ROMNEY MARSHES AREA INTERNAL DRAINAGE BOARD

BIODIVERSITY ACTION PLAN 2.0

For reporting period June 2023 - June 2028

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This Biodiversity Action Plan (BAP) has been prepared by the Romney Marshes Area Internal Drainage Board to demonstrate the Board's commitment to fulfilling its duty as a public body to conserve and enhance biodiversity under the Environment Act 2020 and the Natural Environment and Rural Communities Act 2006.

The Board's primary function is water level management which can be broadly split into flood risk management and water provisioning on 350km of IDB adopted Watercourses and connecting Ordinary Watercourses. Most of the Board's operational activities have benefits for biodiversity with the annual maintenance programme and spring water retention effort being the most significant. It is hoped that this plan will help the Board to maximise biodiversity benefits from its watercourse maintenance activities and demonstrate its contribution to National Biodiversity Framework targets and relevant local plans where possible.

This plan reflects the Board's intent to formalise the support it already provides to biodiversity through its operations, particularly UK priority species and habitats and the wider environment, when possible, by setting objectives, actions and targets.

The Board has adopted this Biodiversity Action Plan as one of its policies and is committed to its implementation. The Board will review the plan five yearly so that it remains relevant to the current nature conservation challenges and opportunities of the unique landscape that it serves.

……. Date …….

David Lovejoy
Chairman of the Board

……. Date …….

Nicholas Botting
Clerk Engineer to the Board

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

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

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

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Further information is available on the Board's website: www.rmaidb.co.uk

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1.0 IDB BIODIVERSITY

1.1 Introduction

When the Romney Marshes Area IDB produced it's first BAP in 2009 a biodiversity audit of the Internal Drainage District (IDD) and those habitats and species that would benefit from particular management or actions by the IDB was undertaken. Using this information, which is largely presented in later sections, the IDB's Biodiversity Action Plan (BAP) was created. In line with the designed dynamic nature of the document, in 2023 the BAP was revised to better represent the current nature conservation challenges and opportunities in the Internal Drainage District.

This BAP identifies objectives for the conservation and enhancement of biodiversity within the drainage district and goes on to describe targets and actions that will hopefully deliver these objectives. The intention is to integrate, as appropriate, biodiversity into the Board's activities, such as annual maintenance programmes, capital works, the Consenting process (under Land Drainage Act, 1991) and through planning process consultations and any resultant Watercourse Consenting that is required.

The action plan aspires to help safeguard the biodiversity of the drainage district now and going forwards. It is hoped that implementing the plan will contribute to the achievement of local and national targets for UK BAP priority species and habitats. Species and habitats which are not listed in the UK BAP but may be locally significant for various reasons have also been considered.

This BAP is an evolving document that in order to stay relevant will be reviewed and updated five yearly. The reporting period for this BAP will be 2028. It covers the entire IDD, as shown in Figure 1.

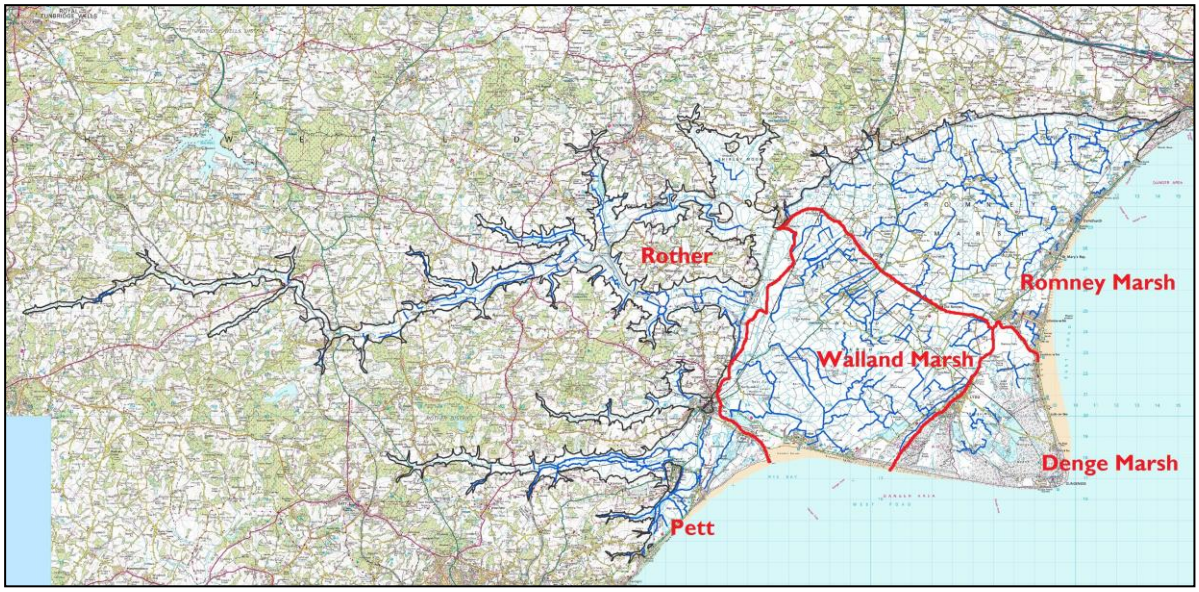

Figure 1. Map to show the five Internal Drainage Districts that collectively comprise the Romney Marshes Area Internal Drainage District.

1.2 What is Biodiversity?

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

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

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

1.3 The Importance of Conserving Biodiversity

Biodiversity is by far our greatest and most exploited resource. It is essential to acknowledge its importance to our lives along with the range of benefits that it produces. These benefits fit into four broad categories known as ecosystem services which are as follows:

Supporting services – Providing habitat essential to sustaining lifecycles and maintenance of genetic diversity. *Supporting services underpin all other ecosystem services***.**

Provisioning services – Food production, hunting, foraging, fuel, building materials, freshwater and medicinal resources.

Regulating services – Wastewater treatment, pollination, biological control, erosion prevention, sea defence, soil fertility, moderation of extreme events, carbon sequestration, local climate and air quality.

Cultural services – Tourism, recreation, mental health, physical health, aesthetic appreciation / artistic inspiration, spiritual customs and traditions.

1.4 The Biodiversity Action Planning Framework

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

1.5 Biodiversity – The International Context

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

The Rio Convention included a global commitment to achieve a significant reduction of the current rate of biodiversity loss at the global, regional and national level by 2010. The 2002 World Summit in Johannesburg on Sustainable Development subsequently endorsed this target.

1.6 Biodiversity – The National Context

The UK Biodiversity Action Plan (UK BAP) is the UK commitment to Article 6A of the Rio Convention on Biological Diversity. It describes the UK's priority species and habitats and seeks to benefit 56 priority habitats and 943 species in total. It identifies other key areas for action such as the building of partnerships for conserving biodiversity and gathering vital biodiversity data.

In 2011 *Working with the grain of nature – a biodiversity strategy for England* set out the Government's strategy for conserving and enhancing biological diversity, and established programmes of action for integrating biodiversity into policy and planning for key sectors, together with appropriate targets and indicators. The strategy has a Water and Wetlands Working Group and an associated programme of action that includes:

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

1.7 Local Biodiversity Action Plans

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

1.8 Internal Drainage Boards and Biodiversity

The Natural Environment and Rural Communities Act 2006 placed a duty on IDBs to conserve biodiversity and this has been compounded by the Environment Act 2021. As a public body, every IDB must have regard in exercising its functions, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.

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

In 2007, the Government's IDB Review Implementation Plan established a commitment that IDBs should produce their own Biodiversity Action Plans and in 2010 the Board's first BAP was produced.

This IDB Biodiversity Action Plan is a revision of the 2010 BAP to help fulfil these governmental requirements and seeks to set out targets and actions that complement the UK Biodiversity Action Plan and Local Biodiversity Action Plans.

1.9 The Aims of the IDB Biodiversity Action Plan

The aims of the Romney Marshes Area Internal Drainage Board BAP are as follows:

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

2.0 THE IDB BIODIVERSITY ACTION PLAN PROCESS

2.1 The Biodiversity Audit

To produce the first Romney Marshes Area IDB Biodiversity Action Plan, information on the habitats and species present in the catchment was first obtained. This "Biodiversity Audit" initially involved the collation of existing data primarily held by the Romney Marsh Countryside Project over the prior fourteen years and by the IDB plus other biodiversity partners. The list of species covered by Species Action Plans was reviewed and revised in 2023 to better represent the change in nature conservation priorities that had emerged since the first BAP was created.

2.2 Evaluating and Prioritising Habitats and Species

The Biodiversity Audit identifies those priority habitats and species in the UK Biodiversity Action Plan and the Local Biodiversity Action Plans that cover the Romney Marshes Area Internal Drainage District.

Further habitats and species, together with additional targets and actions, may be added in the future, as knowledge is improved and delivery of the IDB BAP is reviewed. Conversely, some may be omitted as nature conservation priorities change.

A range of criteria was used to select those species and habitats that are of particular importance to the IDB – that is to say, those habitats and species that could be encountered during IDB activities. The criteria used includes their national and local status, the opportunities for effective IDB action and the resources available.

2.3 Setting Objectives, Targets and Indicators

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

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

2.4 Implementation

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

2.5 Monitoring

Achievement of BAP targets will be measured by a programme of monitoring which the Board will undertake, in some instances with assistance from its partners.

2.6 Reporting and Reviewing Progress

It is important to review the implementation of the BAP, assess changes in the status of habitats and species and the overall feasibility of objectives and targets at the end of each reporting period which for this BAP will be in 2028. In addition, it is vital that the successful achievement of targets are recorded.

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

3.0 THE BIODIVERSITY AUDIT

3.1 Introduction

The following Sections 4, 5 and 6 summarise the results of the Biodiversity Audit, undertaken in 2009 and reviewed in 2023. Section 4 provides information about the drainage district and a list of the nature conservation sites that occur within or bordering its boundaries. Sections 5 and 6 list respectively the habitats and species occurring within the district that are of potential importance to the IDB.

3.2 Local Biodiversity Action Plans

The following Local Biodiversity Action Plan(s) cover the IDB's drainage district:

Kent BAP

Sussex BAP (as of April 2023 this BAP has lapsed)

3.3 IDB Biodiversity Audit Boundary

The Biodiversity Audit covers the entire Romney Marshes Area Internal Drainage District, as shown in Figure 1. Where data has been obtained that shows a record of a species in a 1km square or 10km square which the district wholly or partially covers, this has been included in audit area.

3.4 Sources of Data - Habitats

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

Romney Marsh Countryside Project

Romney Marshes Area IDB

Kent County Council

East Sussex County Council

3.5 Sources of Data - Species

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

Romney Marsh Countryside Project (RMCP)

Romney Marshes Area Internal Drainage Board (RMAIDB)

Royal Society for the Protection of Birds (RSPB)

4.0 THE ROMNEY MARSHES AREA

4.1 The Internal Drainage District

The Romney Marshes represent the oldest land claims in the UK, and according to Dugdale in 1640 the rules and customs that were established to manage and maintain the district became the standards to which all other fens and marshes were to conform. The Romney Marshes are the home of UK land drainage.

The drainage district covers an area of 33,170 hectares of predominantly Grade 1 & 2 agricultural land spanning the Kent and East Sussex border. The district contains 350km of IDB-maintained watercourses, 300km of Environment Agency (EA) maintained Main River and approximately 7000km of Ordinary Watercourses. The Romney Marshes Area Internal Drainage District (RMAIDD) comprises five largely hydrologically separate drainage districts; Romney, Walland, Denge, Pett and Rother (see fig 1, page 4). Prior to amalgamation in 2001 each of these districts were IDBs in their own right.

The geography of the RMAIDD is characterised by a wide expanse of tertiary marshland and river valley floors intersected with natural, modified, heavily modified and artificial watercourses which define the landscape. The IDD was formed by man's harnessing of natural processes and is geologically young having been in the main won from the sea over the last 2000 years. Silts carried down from the Weald during the Iron Age were deposited in the bay and retained by the shingle barrier beach formed by the process of longshore drift sustained by coastal erosion further west along the south coast. The resultant shallow intertidal lagoon facilitated subsequent innings. The first land claims are thought to have been made in what is now Romney Marsh Proper by Belgic tribal settlers prior to the Roman occupation, though the first large scale land reclamation is thought to have taken place after the Roman occupation following the construction of the Rumensea Wall which ran roughly parallel to the present-day Rhee Wall. The first documented land claim was the Inning of Denge Marsh as described in a Charter of 774 AD and the last was the Inning of the Romney Hoy in the late 1800s. Much of the land reclamation in-between was undertaken by the Canterbury Diocese to create fertile grazing marsh with which to capitalise on the value of wool. Medieval innings and modern-day Petty Sewers in Walland still carry the name of former Archbishops of Canterbury. Prior to the church's involvement reclamation had been fairly ad-hoc.

The coastal marshes of Romney, Denge, Walland and Pett are bounded by shingle ridges, sand dunes and hard engineered sea defences on the seaward side. The landward boundary is approximate to the Saxon shoreline of Lower Cretaceous Wealden and Lower Greensand rocks, which rise sharply and form a marked contrast with the flat coastal plain. The Saxon Shoreway also forms the western boundary of the IDD extending 35km inland roughly parallel with the English Channel and comprises the three river valleys of Tillingham, Brede and Rother which today form most of the Pett and Rother Internal Drainage Districts.

The current land use is still predominantly agriculture though there has been a shift away from the sheep production systems that sustained the local economy for many centuries. The shift was driven by an increased need for food production because of war and started during the Napoleonic period. More grazing was converted to arable during the Great War aided by the advent of steam traction, but it was the Second World War and the years of rationing that followed which saw the most dramatic shift towards arable production systems. Advances in mechanical and chemical technology during the post war years accelerated conversion to arable. Fields were merged to accommodate the increasing size of farm machinery and many watercourses were lost, however watercourses still define the landscape. The RMAIDD is a managed wetland but without intensive water level management and extensive annual maintenance of the land drainage system, neither communities, agriculture or nature would thrive.

4.2 Landscape designations

Kent Downs Area of Outstanding Natural Beauty (KDAONB)

High Weald Area of Outstanding Natural Beauty (HWAONB)

4.3 Landscape character

Natural England has divided the whole of England into a number of National Character Areas (NCAs) based on characteristic landforms, wildlife and land use. They are not designations and are not confined by traditional administrative boundaries. For each NCA, Natural England has prepared a profile that characterises the wildlife and natural features, identifies the influences that act upon those features and sets objectives for nature conservation. The entire Romney Marshes Area Internal Drainage District is covered by the National Character Area Profile 123: Romney Marshes and includes the Romney Marsh Local Landscape Area (LLA) and Old Romney Shoreline Special Landscape Area (SLA).

4.4 Sites and monuments records

Scheduled Monuments (SM)

The Royal Military Canal (21 SM's)
Martello Tower No.24 – Dymchurch
Martello Tower No.28 – Rye Harbour
Martello Tower No.30 – Dymchurch Reboubt
Dymchurch Redoubt
World War II Underground Operational Base
World War II Operational Post
Artillery Castle and associated earthworks – Camber
Early medieval flood defence at Botolph's Bridge, West Hythe
Part of the Rhee Wall, Snargate
Medieval farmstead – Pilchers
Moat and fields Marshalls Bridge, Dymchurch
Moat and fields – Austin Friar's Chapel
Eastbridge Church
Hope All Saints ruined Church
St. Mary's Church, West Hythe
Cistercian Grange
Winchelsea Friary (known as Greyfriars)
Winchelsea
Ferry Gate, Winchelsea
Strand Gate, Winchelsea
Town Ditch, New Gate, Winchelsea
Water Tower, Churchyard
Stutfall Castle, West Hythe
Rye Town Walls
The Landgate
Ypres Tower
Mulberry Harbour

4.5 Local designations

Conservation Areas (CA's) Rye CA
Winchelsea
New Romney
Lydd
Hythe
Old Romney
Newchurch
Dymchurch
Brookland
Appledore

Over 860 Listed Buildings within drainage district.

4.6 Statutory nature conservation sites

4.6.1 International sites

The following internationally designated conservation sites are found within the Internal Drainage District. The most recently designated is the Dungeness, Romney Marsh and Rye Bay Ramsar notified in 2016.

Table 1. International Designations

Site name	Designation	Features	Relevant to IDB?
Dungeness	Special Area of Conservation (SAC)	Shingle, gravel pits, ditches, breeding waders.	Yes
Dungeness to Pett Level	Special Protected Area (SPA)	Wintering waders, wildfowl, breeding seabirds.	Terrestrial elements only
Dungeness, Romney Marsh and Rye Bay	Ramsar	Wintering waders, wildfowl, breeding seabirds. Wetland of international importance.	Yes

4.6.2 National sites

The following nationally designated conservation sites are found within the Internal Drainage District:

Table 2. National Designations

Site name	Designation	Features	Relevant to IDB?
Dungeness, Romney Marsh and Rye Bay	SSSI (Site of Special Scientific Interest)	Grazing marsh, breeding seabirds, vegetated shingle, gravel pits.	Yes
Hastings Cliff to Pett Beach	SSSI	Geology	Parts
Rye Harbour	SSSI	Grazing marsh, breeding seabirds, vegetated shingle, gravel pits, intertidal lagoons.	Yes
Houghton Green Cliff	SSSI	Geology	No
Lympne Escarpment	SSSI	Grazed pasture, ancient woodland.	Parts
Dungeness	NNR (National Nature Reserve)	Vegetated shingle, gravel pits, breeding seabirds.	Yes
Hamstreet Wood	NNR	Ancient Woodland	No

4.6.3 Local Nature Reserves (LNRs)

The following Local Nature Reserves, which are designated by local authorities under Section 21 of the National Parks and Access to the Countryside Act 1949, are found within the district:

Table 3. Local Designations

Site name	Designation	Features	Relevant to IDB?
Rye Harbour	LNR	Vegetated Shingle, shingle invertebrates, breeding seabirds, water voles, gravel pits.	Yes
Romney Warren	LNR	Great crested newt, water beetles, medicinal leech, old fixed sand dune.	No

4.7 Non-statutory local sites

A number of sites have been identified locally as being important for wildlife. Whilst these designations do not have statutory status, the sites themselves are important for their contribution to biodiversity and planning policy requires that they are given consideration. The following local sites are to be found within or bordering the drainage district:

Table 4. Non-Statutory Designations

Site name	Designation	Features	Relevant to IDB?
St.Georges Churchyard, Ivychurch	Local Wildlife Site	Lichens.	No
St.Augustines Churchyard, Snave	Local Wildlife Site	Lichens.	No
Pasture, ditches, pond, Dymchurch	Local Wildlife Site	Water vole, great crested newt, ditch flora.	No
Royal Military Canal	Local Wildlife Site	Rich aquatic flora and fauna.	Yes
Rother Levels and adjacent woods, Wittersham	Local Wildlife Site	Ditch flora, woodland fauna.	Yes
Pett Levels	Sites of Nature Conservation Interest	Aquatic flora and fauna.	Yes
Brede Valley	Sites of Nature Conservation Interest	Aquatic flora and fauna.	Yes
Shingle Beach, Dog's Hill	Sites of Nature Conservation Interest	Vegetated Shingle.	No
Greyfriars, Winchelsea	Sites of Nature Conservation Interest	Grassland.	No

5.0 HABITAT AUDIT SUMMARY

This habitat audit summary lists the broad habitat types and UK BAP priority habitats that occur within the IDB district as identified in 2010. Also listed are habitats deemed to be of local importance and/or featured in the county Local Biodiversity Action Plan (LBAP) that occur in the IDB district. Habitats that are of potential importance for the IDB, where water level management or other IDB activities may be of benefit, are identified. Finally, brief notes are included on the potential for the IDB to maintain, restore or expand these important habitats.

Table 5. Habitat Audit Summary

Broad habitat types	UK BAP priority habitat	Local Biodiversity Action Plan habitat	Habitat of importance for IDB	Location of habitat of importance for IDB	IDB potential for maintaining habitat	IDB potential for restoring habitat	IDB potential for expanding habitat
Rivers and streams			Rivers and streams	River Rother, Brede, Tillingham.	None (These are EA controlled Main Rivers).	None (These are EA controlled Main Rivers).	None (These are EA controlled Main Rivers).
				Adopted and Ordinary Watercourses (OWC) in the three river valleys.	Yes, if adopted watercourses. No funding or duty to maintain OWC.	Some scope in adopted watercourses. Can advise land occupiers as to how best to restore OWC	Limited - can only advise land occupiers regarding new channels creation or maintenance of OWC. Some steer possible as part of planning process but this is usually only to get compensatory channels dug and there is no net gain.
Improved grassland	Coastal and floodplain grazing marsh	Floodplain grazing marsh and ditch systems	Grazing marsh and associated ditch systems	Romney Marsh, Walland Marsh, Denge Marsh, Pett and Rother.	Limited - only through annual maintenance on adopted channels and with appropriate water level management.	Limited - only through annual maintenance on adopted channels and appropriate water level management. Some scope to restore if adopting channels.	None.

Broad habitat types	UK BAP priority habitat	Local Biodiversity Action Plan habitat	Habitat of importance for IDB	Location of habitat of importance for IDB	IDB potential for maintaining habitat	IDB potential for restoring habitat	IDB potential for expanding habitat
	Coastal Vegetated Shingle	Coastal Vegetated Shingle	Vegetated Shingle (VS)	Dungeness, Lydd and Rye Harbour.	Limited to tracking routes over VS.	Limited to tracking routes over VS.	None.
	Reedbed	Reedbed	Reedbed	Across Internal Drainage District.	Retain reed fringe on some watercourses where possible.	Retain reed fringe on certain watercourses where possible.	Retain reed fringe on certain watercourses where possible.
	Saline Lagoons	Saline Lagoons	Saline Lagoons	Rye Harbour, Lydd Ranges MOD.	Not part of IDB function.	Not part of IDB function.	Not part of IDB function.
	Coastal Sand Dunes	Coastal Sand Dunes	Coastal Sand Dunes	Littlestone, Greatstone, Camber.	None.	None.	None.
	Wet Woodland	Wet Woodland	Wet Woodland	River valleys.	Limited to maintaining appropriate water levels.	None directly but can advise potential undertakers on hydrological challenges and opportunities.	None directly but can advise potential undertakers on hydrological challenges and opportunities.

6.0 SPECIES AUDIT SUMMARY

This species audit summary lists the BAP priority species that occur within the IDB district as identified in 2009 and revised in 2023. Also listed are species deemed to be of local importance and/or identified in the Kent and East Sussex Local Biodiversity Action Plans that occur in the IDB district. Species that are of potential importance for the IDB, where water level management or other IDB activities may be of benefit, are identified. Finally, brief notes are included on the potential for the IDB to maintain or increase the population or range of species of importance.

Table 6. Species Audit Summary

Common name	Group	Order	Scientific name	UK BAP priority species	Local BAP priority species	Non-BAP species but important in IDB District	Location of species of importance for IDB	IDB potential for maintaining or increasing species population or range
Greater water-parsnip	Vascular plants	Flowering plant	*Sium latifolium*	Yes	Yes		Found on 8 sections of IDB Channel on Romney Marsh, Walland Marsh and Rother Valley.	Extend range by selective cutting where greater water-parsnip is present.
Marshmallow moth	Terrestrial invertebrates	Moth	*Hydraecia osseola subsp. hucherardi*	Yes	Yes		Walland Marsh, Lower Rother Valley, scattered records throughout Internal Drainage District.	Increase marshmallow plant stands through seeding. Selective cutting where marshmallow stands present.
Medicinal leech	Terrestrial invertebrates	Annelida (worms)	*Hirudo medicinalis*	No	No	Yes	Found throughout Internal Drainage District.	Maintain water levels to increase host abundance (i.e., frogs, newts, fish and birds). Maintain water quality with reed buffers. Create drinking scrapes in grazing land.
European eel	Fish	Fish	*Anguilla anguilla*	Yes	Yes		Throughout Internal Drainage District.	Ensure specimens removed during desilting and weedcutting are returned promptly.

Common name	Group	Order	Scientific name	UK BAP Priority species	Local BAP Priority Species	Non-BAP species but important in IDB District	Location of Species of Importance for IDB	IDB potential for maintaining or increasing species population or range
Brown trout / sea trout	Fish	Fish	*Salmo trutta*	Yes	Yes		Rother, Brede and Tillingham valleys.	Improve fish passage wherever possible. Create dappled light conditions when pioneering. Preserve spawning gravels.
Great-crested newt	Herptiles	Amphibian	*Triturus cristatus*	Yes	Yes		Around 110 waterbodies within Internal Drainage District. Possible more ponds on higher river valleys.	Pond creation where possible at appropriate sites.
Common toad	Herptiles	Amphibian	*Bufo bufo*	Yes	Yes		Scattered distribution across IDD, Serious decline over 25 years.	Retain partial vegetative structure during weed cut where possible / appropriate. Habitat piles -advise rate payers not to burn cut residues.
Viviparous lizard	Herptiles	Reptile	*Lacterta vivipara*	Yes	Yes		Scattered throughout the Internal, Drainage District. Prefers the shingle.	Retain partial vegetative structure during weed cut where possible / appropriate. Habitat piles -advise rate payers not to burn cut residues.
Slow worm	Herptiles	Reptile	*Anguis fragilis*	Yes	Yes		Throughout the Internal Drainage District.	Retain partial vegetative structure during weed cut where possible / appropriate. Habitat piles -advise rate payers not to burn cut residues.
Grass snake	Herptiles	Reptile	*Natrix helvetica*	Yes	Yes		Throughout the Internal Drainage District.	Retain partial vegetative structure during weed cut where possible / appropriate. Habitat piles -advise rate payers not to burn cut residues.
Curlew	Birds	Bird	*Numenius arquata*	Yes	Yes		Throughout the Internal Drainage District, usually over-wintering on grazing marsh	Maintain high water levels over winter where possible.

Common name	Group	Order	Scientific name	UK BAP Priority species	Local BAP Priority Species	Non-BAP species but important in IDB District	Location of Species of Importance for IDB	IDB potential for maintaining or increasing species population or range
Barn owl	Birds	Bird	*Tyto alba*	No		Yes	Throughout Internal Drainage District.	Provide nesting boxes on IDB pumping stations and abandoned or seldom used buildings away from roads and sources of disturbance.
Tree sparrow	Birds	Bird	*Passer montanus*	Yes	Yes		Throughout Internal Drainage District.	Provide nesting box racks and feeding stations on IDB pumping stations and rate payers farm buildings.
House sparrow	Birds	Bird	*Passer domesticus*	Yes	Yes		Throughout Internal Drainage District.	Provide nesting box racks and feeding stations on IDB pumping stations and rate payers farm buildings.
Reed bunting	Birds	Bird	*Emberiza schoeniclus*	Yes	Yes		Throughout Internal Drainage District.	Retain partial vegetative structure during weedcut where possible / appropriate. Avoid double flailing early season.
Water vole	Terrestrial mammals	Terrestrial mammals	*Arvicola amphibius*	Yes	Yes		Throughout Internal Drainage District.	Retain marginal vegetative structure during weedcut where possible / appropriate (where channel is wide enough). Maintain minimum 100mm stubble.

7.0 HABIT AND SPECIES ACTION PLANS

7.1 Habitat and Species Action Plans

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

Some Priority Habitat and Species Action Plans (such as for Sand Dunes or Saline Lagoons where no IDB channels cut through these habitats have not been created) as the IDB will have minimal impact on these habitats. Coastal vegetated shingle is one Priority Habitat that RMAIDB does operate within but opportunities to enhance are limited as this habitat is generally part of sites that are managed by others, therefore the brief is to prevent degradation during operations.

7.2 Habitat Action Plans for the RMAIDB

The following Habitat Action Plans are included for Romney Marsh drainage district:

Rivers, streams and ditches
Coastal Floodplain Grazing Marsh
Coastal Vegetated Shingle
Reedbeds

7.3 Species Action Plans for the RMAIDB

The following Species Action Plans are included for Romney Marsh drainage district:

Greater water-parsnip
Marshmallow moth
Medicinal leech
Common toad
Brown trout
Grass snake
Curlew
Tree sparrow
Water vole
Great crested newt

8.0 HABITAT ACTION PLANS

8.1 RIVERS, STREAMS AND DITCHES (WATERCOURSES)

Rivers, streams and ditches whether semi-natural, modified or man made, provide important habitats for a range of species whilst also enabling agricultural production and human habitation. These habitats are fundamental to all RMAIDB operations and their primary functions are to convey surface water to reduce flood risk, convey feed water to keep the marshes hydrated, to store water (provisioning) for end users and provide sanitation for marsh inhabitants. The Internal Drainage District's watercourses simultaneously provide valuable wildlife corridors between aquatic and terrestrial habitats.

Throughout the UK, the plant and animal assemblages of rivers, streams and ditches varies according to the geographical area, underlying geology and water quality. In the UK, very few watercourses have not been physically created or modified by human actions. Such actions have altered the frequency and magnitude of flooding, changed seasonal patterns of flows and modified patterns of sediment transport and nutrient exchange. Although rivers are listed as a UK BAP priority habitat, only a small proportion of the rivers within the IDD have the features identified by Joint Nature Conservation Committee (JNCC) required to qualify as priority habitats. In Kent and Sussex, chalk rivers are a Priority Habitat. There are no chalk rivers in the drainage district though there are upland sections at the peripheries of the IDD that provide spawning beds for migratory fish species or provide connection to headwaters where spawning beds may be present. Despite most of the watercourses in the district not meeting the JNCC criteria to qualify as priority habitats, our watercourses define our landscape and either host, or support all of our BAP species. Inclusion of this habitat within the BAP is therefore imperative.

The Biodiversity Audit of 2009 identified the most significant rivers as the Rother, Brede and Tillingham in East Sussex. These are fed by EA controlled Main River, IDB Controlled Petty Sewers and Ordinary Watercourses mainly from the High Weald catchment. Water from the Rother is used to maintain the head of water in the Royal Military Canal (RMC - EA controlled Main River) that is used to feed large parts of Romney and Walland Marshes during the spring and summer. This is done by opening sluices along the RMC into smaller Main Rivers and IDB controlled Petty and Lesser Sewers.

Most watercourses within the IDD have been engineered or altered in some way for various reasons over the past 2000 years. As the land was reclaimed, former intertidal grips and gulleys were deepened, widened and straightened as part of the process. Some completely new channels were cut where needed and these stand out on maps from their straight alignment. Some channels were embanked over the centuries to keep rivers in-bank during rainfall events in order that the flood plain could be protected from flooding. Most recently this was undertaken en-masse in the Rother valley as part of the RADIS (Rother Area Drainage Improvement Scheme) in the 1960s. The scheme was designed such that the flood plain would flood sequentially to provide flood storage and protect communities and farmland downstream. Embanking the Rother and the connecting Main Rivers necessitated the construction of pumping stations to drain the protected flood plain during rainfall events though the system does have free-flow capability once Main River level drops sufficiently. The land drainage system can be classed as a gravity system that has optional pump assistance. In the coastal belt the pumps are required during high rainfall periods to discharge surface water to sea over the highwater period (the 'tide-lock') when gravity discharge is not possible owing to the sea being higher than the land drainage system.

It should be noted that water levels are artificially controlled; were they not the district would be too wet in the winter and too dry in the summer. During the summer the water levels in Main River and Lesser / Petty Sewers are raised using weirs and stop-board structures to maintain Summer Retention Level and prevent the marshes from baking dry. During the winter weirs are lowered to create flood storage and prevent surface water flooding of the land. The land drainage system generally freeflows to sea during the winter regime but drier conditions in recent years have necessitated the retention of higher water levels over winter. This is undertaken for drought resilience purposes in response to drier winters and/or spring seasons in recent years.

The most significant threats to watercourses across the marsh vary according to location. Generally, in urban areas misconnections from foul systems, failing package treatment plants, poorly maintained septic tanks and fly-tipping pose the greatest risks to water quality, biodiversity and public health. In the agricultural areas run-off can increase nitrate and phosphate levels which can lead to excessive weed growth, algal blooms and depleted dissolved oxygen levels. Common to the whole district is the risk of pollution from the highway, emergency discharges from water treatment plants, effluent from failing water treatment plants and the spread of invasive species. The latter of these factors represents the greatest challenge faced within the Internal Drainage District by the IDB, the EA and farmers / land managers alike. The negative impacts of invasive mammals such as American mink on water vole and ground

nesting birds are well known, but the threats that invasive plants pose are not limited to biodiversity. Some aquatic plants such as parrot's feather, floating pennywort and Australian stonecrop have the ability to choke watercourses and reduce flow which can compromise effective water level management and present challenges for end users such as water abstractors and graziers. Terrestrial species such as Himalayan balsam can dominate banks but on dying back the banks are denuded and vulnerable to erosion which can necessitate costly repairs. Some species such as giant hogweed and hemlock are highly toxic and a threat to public health and grazing livestock. Controlling invasive species is the most significant challenge the district faces because there is very little funding and very few effective tools available to do so.

Objectives and targets

Target Reference	Target	Action Reference	IDB Actions	Partners	Frequency	Indicators	Reporting
1	Maintain good biological health in Lesser / Petty Sewers and Ordinary Watercourses	1.1	Identify areas where structural variety can be created on one bank (or both) where appropriate and/or possible.	IDB & ratepayer / land occupier	Annually	Channel length (m)	*2028*
		1.2	Selective cutting to retain BAP plant species.	IDB & ratepayer / land occupier	Annually	No. of sites	*2028*
		1.3	Undertake restoration (pioneering) of terrestrial (bank) habitat where required to prevent trees / scrub excessively shading and reducing water quality.	IDB & ratepayer / land occupier	As required	Channel length (m)	*2028*
		1.4	Undertake restoration (desilting) of aquatic habitats where required to maintain water quality and prevent extremes deoxygenation.	IDB & ratepayer / land occupier	As required	Channel length (m)	*2028*
		1.5	Maintain high water levels wherever possible and/or appropriate without affecting others all year round.	IDB & ratepayer / land occupier	Annually	Channel length (m) or area (m2)	*2028*
		1.6	Remove fly-tipped material for collection by District Council.	IDB and District council	As required	No. of removals	*2028*
		1.7	Monitor invasive species and contain /control where possible.	IDB & ratepayer / land occupier	Annually	Channel length (m) or area (m2)	*2028*
		1.8	Investigate all fish kills / pollution reports promptly and liaise with EA to identify source / contain incidents where possible.	IDB & ratepayer / land occupier, members of the public, EA	As required	No. of investigations	*2028*
		1.9	Promote the creation of buffer strips (providing they do not cause IDB operational challenges).	NE*, IDB & ratepayer / land occupier	Annually	Channel length (m)	*2028*

* Natural England

8.2 COASTAL AND FLOODPLAIN GRAZING MARSH

The Romney Marsh and adjoining river valleys comprises much coastal and floodplain grazing marsh. The majority of this habitat is found across Walland Marsh (predominantly East Guldeford Levels) and Pett Levels though significant tracts remain in Romney (The Dowels). Most of the grazing marsh in Walland, Romney and Denge is designated part of Dungeness, Romney Marsh and Rye Bay SSSI (Site of Special Scientific Interest) and Ramsar. The river valleys and most of the Romney Marsh (proper) have no statutory protection though Local Nature Reserves (LNRs) exist, and some land occupiers are part of stewardship schemes and or managed their land for nature conservation purposes. Coastal and Floodplain Grazing Marsh are listed as a UK Biodiversity Action Plan habitat. In Kent and East Sussex, Coastal and Floodplain Grazing Marsh are a Priority Habitat. The majority of this habitat across Walland Marsh and Pett Levels have multiple designations, but the river valleys and Romney Marsh Proper have no statutory protection. In Kent there are 6,900ha of Coastal Floodplain habitat of which 88% is protected within a SSSI. Pre Napoleonic period the vast majority of the Internal Drainage District was grazing marsh but food security pressures caused by world wars saw most of the grazing land converted to arable land. In the grazing marsh that remains the land drainage system functions for watering stock and 'wet fencing'.

On the Romney Marshes, RMAIDB have Natural England Assent to undertake maintenance operations on adopted watercourses through all parts of the SSSI using established tracking routes. Most of the district's grazing marsh is within the SSSI. Retaining marginal growth in grazing marsh watercourses presents issues for graziers as it makes it more difficult to spot sheep that may be stranded in watercourses. During June, July and August grass growth is greatly reduced and livestock usually then forage for palatable species on the bankside and margins which can leave the banks and much of the channel (if narrow) completely denuded. One common species that livestock don't consume is Juncus grass *Juncus effusus*. Juncus grows in clumps rarely reaching over a metre in height, doesn't die off in winter and has a dense root structure which makes it an ideal plant for maintaining bank integrity. It also provides shelter and foraging opportunities for a variety of our BAP species therefore retaining this species on the bankside is a priority during annual maintenance.

Objectives and Targets

Target Ref.	Target	Action Reference	IDB Actions	Partners	Date	Indicators	Reporting
1	Maintain good biological health in grazing marsh watercourses	1.1	Selective weedcutting to retain BAP plant species and variety of vegetational structure.	IDB & ratepayer / land occupier, IDB contractor.	Annually	Distance (m)	2028
		1.2	Manage scrub / trees. Retain hawthorn bush standards to maintain pastoral landscape character, structural variety and provide shade & habitat (pioneering).	IDB & ratepayer / land occupier.	Annually	Distance (m)	2028
		1.3	Maintain channel capacity and water quality (desilting).	IDB & ratepayer / land occupier.	Annually	Distance (m)	2028
		1.4	Remove fly-tipped material for collection by District Council (roadside watercourses).	IDB, ratepayer / land occupier & District Councils.	As required	No. of litter picks or fly tipping removals	2028
2	Control non-native invasive species in ditches and main channels	2.1	Record and monitor non-native invasive plants and animals.	IDB, ratepayer / land occupier, IDB contractors.	Annual	Length of channel surveyed	2028
		2.2	Contain and control non-native species where possible.	IDB, IDB contractors, ratepayer / land occupier, EA.	Annual	Area treated (Ha)	2028
3	Enhancement of bankside habitats	3.0	Creation of livestock drinking scrapes.	IDB, IDB contractors, ratepayer / land occupier.	Annual	Number	2028

8.3 COASTAL VEGETATED SHINGLE

Most of the world's vegetated shingle is found in Northwestern Europe and around 30% of this occurs in the UK. One of the nation's most scarce habitats, Coastal Vegetated Shingle is found in the Dungeness, Lydd ranges, Rye Harbour and the Hythe Ranges. Around 40% of the UK's Vegetated Shingle is found in the Denge Marsh and Lydd Ranges area. Due to the way the landscape was formed, some shingle is found a considerable distance inland around the town of Lydd and towards New Romney. This linear deposit is the former barrier beach from which the Dungeness foreland evolved. This is the largest cuspate foreland in Britain and one of the few such large examples in the world. The habitat is home to many rare, endangered species and vegetated shingle is rare in a global context.

Vegetated Shingle is listed as a UK Biodiversity Action Plan habitat with one target being to not lose any more to aggregate abstraction. Only one active wet quarry exists within the coastal belt, though the legacy of previous abstractions is evident in the prevalence of large open water bodies which attract an array of waterfowl. In Kent, coastal Vegetated Shingle is a Priority Habitat as it is in East Sussex. A sizeable proportion of the Sussex Vegetated Shingle is found in the Rye Harbour area and some of this was formerly arable land that has been stripped of soil and restored to create the intertidal habitats of Rye Harbour Local Nature Reserve.

Within the drainage district all coastal Vegetated Shingle and most of the inland Vegetated Shingle is highly protected and carries multiple designations. RMAIDB has Natural England assent to undertake work within the SSSI and some tracking routes cross Vegetated Shingle. Opportunities for RMAIDB to restore Vegetated Shingle are limited as most of the habitat lies within protected sites that are managed by other organisations. The priority for the IDB is therefore to limit damage to the Vegetated Shingle that is tracked over and repair any damage caused promptly.

Objectives and Targets

Target Reference	Target	Action Reference	IDB Actions	Partners	Date	Indicators	Reporting
1	Not to cause unnecessary damage and repair any damage caused.	1.1	Follow best practice procedures at all times: stick to established tracking routes, no fuelling or plant maintenance on shingle, no wheeled vehicles on shingle, clear up any oil or fuel leaks.	IDB / IDB contractors	Annually	No complaints from site managers or NE	2028
		1.2	Repair damage caused; level any rutting or spragging mounds, remove any soil dropped from tracks.	IDB / IDB contractors	As required	No complaints from site managers or NE	2028

8.4 REEDBEDS

Reedbeds provide important habitats for a range of species. Reed fringed ditches also provide a wildlife corridor link between fragmented habitats in intensively farmed landscapes for breeding birds and key wintering bird species like bittern. Reedbeds are listed as a UK Biodiversity Action Plan habitat. In Kent reedbeds are a Priority Habitat occupying around 477 ha. Areas like Stodmarsh in the Stour Valley hold 50% of the County's reedbed. Around 40% of reedbed was estimated to have been lost in the UK between 1945 and 1990. However, a number of reedbed schemes have reversed this decline. In Kent the target is to create new reedbeds by a net increase of 60% by 2020 and at least 75% by 2026.

On the Romney Marsh and the East Sussex river valleys there are a number of Reedbed habitats. Some new reedbeds have been created in recent times under LIFE projects, namely Dungeness (RSPB), Castle Water on Rye Harbour LNR and Pannel Valley. The National Trust also restored the former Marsham Brook reedbed at Cliffend, East Sussex between 2015 and 2017. Some RMAIDB maintained channels within the SSSI are heavily reeded and provide roosting for hen harriers. These channels are cut selectively and mindful of the season. The scope to significantly expand reeded channels is limited, though at the ratepayers request, alternative cutting regimes can be adopted if no other ratepayers are adversely affected.

Objectives and Targets

Target Reference	Target	Action Reference	IDB Actions	Partners	Date	Indicators	Reporting
1	Maintain and enhance quality of reedbed habitat along certain IDB channels within drainage district.	1.1	Identify areas where a fringe of reeds along watercourse can be maintained.	IDB, IDB contractors, ratepayer / land occupier	Annually	Bank length (m)	*2028*
		1.2	Undertake restoration of habitat where required (pioneering and scrub removal).	IDB, IDB contractors, ratepayer / land occupier	As required	Channel length (m)	*2028*
		1.3	Expand reed fringe habitat where possible.	IDB, IDB contractors, ratepayer / land occupier	Annually	Channel length (m)	*2028*

9.0 SPECIES ACTION PLANS

9.1 GREATER WATER-PARSNIP (*Sium latifolium*)

Greater water-parsnip (Sium latifolium) is a species of wet ditches and tall herb fens and swamps. It grows in shallow, still water that is alkaline and rich in nitrogen. It is not out-competed by strong growth from other emergent plants like common reed or reed mace. It thrives in watercourses where water is kept open by occasional clearance but suffers decline from over grazing and intense watercourse maintenance.

Greater water-parsnip has general protection under the Wildlife and Countryside Act 1981 and is a S41 species under Natural Environment and Rural Communities Act 2006 (NERC). Greater water-parsnip has a UK BAP species action plan to maintain viable populations. In 2009 the plant was in the top ten fastest declining plants nationally with a downward trend over the last 50 years. It is included in both Kent and Sussex Biodiversity Action Plans. In the Southeast of England, the greater water-parsnip maintains its stronghold on the Romney Marsh and adjoining river valleys. The species is also found in the Stour Valley around Canterbury and on the Ouse Valley in Sussex.

The Biodiversity Audit identified greater water-parsnip as an important species within the Internal Drainage District. The Romney Marsh Countryside Project (RMCP) conducted a survey for the plant in 1999 and 2000 and revisited and monitored key ditches to 2010. The distribution of the plant is along the Royal Military Canal from West Hythe to Appledore, with small populations at Shirley Moor, Small Hythe, Rother Valley and the Pannel Valley. The plant has not been found on Dungeness, Walland Marsh and East Guldeford Levels. The population size of the greater water-parsnip in the Romney Marsh IDB catchment is approximately 500 plants over 130 sites. From this data, 3.6% of the plants are found on Environment Agency maintained Main River, 2.8% on Internal Drainage Board maintained sewers and 93.6% on Ordinary Watercourses. 90% of the watercourses within the district are Ordinary Watercourses and the majority of these have no regular maintenance such as weedcutting or desilting.

Objectives and Targets

Target Reference	Target	Action Reference	IDB Actions	Partners	Date	Indicators	Reporting
1	Maintain and enhance suitable habitat for greater water-parsnip across the catchment area.	1.1	Identify areas where suitable bankside vegetation can be maintained.	IDB, IDB contractors, ratepayer / land occupier	Annually	Channel length (m)	2028
		1.2	Expand the suitable habitat (where appropriate) following assessment, by retaining bankside vegetation (where possible).	IDB, IDB contractors, ratepayer / land occupier	Annually	Channel length (m)	2028
2	Monitor populations along the key IDB sites.	2.0	Collate greater water-parsnip data.	RMCP, IDB	Annually	Number of plants	2028

9.2 MARSHMALLOW MOTH (*Hydraecia osseola subsp. hucherardi*)

Marshmallow moth is found only the Romney Marsh and on the River Medway in North Kent. It was first discovered in the UK in 1951. The moth is reliant on large stands of its foodplant, marshmallow and flies in September. Marshmallow is uncommon in Britain and favours ditch banks and marginal habitats next to water bodies.

The marshmallow moth is a Red Data Book 1 (Endangered) and has a UK BAP species action plan to maintain viable populations at all known sites. The moth is included in the Kent and East Sussex Biodiversity Action Plans with the strategy being to retain and expand the populations by increasing the stands of the foodplant. Within the UK, the marshmallow moth is only found on the Romney Marsh in five colonies and a second population on the Medway in North Kent. The moth is a S41 species under NERC 2006.

The Biodiversity Audit identified marshmallow moth as an important species within the Internal Drainage District as it's found in five colonies across the Romney Marshes. The main sites are on the Kent / East Sussex border (Walland Marsh), with further colonies at Fairfield and Iden. The colonies occur where there are concentrations of marshmallow on watercourse banks and in damp fields that do not get flooded as the larval phase of the moth occurs in the root of the foodplant. To expand the habitat of the moth it is necessary to increase the density and distribution of the foodplant. The foodplant is highly palatable to livestock and much of it is consumed before it seeds which presents challenges on pasture but also opportunities on arable land. Marshmallow was once widespread across the Walland Marsh. In recent years the plant has responded well to more selective weedcutting by the Board and though its range does not appear to have significantly expanded the stands have become more dense. During 2017 a partnership with the Butterfly Conservation Trust saw the gathering of seed for their project with local schools that involved the propagation and transplanting of plants across the district.

Objectives and Targets

Target Reference	Target	Action Reference	IDB Actions	Partners	Date	Indicators	Reporting
1	Maintain and enhance suitable habitat for the marshmallow moth by expanding distribution of foodplant (marshmallow) across the catchment area.	1.1	Assess existing habitat suitability for marshmallow.	IDB	Annually	Channel length (m)	2028
		1.2	Identify areas where suitable bankside vegetation can be maintained and cut selectively to avoid marshmallow plants.	IDB, IDB contractors, ratepayer / land occupier	Annually	Plant counts	2028
		1.3	Expand the suitable moth habitat where appropriate through seeding or planting of marshmallow.	IDB, Butterfly Conservation Trust	Annually	Plant counts	2028
2	Monitor population of marshmallow moth and the foodplant along the key IDB sites.	2.0	Collate marshmallow moth data.	IDB, BCT	Annually	Number of moths or number of plants	2028

9.3 MEDICINAL LEECH (*Hirudo medicinalis*)

The largest of the UK leeches, medicinal leeches prefer warm, shallow waterbodies which sometimes dry out, and that support rich assemblages of fish, amphibians and birds to provide year-round continuity of food. Amphibians are their favoured quarry especially during spring breeding season when abundant. Medicinal leeches thrive in watercourses that warm during the summer though the water quality must be good. They cannot tolerate brackish conditions and require leafy bankside vegetation on which to lay their eggs which subsequently are formed into cocoons. It is thought that over exploitation of leeches for medical purposes significantly reduced the national population historically. The introduction of Ivermectin (an anti-parasitic treatment for livestock) in the early 1980s is also cited as a major reason for decline of the species yet it is the grazing marsh that retains the bulk of the population locally.

In 2009 medicinal leech were found in around 20 isolated population clusters in the UK. The medicinal leech is listed as rare in the British Red Data books and is protected under Schedule 5 of the Wildlife and Countryside Act (1981). They are protected internationally by inclusion in Appendix II of the Convention on International Trade in Endangered Species (CITES) Listing (1987) and Appendix III of the Berne Convention. It also appears in Annex V(a) of the Directive on Conservation of Natural Habitats and Wild Flora and Fauna (EEC, Council Directive 92/43, 1992). Medicinal leech have a UK BAP species action plan and are included within Kent and East Sussex Biodiversity Action Plan. Medicinal leech have been found across parts of the Romney Marsh, Walland Marsh, Denge Marsh and the Rye Harbour area. Though there are historical records for the lower Rother valley, in 2009 medicinal leech had yet to be found in the Royal Military Canal or the river Brede and Tillingham valleys. From 1998 to 2000, with funding from GlaxoSmithKline, Natural England in partnership with the RSPB, led a survey which was carried out by the Romney Marsh Countryside Partnership to determine the distribution, diet and breeding requirements of the medicinal leech in the Romney Marshes area. The species was found at 85 locations across the district, predominantly in ditches on grazing marsh and in gravel pits and ponds at Dungeness. The Romney Marsh Countryside Project revisited and monitored key waterbodies up to 2003 and new leech surveys were carried out on Walland Marsh and East Guldeford Levels in 2005. The population size of the medicinal leech in the Internal Drainage District is now thought to be around 100 sites making this cluster the largest known population in Britain and one of international importance. The frequency at which medicinal leech are encountered during IDB annual maintenance suggest the species is far more widespread than most realise.

Objectives and Targets

Target Reference	Target	Action Reference	IDB Actions	Partners	Date	Indicators	Reporting
1	Maintain and enhance suitable habitat for medicinal leech across the catchment area.	1.1	Identify medicinal leech sites.	IDB, RMCP, EA	Annually	Channel length (m)	2028
		1.2	Identify areas where suitable bankside vegetation can be maintained.	IDB, ratepayer / land occupier	Annually	Channel length (m)	2028
		1.3	Maintain or elevate water levels to increase host abundance (frogs, newts, fish and birds).	IDB, ratepayer / land occupier	Annually	Channel length (m)	2028
		1.4	Work with adjacent landowners to enhance the habitat available for the medicinal leech by creating drinking scrapes in grazing land.	IDB, ratepayer / land occupier	Annually	Number of scrapes created	2028
		1.5	Collate medicinal leech data where possible.	IDB, RMCP	Annually	Number of Leeches	2028

9.4 COMMON TOAD (*Bufo bufo*)

Despite wide distribution on the UK mainland, the common toad has suffered severe decline over the past 35 years. Common toads have an interesting lifecycle and can live for up to 40 years. Adult toads do not hibernate as such but are highly sedentary during winter seeking refuge in compost heaps, cavities, and woodpiles to escape the frosts. When milder conditions allow, they may emerge to feed before returning to their refugia. In early spring they fully emerge to return to their ancestral ponds to breed. These are usually deeper bodies of water. Breeding toads congregate for a few weeks before resuming their solitary and sedentary lifestyle in their terrestrial habitats feeding on slugs and snails. The decline of the species has been attributed to loss of breeding ponds and disruption to migration routes. The latter may be caused by the increased use of solid panel fencing for garden boundaries.

In Britain, the common toad is protected by law only from sale and trade but they are an S41 biodiversity priority species under the Natural Environment and Rural Communities (NERC) Act (2006) because of recent declines. This means that the species should be considered during the planning and watercourse consenting processes.

Common toads can coexist with fish owing to the secretions emitted when threatened making them unpalatable prey. Common toads are scattered across the Internal Drainage District, the banks of the maintained land drainage system provide year-round refuge and feeding opportunities making them ideal habitat. The accumulated residues from annual maintenance provide a dense thatch of insulation in which they can overwinter and forage in the lower layers that are composting. This habitat is also of benefit to grass snake, slow worm and viviparous lizard that were identified during the biodiversity audit in 2009.

Objectives and Targets

Target Reference	Target	Action Reference	IDB Actions	Partners	Date	Indicators	Reporting
1	Maintain and enhance suitable habitat for common toad across the catchment area.	1.1	Identify areas where suitable bankside vegetation can be retained.	IDB, IDB contractors, ratepayer / land occupier	Annually	Channel length (m)	2028
		1.2	Ensure log habitat piles are left on site whenever pioneering work takes place (if no flood risk posed).	IDB, ratepayer / land occupier	Annually	No. of piles	2028
		1.3	Work with adjacent ratepayers / land occupiers to deter the burning of weed residues on IDB adopted Lesser and Petty Sewers.	IDB, ratepayer / land occupier	Annually	Information in annual newsletter	2028
		1.4	Provide appropriate watercourse consenting advice to prevent permanent loss of common toad habitat and preferably how to enhance it.	IDB, consent applicants	Annually	No. of consents	2028
		1.5	Collate common toad data where possible.	IDB, RMCP	Annually	No. of toads & No. of sites	2028

9.5 BROWN TROUT / SEATROUT (*Salmo trutta*)

Living up to 20 years, brown trout are one of the most genetically diverse vertebrates on earth. Many populations have remained genetically distinct for thousands of years owing to their different life strategies, such as choice of spawning locations or timing of spawning to coincide with certain niches in the food chain (such as the mayfly hatch). Brown trout tend to grow fastest in the productive rivers and streams of southern England and require clean gravel spawning areas. Their eggs must be supplied with cold, clean well oxygenated water until hatched. Mortality in the first year after hatching is at least 95%. Brown trout migrate up and down their rivers during their lives and can spend long periods feeding at sea (thus becoming sea trout) before returning to their spawning rivers. They do not always return to their natal streams and can wander into other river systems if they can access vacant habitat which repopulates barren rivers. This may be evidenced by DNA testing undertaken by the EA in 2014 that found specimens in the River Line (Brede) and River Dudwell (Rother) were/are genetically more similar to strains found in France than the UK. Dams, weirs and such like obstacles are the biggest challenge that brown trout must overcome to access spawning grounds. Silting of spawning grounds is a major impediment to both spawning and hatching.

Brown trout are a sporting species protected by a closed fishing season and local byelaws that dictate landing size and catch limit. Although they're a UK BAP species, an S41 species under NERC 2006 and present in the East Sussex BAP, the species is considered 'of least concern' by the International Union for Conservation of Nature (IUCN). Brown trout are widespread across the region though various pressures have led to a decline of the population locally. Within the IDD brown trout are found mainly in the Rother and Brede catchments with noted stocks in the upper sections. Seatrout are frequently seen re-entering the freshwater system through the sea gates before high tide at certain times of year on their way to spawn in the upland parts of the catchment. It is the upland areas where the greatest difference can be made for the species. RMAIDB helped deliver one upland project to improve fish passage working with the High Weald AONB and the Wild Trout Trust (WTT) in 2016 on the Doleham Petty Sewer (Brede). Extensive pioneering was also undertaken in the Upper Rother in 2015 during which dappled light conditions were created and bankside vegetation was restored. The most significant threats to the species within the district are falling water quality (pollution, reduced dissolved oxygen and warming) , habitat loss (loss of spawning beds to silt) and impediments to fish passage (mainly privately owned weirs).

Objectives and Targets

Target Reference	Target	Action Reference	IDB Actions	Partners	Date	Indicators	Reporting
1	Maintain and enhance suitable habitat for brown trout in the upland parts of catchment area.	1.1	Winter inspections of upland Petty Sewers to identify areas that can be improved.	IDB	Annually	No. of inspections	2028
		1.2	Removal of blockages causing upstream silting.	IDB	As required	No. of removals	2028
		1.3	Selective pioneering in congested areas to create dappled light conditions and restore bankside vegetation to increase food abundance.	IDB	As required	Length of bank pioneered	2028
		1.4	Inspection of upland structures to scope where fish passage can be improved.	SERT, WTT, IDB	Annually	No. of inspections	2028
		1.5	Removal / adaption of structures restricting fish passage.	IDB, ratepayer /land occupier	As required	No. of adaptions	2028
		1.6	Ensuring that any Section 23 works granted consent do not negatively affect fish passage or compromise habitats.	IDB, S23 applicants	As required	No. of consents	2028

9.6 GRASS SNAKE (*Natrix helvetica*)

In 2017 grass snakes found in Britain and western Europe were reclassified as a new species (*Natrix helvetica*) to separate them from those in central and eastern Europe (*Natrix natrix*). This is the largest of the snakes found in the UK attaining a length of 1.2 to1.8m and living between 15 to 25 years. Grass snakes prefer to feed on frogs, toads and newts but are also known to feed on fish, small mammals (including water voles) and birds. The only egg laying snake species in the UK, grass snakes produce clutches of up to 40 eggs which hatch in early autumn. The mortality rate of the young is high due to predation from species including herons, birds of prey, foxes, badgers and hedgehogs. In a normal year grass snakes hibernate between late October mid-April in warm, humid places such as compost heaps. The lifecycle of the grass snake is ideally suited to the landscape of the district hence they are widespread though not necessarily abundant or evenly distributed. Sites favoured by the species include Littlestone Golf Course, Lade, Dungeness, Camber, Rye Harbour and Pett. The managed land drainage system provides hundreds of kilometres of continuous suitable habitat for grass snakes during their active months. The reed residues generated during annual maintenance which are left atop the bank to compost also create good hibernation, feeding, basking and breeding sites.

Grass snakes like all reptiles, are protected under the Wildlife and Countryside Act 1981 and are also a Section 41 priority species under NERC Act 2006.

Objectives and Targets

Target Reference	Target	Action Reference	IDB Actions	Partners	Date	Indicators	Reporting
1	Maintain and enhance suitable grass snake habitat across the district.	1.1	Retain bankside vegetation where possible.	IDB, ratepayer / land occupier, IDB contractors	Annually	Distance (m)	2028
		1.2	Work with adjacent ratepayers / land occupiers to deter the burning of weed residues on IDB adopted Lesser and Petty Sewers.	IDB, ratepayer / land occupier	Annually	No burning	2028
2	Record sightings of grass snakes during active periods.	2.0	Collate grass snake data.	RMCP, SWT* KWT*	Annually	Number of sightings	2028

*Sussex Wildlife Trust, Kent Wildlife Trust

9.7 CURLEW (*Numenius arquata*)

Although the greatest concentrations of curlew are found in Morecambe Bay, Solway Firth, The Wash and the Dee, Severn, Humber and Thames estuaries, many migratory curlew winter within the Internal Drainage District. With the Romney Marshes providing first landfall for curlew migrating in from Europe, they can be regularly spotted during autumn and winter feeding on the foreshore and on coastal grazing marsh before completing their journey to breed in the moorlands of North Wales, the Pennines, the southern uplands the East Highlands of Scotland and the Northern Isles. The UK breeding population is of international importance with around 30% of the European curlew population wintering here. Despite this, the species is in severe decline. The population shrunk by 42% between 1995 and 2008 before becoming a Red List species in 2015. Their IUCN status is near threatened and they are a Section 41 species under NERC Act 2006. Historic improvement of grassland on the moorlands and increased stocking densities have been cited as reasons for the decline and more recently with the national tree planting effort gaining pace, afforestation of the moorlands (landscape restoration). Predators account for vast numbers of ground nesting birds and increases in the predator population has been attributed to greater breeding loses. The RSPB acknowledge that the control of foxes and corvids undertaken by game keepers managing moorlands for red grouse shooting may be a key factor in preventing further declines of the curlew. The RSPB along with the UK's statutory nature conservation agencies, believe the curlew should now be considered the UK's highest conservation priority bird species and a recovery programme is now urgently required.

Within the IDD curlew can often be found feeding on the East Guldeford Marsh, throughout Pett Level, and on the coastal grazing marsh of Denge, Walland and Romney Marshes. They can also be seen on the rougher rush pasture grazing marshes of the lower Rother Valley. Curlew require soft ground conditions for their bills to penetrate the ground as they search for worms. In a dry winter if the ground is too firm they will move on in the search for food and waste valuable energy reserves in doing so, therefore the focus of this action plan is to try and maintain appropriate ground conditions for feeding to optimise their physical condition before breeding season.

Some ratepayers are already managing their land with winter waders in mind as part of Natural England agreements across the district.

Objectives and Targets

Target Reference	Target	Action Reference	IDB Actions	Partners	Date	Indicators	Reporting
1	Facilitate appropriate ground conditions over autumn and winter period to facilitate feeding.	1.1	Maintain elevated water levels in grazing marsh areas (where possible) with adapted water level management.	IDB, ratepayers / land occupiers	Annually	No. of watercourses	2028
		1.2	Engage ratepayers / land occupiers to encourage them to retain more water on their pasture and advise on how this can be delivered.	IDB, ratepayers / land occupiers	Annually	No. of consultations &/or annual newsletter promotions	2028
2	Minimise disturbance of feeding curlew autumn and winter.	2.0	Undertake annual maintenance with as little disturbance as possible on feeding grounds.	IDB, IDB contractors	Annually	Minimal disturbance	2028

9.8 TREE SPARROW (*Passer montanus*)

Tree sparrows are a social species that live in colonies with breeding pairs mating for life. Averse to urban landscapes, the thinly populated open marshes of the Internal Drainage District provides colonies with nesting habitat and opportunities to forage insects for young in the spring and seeds in the winter. The IDD is considered by the RSPB to be the last stronghold for resident tree sparrows in the Southeast so the species is a priority locally. Tree sparrows are a Red List species of high concern as it is estimated that between 1970 and 2008 the population fell by 93%. Like all native UK birds, tree sparrows are protected under the Wildlife and Countryside Act 1981 and they are also a Section 41 species under NERC Act 2006.

Tree sparrows are a UK BAP species and are also included in the Kent and East Sussex BAPs. Locally in 2012 the RSPB ran a project across the IDD to install nest boxes and feeding stations to boost breeding and help retain the wintering population. Unfortunately, the colony at the RSPB reserve at Dungeness has recently been displaced by house sparrows. With the increasing conversion and development of abandoned farm buildings across the district, tree sparrows are steadily losing some of their favoured built refuges. However, the increase in direct drilling and min-tillage crop establishment (non-inversion) methods may be increasing the availability of winter seeds. RMAIDB has opportunities install and maintain bird boxes at IDB pumping stations and on ratepayer owned / occupied farm buildings (subject to permission). There are also opportunities for the Board to establish and maintain feeding stations at pumping stations which are visited regularly over the winter by Board staff.

Objectives and Targets

Target Reference	Target	Action Reference	IDB Actions	Partners	Date	Indicators	Reporting
1	Enhance suitable nesting sites	1.1	Fabricate and install nesting boxes at suitable IDB pumping stations.	IDB, RSPB	2023	No. installed	2028
		1.2	Fabricate and install nesting boxes on suitable rate payer buildings.	IDB, RSPB, ratepayers / land occupiers	2024	No. installed	2028
2	Increase availability of winter seed	2.1	Fabricate and install feeding stations at suitable IDB pumping stations.	IDB, RSPB	2023	No. installed	2028
		2.2	Fabricate and install feeding stations on suitable rate payer buildings.	IDB, RSPB, ratepayers / land occupiers	2024	No. installed	2028
		2.3	Maintain adequate levels of seed in feeders.	IDB	Annually	No empty feeders	2028
3	Monitor occupancy	3.0	Confirm level of occupancy by tree sparrows when cleaning out nest boxes annually.	IDB	Annually	No. boxes occupied	2028

9.9 WATER VOLE (*Arvicola amphibius*)

Water vole are found across most of Britain but are confined mainly to lowland areas with slow flowing water. Water voles are usually active between March and November with the winter period spent in their provisioned borrows dug up to 3.5m into watercourse banks. Producing three or four litters of five young a season, the populations can expand quickly and it is this high reproductive rate that maintains the populations as lifespan is short at five to eight months (though up to 24 months has been achieved in captivity). The main food source locally is emergent phragmites reed and grasses but towards autumn they provision their burrows with foraged tubers, bulbs, apples and roots. Displacement from their burrows during winter separates them from their larders, exposes them to predators and leads to almost certain death. Once common and widespread, this species has suffered significant decline and is now our most endangered mammal. A national survey in 1989-90 failed to find signs of water voles in 67% of sites where they were previously recorded and subsequent national surveys have shown a downward trend of abundance. Habitat fragmentation is a major cause for this because as the distribution of water voles becomes discontinuous, existing sites become isolated and vulnerable to predation. American mink (Mustela vison) pose the biggest predator threat though grey heron (Ardea cinerea) and pike (Esox lucius) will also take them. Prolonged periods of flooding can also drown and displace colonies. Locally, the population is strong owing mainly to the matrix layout of the land drainage system that provides greater protection from predators than more linear river systems. Another factor is the relatively unchanged land use and lack of riparian development.

Water vole are protected under Schedule 5 of the W&C Act 1981 and it is an offence to kill, injure or take them. It is also an offence to intentionally or recklessly damage or destroy a structure or place used for shelter or protection or even disturb or obstruct them in said place. Water vole are listed as rare and a most threatened species under Section 41 of NERC Act 2006, although the IUCN classify the species as being of 'least concern' due to their abundance and wide distribution across Europe. The national BAP target is to reverse the decline of the species with a network of areas / regions which are strongholds for the species. The local population is of national importance. The 2009 Biodiversity Audit identified that water vole can be encountered anywhere within the catchment however, the best sites for the species include parts of the Romney Marsh, Walland Marsh, East Guldeford Levels, Dungeness and Rye Harbour. The species presence is erratic on the river valleys due to seasonal flooding and they tend to be found on the upper streams and ponds of the catchment.

Objectives and Targets

Target Reference	Target	Action Ref.	IDB Actions	Partners	Date	Indicators	Reporting
1	Maintain and enhance suitable water vole habitat across the catchment area.	1.1	Assess existing habitat suitability for water vole.	IDB, RMCP	Annually	Distance (m)	2028
		1.2	Identify areas where suitable bankside vegetation can be maintained.	IDB	Annually	Distance (m)	2028
		1.3	Work with adjacent ratepayers / land occupiers to control American mink (trapping / shooting).	IDB, ratepayers / land occupiers, EA (Tom Reid F&B)	Annually	No. of American mink dispatched	2028
		1.4	Prevent net loss of habitat whenever possible during IDB watercourse consenting process. Ensure that any works granted consent consider water voles.	IDB, watercourse consenting applicants	As required	No. of consents	2028
2	Monitor water vole populations along the key IDB sites.	2.0	Collate water vole data through monitoring and surveys and Water Level Management Plans.	RMCP, IDB	Annually	Length of ditch occupied by water voles	2028

9.10 GREAT CRESTED NEWT (*Tritarus crista*)

Great crested newts (GCN) are the largest of the UK's three newt species attaining a length of up to 180mm during their 6–15 year lifespan. Widespread across lowland England and Wales, these amphibians breed in ponds during springtime and spend the rest of the year foraging in terrestrial habitats and preparing for winter in frost free refuges including but not limited to cracks in buildings, brick culverts, old mammal burrows, log piles and exposed tree roots. Much like the common toad, GCN do not hibernate. They become mostly dormant in their refugia in the winter months but will emerge to forage if mild enough. Following spawning the larvae hatch after two to four weeks having feathery gills that distinguish them from frog and toad tadpoles. Once their legs have formed and their gills have been re-absorbed, they typically leave the breeding ponds in August and begin feeding on land in preparation for winter dormancy. Breeding ponds need to maintain some water all summer, have abundant weed and be free of fish that predate on the young. During their time on land GCN can travel up to 500m from their breeding ponds which means that in areas with scattered ponds less than 1km apart, their presence should be anticipated and risk assessed accordingly.

Habitat loss is cited as the most significant reason for the decline of the species, especially in Europe where the species has been lost from many sites thus making the UK population of international importance. Heavily protected in UK under the Wildlife and Countryside Act 1981, it is an offence to even touch GCN without a license unless acting to save it from danger. A Section 41 species under the UK Post-2010 Biodiversity Framework, GCN are also a European Protected Species under Annex IV of the European Habitats Directive. Locally the species is of importance as the district still has a relative abundance of suitable breeding and winter hibernation sites, therefore the species is included in both Sussex and Kent LBAPs. GCN are encountered sporadically by Board staff during inspections of chambers but have not been recorded during surveys of cut weed during annual maintenance. This could either be due to the presence of fish in most IDB adopted watercourses, or because there are only a few weeks overlap between the weedcut starting and the end of the aquatic stage of the GCN's life cycle.

There are several local nature conservation organisations participating in GCN projects which Board staff actively promote to ratepayers and watercourse consenting applicants. Acting as a conduit between those with funding such as the Newt Partnership which is an arm of the Freshwater Habitats Trust (FHT), and those open to undertaking projects on their land is probably the most practical way the Board can achieve GCN objectives.

Objectives and Targets

Target Reference	Target	Action Ref.	IDB Actions	Partners	Date	Indicators	Reporting
1	Maintain and enhance suitable great crested newt habitat across the catchment area.	1.1	Ensure log piles are left on site following pioneering work (if no increased risk of flooding is posed)	IDB, ratepayers / land occupiers	Annually	No. of piles	2028
		1.2	Work with adjacent ratepayers / land occupiers to deter the burning of weed residues on IDB adopted Lesser and Petty Sewers (Byelaw 7, annual newsletter).	IDB, ratepayers / land occupiers	Annually	No burning	2028
		1.3	Promote GCN habitat creation grants that are available to ratepayers / land occupiers (annual newsletter)	IDB, rate payers / land occupiers, RMCP, FHT	Annually	No. of resultant projects	2028
		1.4	Prevent net loss of habitat whenever possible during IDB watercourse consenting process. Ensure that any works granted consent consider GCN if likely present.	IDB, watercourse consent applicants, NE	As required	No. of consents	2028

10.0 PROCEDURAL ACTION PLAN

Introduction

Several procedural targets and actions have been established within this Procedural Action Plan. These are intended to integrate biodiversity considerations into IDB practices and procedures.

Objectives and Targets

Target Reference	Target	Action Reference	IDB Actions	Partners	Date	Indicators	Reporting
1	Promote best practice in all drainage works.	1.1	Train IDB contractors in appropriate areas where BAP Habitats / Species are relevant.	IDB, RMCP, NE	Annually	Staff numbers	2028
		1.2	Advise landowners on environmental best practice when undertaking watercourse maintenance.	IDB, ratepayers / land occupiers	Annually	Contractors covered	2028
2	Publish material to give out to Board members, ratepayers / land occupiers, contractors and partners.	2.0	Produce a leaflet highlighting the IDB BAP, ditch maintenance and projects.	IDB	2024	Number of leaflets circulated	When required

11.0 IMPLEMENTATION

Whilst the Romney Marshes Area IDB should be able to deliver most of the targets of this BAP solely, some elements, will require the assistance of partners. The IDBs partner for delivery of primary function (Flood Risk Management and Water Level Management) is the Environment Agency. The established working practises and working relationship that the IDB has with the EA will deliver some of the actions listed in the BAP Action plan. Achieving other targets may require the help of local groups and organisations (as listed in chapter 12.0) either through data sharing or by the commissioning of surveys necessary to fulfil monitoring elements of the plans.

Biological data may also be held by Board members, ratepayers / land occupiers and residents of the district. Some 'citizen scientists' keep biological records which may be of benefit to the Board when trying to establish baselines or trends in abundance, especially with regards bird species. Appeal can be made for such using the Board's annual newsletter.

The value that Board contractors can add to monitoring can not be overlooked either; plant operators undertaking annual maintenance are uniquely placed to observe and record the species of the IDD as they work their way around the district during summer / autumn. A biological record programme ran between 2015 and 2017and though the quality of the records varied they yielded some useful data.

12.0 MONITORING

The Monitoring of certain key species will be done as part of monitoring across the Romney Marsh. Below are some of the organisations that may be able to provide monitoring data for the RMAIDB BAP Species.

Greater water-parsnip - RMCP

Marshmallow moth – Butterfly Conservation Trust

Medicinal leech – RMCP

Common toad – RMCP

Brown trout – Wild Trout Trust (WTT), Southeast Rivers Trust (SERT)

Grass snake – RMCP

Curlew - RSPB

Tree sparrow - RSPB

Water vole – RMCP, Kent Wildlife Trust (KWT), Sussex Wildlife Trust (SWT)

Great crested newt – The Newt Partnership, RMCP

13.0 REVIEWING AND REPORTING PROGRESS

13.1 The BAP reporting period

Progression of the RMAIDB BAP requires monitoring by some partners and reporting to the Board and possibly some partners.

Targets are mostly annual targets and it is anticipated that the Romney Marshes Area IDB BAP will be reviewed following the end of this reporting period in five years (2028). The five-year report will be presented at the IDB Main Board meeting in 2028, but further reporting may be done through partners which are already set up i.e., RMCP Working Group, Rye Harbour LNR Working Group/Steering Group et al.

The following sections state how DEFRA expect authorities to report their biodiversity duty actions. All of the information was sourced from the Government webpage entitled 'Guidance: Reporting your biodiversity duty actions' (accessed 20.07.23). Author comments have been added to expand on some points for clarity, some as nota bene and some bracketted, but all are italicised. All DEFRA references to 'the authority' have been substituted for 'the Board' or 'IDB'.

13.2 Who must publish a report, why and when?

DEFRA guidance published 17 May 2023 stated that all local authorities (excluding parish councils) must publish a report to:

- document the policies and actions carried out to comply with biodiversity duties.
- communicate what the authority *(referred to as the Board hereafter)* is doing to improve the environment and to show what positives changes are being made.

The end date of the Board's first reporting period *(for the Board's first BAP which this document, BAP 2.0, has superseded)* should be no later than 1 January 2026. The reporting period for subsequent BAPs is five yearly.

13.3 What must a report include by law? (Mandatory information)

DEFRA guidance states that by law, the report must include:

- a summary of the action taken to comply with the biodiversity duty *(Chapter 14 shows the DEFRA guidance for compliance).*
- how the Board plans to comply with the biodiversity duty in the next reporting period.
- any other information considered appropriate.

DEFRA suggest the following report structure to communicate this information.

Section 1: Board policies, objectives and actions

This section of the report must explain:

- the policies and objectives that the Board has set to meet its biodiversity duty.
- the actions the Board has completed either alone, or in partnership with others, that benefit biodiversity.

Section 2: Consideration of other local strategies

The section of the report must explain how the Board has taken into account:

- local nature recovery strategies.
- protected site strategies.

- species conservation strategies.

Relevant information may include how:

- the Board has advised or worked in a Local Nature Recovery Strategy (LNRS) partnership.
- LNRSs influenced Board policies, objectives or actions.

Section 3: The Board's future actions

The report must explain how the Board plans to fulfil its biodiversity duty over the following reporting period of five years. *NB - This will only be possible once the BAP for the next reporting period (BAP 3.0) has been revised and adopted by the board. The Boards report for its first reporting period can not be completed until this BAP (BAP 2.0) has been revised and adopted by the Board.*

Plans for future actions can be reported in conjunction with the summary for the reporting period. Alternatively, they can be summarised separately and subsequently can be used to form part of the Board's monitoring and evaluation for the next reporting period.

13.4 What additional information can a report include? (optional information)

DEFRA guidance states that inclusion / submission of sections 4 to 9 is optional:

Section 4: Information about your authority

This section *(if included in the report, it is not mandatory)* should explain the role and purpose of the Board by including:

- a brief description of the Board's function.
- the size of the IDB *(NB - presumably spatially as well as in terms of staff / no. Board members).*
- an outline of the Board's governance and management structures.

It should also summarise how the Board can affect biodiversity, both positively and negatively, in relation to:

- any land and estates the Board manages, including protected areas and sites.
- planning and development decisions *(NB – Watercourse Consenting).*
- advice given.
- raising awareness within the community.
- how Board operations affect the environment.

Section 5: Your top achievements

This section should summarise what the Board has achieved in the reporting period by including:

- actions the Board has taken to conserve and enhance biodiversity.
- achievements as a result of these actions.
- actions the Board plans to take in the next reporting period.

Section 6: How Board policies and actions have helped

This section requires expanding upon section 2 by explaining how Board Policies, objectives and actions have:

- contributed to conserving, restoring or enhancing species populations or a particular habitat.
- contributed to improving the condition of protected areas and sites.

- benefitted biodiversity – noting the successes and challenges.
- encouraged involvement in important partnerships such as LNRS.
- started to address the main causes of biodiversity loss – for example, land use changes, invasive non-native species, and wider pressures like pollution.
- any actions taken within an Area Of Outstanding Natural Beauty (AONB) shown in their biodiversity reporting.

Quantitative data can also be added to the report to help monitor and evaluate the results of Board actions. Such data could include:

- the condition of sites of special scientific interest from the latest assessment.
- the result of monitoring carried out to fulfil the requirements of the environmental assessment regulations.
- how many local sites within the Internal Drainage District have positive conservation management and information on its effectiveness.
- areas of land the Board owns or manages that include habitats of principle importance (Magic maps).

Boundary data for areas of land owned or managed that are important for biodiversity should be included such as:

- where existing conservation measures or biodiversity management plans are in place.
- where new conservation measures have been put in place or changed over the reporting period.
- any over lap with local wildlife sites or local nature reserves.

Any land owned or managed that is identified in Local Nature Recovery Strategies (LNRS) should be described including:

- areas that are of particular importance for biodiversity.
- areas that could become of particular importance for biodiversity.
- areas where the recovery or enhancement of biodiversity could make a particular contribution to other environmental benefits.

Changes made to management practises to increase the area's importance for biodiversity, in line with LNRSs should also be reported.

Section 7: How the Board has raised awareness and educated the community

This section should describe how:

- awareness of biodiversity has been raised in the community.
- advice has been given on how to conserve and enhance biodiversity.
- conservation and biodiversity has been incorporated into education.
- the public and Board staff have been engaged with regarding biodiversity.

Section 8: Monitoring and evaluating your actions

This section should explain how actions have been measured and how their effects on biodiversity have been assessed. If activities have not been monitored it should be explained why. (cont over page)

Where possible report on how the Board monitored and evaluated:

- methods of recording biodiversity on land that is owned or managed.
- the Board's contribution to meeting national and international biodiversity targets.
- the Board's biodiversity programmes undertake alone or in partnership with others.

- how the Board implemented relevant strategies or policies.
- methods of evaluating physical conditions like soil and water quality
- any relevant environmental assessments you're responsible for, such as the strategic environmental assessment of the local plan, or local transport, waste or minerals plans.
- its capability or development relating to biodiversity.

Also to be reported are any significant trends or areas of concern such as:

- changes to the conservation status of habitats you manage or deliver programmes to protect.
- changes to the ecological health of land you own or manage.
- adverse recordings of water or soil quality.
- changes in the abundance and diversity of species present.

Section 9: Biodiversity highlights and challenges

At the end of the report it should be explained what the main achievements for biodiversity were over the reporting period. This could include where the Board has:

- led or contributed to projects that support the biodiversity outcomes and targets in the Environmental Improvement Plan or international targets.
- demonstrated leadership or expertise in relation to biodiversity.
- improved habitats or ecological status.
- found notable species on land either owned or managed.
- completed important biodiversity projects.
- delivered or achieved funding grants.
- run volunteer days.
- Provided successful education or public engagement activities.

This section should also include the anticipated main challenges over the next five years. These could include:

- economic and resource pressures.
- delivering cross-cutting actions.
- preventing further loss of habitats and species.
- effective management of invasive non-native species.
- pressures for space.
- the need to meet targets.

14.0 COMPLYING WITH THE BIODIVERSITY DUTY

14.0 Guidance: Complying with the biodiversity duty

The following sections (14.0 – 14.11) are a verbatim reproduction of the Government's guidance on how a public authority should understand what the biodiversity duty is and how to comply with it. This guidance was first published on 17th May 2023 and was accessed 20th July 2023 by the author of this BAP (BAP 2.0). DEFRA's sections have been numbered as per format of BAP 2.0 for continuity and ease of reference. All text in Arial font is that of DEFRA.

Public authorities who operate in England must consider what they can do to conserve and enhance biodiversity in England. This is the strengthened 'biodiversity duty' that the Environment Act 2021 introduces.

This means that, as a public authority, you must:

1. Consider what you can do to conserve and enhance biodiversity.
2. Agree policies and specific objectives based on your consideration.
3. Act to deliver your policies and achieve your objectives.

14.1 Who must comply with the biodiversity duty

You must meet the biodiversity duty if you are a public authority, such as a:

- government department or public body
- local authority or local planning authority
- statutory undertaker – a business that has public authority duties for their land and delivers something of public importance

14.2 When to meet your biodiversity duty

You must complete your first consideration of what action to take for biodiversity by 1 January 2024. You must agree your policies and objectives as soon as possible after this.

You must reconsider the actions you can take within 5 years of when you complete your previous consideration.

You can decide to do this more often, for example, you could reconsider your actions quarterly, annually, or every 5 years.

14.3 Consider relevant strategies

You must check if these strategies will affect how your organisation complies with the biodiversity duty:

- local nature recovery strategies
- species conservation strategies

- protected site strategies

You must:

- understand how/if they are relevant to your organisation
- be aware of how these strategies affect land that you own or manage, or actions you could take to conserve and enhance biodiversity
- consider how you could contribute to the strategy, where appropriate

- **Local nature recovery strategies**

These will be locally led strategies for nature and environmental improvement established by the Environment Act 2021. Each local nature recovery strategy will:

- agree priorities for nature's recovery
- map the most valuable existing areas for nature
- map specific proposals for creating or improving habitat for nature and wider environmental goals

There will be around 50 local nature recovery strategies covering the whole of England with no gaps or overlaps.

When the local nature recovery strategies are published, you will need to understand which ones are relevant to you and how you can contribute to them. These are likely to be the strategy, or strategies, for the areas in England you're active in.

Preparation of local nature recovery strategies is expected to begin across England from April 2023. You may want to consider how you could get involved in preparing and delivering them now. For example, you could contribute by acting on proposals to create or improve habitat on land you own or manage, or help someone else to do so. By including any positive actions you plan to take in the strategy, you can help improve their quality. It will also make it easier for you to show how you have fulfilled your duty.

Guidance on how local planning authorities should consider local nature recovery strategies will be published when available.

- **Species conservation strategies**

Established by the Environment Act 2021, species conservation strategies aim to safeguard the future of the species that are at greatest risk. The strategies will find better ways to comply with existing legal obligations to protect species at risk and to improve their conservation status.

- **Protected site strategies**

Established by the Environment Act 2021, protected site strategies take a new approach to protecting and restoring species and habitats in protected sites. Protected site strategies will provide ways to overcome offsite pressures such as nutrient pollution in the wider catchment.

14.4 How your biodiversity duty helps achieve biodiversity goals and targets

The action you take for biodiversity will contribute to the achievement of national goals and targets on biodiversity.

The Environmental Improvement Plan (EIP23), published in January 2023, sets out government plans for significantly improving the natural environment.

By 2030, the government has committed to:

- halt the decline in species abundance
- protect 30% of UK land

By 2042, the government has committed to:

- increase species abundance by at least 10% from 2030, surpassing 2022 levels
- restore or create at least 500,000 ha of a range of wildlife rich habitats
- reduce the risk of species extinction
- restore 75% of our one million hectares of terrestrial and freshwater protected sites to favourable condition, securing their wildlife value for the long term

14.5 Actions you could take

The policies and objectives you set, and the action you take to achieve them, will depend on your functions as a public authority.

Public authorities can give priority to areas of high biodiversity value, if appropriate.

If you already have a strategy that monitors your environmental performance, you can include your biodiversity actions as part of this.

Consider creating a new document if you do not have a suitable existing strategy. In it, you can record the actions you plan to take to meet your biodiversity objectives.

As a core component of natural capital, biodiversity supports ecosystem services that benefit people and the economy. When thinking about what actions you could take as part of your duty, you could consider the value of taking a Natural Capital approach.

If your public authority is involved with development plans and decisions, consider your biodiversity duty when you're complying with requirements under:

- strategic environmental assessment
- environmental impact assessment
- Habitats Regulations assessment

14.6 Manage land to improve biodiversity

Consider how the land you manage could improve biodiversity. This includes green and blue spaces like:

- allotments
- cemeteries
- parks and sports fields
- amenity spaces and communal gardens
- roadside and railway verges
- field margins and hedgerows
- rights of way and access routes
- woodlands and nature reserves
- canals and rivers
- water-dependent habitats
- estuaries and coastal habitats

Small changes to how you manage these areas could create habitats for wildlife and 'nature corridors' that connect existing habitats. This allows species to move between habitats, maintain or increase populations and be more resilient to climate change.

There are other things you can do to improve habitats, including:

- using native and sustainably sourced trees when planting
- creating dedicated spaces for wildlife
- leaving dead wood safely in place in woodlands to provide additional habitat
- maintaining planted trees to give them the best chance of survival
- reducing the use of herbicides, pesticides, peat and water
- implementing measures to prevent the spread of invasive species and plant disease

These actions can save money while delivering benefits to biodiversity.

If you own or manage large areas of land, consider promoting and encouraging nature-based solutions, restoration of natural processes and landscape recovery.

Natural England has published the Green Infrastructure Framework - Principles and Standards for England. This includes planning, design and process guides.

- **Make space for wildlife**

You could create dedicated spaces to attract wildlife and enhance biodiversity. This is possible even if your public authority owns a single office building. It is important that these measures are appropriate to the location.

You could:

- build and install nest boxes for birds, bats and other animals
- add green walls or roofs to existing or new buildings
- plant native trees and shrubs
- plant wildflowers for pollinators

You can do more if you own or manage specific types of land. For example, if you own or manage:

- school grounds – create gardens, ponds, meadows or woodlands to improve biodiversity and aid education
- farmland – be aware of soil health, water use and waste management and encourage farmers to apply for agri-environment schemes and use pesticides appropriately.

Check the list of priority habitats and species in the UK.

- **Enhance protected sites**

Sites that public authorities own or manage can be protected by other legislation. For example:

- sites of special scientific interest
- special areas of conservation or special protection areas
- national nature reserves
- local nature reserves and local sites
- Ramsar sites (wetlands of international importance)

You should already be helping to conserve and enhance biodiversity on this land. For example, public bodies already have a duty to take all reasonable steps to conserve and enhance sites of special scientific interest.

The Environmental Improvement Plan set the expectation that all public authorities should ensure they have management plans in place by the end of 2023 to support their sites to reach favourable status.

Authorities should produce those plans and work actively with Natural England and others to identify and implement the actions needed to improve site condition.

- **Actions in national parks or areas of outstanding natural beauty**

Consider designated areas such as national parks or areas of outstanding natural beauty (AONB) as part of your biodiversity duty. This is important if you have functions in or close to a site designated as a national park or AONB. Improving nature in national parks or AONBs is an action that can enhance and conserve biodiversity. If appropriate to your public body, you could comply with your biodiversity duty by:

- helping to develop and implement management plans for national parks or AONBs
- making improvements to nature in these areas

- **Improve how you manage buildings**

Review how you manage buildings and the land around them. This could include considering:

- whether you should remove vegetation around your buildings and if you do, when to do it
- what chemicals you use on the premises
- when you carry out maintenance work, to minimise disturbance to wildlife
- whether you can reduce the use of energy and water to help reduce pollution and address the pressure it puts on wildlife

14.7 Educate, advise and raise awareness

You can help the public understand biodiversity and why it's important to conserve and enhance it. This can encourage land managers, businesses and the general public to take action to benefit biodiversity too.

For your policies, objectives and actions, you could:

- include the public in projects to improve biodiversity
- feature biodiversity in public or internal communications
- use libraries and museums to raise awareness of biodiversity
- put information boards in green spaces or offer guided walks
- include biodiversity considerations in advice for internal and external clients and service users
- educate your staff on your biodiversity actions and why they're important
- raise public awareness of how their gardens can support biodiversity, for example by avoiding artificial grass

14.8 Review internal policies and processes

All public authorities have internal policies and processes for staff and facilities that could affect biodiversity.

Changes to internal policies and processes that can affect biodiversity are another way you can meet your duty. Policies you could review include:

- transport – support sustainable travel to reduce carbon emissions and improve air quality
- waste – review waste management and recycling processes to reduce water pollution and air pollution from waste transport and landfill

- water – improve water efficiency to reduce the effect water abstraction can have on sensitive habitats and species
- procurement – buy sustainable materials and supplies to reduce the demand on natural resources
- light – make sure the design of artificial lighting minimises effects on nature

14.9 Prepare for biodiversity net gain

Biodiversity net gain (BNG) is an approach to development or land management that aims to leave the natural environment in a measurably better state than it was beforehand. If your public authority does not have a biodiversity net gain policy in the local plan, you could consider preparing one.

Future development projects (apart from exempt developments) will need to achieve a 10% biodiversity net gain. This is expected to be required from:

- November 2023 for Town and Country Planning Act 1990 (TCPA) projects not falling under the small sites definition [footnote 1]
- April 2024 for TCPA small sites
- the end of 2025 for Planning Act 2008 (Nationally Significant Infrastructure Projects)

Local planning authorities will need to report what is done for biodiversity net gain on and off development sites.

Local planning authorities should consider areas that are appropriate for biodiversity net gain. Consider how existing planning advice and strategies can protect and enhance biodiversity.

The developer is responsible for selecting the competent person for completing the small sites metric (SSM). The competent person does not need to be an ecologist for the SSM. The local planning authority does not need to verify the competent person.

Find out about biodiversity net gain and how it affects you.

- **Get help with your actions**

You can get help from experts when considering what actions you can take. For example, you could:

- commission a survey or audit to help assess your property and its potential to improve biodiversity
- consult your local nature recovery strategy to find out what actions would benefit your area – preparation of these will begin in 2023
- check existing data about wildlife and habitats in the area
- speak to Natural England, Environment Agency, Forestry Commission, local wildlife trusts or consultant ecologists

You can get existing local data from Local Environmental Record Centres. If you commission research, you can share that data with them. To help you understand habitats and species in your area, you can use the national Magic Map.

Getting expert advice can help you understand how you can make a difference for biodiversity and avoid unintended outcomes.

You may need to get expert environmental advice on planning before preparing plans or considering development proposals.

Environmental assessment regulations require monitoring of the effects of development plans and projects. You could use the results of this monitoring as a source of environmental data.

14.10 Reporting your biodiversity policies and actions

Some public authorities need to publish a biodiversity report.

Local authorities (excluding parish councils) and local planning authorities must write and publish a biodiversity report. Other public authorities must fulfil their duty, but do not need to publish a report.

For local authorities and local planning authorities, the end date of your first reporting period should be no later than 1 January 2026.

After this, the end date of each reporting period must be within 5 years of the end date of the previous reporting period.

The report is a chance to communicate how your organisation is helping to improve the environment and show the positive change you're making.

Defra intends to include references to your biodiversity reports in the 5-yearly reviews of the Environmental Improvement Plan.

Defra's reporting your biodiversity duty actions guidance gives information about when you must publish your report and what you need to include.

Your biodiversity reports will:

- help everyone understand how we are collectively meeting shared goals to conserve and enhance biodiversity
- allow you to showcase the action you're taking to improve biodiversity

- show other authorities and the general public what they can do for nature recovery and share good practice

14.11 Footnotes

1. For BNG exemptions, ‘small sites’ has 2 definitions.

Residential small sites will have either:

- 1 to 9 dwellings on sites of less than one hectare
- an unknown number of dwellings on sites of less than 0.5 hectares

Non-residential small sites will have either:

- less than 1,000 square metres of floor space
- a site area of less than one hectare