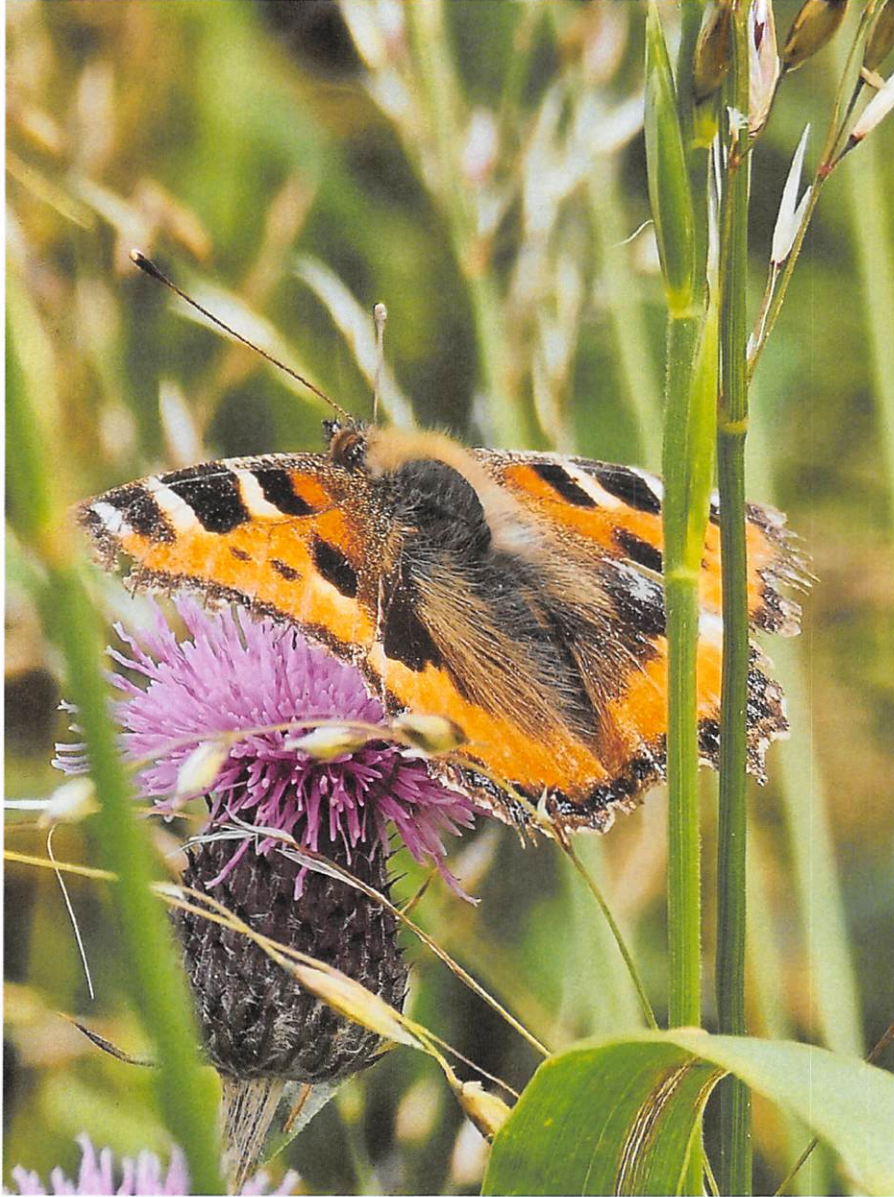


BLACK SLUICE

INTERNAL DRAINAGE BOARD



Environment Committee Meeting

Tuesday, 27th February 2024 at 2pm

Station Road, Swineshead, Lincolnshire, PE20 3PW



Black Sluice Internal Drainage Board

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Our Ref: DW/JB/B10

Your Ref:

Date: 20th February 2024

To all Members of the Environment Committee and Invited Guests

Notice is hereby given that a Meeting of the Environment Committee will be held at the offices of the Board on Tuesday, 27th February 2024 at 2:00pm at which your attendance is requested.

The Board are conscious of reducing the amount of printing where possible, therefore some items on the agenda will only be found on the Board's website at the following link:

<https://www.blacksluiceidb.gov.uk/resources/document-library/meetings/>

Daniel Withnall
Chief Executive

AGENDA

1. Recording the meeting.
2. To welcome guests and receive apologies for absence.
3. Declarations of interest.
4. To receive and, if correct, sign the Minutes of the last meeting of the Committee held on 7th March 2023 (**pages 1 - 11**)
5. Matters arising.
6. To review the Biodiversity Action Plan 2021 – 2026 (**website**)
7. To receive a report on Environmental Work completed in 2023/24 and recommendations for proposed works for 2024/25 (**pages 12 - 19**)
8. To receive the 2023 Black Sluice IDB Barn Owl Box Reports (**pages 20 & 21**)
9. To receive a report on the 2023 butterfly records from Windmill Lodge Butterfly Conservation and Wildlife Area, Amber Hill (**pages 22 - 24**)
10. To receive the following 2024 Conservation surveys of watercourse:
 - (a) North Forty Foot Drain (**pages 25 - 28**)
 - (b) Horbling Fen Drove Drain (**pages 29 - 32**)
 - (c) Old Forty Foot (Horbling) (**pages 33 - 35**)
11. To receive a report from Tammy Smalley, Head of Conservation, Lincolnshire Wildlife Trust on various environmental topics (**verbal**)
12. To receive a report on mink control from Water Recovery East (**verbal**)
13. Any Other Business.

BLACK SLUICE INTERNAL DRAINAGE BOARD

MINUTES

of the proceedings of a meeting of the Environment Committee

held at the offices of the Board on
7th March 2023 at 2pm

Members

Chairperson - * Mr P Holmes

* Mr W Ash	* Mr J Atkinson
* Mr V Barker	* Mr K C Casswell
Mr M Rollinson	* Mr P Robinson
* Mr R Welberry	Mr R Needham
* Cllr P Skinner	

* Member Present

In attendance: Mr I Warsap (Chief Executive)
Mr P Nicholson (Operations Manager)
Ms T Smalley (Lincolnshire Wildlife Trust)
Mr S Harrison (Works Manager)
Mr D Withnall (Finance Manager)

2100 Recording the meeting - Agenda Item 1

Board Members were informed that the meeting would be recorded.

2101 Apologies for absence - Agenda Item 2

Apologies were received from Mr R Needham and Mr M Rollinson.

The Chairperson welcomed and introduced Tammy Smalley (guest from Lincolnshire Wildlife Trust).

2102 Declarations of interest - Agenda Item 3

There were no declarations of interest.

2103 To review the Environment Committee Terms of Reference - Agenda Item 4

The Committee RESOLVED to recommend that the Environment Committee Terms of Reference be approved at the next Board meeting.

2104 Minutes of the last meeting - Agenda Item 5

The Minutes of the last meeting of the Environment Committee held on the 1st March 2022, copies of which had been circulated, were considered. It was AGREED that they should be signed as a true record.

2105 Matters arising - Agenda Item 6

There were no matters arising.

2106 To review the Biodiversity Action Plan (Policy No. 11) - Agenda Item 7

The Chairperson introduced the Biodiversity Action Plan, noting that it is a dynamic document and there are no proposed changes.

The Chief Executive added that this isn't just a document produced because the Board are obliged to do so, it includes aims and objectives that the Board strive to achieve.

Mr R Welberry referenced Mackay's Pit, Swineshead, and whether the Board would be willing to help a community pond as part of the Biodiversity Action Plan, noting the costs associated with the algae (£780), currently paid by the Parish Council. The Chairperson responded that the Board contributed when it was dredged out a few years ago and also installed fishing platforms for a reasonable price. Mr R Welberry acknowledged this. Both the Chairperson and Chief Executive added that there has got to be a balance, and where would the line be drawn if the Board started to help such community assets.

Mr R Welberry further noted another potential project in Swineshead (Sand Holes, Coles Lane), noting that they would like to keep more water in it during the summer for environmental purposes. There is a drain that runs along the rear of the site, with Mr R Welberry wondering whether it would be possible to sluice it in dry times in order to hold more water there, so that it floods back in, rather than drain away. The Operations Manager suggested that perhaps the committee may consider that the Board's contribution could be to provide advice.

The Chairperson referred back to the Biodiversity Action Plan, noting that there has been an increase in the number of members of public quoting and referring to the plan when contacting the Board. There are a lot more people that are aware of their surroundings.

The Committee RESOLVED to recommend that the Biodiversity Action Plan (Policy No. 11) be approved at the next Board meeting.

2107 To receive a report on environmental work completed in 2022/23 and recommendations for proposed works for 2023/24 - Agenda Item 8

The Works Manager presented this agenda item, highlighting particular points as follows.

Completed Works 2022/23

Owl Boxes

There have been three new boxes erected at Dunsby, Haconby and Damford. It was noted that Jackdaws were present in thirteen (60%) of the twenty-two boxes checked in 2022, questioning if Ms T Smalley was aware of any ways to reduce this?

Mr R Welberry noted that they are not a protected species and could therefore be shot under a gun licence.

It was also confirmed that a barn owl wouldn't 'see off' a Jackdaw, with the Chairperson adding that he has known of an instance where a Jackdaw built a nest on top of a sitting Barn Owl that consequently died.

Ms T Smalley wondered whether there is anything connected to the entrance that may help but will ask the question.

Mr V Barker added he wondered whether it could be connected to how the bird enters the box, i.e., Barn Owls from underneath and Jackdaws straight in.

The Chief Executive noted the boxes are purchased from the Wildlife Conservation Partnership and so it would be assumed they would know what is best for the Barn Owls.

Mr V Barker added that he has seen an increase in the number of Barn Owls in his area.

Early Flailing Works

This early flailing work continues along with the early health and safety bank cuts on the main river highland carriers for the Environment Agency through the Public Sector Co-operation Agreement (PSCA).

Control of Mink

The Board has caught fifteen Mink in the four traps set, with a big population on the North Forty Foot Drain between Boston and Langrick Road. Five of the Mink have gone for DNA testing; however, no DNA results are back yet. Although it has been identified that there were two adult males, one adult female and two juvenile females. It is believed that there is a high population of mink in the Board's catchment, with specific hotspots. Also noting the high population of water vole at risk.

It was confirmed that the Board currently operates four of the Remoti traps, there being no limit to the number of traps that can be used with the app. There is also two years free monitoring with the Remoti. Officers at the Greater Lincolnshire Nature Partnership (GLNP) monitor all of the IDBs traps and put together a map of the concentrations of mink.

It was noted that Tony Martin (Waterlife Recovery East Project) has four hundred traps. Ms T Smalley added that there are now areas where they have no mink, therefore indicating the success of the project. Ms T Smalley further added that the first trial of this within Lincolnshire was conducted on the Becks that flow off the Wolds through the coastal grazing marshes, which was funded by Viking Link as part of their planning condition as part of water vole mitigation. This is coming up to the end of three years of trapping and a report is currently being written up, which Ms T Smalley will share. This trial has suggested that wherever there are large scale planning developments, where water vole mitigation is required, mink control should be included in this planning condition, alongside ensuring that the water vole habitat is provided. Ms T Smalley further added that funding has been achieved from Keadby 3 Power Station (North Lincolnshire) from the developers as part of the planning conditions.

It was further confirmed that in the areas where the mink has been eradicated, an increase in the water vole population has been seen.

Mr R Welberry noted that in order to be successful, the other IDBs also need to have mink traps. It was confirmed that the neighbouring IDBs are all trapping and catching mink also. The Works Manager also added that there is a live report of all the mink caught on the Waterlife Recovery East Project website.

The Works Manager also added that the Board require help from landowners and public to identify where they are, from sightings or roadkill. The Board are looking to develop a system on the Board's website whereby the public can report mink sightings.

Tony Martin (Waterlife Recovery East Project) has recommended that eight traps would be sufficient for the Board.

Environmental Surveys of Larger Hedge Rows in our Bushing Programme

The Board have appointed a new ecology consultant, Archer Ecology Ltd, as Inspired Ecology Ltd has ceased trading. Archer Ecology is an ex-employee of Inspired Ecology.

Big Boston Clean Up

The 2022 clean up was cancelled due to Covid and there has been no correspondence about a 2023 clean up yet.

Cllr P Skinner noted that he will find out, noting that it would be a shame for it not to go ahead, but that it is election year and so it may not.

Operation Fly Swat

The Works Manager noted that he has been trying to arrange a meeting with the head of this operation, noting that usually by now the Board are aware of their financial contribution for the following year, but have not been notified of it this year.

Cllr P Skinner noted that the Council finances have only just gone through, adding that it has been tough this year, noting that they are still waiting for some form of help from the Secretary of State regarding drainage rates, reminding the committee the Council are capped at a 3% increase and 52% of what is retained by the council is the drainage rate. Cllr P Skinner noted that if the Works Manager sends him an email, he will chase the matter up.

The Works Manager added that there have been some issues with Fly Swat, in that some of the collections in smaller "drains" aren't being collected by the Fly Swat team, there being some confusion over the shared responsibility of the Board and the Fly Swat Team.

Cllr P Skinner noted that there ought to be a meeting to discuss this, again, noting that he can chase this up.

The Chairperson noted that the council have always collected any fly tipping encountered on his farm promptly.

Mr V Barker questioned if the Operation Fly Swat covers just the Black Sluice area? It was confirmed that it is just Boston Borough Council area.

The Works Manager noted that there are particular locations where it frequently occurs. Cllr P Skinner also noted that there is a team of enforcement officers that have cameras and can be deployed.

Invasive Species

Wild Yellow Flowering Brassica Rapa – continuous flailing trials over a three-year period have been completed, the trials indicating that May is the optimal time for cutting the yellow flower prior to seeding, however, the Board can only complete this flailing where finances allow.

The Chairperson thanked Mr J Atkinson for his diligence and input on this matter. Also, encouraging landowners to do their own flailing if they so wished.

Mr P Robinson noted that it has been successful on the North Forty Foot Drain and that the grass is now established.

Bat Boxes and Surveys

There are no signs of occupancy in any of the Board's bat boxes. The Chief Executive noted the disappointment that there is no occupancy. The Chairperson noted that bats are not easily accepting of them, it could take 3-4 years for them to use them, if ever. It was noted that there are bats present, they just aren't using the boxes.

Environmental Schemes

Eel Passability at the Boards 'Category A' Pumping Stations - The Board has eleven pumping stations categorised as this. The Board currently receives Eel Exemption Notices, which have been extended until November 2024. The Chief Executive also noted the large sums of money required to implement Eel passage mitigation at these pumping stations; ranging from £300,000 (Donington Wykes Pumping Station) to £3.4million (Black Hole Drove Pumping Station).

Mr K Casswell noted that he doesn't understand why they don't disregard the regulations until funding is made available to complete the works.

The Chairperson added that, with appropriate conditions, an eel will travel across land anyway.

Grass Snake Nesting Sites

The nesting / hibernation sites have been redressed, there is a healthy population at Black Hole.

Wildflower Meadow

The Wildflower Meadow at Cooks Lock Pumping Station is being maintained, it being noted that there are a few bald areas and so more seed may be required. Ms T Smalley noted that she could arrange a Land Advisor to offer some advice on this. The Works Manager and Chief Executive thought this would be beneficial.

Badger Setts

The Board continue to follow Natural England guidelines when working adjacent to Badger setts.

Pollution

If there are pollution incidents, the Board contacts the Environment Agency (EA) and assist them if required, seeking to recover any costs.

Ms T Smalley questioned how many incidents there are a year? The Works Manager responded that there have been two reported to the EA this year, with the Chief Executive adding that there is no trend year on year.

Ms T Smalley added that if that incident results in a fine for the polluter, the Lincolnshire Wildlife Trust and other charitable environmental bodies are approached to accept the fine with a plan of works relevant to the area to deliver environmental improvement.

Greater Lincolnshire Nature Partnership

The Board continues with its Service Level Agreement with the GLNP, this includes the Lincolnshire Environment Records Centre data, which holds over 15 million sightings.

Horbling Fen SSSI; Water Level Management Plan with Natural EnglandThe Chief Executive explained that he realised it had been quite a while since the plan had been reviewed and so it was reviewed in 2022 and submitted to Natural England for approval. Natural England have not yet approved it, but have asked if they can provide any financial assistance for a new weir or for any new structures at Horbling. The Chief Executive has responded with new pumps etc. and is awaiting a response back.

South Lincs Pollinator Project

The Board has two pollinator sites – Kirton Marsh and Gosberton Risegate. Ms T Smalley added that the lady who was leading this retired and her successor is now in post. There are now two Land Manager Advisors at the Lincolnshire Wildlife Trust who will cover this project.

The Works Manager noted that this advice would be helpful, adding that he has been in contact with Boston Seeds also.

Artificial House Martin Nests

The House Martin has been identified as an endangered species, with them not being able to build their nests on new buildings. The Board have therefore erected five artificial nests at Helpringham Pumping Station and five at Quadring Pumping Station. It was noted that they have only just been erected and so haven't been used yet.

Ms T Smalley noted that with Swift boxes, using a 'caller' is helpful, it is a device that mimics the sound of the bird, to encourage the bird to use the nest, it thinking there are already others around.

The Wash and North Norfolk Marine Partnership

The Operations Manager attends these meetings, contributing as and when required.

The Environmental Good Governance Guide for Internal Drainage Boards

These guides were circulated at the last Board meeting, copies of which are available. The Chief Executive added that it is an interesting document.

Proposed works 2023/2024

Water Vole Surveys

As previously mentioned, the Board used a new ecology consultant last year, Archer Ecology, an example of work produced by them is included within the agenda (Water Vole Surveys), this report cost £6,000 and the Board's Officer's don't feel it is good value for money. The Board's Officer's feel that the level of information within this report could be produced in house by the Board's own employees and so are going to look at completing such work inhouse going forward. The Operations Manager added that such surveys and reports used to be completed by the hand roding gang. Budget £2,000.

Winter Bushing and Cleansing

The Board has a separate bushing budget, outside of the Environment Budget, fish relocation whilst cleansing is budgeted at £2,500.

Owl Boxes

The repair and replacement of three existing owl boxes during 2023/24 is budgeted at £2,000.

Recording by Machine Drivers

Tom-Tom repairs and updates are budgeted at £1,500.

High Profile Watercourse Banks

Environmental flailing is budgeted at £4,000.

Water Levels

The Chief Executive noted that the Board has implemented a new pumping regime (only pumping whilst cheaper night rates are in operation and lifting the start and cut off levels), with a view to reduce pumping costs, increase aquatic diversity and assist with soil moisture in the catchment. This was implemented in January and is still in place now, because of the lack of rainfall, noting that, officially, the area is still in a drought.

Mr V Barker felt that this new pumping regime has been a success. Mr V Barker added that we are approaching the time of year when the Environment Agency (EA) raise the levels in the South Forty Foot Drain which will affect the Board's pumping regime. It was noted that it is lifted because of the EA's navigation obligation and for aquatic biodiversity.

The Chairperson noted the Board's rainfall record and that there is only one month in the last twelve months where the rainfall has been significantly more than the average.

Ms T Smalley referred to Ken Hill Estates, Snettisham, Norfolk, noting that, as of January 2023, they had recorded no rain on their farm since April 2022.

The Works Manager added that there have been a number of reports of 'pollution' recently, when actually it is just stagnant water that has been sat in drains. Mr V Barker questioned if it is connected to septic tanks and foul water? It was noted that it could be.

Invasive Non-Native Species (INNS)

The purchase of additional Remoti mink traps is budgeted at £2,000.

Operation Flyswat Partner

As previously noted, a meeting needs to be held to establish the responsibilities of each partner. The contribution is estimated at £3,600.

Grass Snake Nesting Sites

Redressing of the Grass Snake nesting sites are budgeted at £250.

Wildflower Meadow

The maintenance of the wildflower meadow at Cooks Lock Pumping Station is budgeted at £600.

Pollinator Project

The development of the Board's pollinator project site is budgeted at £750.

The Wash and North Norfolk Marine Partnership

There is a £400 contribution for the Wash and North Norfolk Marine Partnership.

Greater Lincolnshire Nature Partnership

There is a £300 contribution for the Greater Lincolnshire Nature Partnership.

Environment Budget 2023/24

The committee AGREED the budget as below:

Water Vole Surveys	£2,000.00
Winter Bushing & Cleansing	£2,500.00
Barn Owl Box Replacements	£2,000.00
Tom Tom Repairs/Updates	£1,500.00
High Profile Watercourse Banks	£4,000.00
Mink Control	£2,000.00
Operation Fly swat partner	£3,600.00
Grass Snake Sites	£250.00
Wild Meadow Maintenance	£600.00
Pollinator Project	£750.00
WNNMP	£400.00
GLNP	£300.00

Total **£19,900.00**
(2023/24 Environmental Budget being £21,000)

2108 To receive a report on Barn Owl Nesting Boxes for 2022 - Agenda Item 9

The Chairperson presented the Barn Owl report for 2022, noting that Alan Ball (Wildlife Conservation Partnership) was not able to complete as much checking in 2022 as previous years due to not being able to for a few months.

It was noted that succession planning for this role is not required yet and that this service is provided through the Wildlife Conservation Partnership.

2109 To receive a report on the 2022 butterfly records from Windmill Lodge Butterfly Conservation and Wildlife area, Amber Hill - Agenda Item 10

The Chairperson presented the 2022 butterfly records from Windmill Lodge Butterfly conservation and wildlife area at Amber Hill.

The Chief Executive noted that Phil and Ros Bowler would welcome any comments or questions through this committee.

2110 To receive a report from Tammy Smalley (Head of Conservation at Lincolnshire Wildlife Trust (LWT)) - Agenda Item 11

Ms T Smalley gave the following update.

Natural England Catchment Sensitive Farming Advisor

Colette Tate is in the post above, Ms T Smalley noted she will share contact details.

Greater Lincolnshire Nature Partnership

The Lincolnshire Wildlife Trust continues to host the GLNP on behalf of all partners. The GLNP are in the process of being appointed by Lincolnshire County Council as the lead for communication on the Greater Lincolnshire Local Nature Recovery Strategy. Defra has awarded Lincolnshire County Council as the responsible body for the whole of Greater Lincolnshire and the Council are going to contract the GLNP to do all of the engagement and mapping work for it. Guidance is being awaited from Defra, originally anticipated in April 2023, but is going to be delayed.

Green Investment in Greater Lincolnshire

This is the Natural Environment Readiness Fund that was overseen and delivered by the Environment Agency. From November 2023, developers will have to deliver biodiversity net gain and so will be looking for biodiversity credits. Lincolnshire Wildlife Trust have been working on setting up a Greater Lincolnshire process for the market of sellers (landowners) who could sell their biodiversity, water nutrient credits or carbon credits to a buyer. 150-200 landowners have engaged and will be contacted next week about submitting an expression of interest to go on a registry to start developing what credits they could sell.

The Chief Executive questioned what is the minimum area of land needed to provide a credit to sell? Ms T Smalley responded that there is no minimum. The Chief Executive continued that the Board own 34 pumping stations, sat on c0.25 acres each, some banks and a couple of fields rented out, questioning if it is worth the Board looking into this? Ms T Smalley felt it is worth looking in to, adding that the market will not be based on whether you are a big landowner or a little landowner. It is not a case of selling specific credits to a specific development.

The Chairperson questioned if the marketplace had dictated the price yet? Ms T Smalley noted that the marketplace will dictate the price, however it is not up and running yet. Further adding as an example, carbon credits under the Woodland Carbon Code are selling for £30 per carbon credit. The Chairperson felt that the associated administration costs and involvement would outweigh anything gained. Ms T Smalley noted that the administration would be with the facilitator.

Ms T Smalley gave some further pricing examples:

- *Biodiversity net gain credits* (a normal hectare of land could produce around four biodiversity net gain credits). The higher / rarer the habitat delivered, the more the seller will be paid. In relation to average habitats (e.g., flower rich meadow), at present, the market is at between £20,000 per unit (lowest), £45,000 (average), up to £95,000 in London (highest). A biodiversity unit is a mathematical equation that can be calculated using the biodiversity metric, qualified ecologists must undertake the surveys and it will be monitored over 30 years.
- *Nutrient neutrality* – Currently Lincolnshire doesn't have nutrient neutrality requirements. In the areas where it is enforced, if you want to build a house, you must offset the nutrients being created by the development. It is estimated that each house will cost £3,000 - £5,000 for the credits. Real example - 1 hectare wetland project could mitigate between 100 – 300 houses.

The Chief Executive questioned if things such as bat boxes, owl boxes etc. could be sold as credits? Ms T Smalley noted that it will only attract philanthropy, it is habitat being sought.

Mr K Casswell noted that from a farmers perspective, if he had an acre of woodland set 20 years ago, would that be viable? Ms T Smalley confirmed that the carbon credits would be able to be sold. The market is currently at around £30 per carbon credit and typically a lowland woodland generates 300-350 carbon units per hectare.

Ms T Smalley referred to the Orsted Offshore Windfarm (global developer) who want to be net positive as a business across their whole remit. They asked 25 people to bid to be their biodiversity enhancement project. Lincolnshire Wildlife Trust and the Yorkshire Wildlife Trust secured this. For the first five year pilot phase, £3 million has been secured to complete restoration pilot work on the River Humber. If this is successful, more funding will become available.

The Chief Executive suggested that the Board compiles a schedule of what the Board owns and believes to be environmental benefits for Ms T Smalley to review. Ms T Smalley confirmed that this is the expression of interest, which she will be circulating with all of the IDBs. This can then also be shared with Board members and put on the Board's website. Once an expression of interest is submitted, the Lincolnshire Wildlife Trust team will assess whether they think any have any potential for delivering credits and if they do, and the landowner wishes to continue, they will then look to develop a more detailed plan around what could be delivered.

Ms T Smalley also noted that government guidance was released last week around what can be stacked and bundled. Carbon credits can not be stacked with anything, but you could get woodland creation money to create the woodland and then go on to sell the carbon credits created from that. Biodiversity net gain, water and some forms of agri-environment can be stacked and bundled.

The Chairperson referred to the Board's pit at Bourne North Fen, questioning if there would be any management rules that the Board would have to follow if its credits were sold? Ms T Smalley noted that Bourne North Fen is going to be Lincolnshire Wildlife Trust's exemplar site for selling ecosystem services.

Further noting that when selling credits, you will be signing up for at least 30 years and it has to be managed to deliver those outcomes. It will be monitored, and enforcement taken if the agreement is blatantly breached.

Peat Assessment

The Lincolnshire Wildlife Trust have been assessing the condition of peat in Lincolnshire and there are options around peatland restoration and peatland code payments. This cannot be stacked against anything else.

Mr K Casswell noted that he believed Defra were going to provide £3million funding for peat surveys and that ADA may manage some of that. Ms T Smalley noted that they are already providing this funding and that Fens East have secured almost £900,000 and have been doing the condition assessment of peat across Lincolnshire, Norfolk, Suffolk and Cambridgeshire peats. The same is also being done in the Humber Head Levels, with Yorkshire Wildlife Trust and Nottingham Wildlife Trust, £500,000 was secured. Any sites that meet the criteria for peat restoration will submit an application during June and July.

National Seedbank Network

Local provenance native wildflower seed will be available for some schemes such as natural flood management. There is a plant propagation site on the coast planned and discussions are happening regarding another large-scale plant propagation site in Lincolnshire.

Wash Barrage

The Lincolnshire Wildlife Trust are against the development of a Wash Barrage due to technical and nature conservation reasons.

Grants

The Chief Executive noted the number of grants secured. Ms T Smalley noted that in 2021, she applied for 12/13 grants and achieved all of them.

Mr V Barker noted the value of Ms T Smalley's update. The Chairperson thanked Ms T Smalley for her time.

2111 To receive the minutes from the ADA Lincolnshire Branch Environment Committee: - Agenda Item 12

The Chairperson presented the minutes from the ADA Lincolnshire Branch Environment Committee Meeting held on 6th October 2022.

2112 Any other business - Agenda Item 13

(a) Bird Flu (Avian Influenza)

The Works Manager noted that the Board has reported five dead swans to Defra under the Avian Influenza guidelines and another sick swan has been noted on the Old Hammond Beck. It was confirmed that nothing is received back to let the Board know if the birds had got Avian Influenza.

There being no further business the meeting closed at 15:41.

BLACK SLUICE INTERNAL DRAINAGE BOARD

ENVIRONMENT COMMITTEE MEETING - 27 FEBRUARY 2024

AGENDA ITEM 07

REPORT ON ENVIRONMENTAL WORKS

Completed Works in 2023/2024

1. Owl Boxes

Three new owl boxes have been purchased. Repairs were completed where required and all boxes fixed to pumping station buildings were internally cleared, cleaned and suitably 're-dressed'.

The completed 2023 Wildlife Conservation Partnership Barn Owl Box Report is included in Agenda Item 8.

It should be noted that Jackdaws were present in twenty-one (87%) of the twenty-four boxes checked in 2023. There seems to be quite an alarming decline on last year's where we had 8 nest boxes occupied by Barn Owls with young.

2. Early Flailing Works

Early season bank flailing on our high profile watercourses (approximately 67km) was completed along with the early health and safety bank top cuts on the main river highland carriers for the Environment Agency (EA) through our Public Sector Co-Operation Agreement (PSCA).

Our pumping station grounds maintenance cuts commence in March each year until the end of the growing season.

3. Control of Mink

The Board is continuing with the mink control project in partnership with the now newly named Waterlife Recovery Trust (WRT) with the aim to enhance water vole conservation and also to use as a contribution towards the Board's BAP. This will compliment other efforts from surrounding IDB's.

We are pleased to report that, since our last meeting, the Waterlife Recovery Trust has now been given funding through the Natural England Species Recovery Program which has allowed them to expand their work.

Following a meeting with WRT, twenty-one locations have been identified in the Board's area including the four we already have traps in. WRT will supply the Board with the rafts, traps, and "Remoti" units. These units will be monitored by the Board and WRT and the dispatch of the mink will be by the Board, volunteers, and a local pest control company. Please refer to the map on page 19, which shows the locations.

So, with this information, we propose the following:

- Budget costs for the upkeep and monitoring of the new existing units and despatching of mink, c£2600.

We are continuing our collaboration with the GLNP mink strategy committee. And we are continuing to share information.

4. Environmental Surveys of Larger Hedge Rows in our Bushing Programme

Surveys were carried out by the Board's officers on any significant hedgerows that were felt could offer a form of environmental enhancement prior to any bushing works. No environmental enhancements or protected species were identified during the 2023/24 surveys or works.

The Board will continue to use the services of Tim Smith until such time that we have our own Environment & GIS Officer in post.

5. RSPB Water Abstraction for Frampton Marsh

Permission has again been granted by the EA and the Board for the RSPB to abstract 500,000m³ of water per annum from the Wyberton Marsh pump drain to assist with water management levels in the nearby Frampton Marsh Nature Reserve.

An estimated 50% of this water volume re-enters the Wyberton Marsh pump drain after 'flushing' the Frampton Marsh Nature Reserve.

6. Operation Fly Swat

The Board remains a partner within the Operation Fly Swat team and contributes towards its running costs, which in turn offers financial benefits to the Board in relation to the amount the Board previously spent on fly tipping clearance, collection and disposal. The number of reported fly tipping incidents that the Board has attended has significantly decreased.

7. Invasive Species

Invasive species identification guides produced by the Greater Lincolnshire Nature Partnership (GLNP) for Himalayan Balsam, Japanese Knotweed, Giant Hogweed, New Zealand Pigmyweed and Floating Pennywort are handed out to the operational workforce at the annual pre-cutting brief.

8. Bat Boxes and Surveys

Bat boxes erected on all pumping stations are being carefully monitored for occupancy, to date we still have no confirmed sightings of occupancy.

9. Environmental Schemes

Eel Passability at the Boards 'Category A' Pumping Stations

As previously reported the eleven pumping stations in the initial EA Category A classification (Chain Bridge, Black Hole Drove, Cooks Lock, Donington Wykes, Donington North Ings, Gosberton, Great Hale, Holland Fen, South Kyme, Swineshead and Wyberton Marsh) have all been assessed by the EA consultants resulting in detailed Eel passage mitigation and proposals being produced. These have all been evaluated with costs ranging from Donington Wykes £300k to Black Hole Drove £3.4m.

The original 5 year Eel Screen Exemption period first expired in February 2021 with a further one year extension expiring in February 2022.

A further Exemption Notice has now been issued and received for all eleven 'Category A' Pumping Stations to take effect from 01/03/2022 – 01/11/2024.

11. Grass Snake Nesting Sites

The nesting/hibernation sites have been redressed with reeds and weed.

12. Wild Flower Meadow

The established area alongside the North Forty Foot Drain north of Cooks Lock Pumping Station totalling approximately 2,000m² is being managed as a Wildflower Meadow.

13. Bug Hotel

The Bug Hotels at our Swineshead office/depot have been maintained throughout the year.

14. Badger Setts

From a conveyancing point of view Badger setts within banks continue to be a problem, especially so in raised main riverbanks where high fluvial flows could wash through the setts resulting in bank failures and breaches.

We continue to follow Natural England guidelines when working adjacent to Badger setts with all our site-based employees maintaining Natural England licenses to work within the proximity of Badgers.

15. Pollution Incidents

The Board have attended site(s) where potential pollution incidents could have a detrimental effect on water quality and/or the general environment in order to reduce any potential pollution/contamination issues.

We involve the Environment Agency and seek recovery of costs for all resources employed on such sites.

We continue with Impairment Liability Insurance for £5m of cover.

16. Greater Lincolnshire Nature Partnership (GLNP)

As in previous years the Board (as do all Lincolnshire IDB's) continued with our Service Level Agreement (SLA) with the GLNP and attend their annual conference.

The Lincolnshire Environment Records Centre (LERC) data is included within our SLA, this enables us to check the ecological data from within and around our catchment. The complete LERC data collection holds over 15 million sightings.

18. South Lincs Pollinator Project.

We are involved with other IDB's and organisations (LWT, EA) to promote suitable banks as pollinator sites, we have selected the southern bank of the Kirton Marsh drain running up to the pumping station.

Botanical survey works and advice are being offered by experts before and after enhancement, once confirmation of establishment is confirmed we will continue to manage accordingly and be guided by the experts.

19. Artificial House Martin Nests.

The House Martin is part of the hirundines family (swallows, swifts, martins) and is in decline in the UK. The Board are in a unique position to help the House Martin as one of the problems is a lack of suitable nesting sites and the fact their mud-based nests tend to fall off the walls they attach them to in dry weather.

The two selected sites at Helpringham and Quadring Fen Pumping Stations did have lots of interest for the House martin, however, didn't nest in them this year but all the signs are positive for this year's nesting season.



20. The Wash and North Norfolk Marine Partnership (WNNMP).

We continue to be an advisory member of the partnership focusing on marine restoration and recovery and regularly attend the full partnership and Boston Advisory Group meetings.

21. The Environmental Good Governance Guide for Internal Drainage Boards

This detailed guide was published by ADA in October 2022 and offers guidance and codes of practice to activities undertaken by IDB's. Our Operations Team will be integrating these best practices into our everyday workplace.

DUTY
BEST PRACTICE
GOING FURTHER
KEY RESOURCES

Copies are available upon request.

Proposed Works and Environmental Involvement in 2024/25

1. Water Vole Surveys

Committee approval is requested to continue to employ Tim Smith until we have appointed our own Environmental & GIS Officer to undertake further surveys for water vole evidence at the monitoring sites and on relevant sites prior to desilting and any significant capital works.

In addition, post desilting surveys will be carried out following the works where water vole activity has been found to confirm whether or not our works have had any effect on these populations. Environmental mitigation works may be required should results give evidence of disturbance.

2. Winter Bushing and Cleansing

Bushing works will commence in November along with the cleansing works, all bushes will be chipped onsite, all excavated silt will be deposited on adjacent fields, left to dry then spread and levelled across the adjacent land.

Where required, water levels will be lowered by damming lengths of the water course and the water over-pumped, if fish are evident, they will be carefully removed whilst the water is being lowered and transferred over the dams.

We have our own bushing budget outside of the Environment budget, fish relocation whilst cleansing is budgeted at £2,000.

3. Summer Cutting and Vegetation Clearance

An alternate maintenance programme has now been developed and flail mowing will commence on priority watercourses in early April, the banks being cut every 4 weeks. Early flail mowing is necessary to prevent ground nesting birds. As with the high priority sites these watercourses can then be maintained at an earlier stage than previously. Therefore, the main summer cutting programme will still commence the first week of August. The workforce will be presented with a 'Summer Cutting Brief' which will cover channel management in relation to balancing the benefits of flood risk management, agriculture, and the biodiversity values.

Where birds' nests are encountered, a minimum 10m length of bank will be left un-cut (5m each side of the nest).

4. Owl Boxes

Approval is sought for a budget of £2,100 for repairing/replacing three existing boxes during 2024/25 and to clean out the existing nesting boxes.

The boxes are purchased at £245.00 each including delivery from the Wildlife Conversation Partnership.

5. Recording by Machine Drivers

The eight machine drivers will continue to record sightings on the Tom-Tom units; environmental sightings such as badger or fox holes in banks, water vole, mink and other specialist environmental sighting will be recorded.

All sighting information is passed onto the GLNP and in turn to the Lincolnshire Environmental Records Centre (LERC).

Budget request of £1,700 for Tom-Tom repairs/updates.

6. Water Levels

Water levels will continue to be controlled via the Boards 34 pumping stations and/or the gravity channels associated with them.

The South Forty Foot Drain (SFFD) water levels were raised to their summer levels by the EA in late March and will be lowered back to winter levels in November, this obviously affects the gravity flows from the catchments into the SFFD. Water levels within the catchments will be held back where requested, this will help to enhance the aquatic biodiversity associated with the watercourses and along the banks.

7. Invasive Non- Native Species (INNS)

The identification and eradication of INNS is important for the protection of our native species. INNS are expanding their population and geographical area, often to the detriment of native species. Early identification of INNS is critical in the control of their spread, we will continue with help from the GLNP to implement identification training for our workforce to help achieve early identification and assist with removal.

INNS locations will be reported to the GLNP to help determine population trends and distribution.

We propose to continue with our mink control project with the aim to enhance water vole conservation and also to use as a contribution towards the Board's BAP. This will compliment other efforts from surrounding IDB's.

8. Operation Fly Swat Partner

Approval is sought to continue being a partner with this scheme into 2024/25.

We estimate a contribution of £4,000 as a partner contribution which far outweighs the collection, removal and tipping fees the Board would incur if we carried out all this work ourselves.

9. Grass Snake Nesting Sites

Redressing of the Grass Snake nesting/hibernation sites, create heaps of vegetation from the weed from the watercourse, reeds, leaves, grass etc. Budget £300.

10. Wildflower Meadow

To continue to maintain and develop the wildflower meadow area at Cooks Lock Pumping Station and also investigate other suitable areas around pumping stations. Budget £700.

11. Pollinator Project

We are involved with the Pollinator Project which is being organised by Lincolnshire Wildlife trust. There are 4 IDB's involved, each has a site that has been identified by the trust to introduce pollinator species. The Board's site is Kirton Marsh Pump drain. Budget £875.

12. The Wash and North Norfolk Marine Partnership (WNNMP)

Being a partner (c£400 per annum) we have a statutory duty under the UK Habitats Regulations to report on progress against the management actions on an annual basis, and the information is presented in the Action Plan.

We report on subjects such as land drainage, shoreline management (if applicable), coastal oil spills, water framework directives, chemical weed control, non-native invasive species and water abstraction.

13. GLNP

Our annual payment as a Partners is c£300.

14. Biodiversity Action Plan (BAP).

The Board adopted our BAP as one of its policies on the 3rd March 2021 and is committed to its implementation, we continue to periodically review and update it as appropriate.

Please review our BAP on our web site at www.blacksluiceidb.gov.uk and bring any suggestions back to this committee.

ADA have published an Environmental Good Governance Guide for IDB Board members to help those who sit on the Boards to have greater confidence in their role towards the environment. ADA are also developing a set of National IDB Biometrics that will help ADA to better explain the collective contribution to biodiversity made by IDB's to decision makers and the wider public.

15. Total budget allocation:-

Winter bushing & cleansing (fish relocation)	£2,000.00
Slip Repairs Pollinator Seed	£ 600.00
Barn Owl Box Replacements	£2,100.00
Tom Tom Repairs/Updates	£1,700.00
Mink Control	£2,600.00
Operation Fly swat partner	£4,000.00
Grass Snake Sites	£ 300.00
Wild Meadow Maintenance	£ 700.00
Pollinator Project	£ 875.00
WNNMP	£ 400.00
GLNP	£ 300.00
GIS & Environmental Officer (new role 50%)	£24,023.00
Total	£39,598.00

2024/25 Environmental Budget being £26,000.

Overspend of £13,598 due to the recruitment of a GIS & Environmental Officer.



Black Sluice Internal Drainage Board Area Map

Northern Works

Southern Works

- Black Sluice I.D.B.**
- Area Boundary
 - Pumping Stations
 - Open Drains
 - Piped Drains
- Environment Agency**
- Main Rivers

Scale - 1:40,000 August 2023
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ID	NAME	Catchment Area (Hectares)	Length of Boarc Drains (Metres)	No of Pumps/Grav	Total Pumping Capacity (l/s)
1	Donington Mallard Hum	387	4552	1 / grav	566
2	Donington North Ing	2260	54378	3 / grav	3058
3	Bicker Fen	851	16892	1 / grav	1516
4	Swineshead	4819	101309	3 / grav	6795
5	Kirton & Frampton	2510	58195	3 / grav	3695
6	Wyberton Marsh	1981	370710	3	2803
7	Kirton Marsh	774	16211	1	934
8	Ewerby	1142	16363	3 / grav	2237
9	Heckington	1576	26371	2	2661
10	Great Hale & Little Hale	2364	36376	3 / grav	3482
11	Holland Fen	3498	3614	3 / grav	4841
12	Boston West (Cook's Lock)	2907	26374	3 / grav	3907
13	Damfens Grounds	892	7361	2	1789
14	Souto Kyrne	1101	20216	2 / grav	1322
15	Trinity College	609	9522	2 / grav	1113
16	Helpingham	814	13043	1 / grav	1331
17	Swaton	851	7363	1 / grav	1133
18	Holding	887	12971	1	1331
19	Billingborough	713	11253	1 / grav	934
20	Sempringham	823	18995	1 / grav	1189
21	Dowby Fen	1008	13569	2 / grav	1699
22	Gosberton	2884	90020	3 / grav	3992
23	Dowby Lodge	345	8741	1 / grav	1019
24	Rippenale	501	3968	1 / grav	1019
25	Dunby Fen	569	10503	1 / grav	851
26	Pinchbeck North Fen	654	4264	1 / grav	906
27	Hacconby Fen	510	4384	1 / grav	850
28	Morton, Bourne & Leaves Lake (Black hole drove)	4146	75071	3 / grav	5776
29	Dyke Fen	Sub-catchment to 28		2 / grav	2660
30	Twenty Corner	Sub-catchment to 28		1	849
31	Quadring	406	9001	1 / grav	585
32	Bicker Eau	Sub-catchment to 4		2 / grav	450
33	Donington Wykes	Sub-catchment to 28		2 / grav	421
34	Allan House	Small Urban Catchment		2	180
35	Asgarby	1341	20484	2 / grav	n/a
36	Scredington	2685	23770	2 / grav	n/a
37	Hacconby & Sempringham	399	4690	grav	n/a
	Total	47211	765462		
	acres/miles	116660	478		

Annual Check of Black Sluice IDB nest boxes –2023

Boxes checked by Alan Ball on dates shown

Wildlife
Conservation
Partnership



Box	IPMR	Grid Ref	Location	Type	Date		Con
3290		TF154188	Richardson's Borrow Pit, Twenty	Pole		n/c	
3291		TF173211	Gandy's Borrow Pit, Twenty	Pole		n/c	
3292		TF138195	Cook's Borrow Pit, Bourne N.Fen	Pole		n/c	
1365	DYF	TF152227	Dyke Fen Pump	Pump	17/06	Jackdaw - fledged	
1366	RSI	TF167251	West Pinchbeck (Black Hole Dr)	Pump		n/c	
1367	RSI	TF166257	Haconby Fen Pump	Pump	25/05	Jackdaw – 2 chicks EM08606 & 07	
1368	RSI	TF166266	West Pinchbeck (Starlode Drove)	Pump	17/06	Jackdaw – 2 chicks EM08811 & 12	
1369	RSJ	TF165271	Dunsby Fen Pump	Pump	07/06	Jackdaw – 2 chicks EM08760 & 61	
1370	RSJ	TF164275	Rippingale Fen Pump	Pump	07/06	Jackdaw – 4 chicks EM08749 - 52	
1371	BFF	TF162284	Dowsby Lode Pump	Pump	07/06	Jackdaw – 2 chicks EM08600 - 01	
1372	DOF	TF167294	Gosberton Pump	Pump		n/c	
1373	RSQ	TF164318	Neslam Fen Pump	Pump	25/05	Jackdaw – 2 chicks EM08598 - 99	
1374	RSV	TF168331	Quadrang Fen Pump	Pump	25/05	Jackdaw – 3 chicks EM08595 - 97	
1375	RSV	TF168333	Billingborough Fen Pump	Pump	03/06	Jackdaw – 1 chick EM08681	
1376	RSG	TF170346	Horbling Fen Pump	Pump	03/06	Jackdaw – 2 chicks EM08685 & 86	
1377	RST	TF174364	Swaton Fen Pump	Pump	03/06	Jackdaw – 2 chicks EM08694 & 95	
1378	RST	TF176370	Donington Ing Pump	Pump	25/05	Jackdaw – 2 chicks EM08582 & 83	
1379	RST	TF177375	Helpringham Fen Pump	Pump	03/06	Stock Dove – 2 eggs	
1380	RSH	TF186397	Bicker Fen Pump	Pump	25/05	Jackdaw – 6 chicks EM08585 - 90	
1381	RSU	TF206425	Great Hale Pump	Pump		No access	
1383	HKF	TF185466	Heckington Pump	Pump	11/06	Jackdaw - fledged	
1384	SKF	TF207469	South Kyme Pump	Pump	11/06	Jackdaw – 1 chick EM08774	
1385	EWV	TF159484	Ewerby Pump	Pump	11/06	Jackdaw – 2 chicks EM08772 & 73 KESTREL – 3 small chicks (ringed 31/07 EM08869 – 71)	
1386	SKG	TF194507	Damford Grounds Pump	Pump		No access locked gate	
2802	BSG	TF236477	Gill Bridge (Barry Hall)	Pole	31/05	No access – pipeline works	
2803	BSH	TF205529	Hart's Grounds (Andrew Means)	Pole	31/05	Jackdaw – 4 chicks EM08647 -50	
2804	BSM	TF204484	Maryland (Pocklington Bros)	Pole	31/05	No box on pole	

3169	KSK	TF341370	Kirton Skeldyke	Pole	31/05	Jackdaw – 6 chicks EM08635 - 40	
3165	BFK	TF340359	Kirton Bucklegate	Pole		n/c	
3170	KME	TF281388	Kirton Meeres - Pick's Barn	Pole	31/05	Stock Dove – 1 egg	
2969	BST	TF248464	Holland Fen (Two Hundred Fm)	Pole	31/05	Jackdaw – 2 chicks EM08645 & 46 KESTREL – 3 eggs (had failed when checked 04/07)	
2971		TF199521	Chapel House (ex Bridge House)	Pole		No access	
2973	PAH	TF192484	South Kyme (Paddington House)	Pole	11/06 01/08	BARN OWL – 3 tiny chicks & 2 eggs 2 chicks ringed GY70648 & 49	
1387	WYB	TF359400	Wyberton Marsh Pump	Pump	31/05	Jackdaw – 3 chicks EM08641 & 43	
1388	KIR	TF343350	Kirton Marsh Pump	Pump	31/05	Jackdaw – 6 chicks EM08627 - 32	

BLACK SLUICE INTERNAL DRAINAGE BOARD

ENVIRONMENT COMMITTEE - 27 FEBRUARY 2024

AGENDA ITEM 09

2023 BUTTERFLY RECORDS

WINDMILL LODGE BUTTERFLY CONSERVATION AND WILDLIFE AREA, AMBER HILL

Well, we have really had our work cut out this year, with the relentless high winds and often very wet weather. Yet something occurred that I have never noticed before in all my decades of studying butterflies: despite what was, on the whole, a very poor summer weather-wise, the butterflies, on the whole, excelled. A very strange dichotomy indeed. The doom and gloom predictions following the 2022 ultra heatwave have not transpired. The opposite in fact. As I have mentioned previously, weather of course is the one thing that we have no control over.

It would appear that the two eastern most elms have suffered from constant exposure to north-east winds, with their leaves much smaller. They did flower though, so hopefully we can rule out Dutch Elm Disease.

2023 started off a very late season but picked up in June and carried on as if the weather was behaving! Our two tree-top dwelling Hairstreaks though perhaps suffered more than most, in view of their arboreal behaviour. We saw very few and can only hope that Mother Nature will once again work their magic. The White-letter Hairstreak (feeding on elms) appeared to do slightly better than the oak-feeding Purple, but they are both highly reclusive, especially in windy weather.

Other than that, the only species that had a notably poor year were the Small Tortoiseshell, Small Copper, and day-flying Mint Moth. With most moths being nocturnal, we would love a moth expert to come round and set up their moth trap at pertinent times of the year – I would imagine we would have some special sightings, if the butterfly successes are anything to go by. We simply have not got the time to do it ourselves. We also never heard anything more from the various specialist teams of people that were going to come and do their surveying.

The other main disappointment was, following on from the exciting sighting last year of the female Silver-washed Fritillary seeking out suitable places near to violets to lay eggs on, we saw none of these wonderful butterflies this year. I still expect them to colonise our area before long though.

The following butterflies had their best years ever on site, with many others not far behind:

- Speckled Wood
- Holly Blue
- Meadow Brown
- Small Heath
- Brimstone

The biggest UK migration ever recorded of the Red Admiral was the main feature of the year. Myself and Peter Cawdell (BC Lincs) agree that it is best to record them as one continuous brood, there was no let up once they got going. The question on everyone's lips though is: why just Red Admirals? The other regular migrants - Painted Lady, Silver Y moth, and Clouded Yellow were in very low numbers.

In October, a huge return migration of over 100 Red Admirals was recorded in Sussex, heading for the Continent. Yet at the same time fresh ones were still been recorded entering the UK on the south coast! Of course, as wonderful as it is to see huge numbers of these butterflies in our garden, we have absolutely no say in the population of migratory butterflies. They are a bonus, but being seen in such huge numbers indicates that they rather like what we have created!

With this being one of our better years, I have returned to attaching the individual species records at the end of this letter.

Many thanks for your continued support.

Phil and Ros Bowler

Brimstone.	One of the few disappointments of the year, because usually we mirror the local habitats but in this case not so with the incredible Brimstone numbers seen elsewhere. NEVERTHELESS statistically this is their BEST YEAR TO DATE!
Brown Argus.	As last year, a disastrous first brood was offset by a remarkable widespread second brood recovery.
Cinnabar.	Similar to last year.
Clouded Yellow.	None seen, a very poor CY year nationwide.
Comma.	Pretty much the same.
Common Blue.	Almost carbon copy of last year.
Dusky Sallow.	Only 4 but its best numbers to date.
Essex Skipper.	Second best year.
Gatekeeper.	Three excellent years in a row.
Green-veined White.	An average but ok year.
Holly Blue.	Phenomenal year – extremely close runner-up to butterfly of the year.
Humming-bird Hawk-moth.	As with most migrants, nothing special this year.
Large Skipper.	Second drop in numbers following the 2021 comeback. No females seen!!!! We need to closely monitor this species.
Large White.	An ok average year.
Latticed Heath.	Showing signs of becoming more regular.
Meadow Brown.	By far its best year to date.
Mint Moth.	One of the very few species to record a poor year.
Orange Tip.	40 is the second highest, but it will have to do with third best year, because its highest count of 11 is again surpassed by 14 in 2002.
<i>Painted Lady.</i>	A complete mystery: why was this, the most renowned of the migrants, very scarce across the UK, whilst the Red Admiral underwent the biggest ongoing migration to the UK ever?
Pale Straw Pearl.	Another year without any sightings.
Peacock.	Major RECOVERY BUT STILL ONLY SCORING AN AVERAGE
TOTAL.	
<i>Purple Hairstreak.</i>	Disappointing year mainly due to a wet and windy flight period.
Red Admiral.	2021 statistically remains its best year here but 2023 will always go down as THE Red Admiral year in the UK.
Ringlet.	Stuck for the last few years at a somewhat mediocre level.
<i>Silver-washed Fritillary.</i>	<i>No confirmed sightings after the potential egg-laying last year. This has been one of the most disappointing features of the year here.</i>
Silver Y.	Another poor year, 10 years now since recording triple figures.
Six-spot Burnet.	The inevitable drop to more ‘normal’ numbers, lowest since 2017.
Small Copper.	One of the few species this year to record a very poor year.
Small Heath.	For third year running its best year to date. Nothing dramatic but a definite ongoing improvement.
Small Skipper.	No change. The mystery continues.
Small Tortoiseshell.	Devastating year – no recovery from last year’s ultra heatwave.
Small White.	A little better than last year.
<i>Speckled Wood.</i>	Phenomenal year. Butterfly of the year!
Wall Brown.	Disappointingly still no return. No records of restorative creeping back, as being recorded in Derbyshire over the last two years.
White-letter Hairstreak.	Disappointing sightings, mostly due to the very wet and windy flight period. Did slightly better than the Purple.

Report of 2024 Conservation Surveys of Watercourses

1 Watercourse Name

North Forty Foot Drain (part).

2 Survey Details

The watercourse was surveyed on 16 February 2024 by Tim Smith. The survey was done entirely from the north-east bank. c3935m of watercourse surveyed.

3 Condition of Watercourse at time of Survey

The North Forty Foot Drain is a large uniform fenland watercourse, orientated south-east to north west. The water level was slightly high at the time of survey and the channel was 6-7m wide in the south-east, gradually reducing north-west to 4-5m wide. The water was turbid (depth therefore not known) and there was a silt substrate. The water was more or less standing. The channel had been weed raked with the debris dumped on both banks.



General view NW from SE end



General view SE from "Pear Trees"



General view NW from "Pear Trees"

4 Survey Findings

4.1 Adjacent Land

The adjacent land to the north-east is entirely a minor road (North Forty Foot Bank).

The adjacent land to the south-west is dominated by arable land, with field boundary wet and dry ditches, and one field boundary hedge. There are farms and farmyards, and houses and gardens dotted along the drain on the south-west side, plus two fields of pasture and a minor road.

4.2 Bank Vegetation

The vegetation of both banks is partly mown rough grass with cow parsley, common reed, common nettle, cleavers, broad-leaved dock, false oat-grass and common couch.

There are no trees or shrubs on the north-east bank. The south-west bank has mature trees, small trees and shrubs generally past the farms and houses and gardens, where some overhang the drain channel, mostly ash and sycamore.



General view SE from Holland Fen



General view NW from Holland Fen (note small ash trees at the culvert)



Trees on SW bank



Small trees on SW bank

4.3 Channel Vegetation

The only channel vegetation seen were narrow remnant margins, mostly of common reed, with some reed sweet-grass and greater pond-sedge.

4.4 Structures

Several vehicle bridges, footbridges and large diameter culverts along the survey length, giving access to farms and houses.



General view NW with trees on SW bank

4.5 Protected Species

No signs of water voles seen. Suitable water vole habitat throughout.

Two badger setts on south-west bank: one between Pelham's Lands Farm and Malt Kiln Farm, with holes and spoil; and the other near Poplar Farm, also with holes and spoil.



Sett near Malt Kiln Farm



Sett near Poplar Farm

4.6 Biodiversity Features

Narrow margins of wet reedbed habitat in places along the survey length.

4.7 Other Observations

Moorhens, mallard and mute swans.

Large bank slip on south-west bank just SE of north-western end of survey length.



Bank slip

4.8 Constraints to Proposed Works

Make good bank slip.

Use standard operating procedures for work at and near badger setts.

Avoid significant disturbance to the bank toes on each side, which is where water vole burrows would be located, if they occur.

Tim Smith
18 February 2024

Report of 2024 Conservation Surveys of Watercourses

1 Watercourse Name

Horbling Fen Drove Drain (Horbling Pump Drain) (part). 18/1.

2 Survey Details

The watercourse was surveyed on 14 February 2024 by Tim Smith. The survey was done mostly from the south bank, with part in the west done from both banks. c1525m of watercourse surveyed.

3 Condition of Watercourse at time of Survey

Drain 18/1 is a medium-sized uniform fenland watercourse, orientated east-west, whose water level was slightly high at the time of survey (although slightly lower at the pumping station end) and the channel was 4-5m wide at the eastern end, gradually reducing west to 2.5-3m wide. The water was turbid (depth therefore not known) and there was a silt substrate. The water was more or less standing but pumped east at the pumping station end. The channel had been weed raked with the debris dumped on each bank.



General view of pumping station end



General view east from western end



View east from near Fen Farm



View west from near Fen Farm

4 Survey Findings

4.1 Adjacent Land

The adjacent land to the south is a minor road and hard track.

The adjacent land to the north is arable, with field boundary wet ditches, and at the western end there is a barn, rough grass and game cover.

4.2 Bank Vegetation

The vegetation of both banks is rough grass with common reed, cow parsley, common nettle, false oat-grass, common couch, hogweed, cocksfoot, charlock, creeping thistle, brambles, wild teasel, tall fescue and cleavers.

There are small shrubs on the north bank just west of Fen Farm. There are shrubs of elder and hawthorn at some of the bridges, and one has two small sycamore trees.

4.3 Channel Vegetation

The only channel vegetation seen were narrow remnant margins, with common reed, hard rush, greater pond-sedge, reed sweet-grass and reed canary-grass.

4.4 Structures

Pumping station at eastern end. Farm access culvert at western end of survey length. Vehicle bridge just east of Fen Farm.



There is a second vehicle bridge just east of confluence with 18/2.



There is a third vehicle bridge just west of the barn, with old brickwork in north bank nearby.



Bridge just west of barn



Old brickwork on north bank

There are two footbridges in vicinity of barn.



4.5 Protected Species

No badger setts or signs of use by badgers.

No signs of water voles seen. No water vole burrows seen where silt exposed at the bank toes. Suitable water vole habitat throughout.



Silt exposed at north bank toe.

4.6 Biodiversity Features

Narrow margins of wet reedbed habitat, mostly along toe of the north bank. Much common reed raked out from north bank in places.



4.7 Other Observations

Mute swan x 2, c20 mute swans on arable land to the north of the drain, wren, skylarks, heron x 2, pheasant, mallard, blackbird.

Fox, moles.

4.8 Constraints to Proposed Works

Avoid significant disturbance to the bank toes on each side, which is where water vole burrows would be located, if they occur.



Tim Smith, 15 February 2024

Report of 2024 Conservation Surveys of Watercourses

1 Watercourse Name

Old Forty Foot (Horbling) (part to north of Horbling Fen Drove). 18/2.

2 Survey Details

The watercourse was surveyed on 14 February 2024 by Tim Smith. The survey was done entirely from the east bank. c945m of watercourse surveyed.

3 Condition of Watercourse at time of Survey

Drain 18/2 is a medium-sized uniform fenland watercourse, orientated north-south, whose water level was slightly high at the time of survey and the channel was 2-2.5m wide. The water was turbid (depth therefore not known) and there was a silt substrate. The water was more or less standing. The channel had been weed raked with the debris dumped on the west bank.



General view south from northern end

General view north from southern end

4 Survey Findings

4.1 Adjacent Land

The adjacent land to the east is arable, with a wide rough grass strip next to the bank top for the length of the survey section.

The adjacent land to the west is arable, with one field boundary wet ditch, and at the southern end there is rough grass and game cover.

4.2 Bank Vegetation

The vegetation of both banks is rough grass with cow parsley, common reed, common nettle, charlock, cleavers, false oat-grass and common couch. There are no trees or shrubs.

4.3 Channel Vegetation

The only channel vegetation seen were narrow remnant margins, with hard rush, clustered dock, reed canary-grass, common reed and greater pond-sedge along the east bank toe, and common reed and reed canary-grass along the west bank toe.

4.4 Structures

Farm access culvert at northern end of survey length. Culvert in west bank at northern end which takes 18/3 into 18/2.

Two wooden structures (shooting brakes?) on west bank top just south of field boundary ditch.



4.5 Protected Species

No signs of water voles seen. Suitable water vole habitat throughout.

Three badger setts: two close together on east bank near northern end, with holes, dung pits and snuffles, and one on west bank between the east bank setts.



Northern of two east bank setts



Southern of two east bank setts



West bank sett

4.6 Biodiversity Features

Narrow margins of wet reedbed habitat, mostly along toe of west bank, and along toe of east bank from field ditch southwards. Much common reed raked out here.



Raked out common reed

4.7 Other Observations

Pheasant, skylarks, heron, mallard, mute swan x 2.

Bank slip on east bank just north of field boundary ditch. Bank slip on east bank just south of southern east bank sett.



Bank slip near field boundary ditch



Bank slip near sett

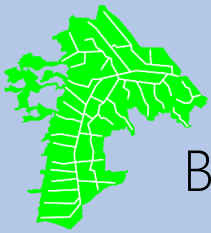
4.8 Constraints to Proposed Works

Make good bank slips.

Use standard operating procedures for work at and near badger setts.

Avoid significant disturbance to the bank toes on each side, which is where water vole burrows would be located, if they occur.

Tim Smith, 15 February 2024



Black Sluice Internal Drainage Board

Biodiversity Action Plan

2021-2026

1. Statement

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

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


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



Keith Casswell

Chairperson of the Board

13th June 2023



Paul Holmes

Environment Committee Chairperson

13th June 2023

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:

Black Sluice Internal Drainage Board

Station Road

Swineshead

Boston

Lincolnshire

PE20 3PW

Or via email: mailbox@blacksluiceidb.gov.uk

Further information is available on the Board's website: www.blacksluiceidb.gov.uk

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2. Introduction

2.1 What is Biodiversity and why is it important?

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

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

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

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

2.2 Legislative Background

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

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

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

- The Environment Bill (Act) 2021
- Conservation of Habitats and Species Regulations 2017
- Eels (England and Wales) Regulations 2009
- Water Environment (Water Framework Directive) (England and Wales) Regulations 2003

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

2.3 Policy & Strategic Background

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

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

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

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

2.4 Purpose

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

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

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

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

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

2.5 Vision

Black Sluice Internal Drainage Board's vision is:

To maintain a catchment where thriving wildlife is an integral part of delivering efficient and effective water-level management.

2.6 Aims

The aims of this BAP are:

- To ensure that opportunities for conservation and enhancement of biodiversity are fully considered throughout the IDB's operations;
- To enable more effective monitoring and reporting of progress and outcomes;
- To ensure that Priority species and habitats receive effective action within defined targets within the drainage district;
- To identify targets and appropriate actions for other habitats and species of local importance within the drainage district. This includes invasive non- native species (INNS);
- To contribute to local environmental partnerships such as the Greater Lincolnshire Nature Partnership (GLNP) to ensure that programmes and priorities for biodiversity conservation are aligned and maintained in the long term;
- To raise awareness within the IDB and locally of the need for biodiversity conservation, and to communicate with the local and wider community what actions the IDB are undertaking to support biodiversity.

3. The IDB BAP Process

3.1 The Biodiversity Audit

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

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

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

3.2 Objectives, Targets and Actions

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

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

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

3.3 Monitoring and Reporting

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

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

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

4. The Biodiversity Audit

4.1 The Black Sluice Internal Drainage District Overview

The drainage district covers an area of approximately 61,000 ha and contains 760km of IDB maintained watercourse along with 148 km of main river.

It is located in the Lincolnshire Fens generally south-west of Boston. The Board's area extends from Chapel Hill in the north, to Wilsford in the west, to Bourne then Spalding in the south back to Boston in the east. The Board's boundaries are defined by either main river, Witham and Kyme Eau to the north and Glen and Bourne Eau to the south. High contour line to the western boundary and differing catchments in adjacent Drainage Board areas to the east, the Board has 8km of boundary fronting the River Haven and Wash on the east coast below Boston. The South Forty Foot Drain, a major high consequence watercourse, effectively runs through the centre of the area, south from Guthram Gowt, north and then east into Boston and out into the River Haven and North Sea via the Wash.

The following outlines the key details of the District:

Total area of the Black Sluice IDB Drainage District	47,220 ha
Catchment area draining to and including the District	67,293 ha
Total area of the District	47,220 ha
Area of Agricultural Land	43,886 ha
Area of other (non-agricultural) land	3,334 ha
Site of Designated Environmental Interest:	
Horbling SSSI	15 ha
The Wash SSSI & Ramsar	42 ha

Assets for which the Board has operational responsibility:

Watercourses (maintained)	755 km
Raised Embankments	4 km
Pumping Stations	34 (63 pumps)

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

Main Rivers	169.5 km
Raised embankments / flood walls	7.9 km (Sea Defences) 172.2 km (River Flood Defences)
Pumping Stations	2

4.2 Map of Audit Area (Drainage District)

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

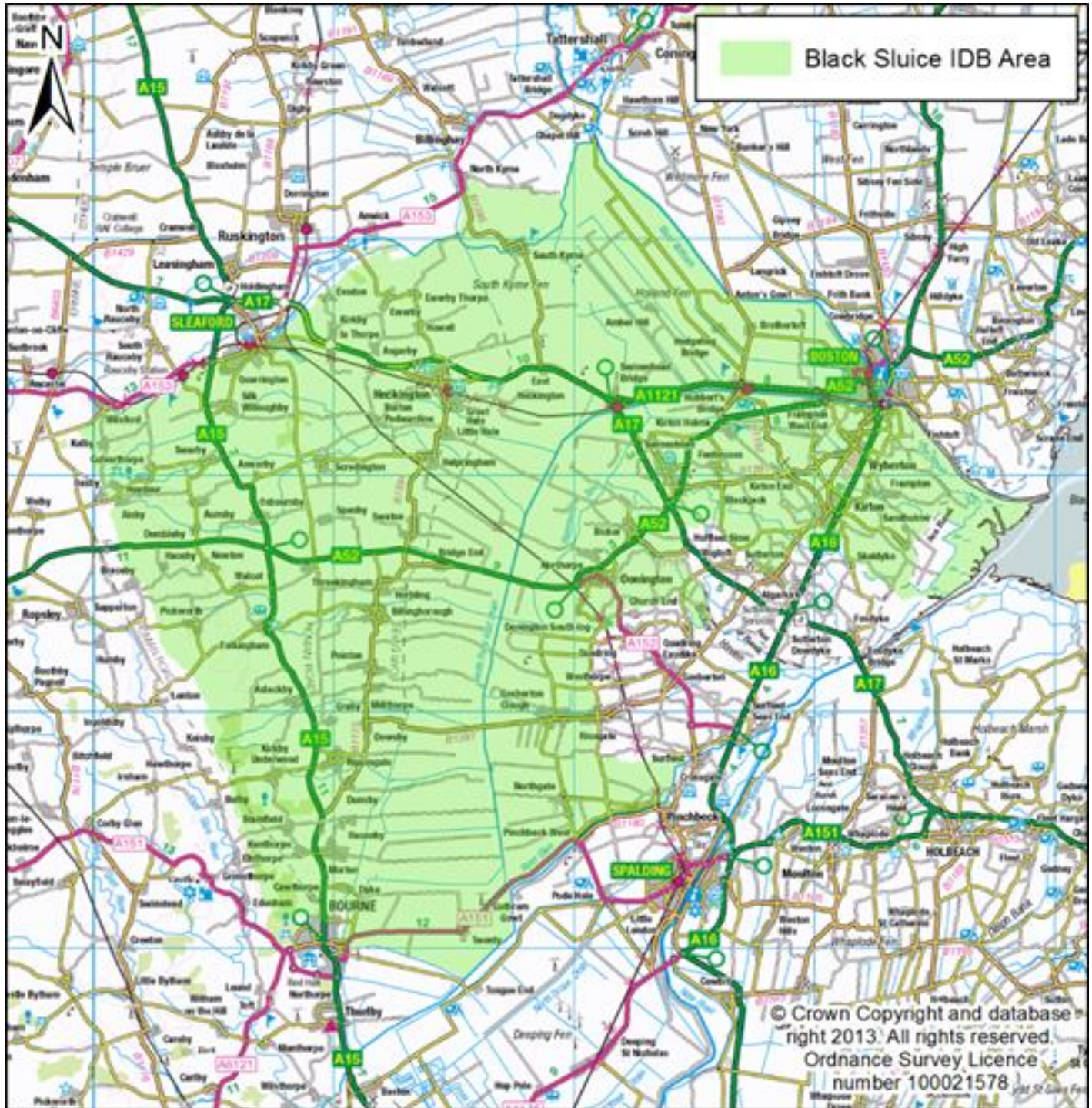


Figure 1. Black Sluice Internal Drainage District.

4.3 Geology

The majority of the Board's area has drift geology of fenland alluvium. In the west there are small areas of fen peat, gravel, clay and limestone.

4.4 Landscape Character

Natural England has divided the whole of England into a number of National Character Areas (NCA) based on characteristic landforms, wildlife and land use. For each NCA, there is a prepared profile that characterises the wildlife and natural features, identifies the influences that act upon those features and sets objectives for nature conservation.

The majority of the Board's area lies within The Fens NCA. The part which lies between Sleaford and Heckington then south to between Swaton and Osbournby lies within the Southern Lincolnshire Edge NCA, and the very small part which lies north of Bourne to roughly the east-west line of the A52 is within the Kesteven Uplands NCA.

4.5 Landscape Designations

There are no National Parks or Areas of Outstanding Natural Beauty (AONB) within the Board's catchment area.

4.6 Sites and Monuments

Scheduled Ancient Monuments (SAMs) are not directly related to Biodiversity matters. Information held by the Board and other sources has not therefore been collated. SAMs are only relevant where they occur adjacent to the Board's watercourses, and they would be referred to on a site by site basis as appropriate.

SAMs are listed by English Heritage, who together with Lincolnshire County Council's Historic Environment Record is consulted during Environmental Impact Assessment for all new schemes.

4.7 Tree Preservation Orders

Tree Preservation Orders (TPOs) are not directly related to Biodiversity matters since they are made on individual trees, groups or woods for landscape and visual amenity reasons. Information held by the Board and other sources has not therefore been collated. TPOs are only relevant where they occur adjacent to the Board's watercourses and they would be referred to on a site by site basis as appropriate.

TPOs are made under the Town and Country Planning Act 1990 and the Town and Country Planning (Trees) Regulations 1999. TPOs are administered by Local Authorities. It is hoped to enter TPOs on the Board's Geographic Information System in the future; liaison on trees potentially protected by TPOs is undertaken during the EIA process.

4.8 Statutory Nature Conservation Sites

4.8.1 Internationally Designated Sites

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

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

Site name	Designation	Features Relevant to IDB
The Wash	In two places to the south-east of Kirton and Frampton, the Board's area lies adjacent to The Wash, which is a Special Area of Conservation (SAC), Special Protection area (SPA) and Ramsar site.	The Wash is the largest estuarine system in Britain. It is fed by the rivers Witham, Welland, Nene and Great Ouse. There are extensive saltmarshes, intertidal banks of sand and mud, shallow waters and deep channels. It is the most important staging post and over-wintering site for migrant wildfowl and wading birds in eastern England. It supports a valuable commercial fishery for shellfish and also an important nursery area for flatfish. It holds one of the North Sea's largest breeding populations of common seal <i>Phoca vitulina</i> and some grey seals <i>Halichoerus grypus</i> . The sublittoral area supports a number of different marine communities including colonies of the reef-building polychaete worm <i>Sabellaria spinulosa</i> .

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

Sources of information and map can be found in Annex 1.

4.8.2 Nationally Designated Sites

The following nationally-designated conservation sites, relevant to water level management and/or maintenance activities of the IDB, are found within the drainage district. Sources of information and a map can be found in Annex 2.

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

Site name	Designation	Component of an International Site	Associated WLMP?*	Features Relevant to IDB
The Wash TF 550400	SSSI, NNR	Yes	No	The whole area is of exceptional biological interest. The intertidal mudflats and saltmarshes represent one of Britain's most important winter-feeding areas for waders and wildfowl outside of the breeding season. Enormous numbers of migrant birds, of international significance, are dependent on the rich supply of invertebrate food. The saltmarsh and shingle communities are of considerable botanical interest and the mature saltmarsh is a valuable bird breeding zone. In addition, the Wash is also very important as a breeding ground for Common Seals.

Horbling Fen TF 154353	SSSI	No	Yes	This site contains sediments deposited between the end of the last Ice Age and the present day, and provides a record of the inundations of the sea during this period. The site has considerable potential for future research using stratigraphic and micropaleontological studies to assess one of the most recent marine transgressions in the region and to correlate the inferred sea-level changes with numerous local archaeological finds. The Board have a WLMP agreed with Natural England.
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4.8.3 Local Nature Reserves

The following Local Nature Reserves are relevant to the activities of the IDB are found within the drainage district. Sources of information and a map are listed in Annex 3.

Table 3. Local Nature Reserves within the drainage district

Site name	Associated WLMP?*	Features Relevant to IDB
Mareham Pastures	No	On the Boards boundary with no relevance to the Board

4.8.4 Non-statutory Local Wildlife Sites

A number of sites have been identified locally as being important for wildlife. Whilst these designations do not have statutory status, the sites are important for their contribution to biodiversity and planning policy requires that they are given consideration by the LPA in forming any decision. The following relevant Local Wildlife Sites are to be found within or bordering the drainage district. Sources of data can be found in Annex 4.

Table 4. Non-Statutory sites within the drainage district

Site name	Designation	Features Relevant to IDB
Aswarby Thornes	Local Wildlife Site	Woodland
Beacon Hill Railway Cutting	Local Wildlife Site	Calcareous grassland
Botolphs Park Pond	Local Wildlife Site	Pond, Garden
Broadhurst Drain East	Local Wildlife Site	Coarse or rank grassland, Drain, Neutral grassland - semi-improved
Cobble's Lock Sedge and Reed Beds	Local Wildlife Site	Fen, Wet Woodland, Scrub, Standing Water
Cole's Lane Ponds	Local Wildlife Site	Scrub, Semi-improved neutral grassland, Pond, Marsh/fen, Reedbed
Drove Drain, Horbling Fen	Local Wildlife Site	Coarse or rank grassland, Drain, Neutral grassland - semi-improved
Dyke Fen Drains	Local Wildlife Site	Coarse or rank grassland, Drain
East Drains, Billingborough Fen	Local Wildlife Site	Coarse or rank grassland, Drain
Ewerby Pond	Local Wildlife Site	Pond, Scrub, Marsh, Field margin
Fen Road Drain	Local Wildlife Site	Coarse or rank grassland, Drain, Ruderal
Flower Pot Brick Pits	Local Wildlife Site	Semi-natural woodland, Wet woodland, dense scrub, standing water
Frampton Hall	Local Wildlife Site	Parkland, Semi-natural woodland, Scrub, Semi-

		improved neutral grassland, Semi-improved calcareous grassland, Improved grassland, Coarse or rank grassland, Ditch, Pond
Gravel Dike	Local Wildlife Site	Drain
Great Hale Eau	Local Wildlife Site	Drain
Guthram Gowt (River Glen)	Local Wildlife Site	Neutral grassland (semi-improved), Scrub (scattered and dense), Species-rich hedgerows, Ruderal, Pond, Floodplain
Hacconby Drove Drain	Local Wildlife Site	Coarse or rank grassland, Drain, Linear reedbed
Hall Weir	Local Wildlife Site	Wet woodland, Coarse or rank grassland, Dense scrub, Ditch, Pond, Reedbed
Hammond Beck	Local Wildlife Site	Coarse or rank grassland, Drain, Reedbed / Linear reedbed
Kirkby la Thorpe Pit	Local Wildlife Site	Standing water, Unimproved calcareous grassland, semi-improved neutral grassland, semi-natural & wet woodland, dense scrub, ruderal
Mackay's Pit	Local Wildlife Site	Pond
Mareham Pastures	Local Wildlife Site	Semi-improved neutral grassland, Woodland
Mill Drain	Local Wildlife Site	Coarse or rank grassland, Drain, Neutral grassland - semi-improved
Millthorpe Drove Drain	Local Wildlife Site	Coarse or rank grassland, Drain, Neutral grassland - semi-improved
Morton Drain	Local Wildlife Site	Coarse or rank grassland, Drain, Linear reedbed
New Dike West	Local Wildlife Site	Drain
North Drain, Billingborough Drove	Local Wildlife Site	Coarse or rank grassland, Drain
North Drain, Horbling Fen	Local Wildlife Site	Coarse or rank grassland, Drain
Old Forty Foot Drain	Local Wildlife Site	Coarse or rank grassland, Drain
Old Forty Foot to South Forty Foot Drain	Local Wildlife Site	Coarse or rank grassland, Drain
Risegate Eau	Local Wildlife Site	Coarse or rank grassland, Drain, Linear reedbed, Scrub
River Glen Corridor	Local Wildlife Site	River, Coarse or rank grassland, Semi-improved neutral grassland
Slippery Gowt Sea Bank	Local Wildlife Site	Coarse or rank grassland
South Drain, Billingborough Drove	Local Wildlife Site	Coarse or rank grassland, Drain
South Forty Foot Drain	Local Wildlife Site	Drain, Neutral grassland (semi-improved), Coarse or rank grassland
Threekingham Road Verges	Local Wildlife Site	Calcareous grassland
Twenty Foot Drain	Local Wildlife Site	Coarse or rank grassland, Drain
Tytton Lane West Pits, East	Local Wildlife Site	Pit, Dense scrub
Tytton Lane West Pits, West	Local Wildlife Site	Pit, Dense scrub
Westgate Wood and Meadow	Local Wildlife Site	Native plantation - new, Neutral grassland - semi-improved, Coarse or rank grassland, Ditch, Pond, Scrub - scattered / dense
Willow Farm Drain	Local Wildlife Site	Coarse or rank grassland, Drain

4.9 Habitat Audit Summary

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

Table 5. Habitat Audit Summary

National Priority Habitat	National Status & Extent	Local Priority Habitat	Local Status and Extent	Habitat of Importance for IDB	Extent, status and Location of Habitat of Importance within drainage district	IDB Potential for Maintaining, Restoring or Expanding Habitat (high/medium/low)
Hedgerows	A hedgerow is defined as any boundary line of trees or shrubs over 20m long and less than 5m wide, and where any gaps between the trees or shrub species are less than 20m wide.	Ancient and/or species-rich hedgerows	70% loss between 1984 and 1990.	Hedgerows	Not known- dominant feature within the drainage district, with many watercourses bounded, at least on one side, by hedge lines. Most of these are species-poor and are either unmanaged or heavily managed.	High – planting and maintenance
Reedbeds	Reedbeds are wetlands dominated by stands of the common reed <i>Phragmites australis</i> , wherein the water table is at or above ground level for most of the year. They tend to incorporate areas of open water and ditches, and small areas of wet grassland and carr woodland may be associated with them.	Fens and wet reedbeds	Stable	Watercourses, ponds and wetlands	Isolated open water bodies with extensive reed margins on some watercourses, ponds and wetland fens.	High - Potential to expand reedbed habitat by extending existing margins along watercourses and Board owned ponds and wetlands

Wet Woodlands	Wet woodland occurs on poorly drained or seasonally wet soils, usually with alder, birch and willows as the predominant tree species, but sometimes including ash, oak, pine and beech on the drier riparian areas. It is found on floodplains, as successional habitat on fens, mires and bogs, along streams and hill-side flushes, and in peaty hollows.	Wet Woodlands	Stable	Wet Woodlands	Marginal to isolated open water bodies and some larger waterlogged areas	Medium – the Board owns three small wet woodland sites. No real potential to expand habitat by extending woodland areas.
Fens and Watercourses	Unknown	Watercourses	Stable	Watercourses	Vast majority of the Boards area is Fenland with Main River, Ordinary Watercourses and Riparian Ditches throughout.	High - Maintain vegetated fringes where risks allow, install vegetated ledges when re-profiling banks.

4.10 Species Audit Summary

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

Table 6. Species Audit Summary

Common & scientific name	National Status	Local Status	Location of Species of Importance within drainage district	IDB Potential for Maintaining or Increasing Species Population or Range
Bank and reed nesting birds such as:- Reed Bunting, Sedge Warbler, Reed Warbler, Bearded Tit, Cuckoo	Various protected species with fluctuating status	Fluctuating year on year, dependent on the breeding season	Throughout the remote fenland catchments	Manage banks so as to maintain and extend areas of adjacent rank grassland, alternate bank cuts where possible to leave established reed margins.
Bats	The latest trends indicate that populations of bat species that can be monitored are stable or recovering.	There are suggestions that current legislation and conservation actions to protect and conserve bats are having a positive impact, and it is vitally important that these continue.	Channels, Pumping Station buildings and Pumping Station suction bays	Bat boxes positioned on all Pumping Station buildings.
Water Vole	S41 species, Listed in WCA 1981 Long term decline	Difficult to determine, the view is the local status is stable.	Identified throughout the Board's area with the exception of smaller headwaters	Appropriate management of watercourses & predator control.

Kingfisher	Amber listed species in the 'Birds of Conservation Concern' Schedule 1 WCA 1981 Formerly declining along linear waterways until the mid-1980s, since recovered.	Increasing	Identified throughout the Board's area	Monitor & maintain current nest site and install artificial nest sites at suitable pumping station locations
Barn Owl	A Schedule 1 species, generally declining.	High than average population throughout the Board's area.	Likely to be breeding throughout the Board's area, using habitats not always associated with watercourses. Owl boxes at 30+ locations in the Board's area at present	Annually maintain existing Barn Owl boxes, continuous replacement plan.
Eel	S41 species, difficult to monitor but declining.	Believed to be in every watercourse throughout the catchment.	Probably throughout the Board's area	Maintain gravity flows at Pumping stations, remove all unnecessary obstructions from watercourses. Develop the Boards Eel management plans.
Otter	<u>Priority species</u>	Increasing	Increased sightings throughout the catchment.	Construct an Otter holt and maintain in good order in the hope an Otter marks a territory.
Grass Snake	Protected species	Widespread	Channels and their banks, including drying out weed rakings.	Maintenance of habitat and provision of refugia/egg laying piles/hibernating at suitable pumping station sites

4.11 Invasive Non-native Species Summary

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

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

Common & scientific name	Location within IDB if known	Year first recorded	Local status / Extent within drainage district	IDB potential for controlling species population or range
Floating Pennywort	Not yet identified within the catchment, be watchful			IDB management plan and control measures, and partnership working
Parrots Feather	Not yet identified within the catchment, be watchful			IDB management plan and control measures, and partnership working.
Water Fern	Widespread in 'bad' years, localised in normal years	2008	North Forty Foot, Claydyke, Hammond Beck	IDB management plan and control measures, and partnership working
Japanese Knotweed	Occasional around built-up areas	2013	Threekingham	IDB management plan and control measures, and partnership working
Giant Hogweed	Occasional	2013 2020	Wyberton South Forty Foot Drain Boston report from EA,	IDB management plan and control measures, and partnership working
Himalayan Balsam	Occasional		No known reports/records	IDB management plan and control measures, and partnership working
American Mink	Thinly but widely spread	2008	Sightings at Swineshead p/s, Frampton Towns Drain, North Forty Foot, Dowsby Fen p/s	Board purchased Mink traps used and monitored following positive sightings

Chinese Mitten Crab	Not yet identified within the catchment, be watchful			
Killer Shrimp	Not yet identified within the catchment, be watchful			
Signal Crayfish	Not yet identified within the catchment, be watchful			

4.12 Water Level Management Plans

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

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

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

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

Site Name & Designation	Reason for WLMP (state main species or habitat)	WLMP lead and other key [partners]	Favorable/ unfavorable condition (related to water level management)	Active Management by IDB	WLMP Last Updated
Horbling Fen	This site contains sediments deposited between the end of the last Ice Age and the present day and provides a record of the inundations of the sea during this period. The site has considerable potential for future research using stratigraphic and micropaleontological studies to assess one of the most recent marine transgressions in the region and to correlate the inferred sea-level changes with numerous local archaeological finds. The Board have a WLMP agreed with Natural England.	BSIDB/NE		Ops Lead	

5. Habitat and Species Action Plans

5.1 Introduction

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

5.2 Habitat Action Plans

5.2.1 Hedgerows

5.2.1.1 National and Local Targets

Table 9. Hedgerows - National and Local Targets

National Targets	Local Targets
To halt the loss of all hedgerows that are both ancient and species rich and maintain overall numbers of hedgerow trees throughout the country.	To halt the loss of hedgerows & achieve favorable management of all hedgerows & plant new hedgerows, particularly to help landscape connectivity.

5.2.1.2 IDB Objectives

Table 10. Hedgerows – IDB Objectives

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

5.2.1.3 IDB Actions

Table 11. Hedgerows – IDB Actions

Objective ref.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	Ensure that compensation planting takes place if any hedges are removed. To provide enhancement by being a wider species mix.	Length in m of hedges removed and hedges planted	Ongoing	IDB Ops	Landowners
2	Prevent damage to existing hedges (does not preclude management to allow watercourse maintenance, including coppicing).	Intact hedgerow in m this year compared to last	Ongoing	IDB Ops	Landowner
3	Identify location and plant 0.5 km hedgerow over 5 years.	Length of new hedgerow (m) each year	April 2025	Ecologist	Landowner
4	Avoid trimming hedgerows between 1 March and 31 July (the main nesting season for birds)	Annual reports	Ongoing	IDB Ops	Landowner

5.2.2 Reedbeds and Drainage Ditches

5.2.2.1 National and Local Targets

Table 12. Reedbeds and Drainage Ditches – National and Local Targets

National Targets	Local Targets
Reedbed is one of the rarest habitat types in the UK and is highly fragmented. Continuous expansion of existing and creation of new reedbed being the National Target.	Drainage ditches hold an unknown amount of habitat with the importance of the linear reedbed margins and banks often going underestimated. The IDB's maintenance regime should maintain this habitat in good conditions.

5.2.2.2 IDB Objectives

Table 13. Reedbeds and Drainage Ditches – IDB Objectives

IDB Objectives	
1	To enhance and maintain as a minimum the biodiversity already present within ditches
2	To increase the biodiversity within drainage ditches while maintaining drainage standards

5.2.2.3 IDB Actions

Table 14. Reedbeds and Drainage Ditches – IDB Actions

Objective ref.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	Maintain the existing marginal fringes of vegetation of at least 45 - 60cm wide (approx.)* along at least one side of all drainage ditches where flood risk allows. *Width of vegetation fringe is dependent upon flood risk category and drainage ditch width. Where a wider channel allows a wider fringe then establish, where flood risk prevents, act accordingly. Use drainage channel biodiversity manual as a guide.	Length of marginal fringe extent in m maintained each year where flood risk allows.	Ongoing	Ops Lead	Ecologist
2	Identify ditches suitable to allow a continuous marginal fringe of vegetation at least 45 - 60cm wide (approx.) or more along at least one side of the ditch.* In areas identified, plant with suitable plugs, install coir rolls or allow colonisation naturally.	Establishment/colonisation of new marginal vegetation in m each year	31/12/2025	Ops Lead	Ecologist
3	Identify ditches which are too narrow for a continuous vegetation fringe to be installed, but where occasional patches of vegetation	Length of occasional marginal vegetation patches established in m	31/12/2025	Ops Lead	Ecologist

	fringes can be encouraged. Plant with suitable plugs, install coir rolls or allow colonization naturally.				
4	Install marginal plant ledges during bank re-profiling and plant with sedge plugs or coir rolls	Length in m of plant ledge created each year	Ongoing	Ops Lead	Ecologist
5	Alternate bank side cutting each year where risk allows. Mowing to take place between August and April to avoid bird nesting season. 45 - 60cm or more from toe of bank to be left unmown on ditches where risk and ditch profile allows.	Increased extent of uncut ditch bank	Ongoing	Ops lead	Ecologist
6	Remove bank-side cuttings where possible (with conveyor) to encourage sward diversity. Survey to identify diversity baseline and diversity following cuttings removal.	Survey highlights increased sward diversity after 5 years.	Ongoing	Ops Lead	n/a
7	Establish a pollen-rich sward following bank re-profiling	Floristic species present in bank sward.	Ongoing	Ops Lead	Ecologist

5.2.3 Wet Woodland

5.2.3.1 National and Local Targets

Table 15. Wet Woodland – National and Local Targets

National Targets	Local Targets
A UK BAP Priority Habitat, large areas of wet woodland are especially scarce in Lincolnshire.	Wet woodland within the Board's area typically occur as small stands at sites where there are open water, reedbed and fen habitats. The Board own three small Wet Woodland site in the Borne Fen, our target is to maintain these to preserve the sites.

5.2.3.2 IDB Objectives

Table 16. Wet Woodland – IDB Objectives

IDB Objectives	
1	To improve the management of our wet woodland sites with the Board's area
2	To operate long term management plans to the three sites the Board own.

5.2.3.3 IDB Actions

Table 17. Wet Woodland – IDB Actions

Objective ref.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	Identify and map the extent and condition of wet woodland within the catchment.	Number of areas and area size. GIS layer	31/12/2025	Ops Lead	Ecologist
2	Ensure the maintenance programmes cause no harm to existing wet woodland.	No net loss	On going	Ops Lead	n/a
3	Monitor wet woodland and manage it effectively to prevent the area drying out.	No net loss	On going	Ops Lead	n/a
4	Consider options to help landowners maintain/restore wet woodland.	Number of areas and area size. GIS layer	On going	Ops Lead	LWT

5.3 Species Action Plans

5.3.1 Bank & Reed nesting Birds

5.3.1.1 National and Local Targets

Table 18. Bank and Reed Nesting Birds – National and Local Targets

National Targets	Local Targets
UK BAP Priority Species	All likely to be breeding throughout the catchment, especially in the remote and heavily reeded fens. Maintenance technique's and programme timing to be taken into consideration.

5.3.1.2 IDB Objectives

Table 19. Bank and Reed Nesting Birds – IDB Objectives

IDB Objectives	
1	Maintenance and improvement of habitat.

5.3.1.3 IDB Actions

Table 20. Bank and Reed Nesting Birds – IDB Actions

Objective ref.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	Investigate methods for monitoring and recording various species throughout the catchments.	Records, GIS layers	On going	Ops Lead	Ecologist

5.3.2 Bats (All Species)

5.3.2.1 National and Local Targets

Table 21. Bats - National and Local Targets

National	Local
Protected under Schedule 5 of the WCA 1981 there are 16 species of bat known in the UK that are dealt with collectively. Thought to be declining due to loss of feeding habitat, loss of roosting sites, disturbance and fragmentation of habitats.	Bats are using some of the Boards pumping stations and structures as roosting sites and the watercourses as feeding sites.

5.3.2.2 IDB Objectives

Table 22. Bats - IDB Objectives

IDB Objectives	
1	To maintain and improve current habitat
2	Reduce disturbance whilst undertaking Board activities
3	Protect, maintain and enhance the features in our landscape required by Bats

5.3.2.3 IDB Actions

Table 23. Bats – IDB Actions

Objective ref.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	Investigate methods for monitoring/survey works at select pumping station sites.	Surveys, annual report	On going	Ops Lead	Ecologist
2	Erect roosting boxes on Board buildings.	GIS Layer, annual report	On going	Ops Lead	Ecologists
3	Locate and protect roosts used by bats.	Surveys	On going	Ops Lead	Ecologists
4	Monitor and survey bat species, numbers, and locations.	Surveys	On going	Ops Lead	Ecologists

5.3.3 Water Vole

5.3.3.1 National and Local Targets

Table 24. Water Vole – National and Local Targets

National	Local
The water vole is found throughout the UK but is mainly confined to lowland areas with nearby water, there has been a significant decline in distribution and numbers within the UK.	The Boards area forms a significant local stronghold for water vole.

5.3.3.2 IDB Objectives

Table 25. Water Vole – IDB Objectives

IDB Objectives	
1	Maintain current water vole extent by reducing habitat degradation and loss through good watercourse maintenance techniques

2	Raise awareness of water vole conservation issues with the IDB machine operators
3	Better understand water vole population, movement and extent

5.3.3.3 IDB Actions

Table 26. Water Vole – IDB Actions

Objective ref.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	Control American mink	Number of mink caught	Annually	Ops Lead	n/a
2	Work with GLNP on mink task group to monitor county water vole and mink populations.	GLNPs annual reports indicating number and results of surveys. Extent of water vole population	Annually	Ops Lead	Ecologist/GLNP
3	Continue yearly recording by operational staff.	Number and location records collected and submitted to local biodiversity records office.	Annually	Ops Lead	n/a

5.3.4 Kingfisher

5.3.4.1 National and Local Targets

Table 27. Kingfisher – National and Local Targets

National	Local
Protected under the WCA 1981, the Kingfisher is widespread throughout the UK, exact numbers are difficult to confirm	Occasionally seen throughout the Boards area along open watercourses and around pumping stations.

5.3.4.2 IDB Objectives

Table 28. Kingfisher – IDB Objectives

IDB Objectives	
1	Maintain potentially suitable kingfisher habitat, particularly breeding habitat

5.3.4.3 IDB Actions

Table 29. Kingfisher – IDB Actions.

Objective ref.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	Maintain and avoid disturbance to potential nest sites by retaining earth cliffs and avoiding close working.	Number and extent of earth cliffs in m each year. Work schedules detail exclusion zone around known nest sites in the breeding season.	On going	Ops Lead	n/a
2	During replacement of pumping station create artificial kingfisher hole	New Kingfisher nesting hole to be present, GIS layer	On going	Ops Lead	n/a

5.3.5 Barn Owl

5.3.5.1 National and Local Targets

Table 30. Barn Owl – National and Local Targets

National	Local
Protected under Schedule 1 of the WCA 1981, widely distributed across the UK and very weather dependent on successful breeding seasons. Following a decline in numbers over the past fifty years, numbers may now be increasing.	The Barn Owl is a regular sight in Lincolnshire and widely associated with well-maintained IDB watercourses

5.3.5.2 IDB Objectives

Table 31. Barn Owl – IDB Objectives

IDB Objectives	
1	To maintain and where possible increase the range and population of Barn Owl within the Board's area.

5.3.5.3 IDB Actions

Table 32. Barn Owl – IDB Actions

Objective ref.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	To increase nesting opportunities on land managed by the Board.	GIS Layer	Annually	Ops Lead	Hawk & Owl Trust
2	Maintain and renew nesting boxes at Pumping stations and pole sights.	Annual reports	Annually	Ops Lead	Hawk & Owl Trust
3	Monitor the use of the boxes, ring and record fledglings.	Annual reports	Annually	Ops Lead	Hawk & Owl Trust
4	Maintain areas of marginal vegetation around pumping stations and drains	GIS Layer	Annually	Ops Lead	n/a

5.3.6 Eel

5.3.6.1 National and Local Targets

Table 33. Eel – National and Local Targets

National	Local
Critically endangered	There is a legal requirement to position Eel passes at locations where their passage is impeded or likely to be impeded. Eel Regulation compliance for 'Pumping Station Passability' is ongoing in partnership with the EA.

5.3.6.2 IDB Objectives

Table 34. Eel – IDB Objectives

IDB Objectives	
1	To maintain and where possible increase the habitat range and population of Eels within the Board's area.
2	To remove any unnecessary watercourse restriction that could impede eel passage.

5.3.6.3 IDB Actions

Table 35. Eel – IDB Actions.

Objective ref.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	Maintain the current range of eels within the Board's area through effective watercourse management.	Annual reports	Annually	Ops Lead	Ecologist
2	Install and maintain suitably approved Eel passes where necessary.	GIS layer	Annually	Ops Lead	Ecologist/EA

5.3.7 Otter

5.3.7.1 National and Local Targets

Table 36. Otter – National and Local Targets

National	Local
Protected under Schedule 5 of the WCA 1981, following a UK decline there now appears to be an increase in numbers and becoming more widespread.	Becoming more increasingly common through sightings within the Board's area.

5.3.7.2 IDB Objectives

Table 37. Otter – IDB Objectives

IDB Objectives	
1	Assist in maintaining sustainable populations by protecting, maintaining and enhancing the features required by this species.

5.3.7.3 IDB Actions

Table 38. Otter – IDB Actions

Objective ref.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	Maintain habitat suitable for otter within the Board's area	Annual maintenance works	On going	Ops Lead	n/a
2	Record sighting by the Board's workforce	GIS layer	Ongoing	Ops Lead	n/a
3	Construct an Otter holt and maintain	Annual maintenance/inspection	Ongoing	Ops Lead	n/a

5.3.8 Grass Snake

5.3.8.1 National and Local Targets

Table 39. Grass Snake – National and Local Targets

National	Local
UK BAP Priority Species	Suffered from decline in habitat availability due to agricultural intensification but believed to be widespread throughout the remote Fens and increasing in number.

5.3.8.2 IDB Objectives

Table 40. Grass Snake – IDB Objectives

IDB Objectives	
1	To maintain and where possible increase the range and population of Grass Snake within the Board's area

5.3.8.3 IDB Actions

Table 41. Grass Snake – IDB Actions

Objective ref.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	Create egg laying/hibernation stations throughout the Board's area.	GIS layer, annual maintenance	Ongoing	Ops Lead	n/a

5.3.9 Butterfly and Moth

5.3.9.1 National and Local Targets

Table 42. Butterfly and Moth – National and Local Targets

National	Local
UK BAP Priority Species	Thought to be rapidly declining, future plans should include more surveys, monitoring, research, site management and protection as well as publicity.

5.3.9.2 IDB Objectives

Table 43. Butterfly and Moth – IDB Objectives

IDB Objectives	
1	To undertake any watercourse maintenance adjacent to a Butterfly Garden in respect of conveyance, in an agreed and considerate way.

5.3.9.3 IDB Actions

Table 44. Butterfly and Moth – IDB Actions

Objective ref.	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	Co-ordinate maintenance with Butterfly Garden managers.	Annual reports from Butterfly Gardens.	Ongoing	Ops Lead	Butterfly Garden Managers (e.g., Amber Hill Butterfly Garden)

6 Procedural Action Plan

6.1 Introduction

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

6.2 Objectives and Targets

Table 42. Procedural Action Plan – Objectives and Targets

IDB Objectives	
1	To improve all IDB employee's knowledge of biodiversity support through training.
2	To improve IDB practitioners knowledgeable about specific local biodiversity through training.
3	To maintain no net loss of open watercourse through consenting.

6.3 IDB Actions

Table 43. Procedural Action Plan – IDB Actions

Target Reference	Action	Measurable / Indicators	Completion date	Action Lead	Partners
1	Ensure all staff including contractors have received high-level biodiversity training within 6 months from the start date of this Plan, or as part of their induction, and refresher training provided every 3 years.	Numbers of staff trained	Ongoing	Ecologist	
2	Produce a manual of best practice within 12 months from the date of this plan.	Publication of manual on website	June 2022	Ecologist	NE/ WT
3	Develop and deliver 12 habitat and species specific toolbox talks, to be delivered 1 per quarter per year	Delivery of 12 toolbox talks	Ongoing	Ecologist	WT

4	Respond to applications for culverts with alternatives to maintain open watercourses. Approve no new long culvert applications.	Extent of open watercourses maintained.	Ongoing	CEO	LA's
5	Identify areas for limited maintenance	Develop the idea with the works Committees	Ongoing	Ops Team	

7 Implementation

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

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

8 Monitoring

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

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

9 Reporting

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

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

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

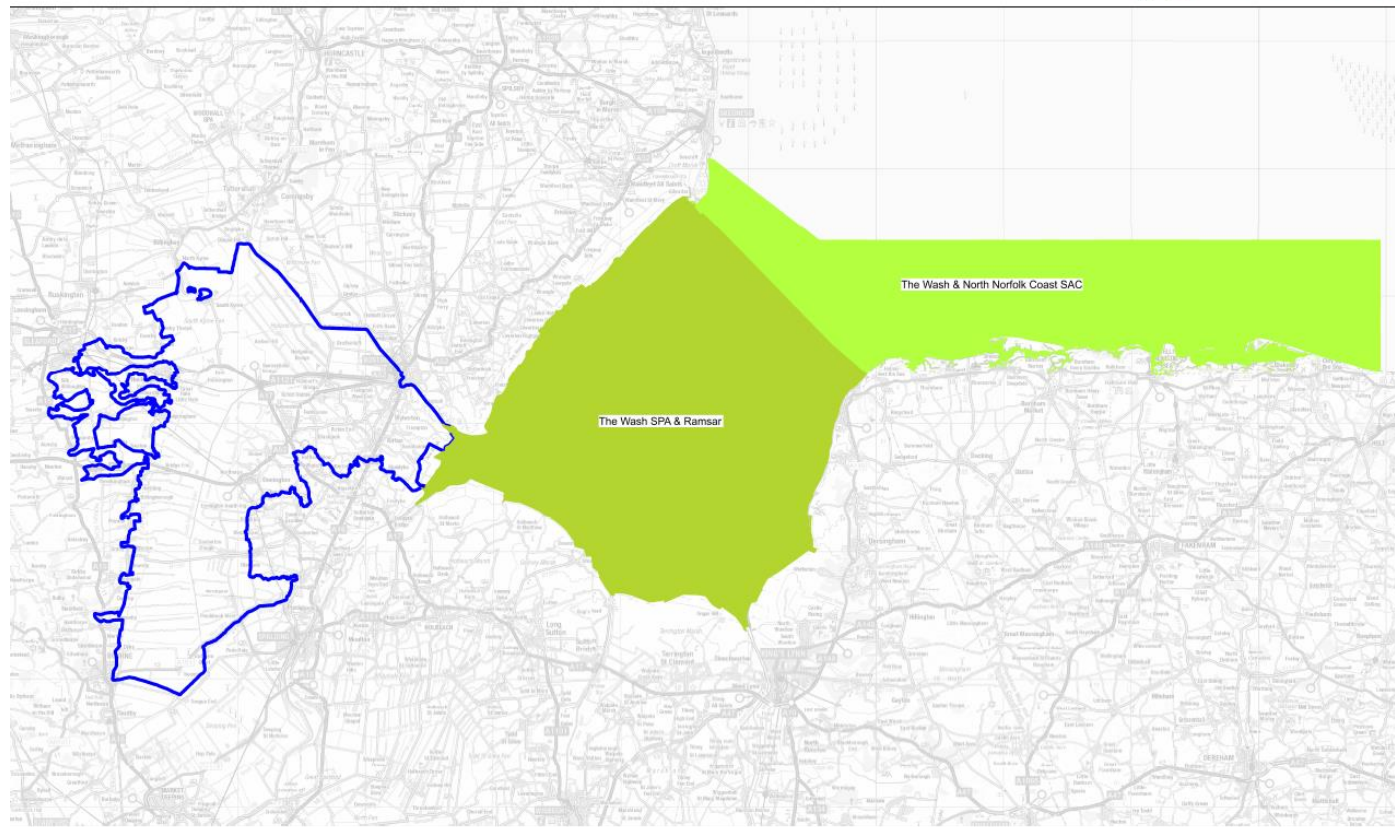
- In the public domain via the IDB's website;

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

10 Appendices

10.1 Appendix 1 – Internationally Designated Conservation Sites

Internationally Designated Nature Conservation Sites

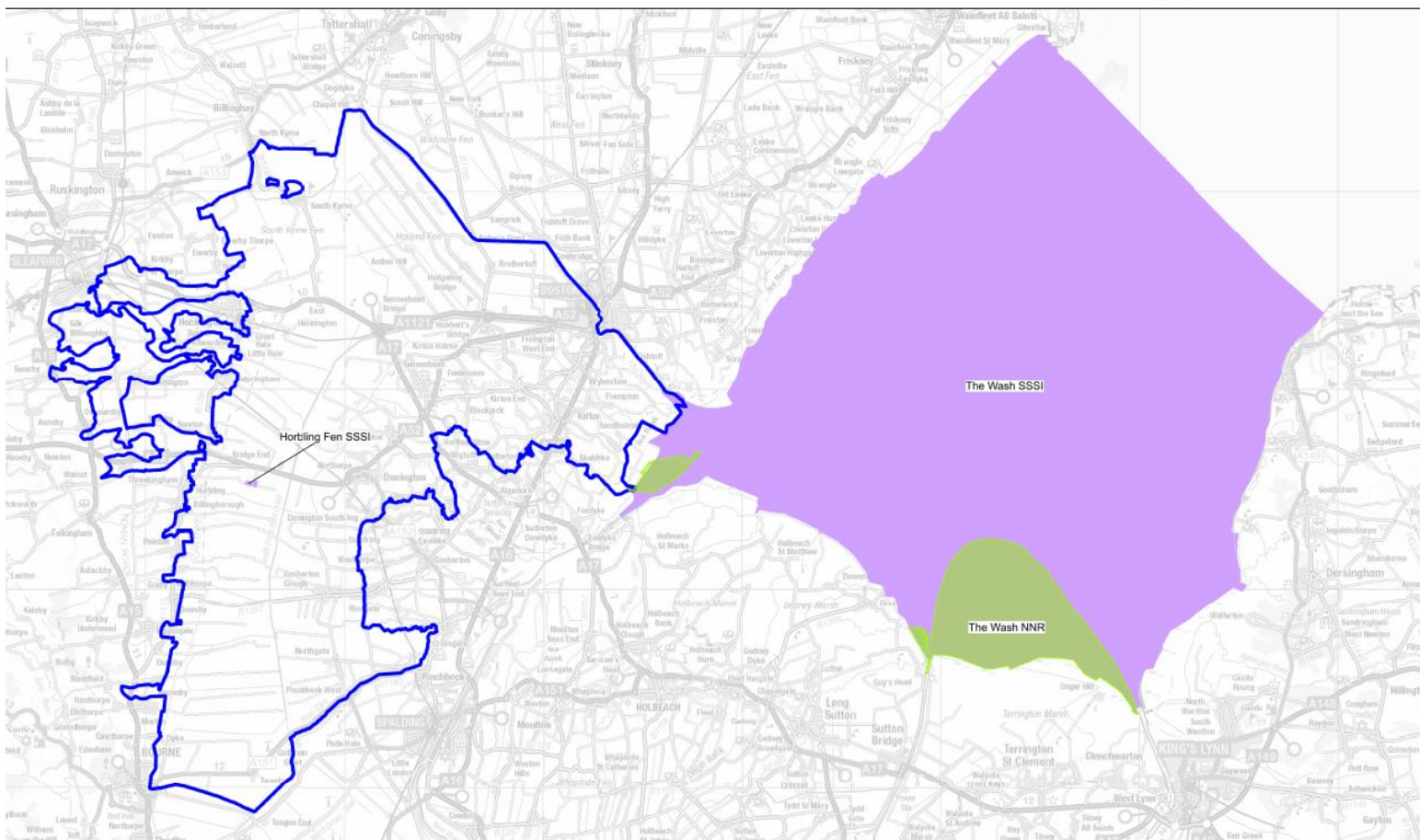


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10.2 Appendix 2 – National Sites

National Sites

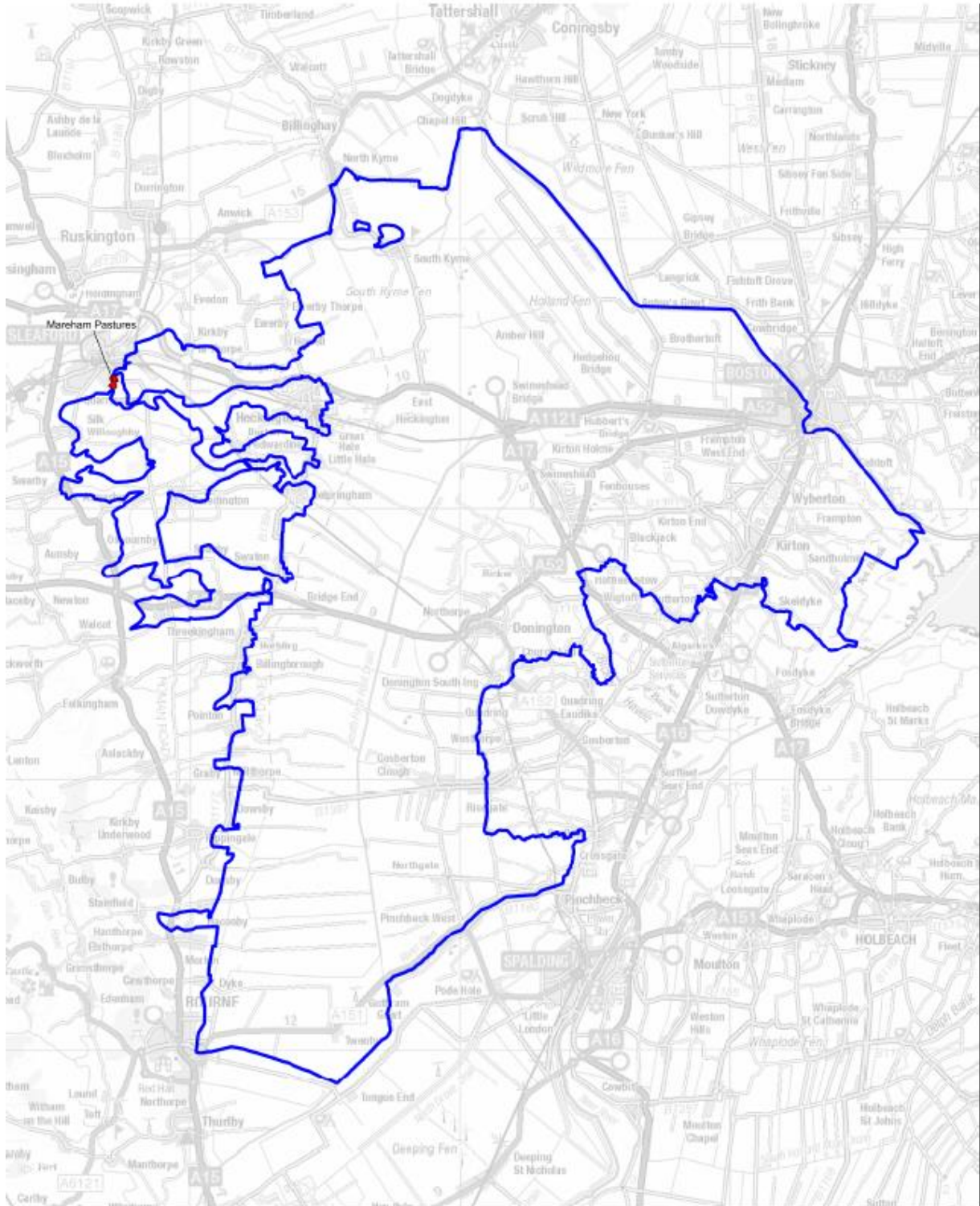


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10.1 Appendix 3 – Local Nature Reserves

Local Nature Reserves

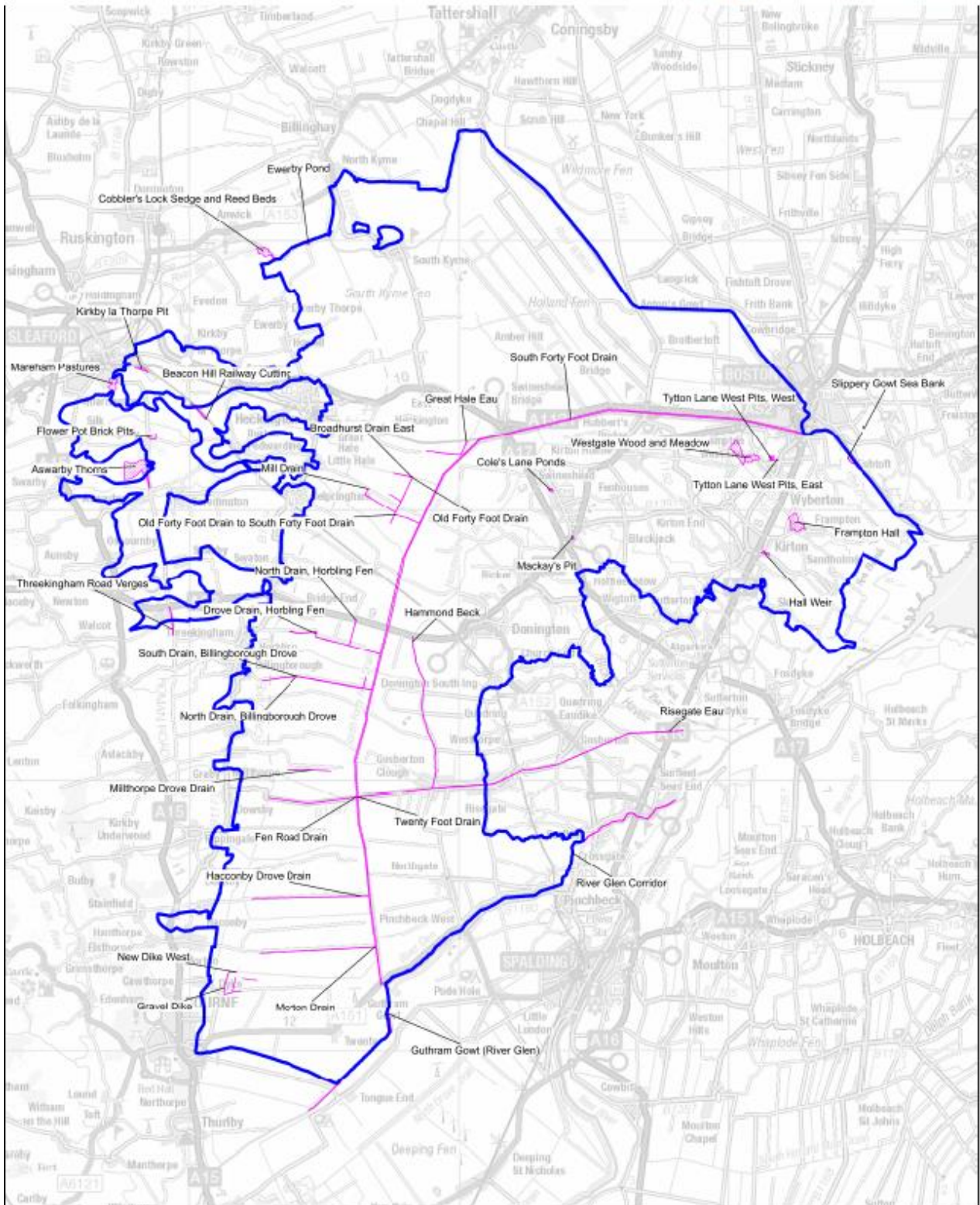


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10.2 Appendix 4 – Non-Statutory Local Sites

Non Statutory Local Sites



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