seed mixes.	• Minuted review of planned non-routine works and ecol. assessment requirements for forthcoming year at each Board Meeting. • Enhancements that benefit mammals as a result of non-routine works reported annually in Board papers	Annually	IDB	Ecologist

6.3.4 Trees

6.3.4.1 Trees Objectives:

1. *Identify and protect priority trees, particularly elm, black poplars and dark-leaved willow within the District*
2. *Increase numbers of black poplars*

6.3.4.2 Trees Actions

Objective ref.	Action no.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	1a	Map and protect elm, black poplars and dark-leaved willow within the IDB district	• Map of selected trees & made available to works operative	2028	Ecologist / IDB	Landowners, Community
2	2a	Seek and progress opportunities to plant more black poplars in appropriate locations across the IDB district	• Publication to request opportunities to plant black poplar via: ~ Board Report ~ IDB website ~ Rate demands ~ Community communications	At least twice in BAP period	IDB	Ecologist, Landowners, Volunteers, Community
			• No. of black poplar in District equal or greater at end of BAP period	2027-2031	IDB	Ecologist, Landowners, Volunteers, Community

6.3.5 Invasive Non-native Species (INNS)

6.3.5.1 INNS Objectives:

1. *Minimise the risk of introducing or spreading INNS through IDB activities*
2. *Identify, control and eradicate INNS from the District*

6.3.5.2 INNS Actions:

Objective ref.	Action no.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	**1a**	Develop/update, publish and adhere to a biosecurity protocol for IDB activities	• Biosecurity protocol published on-line and made available to IDB operatives	2026	Ecologist	IDB
2	**2a**	Encourage and support all IDB networks to: • Improve their recognition of INNS • Report suspected INNS in and around IDB channels promptly • Follow good biosecurity procedures such as check-clean-dry protocols • Signpost further information	• Information published via: ~ Board Report ~ IDB website ~ Rate demands ~ Community communications ~ Information Boards	2027	IDB	Ecologist, Community, Landowners
	2b	Provide support to partners in IDB networks to control existing INNS within the IDB District	• No. of INNS control projects supported	Ongoing	IDB	Ecologist, Community, Landowners

7. Procedural Action Plan

7.1. Introduction

A number of procedural actions have been identified and detailed below. These aim to help to underpin all other actions to support and enhance biodiversity via IDB activities.

7.2. Procedural Objectives

1. *Improve IDB representative's and contractor's knowledge and delivery of biodiversity support through training*
2. *Maintain no net loss of trees and hedgerows as a result of IDB activity and consenting*
3. *Maintain a no-culverting policy which aims to maintain the extent of open ditch habitat in the District*
4. *Liaise closely with Parish Councils to improve knowledge and support for IDB work*

7.3. Procedural Actions

Objective ref.	Action number	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	**1a**	Ensure all staff including contractors have received biodiversity training within 6 months from the start date of this Plan, or as part of their induction, and refresher training provided every 3 years.	• Numbers of staff and trained and dates	2026 & 29	IDB	Ecologist
2	**2a**	Develop and publish a "no net loss" policy for trees and hedgerows	• Publication of approved policy on website	By 2028	IDB	
3	**3a**	Develop and publish a "no culverting" policy	• Publication of approved policy on website	By 2029	IDB	
4	**4a**	Deliver IDB updates at Parish Council meetings and request attendance of Parish Council at IDB meetings	• No of meetings attended by IDB and Parish Councils	Ongoing	IDB	Parish Council

8. Monitoring

Appropriate indicators have been set for each of the IDB's biodiversity actions. 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 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 or changing priorities.

9. Reporting

The Board is responsible for ensuring that progress against the Plans' targets are routinely reviewed and 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:

1. *In the public domain via the IDB's website;*
2. *Provided to conservation partners and community groups such as Parish Councils to assist with further local biodiversity conservation planning;*
3. *Provided to local authorities in order to contribute towards their legislative biodiversity reporting requirements including the Local Nature Recovery Strategies;*
4. *The Local Biological Records Centre.*

10. Appendices

10.1. Appendix I – National Character Area 46 – The Fens - Detailed Statements of Environmental Opportunity

Link to full Fens NCA - The Fens - National Character Area Profiles

SEO 1: Manage the agricultural landscape and soils which allow the Fens to be a major provider of food and horticultural produce, while seeking to enhance opportunities for biodiversity.
For example by:

- Maintaining the valuable, productive, open agricultural landscape of the Fens National Character Area (NCA) with its high-quality soils, many of which are classed as Grade 1 agricultural land, through sustainable farming and agricultural agreements to the benefit of food production, biodiversity, sense of place and climate change regulation.
- Increasing opportunities to manage and protect the remaining peat resource, for example by raising water levels, to maintain (or enhance where possible) the build-up of organic matter; and encouraging landowners and managers to pursue such activities.
- Encouraging landowners and managers to use sustainable farming methods that protect the soil, such as maintaining vegetative cover and using grass buffer strips to reduce soil erosion from susceptible arable fields in the autumn and winter.
- Encouraging the adoption of good practice to avoid soil compaction and maintain good soil structure.
- Encouraging landowners and managers to manage land to prevent peat from drying out, and to maintain wetted peat soils to reduce loss through compaction, oxidation and wastage.
- For mineral soils in the NCA, promoting management techniques to build up soil organic matter to help maintain and enhance soil quality.
- Encouraging farmers to use techniques such as establishing break crops to manage land and protect soil.
- Encouraging minimum tillage and greater use of organic manures, biosolids and digestates plus soil conditioners, which will help to ameliorate soil losses if pursued on sufficient scale.
- Encouraging the establishment of areas of semi-natural habitat such as reedbed and washland which slow the passage of water through the hydrological system.
- Restoring and managing traditional orchards where there is already a traditional pattern, for example around Wisbech, promoting the planting of new orchards of mixed fruit trees to encourage bees where they are absent, and promoting the expansion of traditional shelterbelts around orchards.

SEO 2: Manage the core wetland complexes and increase their connectivity by enhancing the main rivers, waterways and their associated riparian habitats and improve recreational access opportunities to the Fens.
For example by:

- Promoting the creation and restoration of wetland landscapes through co-ordinated and sensitive management of water resources in conjunction with Fens for the Future partners, including Internal Drainage Boards (IDBs) and the farming community.
- Managing key wetland sites, including Wicken, Woodwalton and Holme Fens, remnants of the original fen, together with the great washlands which will form the core wetland complexes.
- In addition to the existing core areas, developing extensions at Baston Fen, Great Fen and Wicken Fen as envisioned in the Wicken Vision, as well as new areas such as Lakenheath Fen, Needingworth and the Wissey Wetland, to create more and larger areas of wetland habitats.
- Improving the water quality and quantity in water bodies in the Fens and improving their habitat value by creating buffer zones and undertaking habitat enhancement works, and identifying means by which issues including diffuse pollution can be co-operatively tackled, thus making a valuable contribution to outcomes required by the Water Framework Directive.
- Critically assessing the engineered network of ditches, installing new water management mechanisms where necessary, to enable localised management of groundwater.
- Encouraging winter flood storage on appropriate areas of land, ensuring appropriate management and control of any water resource created, in accordance with Water Level

Management Plans, promoting the reversion of existing flood-storage washlands to permanent grassland with extensive grazing regimes, and promoting the creation of new multi-functional washlands.

- Ensuring that sustainable flood risk management for the Fens is delivered through close partnerships.
- Promoting and establishing strategic, appropriately sized areas for biodiversity across the Fens to mitigate the impacts of local, summer storm-related catchment flooding, and to develop robust populations.
- Integrating and developing water resource management within flood management works and land management regimes, particularly at break point areas along the edge of the fen.
- Ensuring that the soils remain adequately hydrated to prevent erosion and maintain soil chemistry, especially where these soils could form ochre and become extremely acidic if dried and re-wetted.
- Promoting the creation of permissive and definitive access to increase opportunities for people to visit the Fens using sustainable transport methods; identifying the strategic gaps in the network and providing public transport in association with employment, heritage, education and recreation initiatives for local people and neighbouring towns and cities; and ensuring that existing projects with capacity such as Fens for the Future and the Fens Waterway Link address recreational and access issues.
- Identifying the strategic access gaps in the network and providing public transport in association with employment, heritage, education and recreation initiatives for local people and neighbouring towns and cities.

SEO 3: Plan for the creation of new coastal landscapes in the Wash area that are adapted and resilient to the impact of climate change, for the benefit of people and wildlife.
For example by:

- Seeking opportunities to reinstate intertidal salt marshes through realignment from arable to extensively grazed salt marsh, in line with the Wash Shoreline Management Plan.
- Seeking opportunities to create grazing marsh, reedbed and salt marsh throughout the Fens to compensate for losses of these habitats at the coast as a result of climate change and associated isostatic adjustment-induced sea-level rise, or where work carried out has damaged habitat.
- Seeking opportunities to identify and monitor key coastal active process sites.
- Replacing habitat lost from the coast through the East of England Regional Habitat Creation Programme.
- Planning for provision of permissive and definitive access (including the coastal access path) to increase opportunities for people to visit the Fens using sustainable transport methods.

SEO 4: Conserve, manage and enhance the Fens landscape and increase educational opportunities to access its geodiversity, archaeology and cultural heritage to enhance enjoyment and understanding for those who live and work in and visit the Fens.
For example by:

- Protecting and appropriately managing the historic environment, for its contribution to local character and sense of identity and as a framework for habitat restoration and sustainable development.
- Improving the condition of heritage assets through appropriate measures and seeking to reduce conflicting or unsympathetic management regimes, while recognising the high potential in this landscape for undiscovered remains.
- Providing a wider understanding of the geological record of environmental change held within the peat and associated Quaternary sediments, and supporting demonstration projects and sites that illustrate the cultural history, successional fenland habitats and geodiversity of the Fens.
- Managing and conserving the geological exposures throughout the Fens by the removal of undergrowth and the prevention of fly-tipping on these sites, in addition to identifying and protecting new (key) sites as they are discovered.
- Making links between geodiversity, archaeology and cultural heritage, building towards an integrated approach with the surrounding natural environment/landscapes.

- Conserving and monitoring buried geological and archaeological remains that are under threat through erosion of peat, increased or inappropriate cultivation, drying out from dewatering for irrigation, and pressures from development.
- Conserving historic landmark buildings and earthwork sites together with their setting, especially on the settled fens and clay islands.
- Using understanding of the area's traditional and historic architecture, and its distinct patterns of settlement, to inform appropriate conservation and use of historic buildings and farmsteads, and to plan for and inspire any environmentally beneficial new development that makes a positive contribution to local character.
- Promoting understanding of the benefits and potential adverse impacts of wind farms and associated electricity transmission pylons, which are an increasing feature of the fenland landscape.

SEO 5: Seek partners to aid in the development and future provision of new, distinctive, Fenland economies.
For example by:

- By promoting fenland cuisine and food preparation using local ingredients.
- Promoting natural art and craft production (such as baskets, woven reed mats, screens and fences for garden or poultry/ animal management purposes) in order to diversify the economic opportunities and output from Fenland resources.

National Character Area 88 - Bedfordshire and Cambridgeshire Claylands - Detailed Statements of Environmental Opportunity

Link to full Bedfordshire and Cambridgeshire Claylands NCA - Bedfordshire and Cambridgeshire Claylands - National Character Area Profiles

SEO 1: Maintain and manage a sustainable and productive claylands arable landscape, while managing, expanding and linking woodlands, hedgerows and other semi-natural habitats to benefit biodiversity, improve soil and water quality, and ameliorate climate change by promoting good agricultural practice.
For example by:

- Managing the arable landscape to retain the value of food provision through employing sustainable farming practices.
- Working with local farmers, landowners and managers to promote best practice such as the appropriate management of hedgerows, reducing herbicide and pesticide use, buffering field margins and woodland edges, and retaining winter stubble to support farmland birds and pollinators.
- Promoting good soil management to avoid compaction and maintain good soil structure.
- Encouraging the conservation and management of existing woodlands and the replacing of introduced species with native species, as well as undertaking new tree and woodland planting to link existing sites in order to enhance biodiversity and recreational opportunities.
- Seeking opportunities to develop biomass production through active woodland management and promote and stimulate local markets for wood products, biomass and wood fuel to support sustainable timber production.
- Ensuring that populations of wild deer are managed to reduce damage caused to the natural regeneration of trees and woodland.
- Preparing and implementing plans to control or limit the spread of new pests or disease – for example, ash die-back.
- Extending where appropriate the semi-natural vegetation cover, especially on steeper slopes where the Bedfordshire and
  Cambridgeshire Claylands National Character Area (NCA) meets the Bedfordshire Greensand Ridge, Chilterns, and East Anglian Chalk NCAs, to improve soil quality and reduce run-off and erosion.
- Enhancing and expanding the network of semi-natural habitats through targeted environmental enhancements, including ponds, hedgerows, hedgerow trees and species-rich grasslands (such as areas found along road verges, green lanes and field margins) to support biodiversity.
- Encouraging the appropriate management and expansion of traditional orchards, bringing them

back into active management to conserve their genetic diversity, biodiversity value and cultural heritage; and promoting and encouraging local markets for locally grown orchard produce.

SEO 2: Protect aquifers and enhance the quality, state and structure of the River Great Ouse, its valley and tributaries, habitats, waterbodies and flood plain by seeking to enhance their ecological, historical and recreational importance while taking into account their contribution to sense of place and regulating water flow, quality and availability.
For example by:

- Promoting and encouraging the sustainable use of local water resources by agricultural, commercial and domestic users to reduce the pressure on water resources in this NCA.
- Ensuring that water abstraction and poor water quality do not threaten important wetland habitats and archaeological features.
- Monitoring and managing water abstraction licences, with new applications for groundwater abstraction considered on a case-by-case basis to reduce the pressure on the aquifers.
- Incorporating and encouraging the use of water efficiency measures in new developments.
- Implementing catchment-wide water management plans to ensure a co- ordinated approach to reducing the impacts of pollution on water quality.
- Encouraging the use of sustainable drainage schemes, especially within urban areas to reduce run-off.
- Promoting and encouraging different remedies to improve water quality (for example, increasing on-farm water storage to reduce water abstraction levels, increasing flow rates and water levels in rivers, and continuing to make improvements to wastewater treatment works), to benefit aquatic biodiversity.
- Encouraging landowners and managers to increase and link areas of semi-natural habitat -such as flood plain grazing marsh, lowland meadow, ponds, fen and reedbed – to help slow water passage and filter out pollutants and support biodiversity.
- Working to reduce surface and groundwater pollution at a catchment scale by managing farmland under the principles established by the Catchment Sensitive Farming Programme.
- Expanding buffer strips along watercourses to help filter out sediments and pollution and provide benefits for landscape character and biodiversity.
- Working with landowners and managers to encourage the appropriate management of rivers, streams, waterbodies and riparian habitats to support biodiversity.
- Managing vegetation within the catchment to help to bind the soil, thus reducing the risk of erosion and slowing the passage of water.
- Seeking opportunities to extend and link areas of woodland, hedgerows, grassland and other semi-natural habitats to assist in absorbing water flow and provide benefits for biodiversity.
- Seeking opportunities to increase the capacity of the flood plain, conserve and extend riparian habitats to retain water, and bring benefit to the river environment.
- Promoting green infrastructure to help mitigate the impact of flooding.
- Encouraging the use of sustainable urban drainage systems such as permeable surfacing within urban areas to help reduce run-off.
- Controlling, monitoring and managing invasive non-native species to prevent or reduce damage to native species populations and habitats.

SEO 3: Plan and create high-quality green infrastructure to help accommodate growth and expansion, linking and enhancing existing semi-natural habitats. Regenerate the post-industrial landscapes of the Forest of Marston Vale and Peterborough to improve and create new opportunities for biodiversity, recreation, timber and biomass provision while strengthening sense of place, tranquillity, resilience to climate change, and people's health and wellbeing.
For example by:

- Supporting the creation and expansion of native woodlands, orchard, parkland, grasslands, and hedgerows to improve habitat connectivity within the landscape and provide increased benefits for biodiversity and recreation.
- Ensuring that areas of designated land remain in favourable condition, and improving their condition where possible.
- Promoting awareness of, and providing advice to landowners and managers on, managing habitats of biodiversity interest.
- Supporting initiatives that include well-planned green infrastructure that will increase people's

access to and contact with the natural environment to benefit their health and wellbeing.

- Creating new woodland as appropriate on urban fringes to help screen and integrate new developments, and provide biodiversity and green infrastructure benefits.
- Managing recreational sites to accommodate visitor pressure and demand without conflict between different users, and without causing adverse effects on the natural environment.
- Maintaining, extending and promoting the use of the National Cycle Routes and the rights-of-way network.
- Conserving and managing traditional orchards, hedgerows, parkland, and ancient and veteran trees for the benefit of fauna (such as specialist invertebrates dependent on dead or decaying wood, pollinators and pest regulators).
- Protecting and conserving existing traditional orchards from inappropriate development and changes in land use.
- Retaining and enhancing the contrast in landscape character between the clay plateau and river valleys, aiming to maintain and enhance the balance between urban and rural landscapes.
- Preventing inappropriate development and promoting the use of local building stone to maintain the character of villages and historic buildings.
- Ensuring that any new developments incorporate well-designed green infrastructure, to include improved access and recreation opportunities for local communities and visitors.
- Supporting the work of the Forest of Marston Vale Community Forest to regenerate the area and repair the landscape, using trees and woodland to provide social, economic and environmental benefits.
- Supporting the work of the Chilterns Area of Outstanding Natural Beauty (AONB) to conserve and enhance the landscape and special qualities of the AONB.
- Ensuring that geodiversity sites continue to be protected, monitored and managed.
- Ensuring that mineral extraction sites are restored to contribute to local landscape character and offer opportunities to enrich people's understanding of landscape, and enhance biodiversity, recreation and geodiversity.

SEO 4: Protect, conserve and enhance the cultural heritage and tranquillity of the Bedfordshire and Cambridgeshire Claylands NCA, including its important geodiversity, archaeology, historic houses, parkland, and Second World War and industrial heritage, by improving interpretation and educational opportunities to increase people's enjoyment and understanding of the landscape**.**

For example by:

- Promoting awareness and understanding of the area's rich geological heritage and the impact it has on the landscape, local distinctiveness and human activity – for example, in brick making.
- Ensuring that new development is in keeping with the local character of the area by using local stone in buildings to enhance sense of place and history.
- Promoting the restoration and good management of historic buildings and features, including those that are listed and 'at risk'.
- Using an understanding of the area's historic settlements and buildings to promote high-quality design in new development.
- Protecting, managing and promoting important archaeological features and landscapes such as ridge and furrow to increase people's understanding.
- Conserving and enhancing the cultural heritage of the brick-making industry, the Grand Union Canal and 20th-century military sites by promoting and improving access to increase awareness and understanding.
- Increasing tranquillity by conserving, managing and extending areas of semi-natural habitat, particularly woodlands and hedgerows, to benefit wildlife and people.
- Promoting existing sites that offer opportunities for people to enjoy the local landscape and providing improved interpretation and educational opportunities to increase people's understanding of the natural and built environments.
- Offering high-quality interpretation at key sites, and providing improved interpretation and educational opportunities to increase people's understanding and enjoyment of the key attributes of the area such as the history of brick making and jam making.
- Encouraging the restoration and sustainable management of historic parklands.
- Seeking opportunities to protect more tranquil parts of the area to reduce light and noise pollution and seeking opportunities to remove obtrusive features such as signage, lighting and poles.

- Working with local planning authorities to ensure that development is well designed to enhance landscape character and sense of place and to minimise the impacts of noise and light pollution.

10.2. Appendix II - Impact Risk Zones for Sites of Special Scientific Interest

Does the proposed development match any of the descriptions below?

All Consultations: All planning applications (except householder applications) where the proposed development is outside or extends outside existing settlements/urban areas and will increase lighting levels or affect greenspace, farmland, semi natural habitats,trees/woodland, waterbodies, rural buildings/structures (manmade or natural) or linear landscape features such as hedgerows, streams and rivers through direct loss, fragmentation or change of use.

Infrastructure: Pipelines and underground cables, pylons and overhead cables (excluding upgrades and refurbishment of existing network). Any transport proposal including new or extended footways, cycleways, roads/car parks, railways and waterways (excluding routine maintenance). Airports, helipads and other aviation proposals.

Wind and Solar: Solar schemes with a footprint > 0.5ha, all wind turbines.
Minerals, Oil and Gas: Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.

Rural Non-Residential: Large non-residential developments outside of existing settlements/urban areas where the net additional gross internal floorspace is > 1,000m² or the footprint exceeds 0.2ha.
Residential: Residential development of 50 units or more.
Rural Residential: Any residential developments outside of existing settlements/urban areas with a total net gain in residential units.

Air Pollution: Any industrial/agricultural development that could cause AIR POLLUTION(including: industrial processes, livestock & poultry units with a floorspace > 500m², slurry lagoons > 200m² & manure stores > 250 tonnes).

Combustion: General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/combustion.

Waste: Landfill. Including: inert landfill, non-hazardous landfill, hazardous landfill.
Compost: Any composting proposal with more than 500 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.

Discharge: Any discharge of water or liquid waste of more than 2m³/day that is discharged to ground (ie to seep away) or to surface water, such as a beck or stream.

Water Supply: Any development needing its own water supply eg remote rural housing that is not connected to a mains water supply, OR large infrastructure such as warehousing/industry where the total net additional gross internal floorspace following development is > 1,000m².