Your Internal Drainage Board

**Biodiversity Action Plan**

202X-202X

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**IDB**

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**IDB**

Picture

Here

1. Statement

**NOTE!\* For those completing this template, words highlighted in yellow are examples and are intended to be overwritten with your own words or descriptions etc. relevant to your Board or is guidance intended to be deleted when read.**

This Biodiversity Action Plan (BAP) has been prepared by the Name Internal Drainage Board in accordance with the commitment in the Implementation Plan of the Defra Internal Drainage Board Review of 2007 for internal drainage boards (IDBs) to produce their own Biodiversity Action Plans. It demonstrates the Board’s commitment to fulfilling its duty as a public body to conserve and enhance biodiversity under various legislation and policy including, but not limited to, the Environment Bill (Act) 2020, the Natural Environment and Rural Communities Act 2006, the 25 Year Environment Plan and Water Framework Directive.

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

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

……………………………………………………. Date ……………………………….

Name

Chairman of the Board

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

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

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

Name Internal Drainage Board

Address

Or via email:

Your IDB’s email address

Further information is available on the Board’s website: www.idb.co.uk

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1. Introduction
   1. What is Biodiversity and why is it important?

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

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

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

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

* 1. Legislative Background

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

The Natural Environment and Rural Communities Act 2006 places a duty on IDBs to conserve biodiversity. The Environment Bill (Act) 2020, when enacted, extends this duty on IDBs to also enhance biodiversity and report periodically on its actions. Therefore, as a public authority, every IDB must consider what action it can take, consistently with the proper exercise of its functions, to further the conservation and enhancement of biodiversity in England.

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

* The Environment Bill (Act) 2020
* 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
  1. Policy & Strategic Background

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

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

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

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

* 1. 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.

* 1. Vision

The IDB’s vision is:

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

* 1. 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 such as the Local Nature Partnership 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 to communicate with the local and wider community what actions the IDB are undertaking to support biodiversity.

1. The IDB BAP Process
   1. The Biodiversity Audit

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

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

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

* 1. Objectives, Targets and Actions

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

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

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

* 1. Monitoring and Reporting

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

The frequency and type of information reported is also defined by the Plan and includes the publication of progress reports in the public domain via the IDB’s website and in accordance with the duty set out in the Environment (Bill) Act 2020.

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

1. The Biodiversity Audit
   1. The NAME Internal Drainage District

The drainage district is located add relevant description.

The following outlines the key details of the District:

* Total area of the drainage district: **41,047 ha**
* Catchment area draining to and including the District: **7,400 ha**
* Area of agricultural land: **37,092 ha**
* Area of other (non-agricultural) land: **3,955 ha**

Assets for which the Board has operational responsibility:

* Water level control structures: **6 number**
* Watercourses (maintained): **702 km**
* Raised embankments: 100 **km**
* Reservoirs: **0** ha
* Sustainable drainage systems (SuDS): **0** number
* Pumping Stations: **7**
* Culverts: (Number & length)
  1. Map of Audit Area (Drainage District)

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

Skeleton map of drainage district with major towns, roads, etc., in outline for location identification

**Figure 1.** NAME Internal Drainage District.

* 1. Geology

Add a brief description of the geology of the drainage district from geological memoirs, other reports or geological maps. Regionally Important Geological and Geomorphological Sites (RIGS) should be identified below as Local Sites.

* 1. 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.

Provide brief details of each of the NCA’s contained within the drainage district. Possibly put information in a table.

Add a map as an appendix showing the limits of the NCA if two or more cover the drainage district.

* 1. Landscape Designations

Give brief details of any National Parks or Areas of Outstanding Natural Beauty (AONBs) in the drainage district.

* 1. Sites and Monuments

Provide details of any relevant records.

* 1. Tree Preservation Orders

Provide details of any relevant orders.

* 1. Statutory Nature Conservation Sites
     1. Internationally Designated Sites

The following internationally-designated conservation sites, relevant to the water level management\* and/or maintenance activities of the IDB, are found within or adjacent to the drainage district. Sources of information can be found in Annex x.

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

|  |  |  |  |
| --- | --- | --- | --- |
| **Site name** | **Designation** | **Associated WLMP?\*** | **Features Relevant to IDB** |
| Wicken Fen | Ramsar | Yes, Wicken Fen SSSI WLMP | * Outstanding peat fen * 1 endangered plant (fen violet) * 8 nationally scarce plants, * 121 RDB invertebrates |
| Fenland | SAC | Yes, Wicken Fen SSSI WLMP | * Spined loach * Great crested newt * *Molinia caerulea* (purple moor grass) * *Cirsium dissectum* (meadow thistle) * fen-meadow * calcareous meadow |

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

In the fourth column list only the important habitats and species that may be positively or negatively affected by water level management and other IDB activities. If the list is extensive, enter a short summary here and put the full list in an Appendix. You may wish to include as an appendix a map of the sites across the drainage district.

* + 1. Nationally Designated Sites

The following nationally-designated conservation sites, relevant to water level management and/or maintenance activities of the IDB, are found within the drainage district. Sources of information can be found in Annex x.

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Site name** | **Designation** | **Component of an International Site** | **Associated WLMP?\*** | **Features Relevant to IDB** |
| Wicken Fen | SSSI, NNR | Fenland SAC  Wicken Fen Ramsar site | Yes | * Peat fen * herb rich sedge fen * carr scrub * breeding wetland birds * wintering wildfowl * aquatic plants |
| Stow cum Quy Fen | SSSI | No | Yes | * Calcareous pasture with pools * dragonflies |
| Cam Washes | SSSI | No | Yes | * Seasonally flooded low lying pasture & associated pools * Ditches * river margins * wintering wildfowl and breeding water birds * aquatic plant communities |

In the last column list only the important habitats and species that may be positively or negatively affected by water level management and other IDB activities. If the list is extensive, enter a short summary here and put the full list in an Appendix. You may wish to include as an appendix a map of the sites across the drainage district and the citation for each site.

* + 1. Local Nature Reserves

The following Local Nature Reserves are relevant to the activities of the IDB are found within the drainage district. Sources of information are listed in Annex x.

Table 3. Local Nature Reserves within the drainage district

|  |  |  |
| --- | --- | --- |
| **Site name** | **Associated WLMP?\*** | **Features Relevant to IDB** |
| Flitwick Wood | N | Wet woodland |
| Flitton Moor | N | Pollarded willows |
| The Riddy | N | Flood meadow |

In the third column list only the important habitats and species that may be positively or negatively affected by water level management and other IDB activities. If the list is extensive, enter a short summary here and put the full list in an Appendix. You may wish to include as an appendix a map of the sites across the drainage district.

* + 1. Non-statutory Nature Conservation Sites

A number of sites have been identified locally as being important for wildlife. Whilst these designations do not have statutory status, the sites are important for their contribution to biodiversity and planning policy requires that they are given consideration by the LPA in forming any decision. The following relevant Local Wildlife Sites are to be found within or bordering the drainage district. Sources of data can be found in Annex x.

Table 4. Non-Statutory sites within the drainage district

|  |  |  |
| --- | --- | --- |
| **Site name** | **Designation** | **Features Relevant to IDB** |
| Ickleford Common | CWS | River Hiz and pastures with unimproved neutral and acid wet grassland. |
| Ickleford Watercress Beds | CWS | Watercress beds by River Hiz |
| Cadwell Grove West Meadow | CWS | Damp meadow adj. to R. Hiz. Important for wintering birds. |

In the third column list only the important habitats and species that may be positively or negatively affected by water level management and other IDB activities. If the list is extensive, enter a short summary here and put the full list in an Appendix. You may wish to include as an appendix a map of the sites across the drainage district and the citation for each site.

* 1. Habitat Audit Summary

This habitat audit summary lists the UK priority habitats that occur within the drainage district and are identified as likely to be influenced by the Board’s activities. Also listed are habitats deemed to be of local importance and/or featured in local nature strategies that occur in the drainage district. Finally, brief notes are included on the potential for the IDB to maintain, restore or expand its important habitats. (A list of relevant Priority habitats can be found at <https://jncc.gov.uk/our-work/uk-bap-priority-habitats/>).

Table 5. Habitat Audit Summary

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **National Priority Habitat** | **National Status & Extent** | **Local Priority Habitat** | **Local Status and Extent** | **Habitat of Importance for IDB** | **Extent, status and Location of Habitat of Importance within drainage district** | **IDB Potential for Maintaining, Restoring or Expanding Habitat**  **(high/medium/low)** |
| Hedgerows | Common habitat  402,000km of “managed” hedgerows  Declining | Ancient and/or species-rich hedgerows | 8000 km of hedges in Cambs with a loss of 30% between 1984 and 1990. | Hedgerows | Not known- dominant feature within the drainage district, with many watercourses bounded, at least on one side, by hedgelines. Most of these are species-poor and are either unmanaged or heavily managed. | High – planting and maintenance |
| Coastal and floodplain grazing marsh | 216,000 – 300,000 ha in the UK. Trend unknown |  |  | Grazing marsh and associated ditch systems | Predominantly found within the Great Ouse, Ivel, Flit Valleys and around the River Hiz | Low - Detailed in WLMP for xx SSSI |
| Wet woodlands | 50–70,000 hectares UK. Trend not known |  |  | Wet woodlands | 320ha in Beds of which 180ha is in good condition. Most important at Flitwick Moor, other is small and fragmented, predominantly along the River Flit | Medium - ensure no drainage in vicinity |
| N/A | Unknown |  | Locally Common | Drainage ditches | Throughout | High - Maintain vegetated fringes where risks allow, install vegetated ledges when re-profiling banks. |

* 1. Species Audit Summary

This species audit summary will include priority and other species including INNS that occur within the drainage district and are identified as likely to be influenced by the Board’s activities. Also listed are species deemed to be of local importance and/or identified by local nature strategies. Finally, brief notes are included on the potential for the IDB to improve the status of the species in the drainage district. (A list of relevant Priority species can be found at https://jncc.gov.uk/our-work/uk-bap-priority-species/).

Table 6. Species Audit Summary

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Common & scientific name** | **National Status** | **Local Status** | **Location of Species of Importance within drainage district** | **IDB Potential for Maintaining or Increasing Species Population or Range (High/medium/low)** |
| Reed bunting | S41 species | 192,000–211,000 territories in 2000.  The UK population fell by 31 per cent between 1970 and 2007. There has been a partial recovery over the last 15 years. | Throughout | Manage banks so as to maintain and extend areas of adjacent rank grassland |
| Water Vole | S41 species, Listed in WCA 1981  Long term decline | Present within 8x10km squares in Bedfordshire, declining.  Of nineteen sites recorded within 1989/90, twelve had disappeared by 1996/98.  1200 individuals in 2018 | A metapopulation is present along the River Ivel north of Biggleswade, and smaller populations are present along the Potton Brook, the Renhold Brook and the River Lea. Isolated populations are present on the river Flit and the Yeldon.  Other than culverts habitat is suitable, it might vary from pristine to gabions basket lined watercourses | Appropriate management of watercourses & predator control |
| Kingfisher | Amber listed species in the ‘Birds of Conservation Concern’  Schedule 1 WCA 1981  Formerly declining along linear waterways until the mid-1980s, since recovered. The decline was associated with a contraction of range  Current estimate 3,800-6,400 pairs | Present in 2 10km squares in 2017, current status unknown | Nest site present in x drain | Monitor & maintain current nest site and install artificial nest sites along suitable drain |

* 1. Invasive Non-native Species Summary

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

Table 7: High risk aquatic invasive non-native species summary

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Common & scientific name** | **Location within IDB if known** | **Year first recorded** | **Local status / Extent within drainage district** | **IDB potential for controlling species population or range** |
| Floating pennywort | River Banwell  IDB Rhynes  Ordinary watercourses, field gutters and ponds (including SuDS ponds). | 2010 | Extent = 21 km (in 2019) Floating pennywort has quickly spread along the full length of the river and throughout the adjacent rhyne and ditch networks of the Locking and Grumblepill areas. Pennywort was first recorded in Grumblepill (west of M5) in 2012 and has now spread throughout the Locking and Grumblepill drainage systems and downstream of these areas into Uphill Rhyne. | IDB management plan and control measures, and partnership working. |
| Parrots Feather | Black Withies and Lucas Rhyne, Allermoor. | 2018 | Parrots Feather along 1.4km of Blacks Withies and Lucas Rhynes. 2019 has spread to the Langacre Rhyne and some side ditches. | IDB management plan and control measures, and partnership working. |
| Water Primrose | Private ditch, Pawlett Hams | 2015 | 300m private ditch next to access road (Whithouse Rd). Isolated from the rest of the ditch and rhyne network. Landowner spraying and vigorous ditch cleaning. Still present after several years of treatment. | Partnership working with landowner and Natural England. |

* 1. Water Level Management Plans

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

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

The table below provides further details of the Water Level Management Plans for which the IDB has some involvement within their drainage district. The full and detailed WLMPs can be found in Annex x on the IDB’s website.

Table 8: Water Level management plans in operation within the drainage district

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Site Name & Designation** | **Reason for WLMP (state main species or habitat)** | **WLMP lead and other key [partners** | **Favorable/ unfavorable condition (related to water level management)** | **Active Management by IDB** | **WLMP Last Updated** |
| Baston and Thurlby Fens SSSI –overlapping designation Baston Fen SAC | Grazing Marsh, spined loach | EA |  | No, Lincs WT | 2012 |
| Kennet and Lambourn Floodplain SSSI - component site of Kennet and Lambourn Floodplain SAC | Composite of 4 areas including:   * wet fen vegetation * presence of Desmoulin’s whorl-snail Vertigo moulisiana * MG 8 grassland |  | Individual components varying from favorable to unfavorable declining, not apparently through water level management. | No, existing landowner management retained. Is an EA WLMP. | 2012 |

1. Habitat and Species Action Plans
   1. Introduction

Action plans comprise the objectives, targets and actions that the IDB has identified for each habitat and species to be included within the BAP. The following sections contain action plans for each of the habitats and species that have been prioritised by the IDB.

An action plan should normally be completed for each habitat and species, though it may be appropriate to group species that share common actions into a single plan.

* 1. Habitat Action Plans

Complete an action plan for each habitat summarising the objectives and actions the IDB has identified and agreed. Two examples are provided: hedgerows and drainage ditches.

* + 1. Hedgerows
       1. National and Local Targets

Note in the table any relevant national or local targets known related to the habitat type.

Table 9:

|  |  |
| --- | --- |
| **National Targets** | **Local Targets** |
| UK BAP the latest national target was achieve favorable management of 25% of ancient and species rich hedges by 2000 and 50 % by 2005; halt net loss of species rich hedges by 2000 and all losses of hedgerows which are ancient and species rich by 2005; maintain overall numbers of hedgerow trees within each County or District at least at current levels to ensure a balanced age structure | To halt the loss of hedgerows & achieve favorable management of all hedgerows & plant new hedgerows, particularly to help landscape connectivity. |

* + - 1. IDB Objectives

Describe what objectives in relation to the headlining habitat the IDB wishes to undertake. Consider how IDB actions could increase the quality, extent of the habitat within the drainage district and improve connectivity to habitat in adjoining areas to the drainage district.

Table 10:

|  |  |
| --- | --- |
| **IDB Objectives** | |
| **1** | Ensure no net loss of hedges as a result of IDB activities |
| **2** | Increase extent of hedgerows within IDB |

* + - 1. IDB Actions

Ensure that the actions relate directly to the objectives for the habitat as listed in the previous section

Table 11:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Action Plan** | | | | | | |
| **Objective ref.** | **Action number** | **Action** | **Measurable / Indicators** | **Completion date** | **Action Lead** | **Partners** |
| **1** | **1a** | Ensure that compensation planting takes place if any hedges are removed. To provide enhancement by being a wider species mix. | Length in m of hedges removed and hedges planted | If required | IDB Ops | Landowners |
| **1** | **1b** | Prevent damage to existing hedges (does not preclude management to allow watercourse maintenance, including coppicing) | Intact hedgerow in m this year compared to last | Ongoing | IDB Ops | Landowner |
| **2** | **2a** | Identify location and plant 0.5 km hedgerow over 5 years | Length of new hedgerow (m) each year | April 2025 | Ecologist | WT |

* + 1. Drainage Ditches
       1. National and Local Targets

Note in the table any relevant national or local targets known related to the habitat type.

Table 12:

|  |  |
| --- | --- |
| **National Targets** | **Local Targets** |
| N/A other than WFD | N/A other than WFD |

* + - 1. IDB Objectives

Describe the objectives in relation to the headlining habitat the IDB wishes to undertake. Consider how IDB actions could increase the quality, extent of the habitat within the drainage district and improve connectivity to habitat in adjoining areas to the drainage district.

Table 13:

|  |  |
| --- | --- |
| **IDB Objectives** | |
| **1** | To maintain the biodiversity present within ditches |
| **2** | To increase the biodiversity within drainage ditches while maintaining drainage standards |

* + - 1. IDB Actions

Ensure that the actions relate directly to the objectives for the habitat as listed in the previous section

Table 14:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Action Plan** | | | | | | |
| **Objective ref.** | **Action number** | **Action** | **Measurable / Indicators** | **Completion date** | **Action Lead** | **Partners** |
| **1** | **1a** | Maintain the existing marginal fringes of vegetation of at least 15cm wide (approx.)\* along at least one side of all drainage ditches where flood risk allows. \*Width of vegetation fringe is dependent upon flood risk category and drainage ditch width. Where a wider channel allows a wider fringe then establish, where flood risk prevents, act accordingly. Use drainage channel biodiversity manual as a guide. | Length of marginal fringe extent in m maintained each year where flood risk allows. | Ongoing | Ops Lead | Ecologist |
| **2** | **2a** | Identify ditches suitable to allow a continuous marginal fringe of vegetation at least 15cm wide (approx.) or more along at least one side of the ditch.\* In areas identified, plant with suitable plugs, install coir rolls or allow colonization naturally. | Establishment/colonisation of new marginal vegetation in m each year | 31/12/202x | Ops Lead | Ecologist |
| **2** | **2b** | Identify ditches which are too narrow for a continuous vegetation fringe to be installed, but where occasional patches of vegetation fringes can be encouraged. Plant with suitable plugs, install coir rolls or allow colonization naturally. | Length of occasional marginal vegetation patches established in m | 31/12/202x | Ops Lead | Ecologist |
| **2** | **2c** | Install marginal plant ledges during bank re-profiling and plant with sedge plugs or coir rolls | Length in m of plant ledge created each year | Ongoing | Ops Lead | Ecologist |
| **1** | **1b** | Alternate bank side cutting each year where risk allows. Mowing to take place between August and April to avoid bird nesting season. 20cm or more from toe of bank to be left unmown on ditches where risk and ditch profile allows. | Increased extent of uncut ditch bank | Ongoing | Ops lead | Ecologist |
| **2** | **2d** | Remove bank-side cuttings where possible (with conveyor) to encourage sward diversity. Survey to identify diversity baseline and diversity following cuttings removal. | Survey highlights increased sward diversity after 5 years. | Ongoing | Ops Lead | n/a |
| **2** | **2e** | Establish a pollen-rich sward following bank re-profiling | Floristic species present in bank sward. | Ongoing | Ops Lead | Ecologist |

* 1. Species Action Plans

Complete an action plan for each species summarising the objectives and actions the IDB has identified and agreed. It may be appropriate to group species that share common actions into a single plan. Two examples are provided: kingfisher and water vole. Please Note: This section can also be used to address invasive non-native species such as American signal crayfish or Japanese knotweed through defining objectives and actions required to assess and monitor the extent, control extent or eliminate populations.

* + 1. Kingfisher
       1. National and Local Targets

Table 15:

|  |  |
| --- | --- |
| **National Targets** | **Local Targets** |
| Unknown | Unknown |

* + - 1. IDB Objectives

Describe what objectives in relation to the headlining species the IDB wishes to undertake. Consider how IDB actions could increase the extent of suitable habitat for the species within the drainage district and improve connectivity to suitable habitat in bordering areas to the drainage district:

Table 16:

|  |  |
| --- | --- |
| **IDB Objectives** | |
| **1** | Maintain potentially suitable kingfisher habitat, particularly breeding habitat |
| **2** | **Increase potential nest site availability** |

* + - 1. IDB Actions

Ensure that the actions relate directly to the objectives for the habitat as listed in the previous section

Table 17:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Action Plan** | | | | | | |
| **Objective ref.** | **Action number** | **Action** | **Measurable / Indicators** | **Completion date** | **Action Lead** | **Partners** |
| **1** | **1a** | Monitor population by maintaining a database of any sightings of kingfisher | Database present and populated and up to date | Ongoing | Ecologist | WT |
|  | **1b** | Maintain and avoid disturbance to potential nest sites by retaining earth cliffs and avoiding close working | Number and extent of earth cliffs in m each year. Work schedules detail exclusion zone around known nest sites in the breeding season | Ongoing | Ops |  |
| **2** | **2a** | During replacement of pumping station create artificial kingfisher hole | New kingfisher hole present | 2025 following replacement of Pumping station | Ops |  |

* + 1. Water Vole
       1. National and Local Targets

Table 15:

|  |  |
| --- | --- |
| **National** | **Local** |
| UK BAP targets = Maintain the current range & achieve an increase in range (both across 10km2 areas) | Maintain and increase current range |

* + - 1. IDB Objectives

Describe what objectives in relation to the headlining species the IDB wishes to undertake. Consider how IDB actions could increase the extent of suitable habitat for the species within the drainage district and improve connectivity to suitable habitat in bordering areas to the drainage district:

Table 16: IDB Objectives

|  |  |
| --- | --- |
| **IDB Objectives** | |
| **1** | Maintain current water vole extent |
| **2** | Increase water vole extent |
| **3** | Better understand population and extent |

* + - 1. IDB Actions

Ensure that the actions relate directly to the objectives for the habitat as listed in the previous section

Table 17: Species action plan

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Action Plan** | | | | | | |
| **Objective ref.** | **Action number** | **Action** | **Measurable / Indicators** | **Completion date** | **Action Lead** | **Partners** |
| **1&2** | **1a** | Control mink | No. of rafts & no. of mink caught | Yearly | Ecologist |  |
| **1&2** | **1b** | Work with GLNP on mink task group to monitor county water vole and mink populations. | GLNPs annual reports indicating number and results of surveys.  Extent of water vole population | Yearly/Dec 2020 | Ecologist | GLNP: |
| **3** | **3a** | Continue yearly recording by operational staff | Number and location records collected and submitted to local biodiversity records office | Yearly | Ecologist |  |

1. Procedural Action Plan
   1. Introduction

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

* 1. Objectives and Targets

Table 18:

|  |  |
| --- | --- |
| **IDB Objectives** | |
| **1** | To improve all IDB employees knowledge of biodiversity support through training |
| **2** | To improve IDB practitioners knowledgeable about specific local biodiversity through training |
| **3** | To maintain no net loss of open watercourse through consenting |

* 1. IDB Actions

Table 19:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Action Plan** | | | | | | |
| **Objective ref.** | **Action number** | **Action** | **Measurable / Indicators** | **Completion date** | **Action Lead** | **Partners** |
| **1** | **1a** | Ensure all staff including contractors have received high-level 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 | Ongoing | Ecologist |  |
| **2** | **2a** | Produce a manual of best practice within 6 months from the date of this plan | Publication of manual on website | Date insert | Ecologist | NE/ WT |
| **2** | **2b** | Develop and deliver 12 habitat and species specific toolbox talks, to be delivered 1 per month per year | Delivery of 12 toolbox talks | Ongoing | Ecologist | WT |
| **3** | **3a** | Respond to applications for culverts with alternatives to maintain open watercourses. Approve no new culvert applications. | Extent of open watercourses maintained. | Ongoing | Clerk | LA’s |

1. Implementation

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

1. The actions which can be delivered through adaptions or inclusions to general maintenance programmes will be identified and integrated accordingly / into the IDBs best practice manual. From this, monthly maintenance schedules will be drawn up and completed activities communicated via returned job cards or similar.
2. Actions which require independent and additional execution such as bat and bird box erection and surveys or training will identified, resources planned and engaged and / or planned in to the relevant resources’ work schedules.
3. Actions which can be executed through capital works programmes will be integrated into the relevant project plans.
4. Actions which can be delivered through collaboration with partners will be formally agreed in writing with such partners with responsibilities, timescales and reporting requirements defined.
5. Actions which can be delivered through developer or consented works will be identified and integrated into project plans.
6. Monitoring

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

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

1. Reporting

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

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

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

* In the public domain via the IDB’s website;
* Provided to conservation partners to assist with further local biodiversity conservation planning;
* Provided to local authorities in order to contribute towards their legislative biodiversity reporting requirements including the NERC 2006 Act, Habitats Directive, Environment Bill and the Local Nature Recovery Strategies;
* The Local Biological Records Centre.

1. Appendices
   1. Appendix X