

BLACK SLUICE

INTERNAL DRAINAGE BOARD



Southern Works Committee Meeting

Tuesday 9th April 2024 at 3:30pm

Station Road, Swineshead, Lincolnshire PE20 3PW



Black Sluice Internal Drainage Board

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Our Ref: DW/JB/B10

Your Ref:

Date: 2nd April 2024

To all Southern Works Committee Members

Dear Member

Southern Works Inspection and Meeting on 9th April 2024

Please find enclosed the papers for the Southern Works Committee Meeting to be held after the Inspection Tour of the southern area on Tuesday 9th April 2024.

We shall depart at 8:30am from the Boards Offices and arrive back for the meeting around 3:30pm. Tea/coffee and bacon rolls will be provided from 8:00am onwards, drinks and a lunch will be provided.

Please wear appropriate outdoor clothing and footwear for walking and possible trailer rides.

Yours sincerely

Chief Executive

AGENDA

1. Recording the meeting.
2. Apologies for absence.
3. Declarations of interest.
4. To receive and if correct sign the Minutes of the last Meeting of the Joint Works Committee held on 3rd October 2023 (**pages 1 - 15**)
5. Matters arising.
6. To discuss the Operations Report and Inspection (**pages 16 - 34**)
 - (a) Capital Schemes Budget (**page 35 - 37**)
7. To receive the Engineer's report (**pages 38 - 41**)
 - (a) Policy No. 46: Crop Loss (**pages 42 - 47**)
8. Rainfall (**pages 48 & 49**)
9. Any Other Business.

BLACK SLUICE INTERNAL DRAINAGE BOARD

MINUTES

of the proceedings of a Joint Meeting of the
Northern and Southern Works Committees

held at the Offices of the Board on
3rd October 2023 at 2pm

Northern Works Members

Chairperson - * Mr P Holmes

- | | |
|--------------------|--------------------|
| * Cllr P Bedford | * Mr M Brookes |
| * Mr D Casswell | * Cllr N Drayton |
| Mr J Emerson | * Mr J Fowler |
| * Cllr A Hagues | * Mr M Leggott |
| * Cllr D Middleton | Cllr C Mountain |
| * Mr R Needham | Mr J E Pocklington |
| * Mr P Robinson | Cllr C Rylott |
| * Cllr D Scoot | Cllr H Staples |
| Mr R Welberry | * Cllr S Welberry |

Southern Works Members

Chairperson - * Mr M Rollinson

- | | |
|-----------------|-------------------|
| * Mr W Ash | * Mr J F Atkinson |
| * Mr V A Barker | * Mr K C Casswell |
| * Mr J Casswell | Mr R Dorrington |
| Mr C Dring | * Cllr M Geaney |
| * Cllr Z Lane | * Mr A Mair |
| Mr M Mowbray | * Mr M Taylor |
| * Mr C Wray | |

(* Member Present)

In attendance: Mr D Withnall (Chief Executive)
Mr P Nicholson (Projects Director)
Mr S Harrison (Maintenance Director)
Mr K Methley (Pump Engineer)
Mr I Warsap (SLWP Consultant)
Mr G Atkison (Guest)

Mr M Rollinson chaired the meeting.

2200 Recording the meeting – Agenda Item 1

Members were informed that the meeting would be recorded.

2201 Apologies for absence - Agenda Item 2

Apologies for absence were received from Cllr C Rylott, Mr J Pocklington, Mr R Welberry, Mr R Dorrington, Cllr H Staples, Mr M Mowbray.

2202 Declarations of interest - Agenda Item 3

There were no declarations of interest.

2203 Minutes of the last meeting of the Northern Works Committee - Agenda Item 4

The Minutes of the last Meeting of the Northern Works Committee held on 13th April 2023, copies of which had been circulated, were considered by the Northern Works Committee Members and it was AGREED the Minutes should be signed as a true record with the following amendments:

- Minute 2129(d) – ‘...the Board will complete the *flailing* works at 50% cost to the Board and 50% paid by the landowner...’ should be ‘*bushing* works’.
- Minute 2130(a)(iii) – should read ‘...it would mean the Board *wouldn't be* competing against the EA for the same pot of funding ~~and therefore wouldn't be a win-win situation.~~’

2204 Confidential Minutes of the last meeting of the Northern Works Committee - Agenda Item 5

The Confidential Minutes of the last Meeting of the Northern Works Committee held on 13th April 2023, copies of which had been circulated, were considered by the Northern Works Committee Members and it was AGREED the Minutes should be signed as a true record.

2205 Matters arising from the Northern Works Committee Meeting - Agenda Item 6

(a) Residential development works - Heron Park, Wyberton - Minute 2129(e)

The Projects Director outlined the first issue; the proximity of a footpath to a Board Maintained Drain (Lincolnshire County Council will not adopt the footpath because of its proximity to the drain and it not being fit for purpose). The footpath has now had some work done to it but remains in the same place. The Projects Director will therefore be back in touch with Chestnut Homes about this.

The Projects Director next outlined the next issue; the gates that have been erected by Longhurst Housing Association are not wide enough for the Board's machine to pass through.

Cllr D Middleton (BBC Chairperson of the Planning Committee) noted that there is a new development going along there, questioning if the Board have been approached by Boston Borough Council about it? Noting that he is interested in the Board's 9 metre byelaw rule.

The Projects Director noted that within the Chestnut Homes development, there are issues with the 9 metre byelaw – they have left a 9 metre margin, but have developed it with driveways, block paving etc. The Projects Director explained that because of this, the Board has had to come to an arrangement with the Longhurst Housing Group with them providing protective matting to be laid for the Board's vehicles to run over and a commuted sum to cover the cost of using the matting over the next 20 years.

It was confirmed that the Board are initially consulted at the planning application stage, but then changes are made between that stage and the construction stage which the Board are not involved with.

It was also noted that this has been brought to the attention of the Association of Drainage Authorities (ADA), as this is an issue experienced by all IDBs.

The Chief Executive further added that the Board's current position is to not relax the 9-metre byelaw at all.

Mr P Holmes noted the difficulty with the Board only having retrospective involvement and not being involved in the whole process.

Mr K Casswell also noted the concern that the new homeowners are probably not made aware of the Board's work when purchasing the house and so won't be aware of it until the Board's machinery is on site.

Cllr D Middleton noted that he is interested in these issues and doesn't like new homeowners to encounter these problems.

(b) Proposed piping of Drain 6/29 - Green Core, Marsh Lane - Minute 2129(f)

The Projects Director noted that Green Core have a new Site Manager, who is proving difficult to get hold of to provide clarification of the works required.

(c) Q1 Development - Wyberton Town Drains - Minute 2129(g)

The Projects Director reminded the committee of the circumstances – part of the proposal for this development was to realign the drain to gift some of the land to the adjacent playing fields.

The Projects Director has been in contact with Chestnut Homes to discuss this, the concern of the Board being that the drain will slip due to ground conditions, and offered two options as below:

- Works are completed by the Board to a high specification including revetment works.
- Works are completed by the Board to a normal specification with an indemnity.

Chestnut Homes were not agreeable to either of the above options and so this was discussed further by the Executive Committee on the 14th September. They agreed to write to Chestnut Homes to highlight that the Board can only offer the above two options, and a third option; works are completed by a third party adhering to the Board's specification. Currently, no response has been received.

(d) Information on site inspection at Trinity College, Damford, Ewerby & South Kyme - Minute 2130(b)

The Projects Director reminded the committee that during the last high water level event, there was water inundation around the above pumping stations.

Through Environment Agency (EA) funding, investigation works were completed, the results of which showed that it was due to issues with the EA's bank. The Board have therefore requested further EA funding to complete works to rectify the issue. The EA are not forthcoming with this funding and have taken a blasé attitude towards it.

It was noted that the Projects Director and Chief Executive will be seeing Morgan Wray (EA Area Manager) next week, where they will raise this matter. Mr I Warsap encouraged them to remind Morgan Wray that the issue is with the EA's bank and not the Board's pumping station(s).

(e) Cattle at Swineshead Pumping Station - Minute 2133(a)

The Projects Director reminded the committee that the bank that is adjacent to Swineshead Pumping Station is grazed with cattle. The crossing point to the rear of the pumping station has cattle going across it from one bank to another. The cattle are leaving a mess and is a health and safety hazard.

There are already gates on site, the EA have no issue with them being closed and the landowner has also been contacted. There are also a set of kissing gates so that public access for the footpath is maintained.

2206 Minutes of the last meeting of the Southern Works Committee - Agenda Item 7

The Minutes of the last Meeting of the Southern Works Committee held on 4th July 2023, copies of which had been circulated, were considered by the Southern Works Committee Members and it was AGREED the Minutes should be signed as a true record.

2207 Confidential Minutes of the last meeting of the Southern Works Committee – Agenda Item 8

The Confidential Minutes of the last Meeting of the Southern Works Committee held on 4th July 2023, copies of which had been circulated, were considered by the Southern Works Committee Members and it was AGREED the Minutes should be signed as a true record with the following amendment:

- Minute 2182 – Spelling error – 'Casby' should be 'Keisby'.

2208 Matters arising from the Southern Works Committee Meeting - Agenda Item 9

There were no matters arising from the Southern Works Committee meeting minutes.

2209 To receive a report on Engineering Works for 2023 - Agenda Item 10

Maintenance

The Maintenance Director gave the following updates.

(a) Annual Summer Flail Mowing / Cutting

The summer flailing commenced 1st August and cutting commenced 4th August.

The 67km of high-profile watercourse assets are being monitored and will require a second cut this year.

The SKDC Hand Roding contract works remain the same as previously and are all completed.

This year, the Board have lost the Lincolnshire Housing Partnership's hand roding contract (been kept in house). The programme has been filled with ad-hoc SKDC works.

The Maintenance Director also noted the issues that have been experienced with the Twigas. At the end of last week, only one of the Twigas was serviceable. One had an issue with lift pumps and the other had an issue with a hydraulic hose (which can only be sourced from Italy). This has currently been overcome by fitting an additional part. The total bill for repairs for the three Twigas so far this season is c£20,000 (on top of budgeted maintenance costs). At the time of the meeting, two of the Twigas were serviceable, with a hope that the third would be by the end of the day.

It was noted that the oldest of the three (2015) is the one that has the least number of mechanical problems.

It was further confirmed that the new flail machine, Hooby, that has been ordered is expected April 2024 onwards.

Mr K Casswell questioned whether the Board should consider selling the most unreliable of the Twigas, as opposed to the oldest, when it is changed? The Projects Director noted that it is definitely something to consider.

Mr I Warsap noted that for how far through the programme the Board is, they have not had to expend a lot of crop loss compensation (£305.48). The Maintenance Director noted that the programme has worked well, starting earlier, in terms of avoiding standing crops. It was also noted, for the benefit of new appointed members, that the Board is one of the only Board's locally that pays crop loss compensation.

The Projects Director noted that perhaps some of the 67km of high-profile watercourses could be done earlier to give a bit more flexibility within the cutting programme around weather conditions.

(b) Prior Notice Given for Summer Cutting

The Works Supervisor continues to contact as many landowners as possible prior to entry on to land, which works well.

(c) Summer Crop Loss / Damage Compensation

It was noted that the maps included within the agenda, and displayed on screen, are the maps now being uploaded to the website, which were felt to be more beneficial than the previous interactive map.

(d) Winter Crop and Land Loss Compensation

The Board's written intention of improvement cleansing works will be issued to landowners in October 2023 for the works to be undertaken throughout December 2023 to April 2024.

(e) Proposed Desilting, Bushing and Cleansing Works

The total length of proposed watercourse for 2023/24 is 37km, shown on the map within the agenda and displayed on screen. This incorporates some that couldn't be done last year, one of which being Damford Pump.

It was also noted that a new approach is being taken towards identifying and prioritising watercourses for desilting, as the new Site Engineer has now taken receipt of some new GPS surveying equipment which will be used for drain surveys to inform prioritisation of desilting.

Projects

The Projects Director gave the following updates.

Capital Asset Improvements – 2023/24 Flood and Coastal Erosion Risk Management Grant in Aid (FCERM GiA) Schemes

(f) North Forty Foot cleansing / revetment & Langrick Road pipeline, lining / replacement works

These works are now completed.

Part of this scheme involved the construction of a silt lagoon (cutter suction dredger used to desilt from Cooks Lock Pumping Station to Rosebery Avenue). The landowner of the land used for the silt lagoon was not satisfied with the condition of the drain following the desilting process and so it was agreed that the Board would rectify this to ensure the drain was in the same condition it was prior to the works. Machine access was required in order to complete this work and so some vegetation and trees required clearing for this, completed by a contractor.

Photos were displayed on screen showing the tree line prior to the works and the tree line following the works. The property owner adjacent had been notified by the landowner and the Board about these works prior to them taking place.

Following the works, another tree has fallen. Photos were displayed on screen, showing the tree still standing at the completion of the works compared to it since having fallen. The property owner has contacted the Board seeking to recover their costs in relation to the damage to their fence line. It has been passed to the Board's insurers. The view of the insurer's is that because the tree is on their property, it will be their responsibility to get an arborist to assess whether the works done by the Board's contractor have attributed to the tree falling.

It was noted that a lot of the vegetation providing cover for the tree was removed and there have been high winds lately which could have attributed to the tree falling, however, the property owners were away at the time the tree fell.

Mr M Leggott questioned the total cost to the Board for these works? It was confirmed it was £1980, of which the Board paid 50%.

(g) Sempringham Fen Pumping Station refurbishment

Funding has been achieved to install a new weedscreen cleaner at Sempringham Fen Pumping Station. The Board have created a new access to the pumping station, using Environment Agency (EA) funding (their land). All the civils works are now completed, and an additional amount of funding has been agreed due to increase in costs and materials. The weedscreen is expected for delivery in December and the Board will use a dam in the drain to block the watercourse for installation.

(h) Allan House Pumping Station outfall repair

The Projects Director reminded the committee that Allan House Pumping Station was re-sited (1997/98) when ASDA was built. Since the re-siting, it is not known where the outfall pipe runs from the pumping station to the main river, and it has no inspection chambers. It was further noted that the pipe is an old Anglian Water main.

The last section of outfall into the main river (c12 metres long) falls through gravity from the chamber on the top of the bank. The EA notified the Board that the bank was failing and questioned whether the pipe was failing, which there was no evidence of, although, there is a misplaced joint. It is expected that funding for this scheme would come from FCERM GiA subject to an approved Business Case to replace the pipe, with the challenge being to get the work completed this year. One quotation has been received at c£134,000 and another contractor has been to site and is producing a quotation. It was felt this was a high quote.

It is also believed that funding will be achievable to install access chambers along the 330 metres of pipe (every 50-60 metres) and to refurbish the site (potentially new pumps, control panels etc.).

Mr P Robinson questioned if the pipe goes underneath any properties. It was confirmed that it runs between properties, not underneath.

Mr V Barker questioned whether the Board are going to need permission from ASDA to go on their land and carry out this work? The Projects Director noted that ASDA haven't been approached as of yet, but it may form part of the business case to approach ASDA to make a contribution.

(i) Black Sluice Catchment Study

The Projects Director noted a mistake in the Capital Schemes Budget in relation to this scheme, noting that for 2023/24 it should be £200,000.

These works are in progress and have provided another order to start the modelling works to bring individual catchment studies together with the overall aim being to bring all the Board's catchment area into one study to establish the most efficient way for it to work.

The Projects Director noted the age of the Board's pumping stations, and that they were originally funded through scheme work, however, going forward, a lot of the Board's pumping stations are in remote areas and so wouldn't class as having enough 'benefit' to achieve scheme funding (which revolves around people and property).

The Projects Director continued by explaining that the Grant in Aid funding being referred to (claimed by all IDBs and Risk Management Authorities) runs in a six-year programme. It is currently three years into this programme and is now being stated that they are running out of money and, following this financial year, there will be cuts. Therefore, the Board may be forced to rethink how some of these schemes, including this one, move forward.

Mr K Casswell referred to an extra £5 billion that was expected to be added into the funding allocation? The Projects Director noted that this will be part of the conversation that himself and the Chief Executive will have with Morgan Wray next week.

It was noted that it would be beneficial to have schemes ready to go in case more funding is found and ready to be allocated.

(j) South Forty Foot Upper Catchment Natural Flood Management (NFM)

The aim of the NFM works was noted; to reduce the speed that the small tributaries flow at and therefore reduce erosion and siltation from them into the main river.

Mr R Needham noted that the main river needs putting in order in the first instance. The Projects Director acknowledged this, noting that they (EA) believe that slowing the flow is one of the ways in which they can reduce overwhelming the main rivers.

There have been 203 locations identified in the four catchments studied, the challenge being the delivery of these works. The Projects Director noted that he believes the majority of landowners were reluctant to commit to the works because of the uncertainty around Environmental Land Management Schemes (ELMS), but now it is understood, hopefully there will be an increase in uptake. The Chairperson noted the positive thing that double funding is allowed for NFM works; Sustainable Farming Incentive can be claimed on top.

It was noted that Lesley Sharpe, the current Landowner Engagement Consultant, is retiring, but is training an understudy. The Board's Officer's will meet with the understudy and determine whether to continue with them or tender out the work.

Mr P Holmes questioned whether, of those that have been completed, have any been seen working? The Projects Director responded that there is currently no monitoring sites in place, but there is a proposal to attract funding to gather this data.

Photos and videos of some of the completed NFM works were displayed on screen.

(k) Swaton Natural Flood Management (NFM) Schemes

All three sites have been completed now through the Public Sector Cooperation Agreement (PSCA) with the EA. There have been five attenuation ponds put in across the three sites (c£1million).

The delays with two of the sites owned by the Crown Estate were noted.

This is a pilot study for the EA, and they have a Graduate gathering data and monitoring the site.

Mr V Barker referenced the map on screen showing these works and identified the old railway line (south of Grove Farm West), noting that there is a valley there and the railway line has a natural dam effect. Mr V Barker felt this would be an opportune place for another swale.

The Projects Director responded that Swaton was a pilot, but that the EA are looking at it nationally.

2023/24 BSIDB Funded Capital Schemes

(l) Major Slip Repairs

There are a number of slips to repair, which require prioritising. There is no budget allocated in this financial year for this work and so it will be something considered when setting the budget for the next financial year. A map outlining the identified slips was included within the agenda and displayed on screen.

(m) Jetting to Major Pipelines – Estimate £75,000

The purpose of jetting was noted; to clean out the pipe to enable the Board to put a camera in for inspection of the condition of the pipes that are the responsibility of the Board for maintenance.

The Projects Director noted the Wyberton area and that there are a number of long and important pipelines that require inspection.

A contractor is due to start this work next week.

(n) Alternative programme access works - Estimate £20,000

A budget has been allocated to complete bushing works and field access culverts to enable the alternative bank access.

(o) Quadrang North Fen Roadside Revetment - Estimate £24,000

The Projects Director noted that he has meet with Lincolnshire County Council Highways (LCC) to establish that the Board's drain is not contributing to the condition of the road. Part of the works will be to reduce the gradient of the bank.

Mr V Barker noted that further south to this site, there is a culvert that has had a temporary repair by the Highways, noting that the Board need to ensure this doesn't become a permanent repair and suggested it could be done at the same time.

(p) General Culvert replacement contributions - £5,000

There has been one culvert replaced that the Board are willing to contribute towards (£1,000) in South Kyme, displayed on screen. It was noted that the landowner was pleased with the work.

Pumping Station Schemes

(q) Dyke Fen Pumping Station refurbish 1 pump and 1 pump motor – Estimate £25,000

It was noted that the failure of the first pump is believed to be attributable to the same issue with this pump (shaft failure).

(r) Kirton Marsh Pumping Station Electrical Supply Change – Estimate £10,000

Conversations are on going with National Grid to change the location of the incoming supply to a higher level, it being proposed that this is considered for an application for FCERM GiA funding as estimated costs for this work could be £25,000.

(s) Great Hale Pumping Station Refurbishment

The weedscreen has been ordered and is expected next month.

(t) Great Hale Fen Pumping Station under pump inspections – Estimate £10,000

Connecting pump section nuts and bolts were replaced, visual inspections of wet well and intake channel, silt removed.

(u) Trintiy College Pumping Station under pump inspections – Estimate £5,000

Connecting pump section nuts and bolts were replaced, visual inspections of wet well and intake channel, silt removed.

Mr I Warsap noted that the photos displayed on screen really highlight the depth of water under the pumping stations.

2024/25 Defra / EA FCERM GiA Schemes

(v) Natural Flood Management (NFM) Studies - £150,000

A budget of £75,000 has been agreed for 2024/25 and the same agreed for 2025/26.

(w) Wyberton Marsh Pumping Station New transformer - Estimate £50,000

Funding had been achieved to replace the transformer at Gosberton and Dowsby Pumping Station, that gave confidence that funding would be achievable at other pumping stations.

All nine of the transformers have been inspected and all are of a similar age apart from one (Black Hole Drove replaced due to a lightning strike in 2010), a similar age to the pumping stations (mid 1960's).

Consideration has been given to the location of the transformers and whether it would be beneficial to locate them externally rather than internally. At Wyberton Marsh Pumping Station, more land would be required to do this. The Projects Director proposed to continue with this within the business case to be submitted for funding.

However, the Environment Agency's preferred way forward is an LV connection to the site, although the cost difference between this and a transformer can be considerable, the LV connection wouldn't need replacing after a period of time like a transformer would. The Pump Engineer noted that the LV connection may be more favourable in this case.

2024/25 Board Funded Capital Schemes

(x) SFFD Desilting Guthrum to Black Hole Drove PS – Estimate £65,000

It is proposed that the 2500m of Board Maintained section of SFFD is desilted. It is not known yet how this will be done, i.e., excavator or cutter suction dredger.

Mr P Holmes questioned the suitability for a silt lagoon? The Projects Director noted that a lagoon or cradge would be suitable.

Mr V Barker noted the possibility of it going straight into the farmer's field, to spread without any cradges. The Projects Director acknowledged this, also noting that a cradge helps to minimise crop loss.

(y) Jetting to Major Pipelines - £75,000

It is proposed that this work will continue in the Wyberton area.

(z) Graft Drain - £25,000

This work was previously deferred, to be able to use the budget to repair slips. This is proposed for next year, although it may be that this budget is required for repairing slips again.

The £25,000 allocated for this work is to complete CCTV surveys of the longer pipeline lengths to assess their condition.

(aa) Pumping Station Schemes

(i) Ewerby Fen PS Replace Control Panel – Estimate £60,000

The control panel at this station was installed 27 years ago and so is now proposed for replacement.

(ii) Kirton Marsh PS Refurbish Pump and Pump Motor – Estimate £30,000

It is proposed that the pump and motor will be refurbished to coincide with the inspection works.

(iii) Kirton Marsh PS under pump inspections – Estimate £11,000

It was noted that due to the location of this pumping station, a lot of silt will be built up under the station (at least a metre thick).

Pumping Station Maintenance

(bb) At the end of September (Period 05) the budget for maintenance works is £361,056 with the actual expenditure being £229,243 which includes estimated electricity payments.

External Recoverable Works

(cc) Current external recoverable income is £251,664 for rechargeable works compared to £186,427 last year.

Health & Safety

(dd) The Board appointed Cope Safety Management as Health & Safety Consultants for a five-year period in June 2019.

External Partnerships, Strategies & Agreements

(ee) EA/BSIDB Public Sector Cooperation Agreement

The Board maintain c125km on behalf of the Environment Agency (EA) through the Public Sector Cooperation Agreement. It mainly revolves around flail mowing and cutting of their watercourses. With the main rivers, the EA dictate when and how often they are to be cut. The Projects Director also added that the Board complete some bushing and bank reprofiling works on behalf of the EA.

The Projects Director also added that the EA may consider continuing with Rationalising the Main River Network, like they did previously, whereby the Board took on some of their low consequence main rivers with a commuted sum.

Mr V Barker referred to tree flailing, noting that several years ago, plugs were put in to kill the bushes, noting that he doesn't believe it has been done this time? The Projects Director noted that if it hasn't been done it's because the EA didn't ask for that to be done.

2210 Update on the Lincolnshire Reservoir (SLR) - Agenda Item 11

Mr I Warsap gave some brief updates as follows:

Water transfer from origin (Trent) to the Reservoir

Mr I Warsap referred to the transfer of water from the Witham to the reservoir site, noting that all piped routes have been discounted and, currently, the only route being considered is the open channel transfer route that the Board proposed – 'Holland Dyke', noting this is positive for the Board.

The Environment Agency (EA) have questioned why this is the only route being considered and suggested the consideration of new cut routes on the shortest points between the Witham and SFFD (Langrick Bridge to Hubberts Bridge).

Mr I Warsap noted that the Viking Link and Tritton Knoll projects runs along that route and so there would be a conflict.

Pipelines from the Water Treatment Plant (Treated water going downstream)

There will be a pipeline connection from the reservoir to Wilsthorpe and then piped to either Etton or Chesterton. The treated water pipeline from the treatment plant will run south through the Board's catchment on the east side of the spring line villages, Bourne, Morton, Rippingale etc.

Treatment Plant Site

There are three sites being considered, one to the west of the reservoir site and two to the south of the reservoir site (north of the A52). The EA have noted that they don't want any of these sites to conflict with the Natural Flood Management works, which two of the sites do.

Emergency Draw Down Proposals

The reservoir's emergency drawdown discharge is 57m³ per second (every day for ten days). This compares to the Fenlands Reservoir being 38m³ per second and the Board's largest pumping station (Swineshead – all three pumps running) capacity being 6.8m³ per second, making the Lincolnshire Reservoir's discharge being over eight times the capacity of Swineshead Pumping Station. Further being compared to the capacity of all the Board's 68 pumps together being 65m³ per second, meaning the discharge rate for the reservoir is 88% of that.

The reservoir must be able to draw down at this rate in order to be able to empty in an emergency to prevent a catastrophic event.

There are a number of options for the route the water would take in an emergency draw down, which will be confirmed on the 20th November 2023. The main consideration is for no uncontrolled flooding to property. There will be no singular route and it will need to be a combination of elements such as large wetland storage areas within the catchment, upgrading the SFFD with enhanced systems and banks (£86million has been attributed to enhancing the SFFD), the Risegate Eau to the Wash may be used, the SFFD into the River Glen may be used and the SFFD into the River Witham may be used.

The emergency drawdown route from the reservoir to the SFFD will take numerous routes; Swaton Eau, Helpringham South Beck and Helpringham Eau.

Mr K Casswell noted the difference in height between the Glen and SFFD and how this would work? Mr I Warsap noted that this is still to be considered, with options such as syphons.

South Lincolnshire Water Partnership (SLWP)

Mr I Warsap noted that he questioned the Fens 2100+ Project Lead (Amy Shaw) whether the project includes front line sea defences, it being concluded that it doesn't. The Future Fens Integrated Adaptation (FFIA), which overarches Fens 2100+, will include sea defences. The Board is also represented on the FFIA.

Mr I Warsap next referred to the SFFD Bank Pilot Scheme, being headed by a subgroup of the SLWP; the Water Farming Reservoir Group. The Projects Director and Mr M Rollinson represent the Board on this group.

It is a one-year pilot looking at enhancing and increasing storage capacity of ordinary watercourses in a sub catchment for irrigation and emergency drawn down availability.

Mr I Warsap further added that the Lincolnshire Wildlife Trust have achieved some more funding to complete works at Bourne North Fen next Spring.

Mr I Warsap invited questions.

Mr P Holmes noted that it looks like the problem is emptying the reservoir as opposed to filling the reservoir? Mr I Warsap noted that there is restrictive legislation in place in relation to emptying the reservoir but noted that it will be a combination of elements to overcome the emergency discharge.

Mr I Warsap also noted that there was a team assigned to look at Biodiversity Net Gain and not one of those team members had visited the site.

Mr R Needham questioned if the Holland Dyke route would be deepened, noting the conflict on that route between Tritton Knoll and Viking Link. Mr I Warsap noted that it would be widened more than deepened.

Mr I Warsap noted that the SFFD will not be as it is known today, the land take that will be required to enhance it being noted but also the business opportunities that would arise from it. Mr I Warsap also referred to Burton Waters (Lincoln) which was just a field.

Mr V Barker felt that the solution was to build not one reservoir, but multiple smaller ones. Mr V Barker noted a previously proposed scheme to put a dam in the SFFD with a new connection at Surfleet Fen to the Risegate Eau to the sea. The route was displayed on screen, Mr V Barker feeling it is a plausible route. Mr I Warsap noted that it is being considered, noting that it won't be one single route it will be a combination. Mr V Barker continued by suggesting an exit around the north side of the Black Sluice Pumping Station (Boston) to take more water out of the SFFD. Mr I Warsap acknowledged this, noting that the restriction with that is the tide. Flooding land and compensation for such, was also noted. Mr I Warsap further noted that they do have to draw down the reservoir for one day on a set periodic frequency to prove it can be done.

Mr I Warsap noted that at September 2024, Ofwat and Anglian Water will have spent £36.8 million.

Mr C Wray noted that Anglian Water will have more superiority than other utilities such as electricity and railways etc.

2211 Report on Rainfall - Agenda Item 12

The rainfall figures at Swineshead and Black Hole Drove were circulated. The Committee RESOLVED that this report be noted.

2212 Any Other Business - Agenda Item 13

(a) Glossary of useful Land Drainage Terms

It was noted that the above document will be circulated.

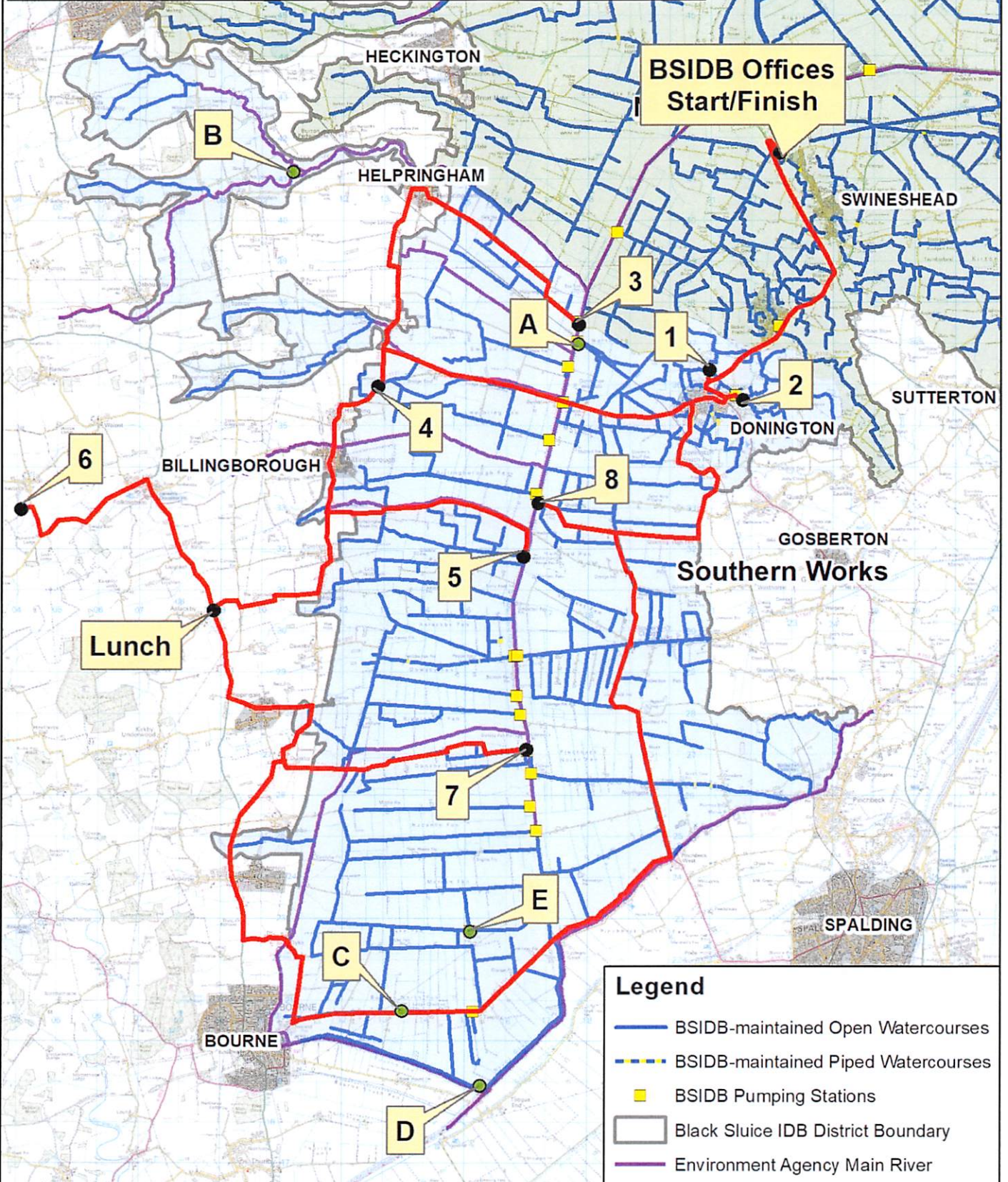
There being no other business the meeting closed at 16:24.

BLACK SLUICE INTERNAL DRAINAGE BOARD



SOUTHERN WORKS COMMITTEE INSPECTION Tuesday 9th April 2024

SOUTHERN WORKS INSPECTION ROUTE TUESDAY 9TH APRIL 2024



Legend

- BSIDB-maintained Open Watercourses
- BSIDB-maintained Piped Watercourses
- BSIDB Pumping Stations
- Black Sluice IDB District Boundary
- Environment Agency Main River



Black Sluice Internal Drainage Board
 Station Road, Swineshead,
 Boston, Lincolnshire PE20 3PW
 Tel: 01205 821440
 Email: mailbox@blacksluiceidb.gov.uk

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Date: March 2024

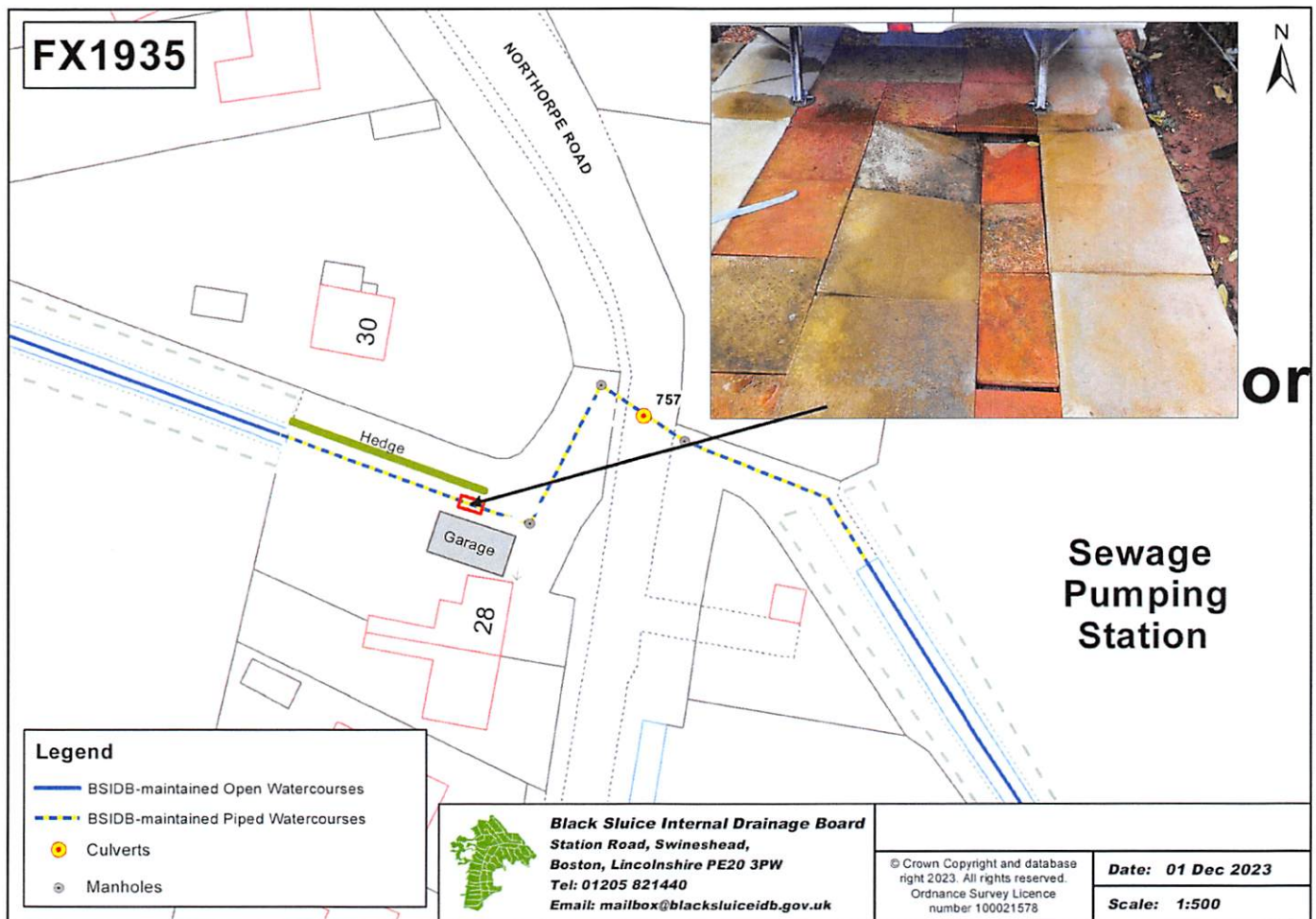
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SOUTHERN WORKS COMMITTEE

INSPECTION ITINERARY 2024

	BSIDB Offices	
1	Northorpe Donington	View/discuss collapsed pipe Drain 2/9 28 Northorpe Road, Donington
2	Wykes Lane Donington	View/discuss LCC Culvert replacement
A	<i>Donington North Ings Pumping Station</i>	<u>Point of Interest</u> <i>Discuss part collapsed access culvert headwall</i>
B	<i>Cliff Beck & South Beck, Scredington</i>	<u>Point of Interest</u> <i>Discuss reduced of EA Maintenance Highland Carriers</i>
3	Helpringham Fen Pumping Station	<u>Tea/Coffee</u> Discuss recent flood events – overtop of EA Main River
4	Donington Road Horbling	Discuss recent flooding & improvements to Drain 18/7 (former EA Main River)
5	Sempringham Fen Pumping Station	View Weedscreen Cleaner installation
-	The Robin Hood & Little John	Lunch
6	Folkingham Road Pickworth	View/discuss Natural Flood Management Scheme
7	Dunsby Fen Pumping Station	View PTO + Discuss SFFD Overtopping (EA Stopgap)
C	<i>Dyke Fen</i>	<u>Point of Interest</u> <i>Discuss LAPSIP peat protection sites</i>
D	<i>Bourne North Fen</i>	<u>Point of Interest</u> <i>Lincolnshire Wildlife Trust wetland proposals</i>
E	<i>Dyke Fen Pumping Station</i>	<u>Point of Interest</u> <i>Discuss pump repairs/water levels/Weed cleaner faults</i>
8	Quadring Fen Pumping Station	Discuss recent SFFD Overtopping
	BSIDB Offices	Northern Works Committee Meeting

1. View/discuss collapsed pipe Drain 2/9 at 28 Northorpe Road, Donington



30m x 1200mm diameter Armco (steel corrugated) pipe installed mid 1980's.

Informed by resident that drive had started to subside, investigated when water levels allowed and found that pipe had failed due to deterioration.

30m section downstream of manhole to outfall to be replaced.

Sub-contract estimate c£80,000

2. View/discuss replacement of a culvert Drain 2/9 Wykes Road, Donington



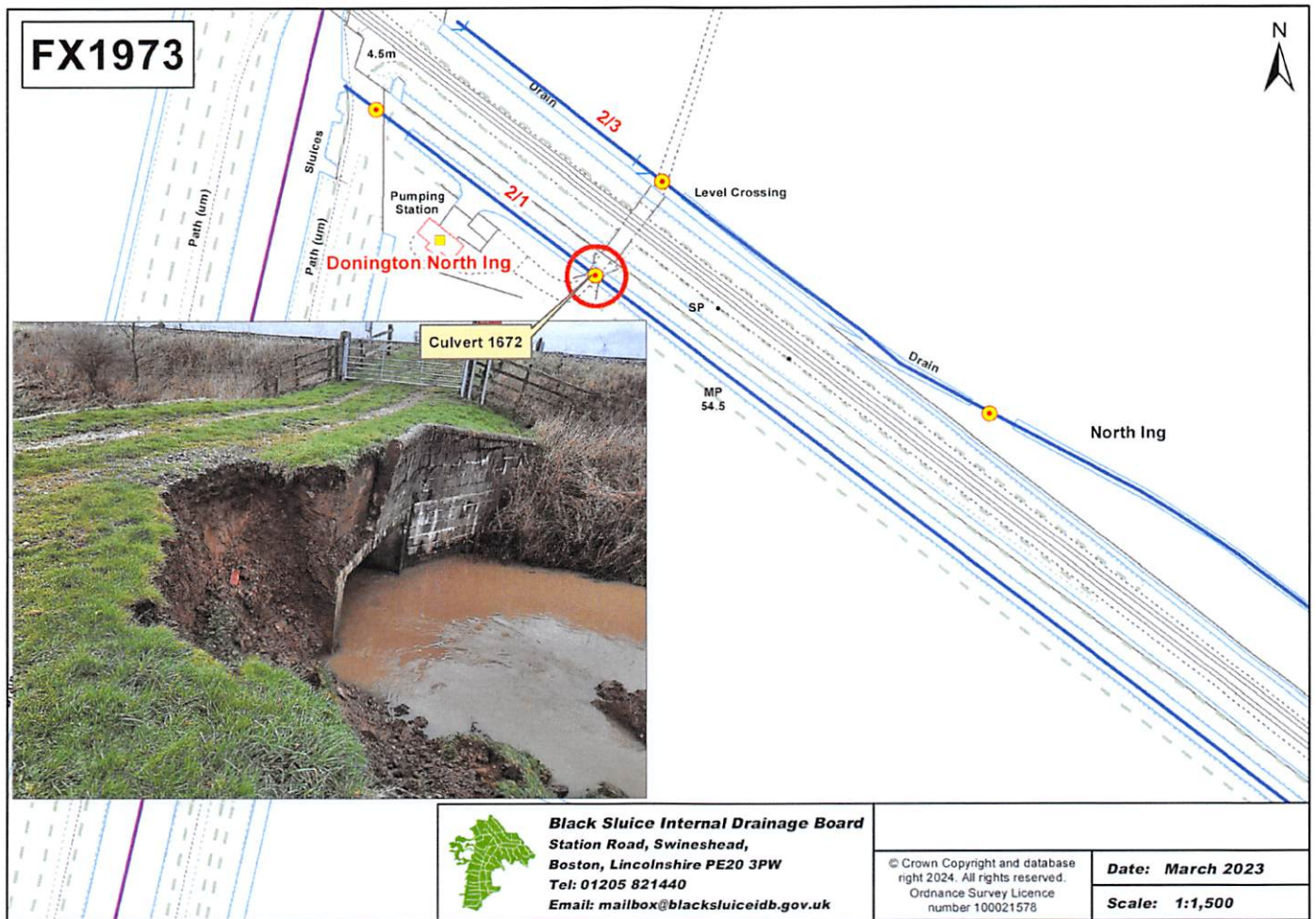
18m x 1200mm diameter Armco (steel corrugated) pipe installed 1988, as part of the Donington Wykes improvement scheme.

Board operative noted that this culvert had started to fail w/c 11/12/23.

Decision made to remove culvert from w/c 18/12/23, removed on 19/12/23.

Board & LCC responsibility correspondence as LCC did not recognise asset as theirs.

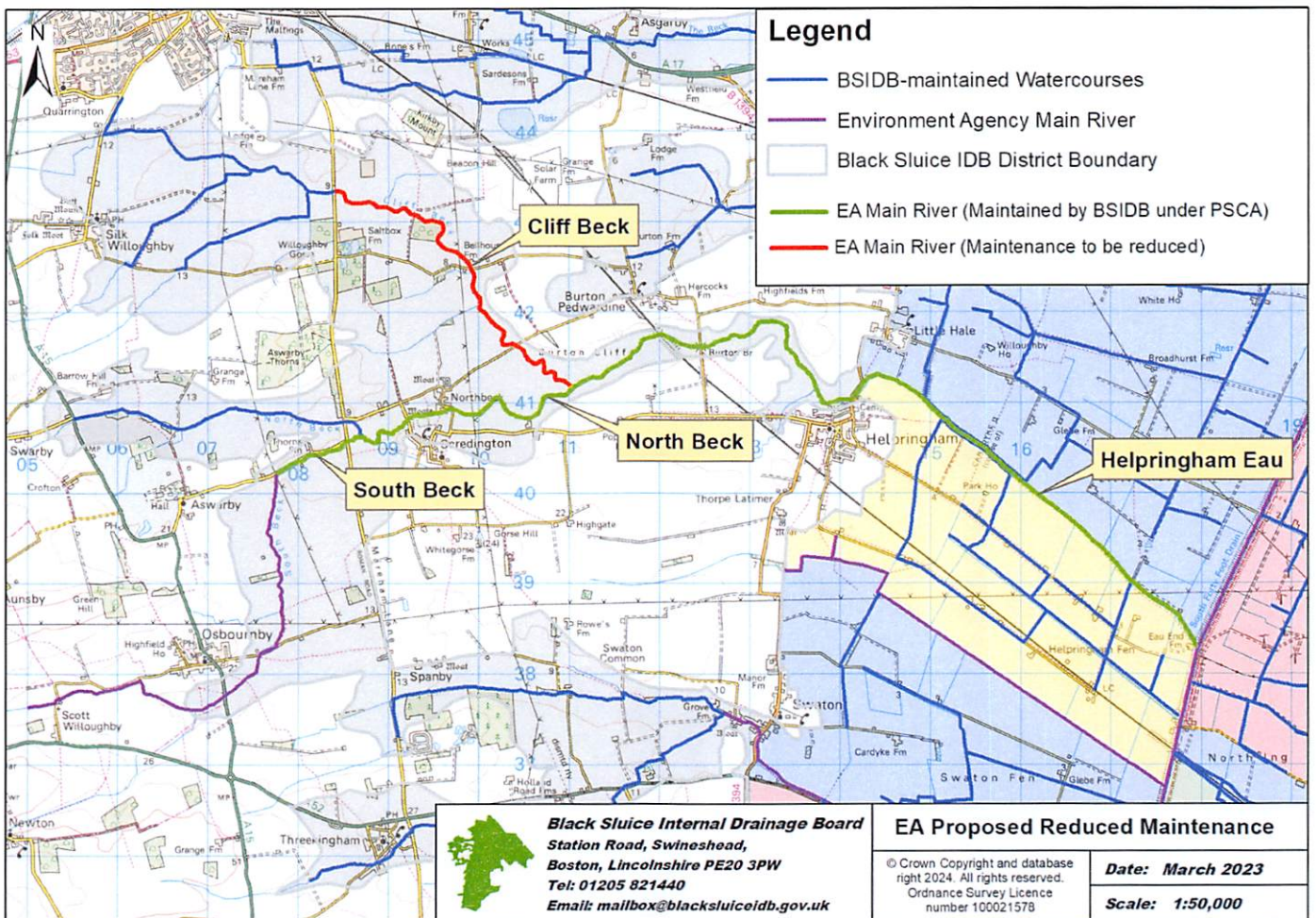
**A - Point of Interest - Part collapsed headwall to level crossing access culvert
Donington North Ings Pumping Station**



Access culvert upstream headwall failed during high water levels, which means until repaired there is no vehicular access to this pumping station. Alternative access proposal with Network Rail still being pursued.



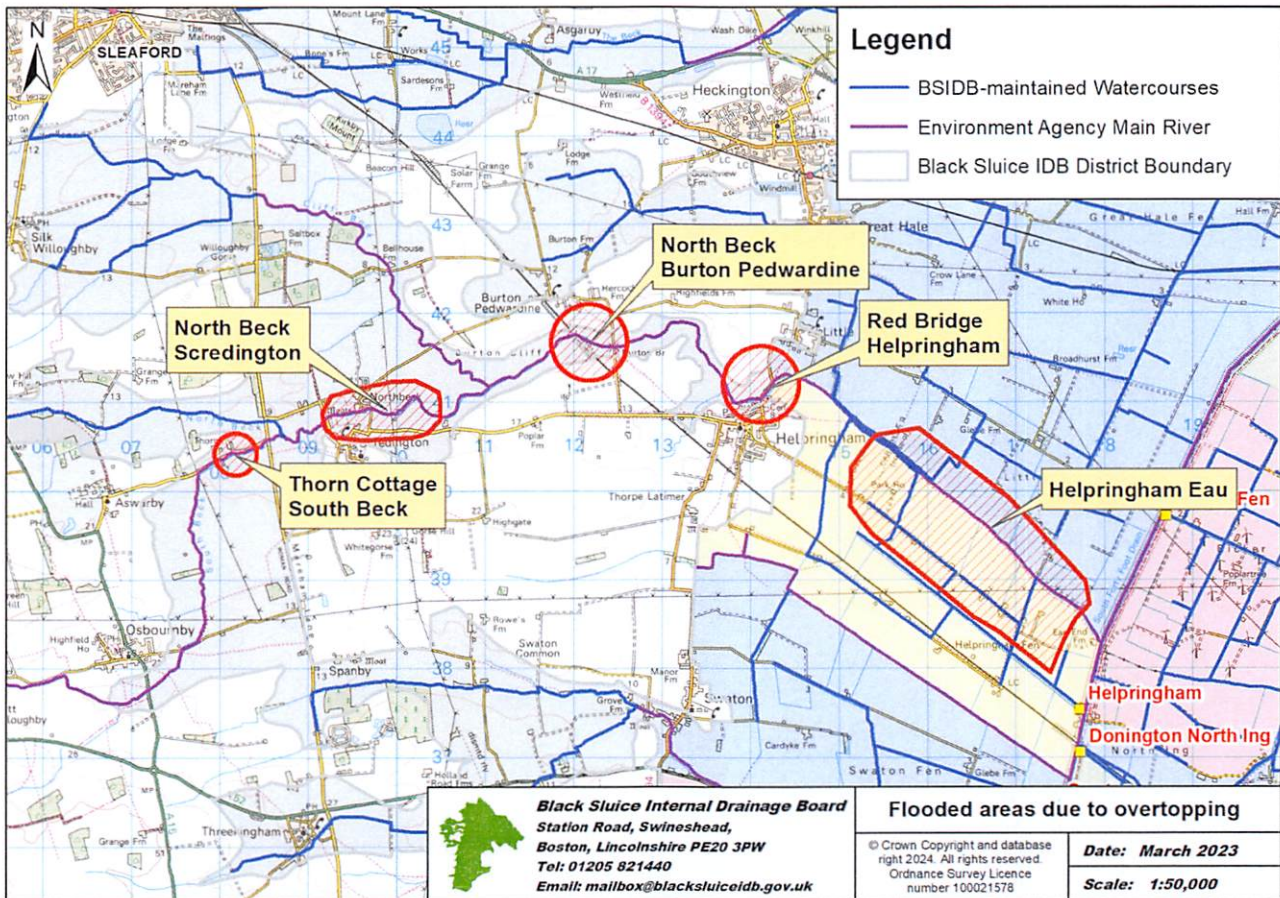
B - Point of Interest - Reduced maintenance of EA Highland Carriers



The Environment Agency have proposed a change to the maintenance programme for 2024/25, and at the time of writing have stated that the Cliff Beck will not be maintained as it is a low consequence system and doesn't realise any funding.

When challenged that there are Board maintained drains upstream, the proposals will now be reviewed.

3. View/discuss recent flooding events, Helpringham Fen Pumping Station



This pumping station is prone to failure during extended high rainfall events as the pump motor trips due to exceeding running amps.

The Helpringham Eau overtopped in many places and in Helpringham Fen affecting 100's of acres, these additional flows and pumping of water in circles did not help with catchment water level management.



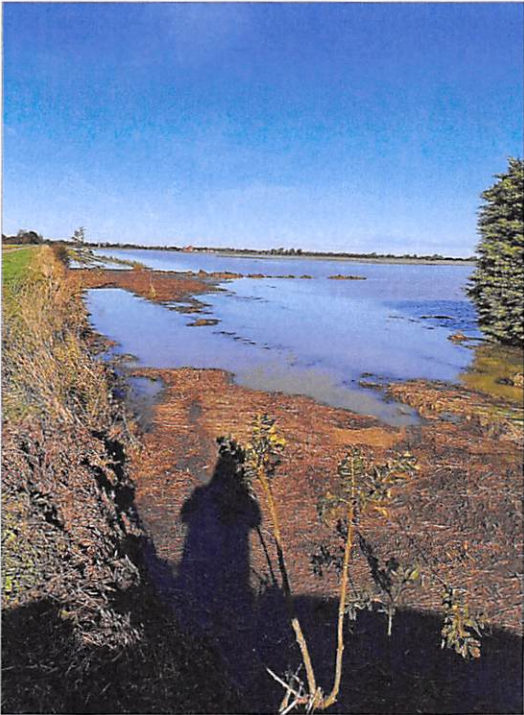
Flooding
 EA North Beck
 Burton Bridge
 Burton
 Pedwardine



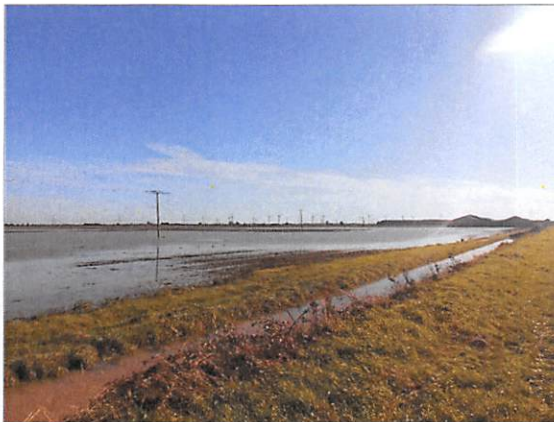
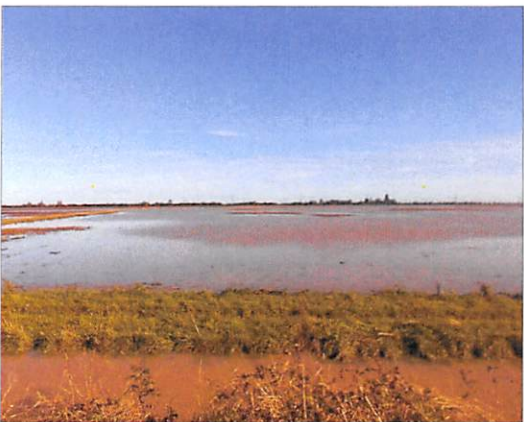
Helpringham Eau
 Red Bridge
 Helpringham



Flooding of crops
Downstream
Red Bridge
Helpringham



Blocked culvert on North Drove - Removed

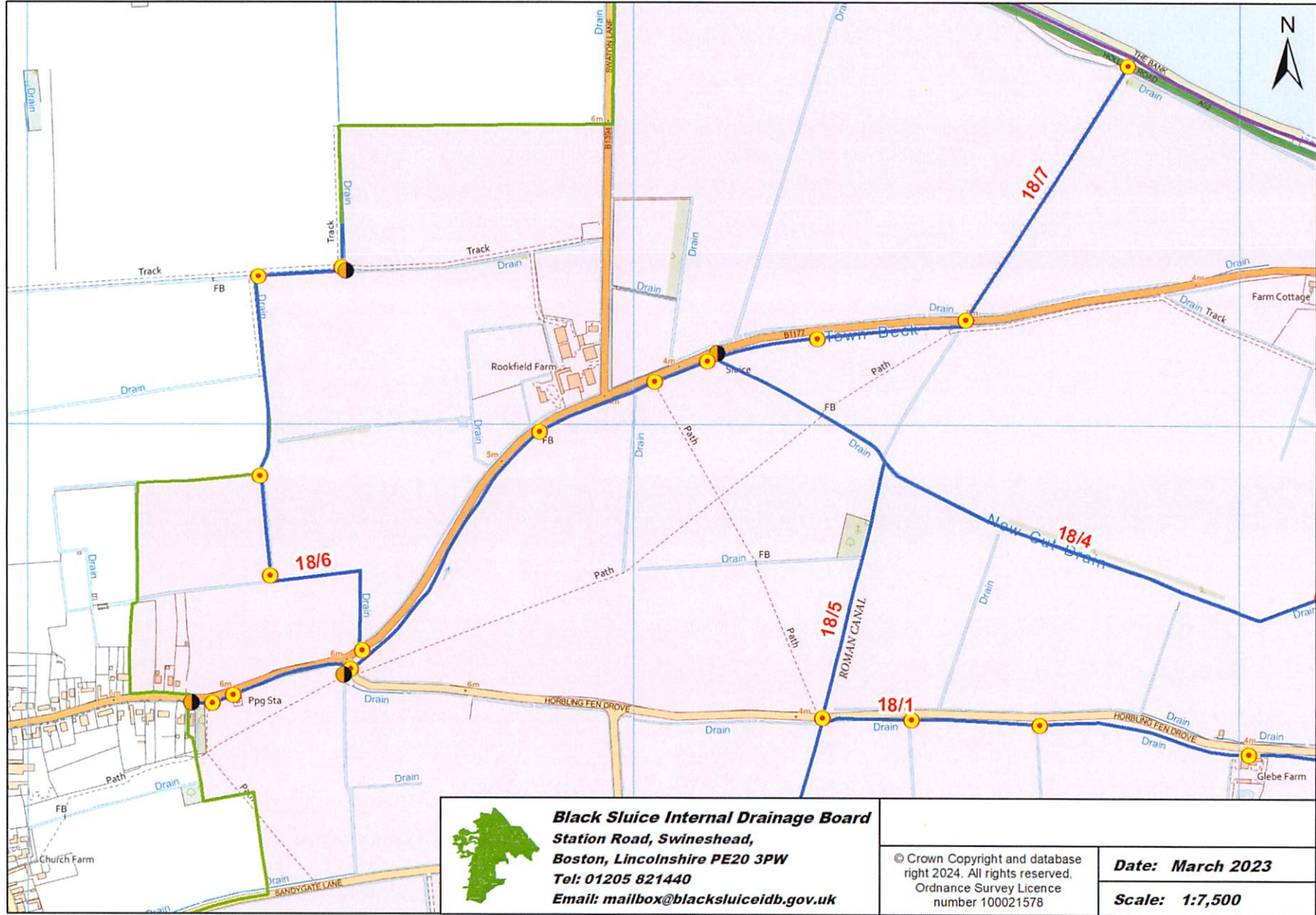


Flooding from overtopping of
Helpringham
Eau
North Drove
Helpringham
Fen



Helpringham
Fen PS and
South Forty
Foot Drain
outfall

4. View/discuss improvements to Drain 18/7—Donington Road, Horbling

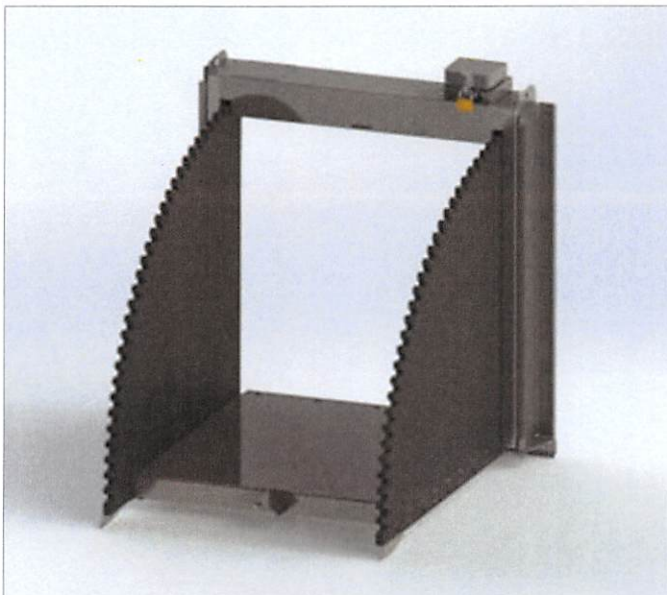


During the recent storm events there was overtopping of this drain, and discussion on a possible solution with the landowner. This is a historic problem and it may be that a more permanent solution could be possible to allow some high level flows into the Horbling catchment.

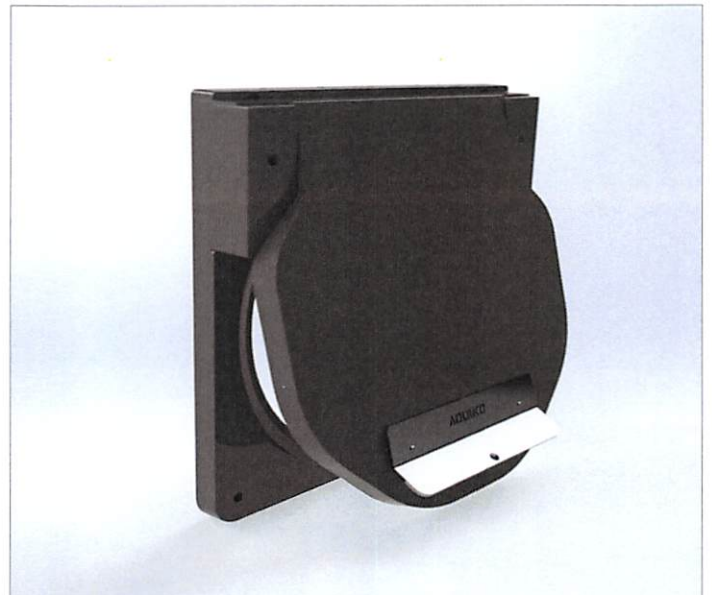
5. View weedscreen cleaner installation—Sempringham Fen Pumping Station



It is proposed that a tilting weir is installed to control levels in this catchment and also to install a new non return flap valve.



Example of the Aquiko tilting weir



1200mm Aquiko flap valve

Enlarged pond
with swale &
outfall pipe

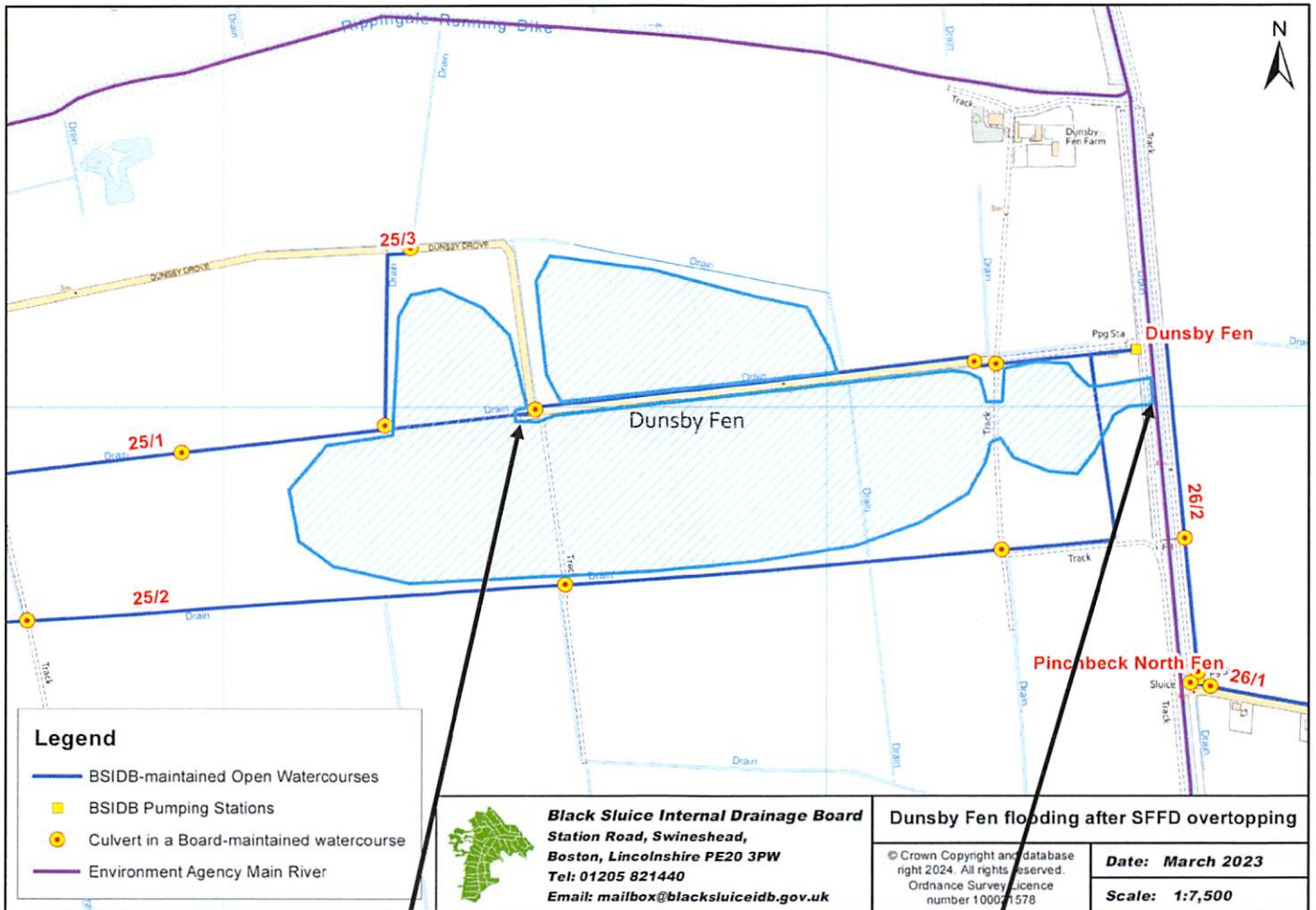


Leaky Dam

Reprofiled bank



7. View PTO ops & discuss SFFD overtopping – Dunsby Fen Pumping Station

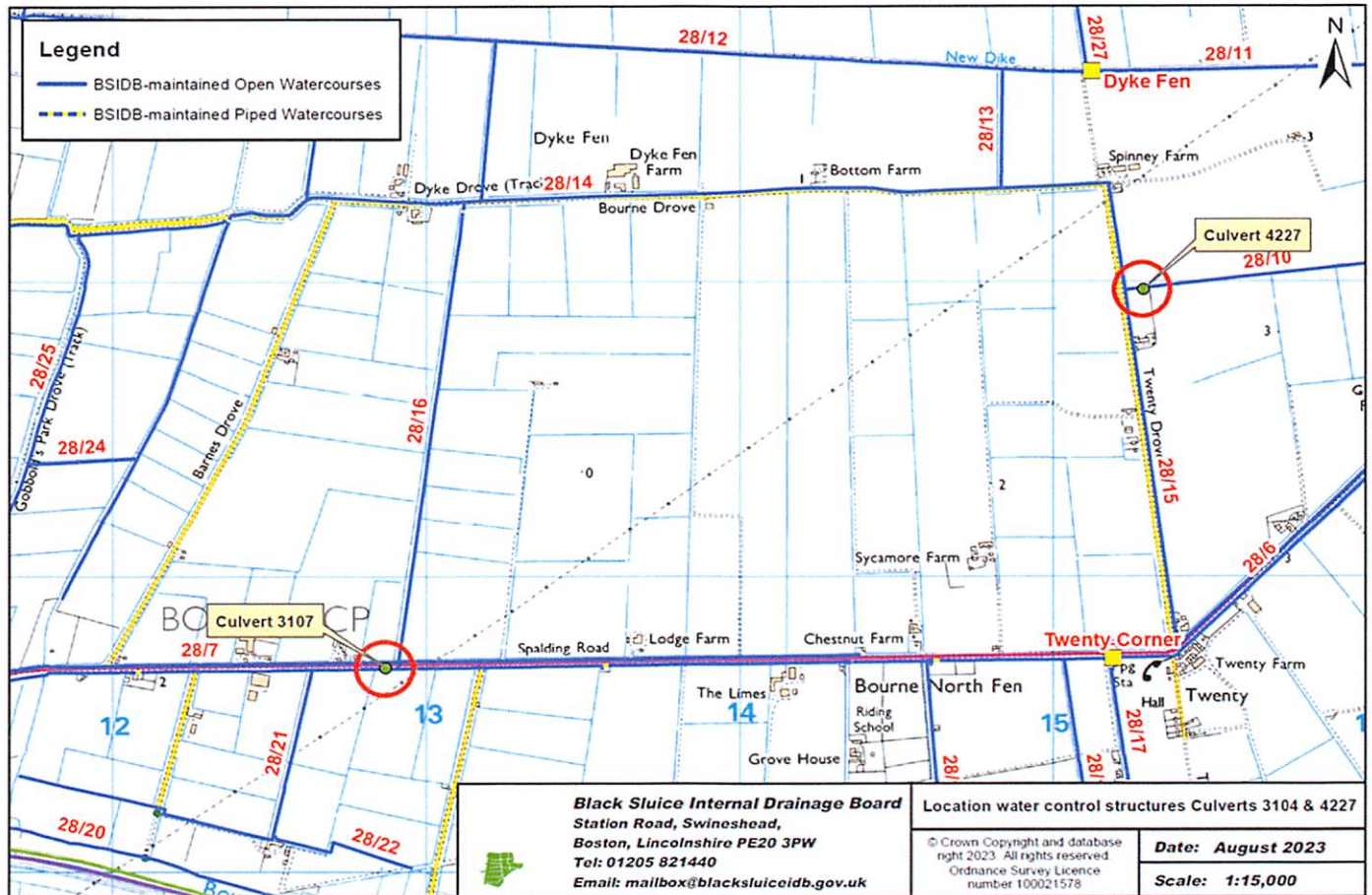


Storm Henk - highest known levels on SFFD 3.28mODN overtopping occurred on 02/01/2024 into Dunsby Fen over c250 acres.

Known low point on SFFD, crest is 3.05ODN.



C. Point of Interest - Discuss LAPSIP peat protection sites, Dyke Fen



Lowland Agricultural Peatland Small Infrastructure Pilot (LAPSIP)

Defra have announced a £5.45 million Lowland Agricultural Peat Small Infrastructure Pilot (LAPSIP) project to support the installation of infrastructure and monitoring technology, which will enable more control of water levels for the preservation and rewetting of lowland peat. Delivery of this project is being supported by the Association of Drainage Authorities (ADA).

The LAPSIP project aims to provide a grant fund from which internal drainage boards (IDBs) can bid to access sums of up to £250,000 per scheme, should they be able to meet the pre-defined criteria and should their bid be approved. It is envisaged that between 15 and 20 schemes will be funded.

The funds are being made available for schemes from IDBs for water management infrastructure which can show potential for future benefits in terms of managing water levels to lower the release of CO₂ from peat soils on predominately agricultural land within the district. The bids have to be able to show that the scheme has the ability to deliver the better preservation of peat soils, either directly from the scheme's completion, or indirectly by assisting with the IDB's water level management to facilitate future land management practices by local farmers etc. that reduce the loss of, and emissions from, peat soils.



The tilting weirs will enable better control of water levels within the peat rich catchment. This control would allow a higher water level to be maintained in the catchment preventing the decomposition of plant matter therefore reducing the carbon output. The structure would also allow for better monitoring and management of water levels which could feed into wider research.

The project will link to Bourne North Fen Wetland habitat creation which is being undertaken by Lincolnshire Wildlife Trust which is approximately 2km from the tilting weirs. Both projects will look to retain water levels to enhance the environment and therefore reducing the carbon output.



Example of proposed installation at the 2 LAPSIP sites

Both sites are proposed with solar powered 24DC electric motors that operate the level of the tilting weir. There will also be upstream and downstream water level sensors.

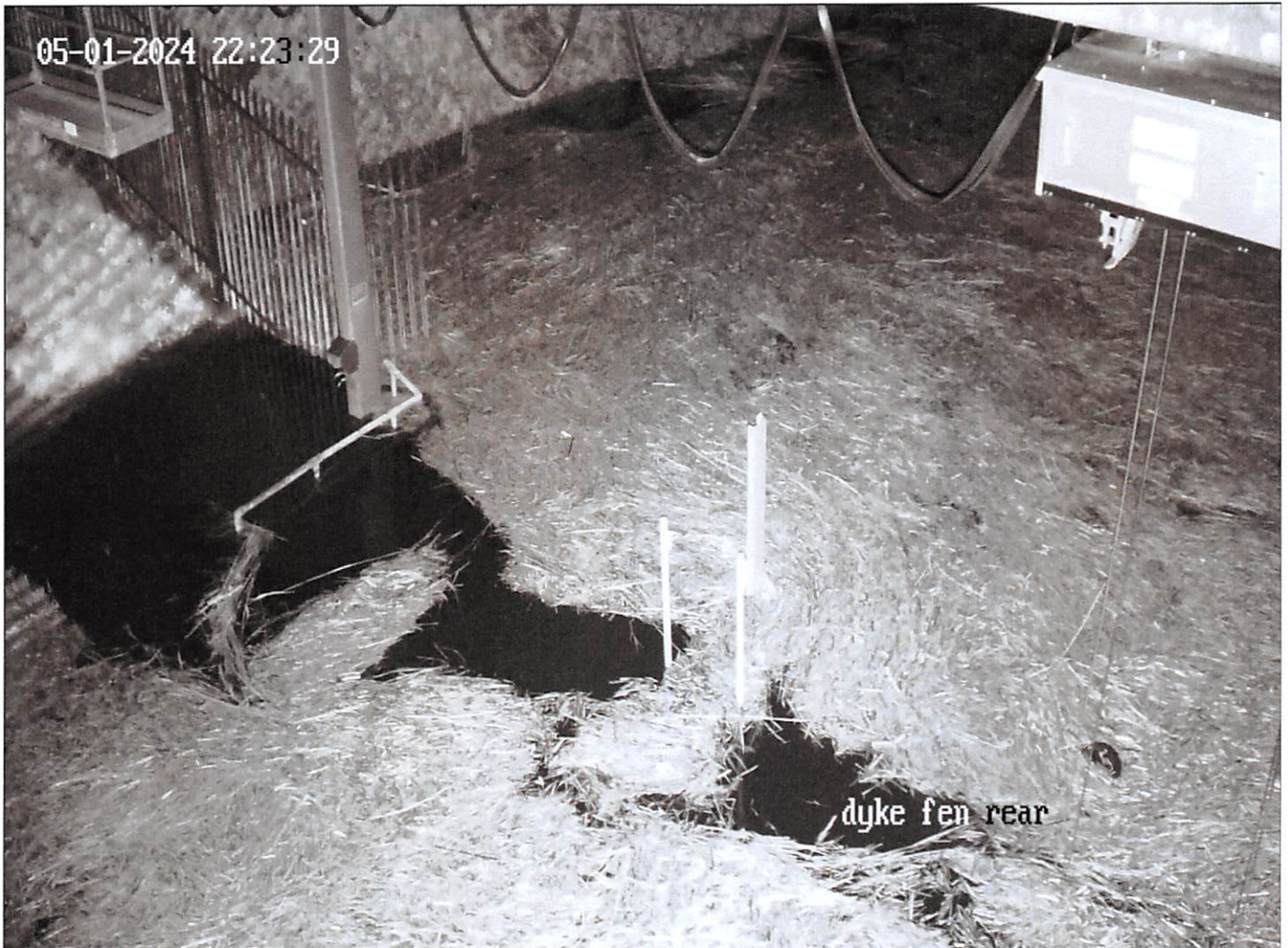
This is to be linked into the Board's existing Telemetry SCADA (Supervisory Control and Data Acquisition) system to enable remote viewing and operation.

D. Point of Interest - Lincs Wildlife Trust Wetland Project - Bourne North Fen

As previously reported the Board have been involved with this project from the early stages to create a new wetland area of c53 Hectares. This is now progressing through planning and works may begin on site this year.



E. Point of Interest - Discuss pump repairs/water levels/Weed cleaner faults



High water levels in this catchment exceeded highest known levels, compounded by 1 of the pumps being unavailable as it was on site having been away for repair and ready to be installed.

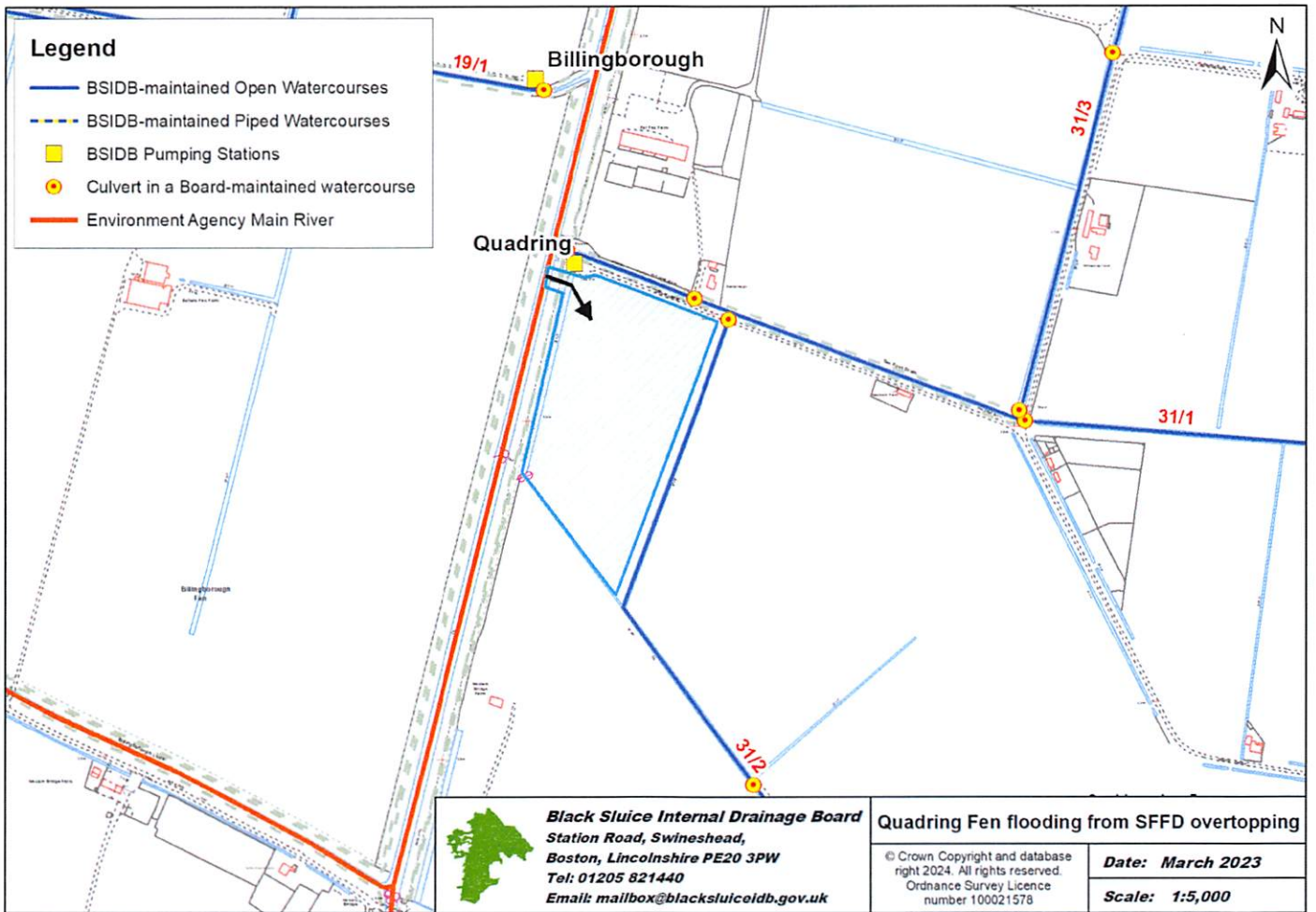
Water level was higher than electrical control supply for weedscreen cleaner and now requires replacement.

Replacement at c1m higher to provide resilience. Estimate £6,000

Photo shows auxiliary pumping:

Board's 8 inch pump, 2 x 6 inch. and an 8 inch pump hired from South Holland IDB

8. View/discuss SFFD overtopping - Quadring Fen Pumping Station



Black Sluice Internal Drainage Board
Option 2 - 10 Year Schemes Budget

Year	Type	Scheme	Total	Grant / Local Levy	Other Contributions	Possible Board Contribution	Drain	PS
2024/25	Drain	Large slip repairs	£159,000				£159,000	
	Drain	Bicker Fen Catchment works	£10,000	£10,000				
	Drain	Jetting to major pipelines	£75,000				£75,000	
	Drain	Dunsby Fen Catchment Works	£10,000	£10,000				
	Drain	Ewerby Fen Catchment Works	£10,000	£10,000				
	Pump	Damford Grounds PS Replace control panel	£60,000					£60,000
	Pump	Damford Grounds PS refurbish 2 x axial flow pumps	£50,000					£50,000
	Pump	Donington Wykes PS replace MCC	£30,000					£30,000
	Pump	Great Hale Fen pump drive couplings	£30,000					£30,000
	Pump	Kirton Marsh PS under pump inspections	£11,000					£11,000
	Pump	Wyberton Marsh PS new transformer	£50,000	£50,000				
	Pump	PS Level controllers - Various sites	£30,000					£30,000
	Pump	Rippingale Fen PS under pump inspections	£25,000					£25,000
	Pump	Haconby Fen PS under pump inspections	£25,000					£25,000
	Pump	Head Dyke bank repairs(South Kyme PS) specification	£65,000	£65,000				
	Pump	Hodge Dyke bank repairs(Ewerby Fen PS) specification	£65,000	£65,000				
	Pump	Head Dyke bank repairs(South Kyme PS) works	£1,000,000	£1,000,000				
	Pump	Hodge Dyke bank repairs(Ewerby Fen PS) works	£1,000,000	£1,000,000				
	Drain	Peat Restoration Project - Bourne Fen	£172,000	£172,000				
	Pump	Allan House PS scheme	£1,082,000	£1,082,000				
Drain	General culvert replacement contributions	£5,000					£5,000	
			£3,964,000	£3,464,000			£239,000	£261,000
2025/26	Drain	SFFD Desilting Guthrum to Blackhole Drove PS	£70,000				£70,000	
	Drain	Bicker Fen Catchment works	£430,000	£113,250	£266,750	£50,000		
	Drain	Dunsby Fen Catchment Works	£414,000	£45,508	£318,492	£50,000		
	Drain	Ewerby Fen Catchment Works	£750,000	£332,410	£367,590	£50,000		
	Drain	Horbling Town Beck Flood Alleviation scheme	£10,000	£10,000				
	Pump	Ewerby Fen PS replace control panel	£65,000					£65,000
	Pump	South Kyme PS replace control panel	£54,000					£54,000
	Drain	Jetting to major pipelines	£40,000				£40,000	
	Drain	Graft Drain	£35,000				£35,000	
	Drain	NFF Desilting	£20,000				£20,000	
	Pump	Great Hale Fen PS new transformer	£55,000	£55,000				
	Pump	Swineshead PS new transformer	£70,000	£70,000				
Drain	General culvert replacement contributions	£5,000					£5,000	
			£2,018,000	£626,168	£952,832	£150,000	£170,000	£119,000
2026/27	Drain	Claydyke desilting	£130,000				£130,000	
	Drain	NFF Desilting	£60,000				£60,000	
	Drain	Jetting to major pipelines	£50,000				£50,000	
	Drain	Horbling Town Beck Flood Alleviation scheme	£758,000	£130,568	£577,432	£50,000		
	Drain	Dowsby Fen Catchment Works	£10,000	£10,000				
	Pump	Horbling Fen PS new roof	£18,500					£18,500
	Pump	Gosberton Fen PS Refurbish 3 x axial flow pumps	£78,750					£78,750
	Pump	Swineshead PS replace MCC	£85,000					£85,000
	Pump	South Kyme Fen PS refurbish w/s cleaner & controls	£90,000					£90,000
	Pump	Swaton Fen PS replace MCC	£48,000					£48,000
	Pump	Rippingale Fen PS replace MCC	£48,000					£48,000
	Pump	Donington North Ings PS new transformer	£55,000	£55,000				
	Pump	Cooks Lock PS new transformer	£55,000	£55,000				
	Pump	Holland Fen under pump inspections	£28,000					£28,000
Drain	General culvert replacement contributions	£5,000					£5,000	
			£1,519,250	£250,568	£577,432	£50,000	£245,000	£396,250
2027/28	Drain	Graft Drain	£55,000				£55,000	
	Drain	Jetting to major pipelines	£65,000				£65,000	
	Pump	Cooks Lock p/s refurbish weedscreen cleaner	£80,000					£80,000
	Drain	New Hammond Beck Desilting	£50,000				£50,000	
	Drain	Dowsby Fen Catchment Works	£350,000	£162,686	£137,314	£50,000		
	Pump	Bicker Fen replacement control panel	£33,000					£33,000
	Pump	Bicker Fen refurb 1 x axial flow pump	£33,000					£33,000
	Pump	Wyberton Chain Bridge PS new transformer	£60,000	£60,000				
	Pump	Holland Fen PS new transformer	£75,000	£75,000				
	Pump	Donington Northings PS refurbish 3 x axial flow pumps	£85,000					£85,000
	Pump	Ewerby Fen PS refurbish 2 x axial flow pumps	£58,000					£58,000
Drain	General culvert replacement contributions	£5,000					£5,000	
			£949,000	£297,686	£137,314	£50,000	£175,000	£289,000
2028/29	Drain	Old Hammond Beck Desilting	£80,000				£80,000	
	Drain	Jetting to major pipelines	£60,000				£60,000	
	Pump	Kirton Marsh p/s replace control panel	£35,000					£35,000
	Drain	Bourne Fen 28/10 Revetment	£30,000				£30,000	
	Pump	Helpringham p/s new roof	£20,000					£20,000
	Pump	Wyberton Chain Bridge PS under pump inspection	£25,000					£25,000
	Pump	Wyberton Chain Bridge PS refurbish 3 x axial flow pumps	£90,000					£90,000
	Pump	Wyberton Chain Bridge PS replace MCC	£72,000					£72,000
Pump	Dowsby Fen refurbish 2 x axial flow pumps	£58,000					£58,000	
Drain	General culvert replacement contributions	£5,000					£5,000	
			£475,000				£175,000	£300,000

2029/30	Drain	Jetting to major pipelines	£60,000			£60,000	
	Pump	Chain Bridge p/s refurbish 3 x axial flow pumps	£95,000				£95,000
	Drain	Cooks lock PS pump drain desilting under pump inspection	£36,000			£36,000	
	Drain	Dowsby Fen pump drain desilting/pump inspection	£36,000			£36,000	
	Pump	Quadrang Fen p/s replace control panel	£40,000				£40,000
	Pump	Mallard Hurn PS under pump inspections	£32,000				£32,000
	Pump	Damford Grounds PS under pump inspections	£32,000				£32,000
	Pump	Helpringham Fen PS under pump inspections	£32,000				£32,000
	Pump	Swaton Fen PS under pump inspections	£32,000				£32,000
	Pump	Billingborough Fen PS under pump inspections	£32,000				£32,000
	Pump	Pinchbeck Fen PS under pump inspections	£32,000				£32,000
	Pump	Haconby Fen PS refurbish 1 x axial flow pump	£30,000				£30,000
	Drain	Quadrang Fen pump drain desilting/pump inspection	£32,000			£32,000	
	Drain	General culvert replacement contributions	£5,000			£5,000	
			£526,000			£169,000	£357,000
2030/31	Drain	Damford PS pump drain desilting/under pump inspections	£50,000			£50,000	
	Drain	Jetting to major pipelines	£80,000			£80,000	
	Pump	Horbling p/s control panel	£45,000				£45,000
	Pump	Mallard Hurn control panel	£45,000				£45,000
	Pump	Mallard Hurn PS under pump inspections	£10,000				£10,000
	Pump	Trinity College refurb pumps	£63,000				£63,000
	Drain	Black Hole Drove p/s under pump inspections	£25,000			£25,000	
	Pump	Ewerby Fen PS under pump inspections	£34,000				£34,000
	Pump	South Kyme Fen PS under pump inspections	£34,000				£34,000
	Pump	Sempringham Fen PS under pump inspections	£34,000				£34,000
	Pump	Blackhole Drove PS refurbish 3 x axial flow pumps	£100,000				£100,000
	Drain	General culvert replacement contributions	£5,000			£5,000	
			£525,000			£160,000	£365,000
2031/32	Drain	Jetting to major pipelines	£90,000			£90,000	
	Drain	Heckington Fen pump drain desilting under pump inspections	£50,000			£50,000	
	Pump	Billingborough Fen p/s control panel	£50,000				£50,000
	Pump	Dowsby Lode PS control panel	£50,000				£50,000
	Pump	Pinchbeck Fen PS control panel	£50,000				£50,000
	Pump	Swineshead PS refurbish 3 x axial flow pumps	£105,000				£105,000
	Pump	Swaton Fen PS refurbish 1 x axial flow pump	£35,000				£35,000
	Drain	Dowsby Fen PS drain desilting under pump inspections	£49,000			£49,000	
	Drain	Dowsby Lode PS under pump inspections	£36,000			£36,000	
	Drain	Dunsby Fen PS under pump inspections	£36,000			£36,000	
			£551,000			£261,000	£290,000
2032/33	Drain	Jetting to major pipelines	£90,000			£90,000	
	Pump	Rippingale p/s refurbish 1 x axial flow pump	£37,000				£37,000
	Drain	Gosberton Fen pump drain desilting/under pump inspections	£56,000			£56,000	
	Drain	Swineshead pump drain desilting under pump inspections	£66,000			£66,000	
	Drain	Donington Northings PS desilting under pump inspections	£56,000			£56,000	
	Drain	Great Hale Fen PS under desilting pump inspections	£56,000			£56,000	
	Drain	Trinity College PS desilting/under pump inspections	£56,000			£56,000	
	Drain	General culvert replacement contributions	£7,000			£7,000	
	Pump	Holland Fen PS refurbish 3 x axial flow pumps	£118,000				£118,000
Pump	Helpringham Fen PS refurbish 1 x axial flow pump	£38,000				£38,000	
			£580,000			£387,000	£193,000
2033/34	Drain	Horbling Fen PS desilting/under pump inspections	£35,000			£35,000	
	Drain	Bicker Fen PS desilting/under pump inspections	£40,000			£40,000	
	Drain	Jetting to major pipelines	£91,000			£91,000	
	Pump	Horbling Fen PS refurbish w/s cleaner & controls	£121,000				£121,000
	Pump	Sempringham Fen PS refurbish 1 x axial flow pump	£41,000				£41,000
	Pump	BlackHole Drove PS refurbish w/s cleaner & controls	£121,000				£121,000
	Pump	Quadrang Fen PS refurbish 1 x axial flow pump	£41,000				£41,000
Pump	Bicker Eau PS replace 2 x submersible pump	£120,000				£120,000	
			£610,000			£166,000	£444,000

Pump	Dowsby Fen PS replace MCC	£50,000					£50,000
Pump	Wyberton Marsh PS replace MCC	£72,000					£72,000
Pump	Trinity College PS replace MCC	£52,000					£52,000
Pump	Haconby PS replace MCC	£45,000					£45,000
Pump	Heckington Fen PS replace MCC	£54,000					£54,000
Pump	Cooks Lock PS replace MCC	£75,000					£75,000
Pump	Black Hole Drove PS replace MCC	£83,000					£83,000
Pump	Dyke Fen PS refurbish weedscreen cleaner	£90,000					£90,000
Pump	Haconby PS refurbish axial flow pump	£25,000					£25,000
Pump	Kirton Marsh PS new roof	£20,000					£20,000
Pump	Kirton Marsh PS refurbish 1 x axial flow pump	£29,000					£29,000
Pump	Great Hale Fen PS refurbish 3 x axial flow pumps	£85,000					£85,000
Pump	Holland Fen PS replace MCC	£88,000					£88,000
Pump	Helpringham Fen PS replace MCC	£50,000					£50,000
Pump	Dowsby Fen PS refurbish w/s cleaner & controls	£93,000					£93,000
Pump	Trinity College PS refurbish w/s cleaner & controls	£95,000					£95,000
Pump	Sempringham Fen PS replace MCC	£52,000					£52,000
Pump	Twenty PS refurbish 1 x axial flow pump	£30,000					£30,000
Pump	Quadring Fen PS replace MCC	£52,000					£52,000
Pump	Mallard Hurn PS replace MCC	£55,000					£55,000
Pump	Damford Grounds PS refurbish w/s cleaner & controls	£100,000					£100,000
Pump	Trinity College PS refurbish 2 x axial flow pumps	£63,000					£63,000
Pump	Horbling Fen PS replace MCC	£55,000					£55,000
Drain	Cooks Lock pump drain desilting/under pump inspections	£42,000					£42,000
Pump	Kirton Marsh PS refurbish w/s cleaner & controls	£105,000					£105,000
Pump	Heckington Fen PS refurbish 2 x axial flow pumps	£67,000					£67,000
Pump	Cooks Lock PS refurbish 3 x axial flow pumps	£100,000					£100,000
Pump	Billingborough Fen PS replace MCC	£58,000					£58,000
Pump	Dowsby Lode PS replace MCC	£58,000					£58,000
Pump	Pinchbeck Fen PS replace MCC	£58,000					£58,000
Pump	Rippingale Fen PS refurbish 1 x axial flow pump	£35,000					£35,000
Pump	Holland Fen PS 3 x pump refurb & motor	£32,000					£32,000

£1,968,000

BLACK SLUICE INTERNAL DRAINAGE BOARD
SOUTHERN WORKS COMMITTEE – 09 APRIL 2024

AGENDA ITEM 07

ENGINEER'S REPORT

1. Capital Asset improvements

(a) 2024/25 Defra/EA Funded Flood and Coastal Erosion Risk Management (FCERM) Grant in Aid (GiA) Schemes

(i) Swaton Natural Flood Management (NFM) schemes

3 sites at Holland Road Farm, Grove Farm and Manor Farm were identified to attenuate flows in the Swaton catchment. All sites having now been completed.

As part of a national pilot study these 3 sites are being monitored. 22 water level gauges have been set up with the data being collated to establish the resultant benefits of the offline storage sites.

(ii) Sempringham Fen Pumping Station Refurbishment

The new weed dump area and compound have been completed.

The new weedscreen cleaner initially estimated installation date of November 2023 due to issues with installation is now planned to be installed w/c 02/04/24.

Other works to install a boundary palisade fence, and also as discussed on the inspection tour proposed water level management/tilting weir and replacement flap valve.

(iii) Upper catchment South Forty Foot Natural Flood Management (NFM) Studies & Works

As reported previously, the latest study, now completed, showed the Morton, Aslackby, Billingborough, Rippingale and Helpringham catchments as those with the best opportunities for NFM implementation. A proposal for funding towards implementation of these schemes was put before the Regional Flood and Coastal Committee (RFCC) Local Choices, and funding successfully received to complete. The survey and landowner engagement work being completed on behalf of the Board by Lesley Sharpe a consultant Farmed Environment Adviser. Numerous sites across these locations have been identified, within excess of 150 if all are able to be agreed and completed, to include online storage ponds, bunds, scrapes, leaky barriers, wetland, online ponds and reconnected floodplains Some of the NFM interventions have been identified, agreed with landowners and visited with Board's officers, with some of these interventions having now been implemented.

(iv) Black Sluice Catchment Strategy

This scheme has been commissioned, Stantec's brief is to provide:

A high-level model to give a strategic overview of the whole system which will provide the Board with priority areas to focus future studies and investments.

The study will need to consider assessing the following areas:

- Pump efficiency – current vs alternative rules, this will enable a ranking of the pumps by the scale of the opportunity.
- Pump running costs
- Catchment combination/pumping station decommissioning
- Flood risk & future flood risk
- High level assessment of benefits available within the catchment

The Inception Study is currently being completed.

The total FCERM GiA currently applied for to complete this scheme is £250,000.

Future indicative Board contributions to facilitate the FCERM GiA funding have all now been reprofiled into future years and will be dependent upon the outcome of the Black Sluice Catchment Strategy.

Currently the existing catchment is being modelled based upon a division into 12 catchments.

(b) 2024/25 Board funded capital schemes

(i) Large Slip repairs - Estimate £159,000

There are a large number of bank slips requiring repair and an allocation towards the estimate to commence these repairs, has required other proposed schemes to be deferred due to the importance.

(ii) Jetting/CCTV survey of Major Pipelines – Estimate £75,000

Works have now commenced in the Wyberton area.

(iii) Dunsby Fen Catchment Works – Estimate £10,000

Dunsby Fen Catchment Works studies are to be reprofiled into future years and will be dependent upon the outcome of the Black Sluice Catchment Strategy.

(v) Donington Wykes PS MCC – Estimate £30,000

Part of ongoing preventative maintenance at this Pumping Station to replace the existing MCC (Motor Control Centre) installed in 1988.

(vi) Pumping Station various water level controllers – Estimate £30,000

Some of the existing water level controllers are to be replaced and may require repositioning to prevent being submerged during higher water levels.

(vii) Rippingale Fen PS under pump inspections – Estimate £25,000

This is work to complete the connecting pump section nuts & bolts and visual inspections of wet well and intake channel and removal of silt.

(viii) Haconby Fen PS under pump inspections - Estimate £25,000

This is work to complete the connecting pump section nuts & bolts and visual inspections of wet well and intake channel and removal of silt.

(ix) Peat Restoration Project – LAPSIP (Lowland Agricultural Peat Small Infrastructure Pilot) - £172,000

Lowland peat soils provide some of our most productive farmland. Without a change to how these peatlands are managed, we will continue to lose valuable agricultural soils, leading to loss of agricultural land and greater challenges to food security. In parts of the lowlands, the Climate Change Committee estimate that there is only enough peat soil left to continue farming as we do now for another 20 to 50 years.

As reported on the inspection tour, this project will install 2 tilting weirs within the catchment, each with associated telemetry, powered by solar energy, to enable fine control of water levels in 2 key watercourses.

The new control structures will enable better water management, including retaining water to reduce risk of the peat drying out.

The project links with the Bourne North Fen Wetland habitat creation, led by the Lincolnshire Wildlife Trust.

(x) General culvert replacement contributions. – Estimate £5,000

Culverts that would be considered for benefit contribution from the Board, should access for maintenance be required, as per the terms of the Structures Replacement Policy.

(j) 2025/26 Defra/EA FCERM GiA Schemes

(i) Dunsby Fen Catchment Works study – Estimate £414,000

Dunsby Fen Catchment Works studies are to be reprofiled into future years and will be dependent upon the outcome of the Black Sluice Catchment Strategy.

(ii) Horbling Town Beck Flood Alleviation Scheme - £10,000

This scheme is to be reprofiled into future years and will be dependent upon the outcome of the Black Sluice Catchment Strategy.

(k) 2025/26 Board funded capital schemes

(i) Jetting to Major Pipelines – Estimate £40,000

It is proposed to continue with the jetting and condition surveying of these pipelines.

(ii) Graft Drain – Estimate £35,000

The Graft Drain project has been ongoing for a number of years and the intention was for the scheme to recommence in 2024/25, but due to being reprofiled. It is now proposed to recommence works on site in 2025/26

(iii) SFFD Desilting Guthrum to Blackhole Drove PS – Estimate £70,000

This c1600m section of the South Forty Foot Drain from Guthrum Gowt to Blackhole Drove Pumping Station is maintained by the Board. It is proposed that this section is de-silted commencing in 2025/26.

General culvert replacement contributions. – Estimate £5,000

Culverts that would be considered for benefit contribution from the Board, should access for maintenance be required, as per the terms of the Structures Replacement Policy.

2. Emergency Response Plan

A reminder regarding the Emergency Response Plan and a fluvial event; The South Forty Foot banks are seen to be at risk of breaching when the water levels rise above 2.70m ODN at Black Hole Drove pumping station. If this occurs the pumps at the Boards pumping stations shall start to be switched off by remote telemetry control as agreed by the Emergency Response Team at the same time switching all pumps to their Emergency Profile Level as identified within the Emergency Response Plan. The pumps shall remain switched off until the level of the water in the South Forty Foot Drain at Black Hole Drove reduces to 2.30m ODN.

Should the event become more extreme then a decision will need to be made by the Emergency Response Team in conjunction with the Chairperson of the Board on whether water levels in the Fens should be allowed to rise higher than the figures shown within the Emergency Response Plan, live CCTV footage showing the pumping station suction bays will be assessed when making these decisions.

3. Crop Loss

A reminder regarding grass, hay, silage fields as stated within the Boards Crop Loss Compensation Policy (No.46). During Summer Cutting, compensation will not be paid for access by machinery through grassland, hay or silage fields. Other maintenance works, i.e. de-silting and bushing works compensation will be paid for damage to grass, hay or silage fields at £1,310.00/hectare, all as per policy 46 (pages 42 - 47), details of which can be found on the Board's website.

Black Sluice Internal Drainage Board

Policy No: 46

Crop Loss Compensation

Review	Southern Works 05 July 2022 Northern Works 19 July 2022
Board Approved	22 November 2022

1. PURPOSE

This document sets out the policy of the Black Sluice Internal Drainage Board concerning crop loss compensation for summer drain maintenance, any other maintenance works and permanent loss of land.

2. WHEN DOES CROP LOSS COMPENSATION APPLY?

The Board will only pay crop loss compensation to the ratepayer if a field is cropped at the time the work is carried out and the work causes damage to the crop or coverage of the crop with arising's from the works. There is a twelve-month cut-off date for claiming compensation following any such crop damage. Following any crop damage, the Boards Officers seek to agree any crop loss payments with the relevant party involved.

3. SUMMER DRAIN MAINTENANCE (WEED CUTTING)

Where the Board travels through standing crops to undertake weed cutting operations, compensation will be paid for crop loss at the rate of 25p per linear metre for all cereal crops and 44p per linear metre for oil seed rape. Root crops will be subject to private negotiation. Compensation will not be payable for access through grassland.

The Board has authorised the Operations Department to go through standing crops where deemed necessary in the interest of economy, efficiency and to minimise soil structure damage.

Cereals: 1000m x 25p per metre = £250.00
Oil Seed Rape: 1000m x 44p per metre = £440.00

4. OTHER MAINTENANCE WORKS (DE-SILTING/BUSHING)

Where **notice of entry (August/September notice) has been served** before a field has been cultivated, drilled, or planted, compensation will be calculated at the rate of **£1,310 per hectare whatever crop** is in the field.

Where **notice of entry has not been served** and a field has been cultivated, drilled, planted or sprayed, compensation will be calculated at the rate of **£1,495 per hectare for cereals** and harvested grass, and **£1,720 per hectare for oil seed rape**.

5. PERMANENT LOSS OF LAND

The Board will only pay land loss compensation to the landowner for widths lost greater than 500mm, the Board has limited records on landowners, if the compensation forms are posted to the ratepayer and they are not the landowner the ratepayer must immediately inform the Board and pass on the papers to the landowner. There is a twelve-month cut-off date for claiming compensation following any such land loss.

Land Loss Calculator			
Multiplier	Annual rateable value £/acre	Comp £/acre	Comp £/ha
125	85	10,625	26,254
125	80	10,000	24,710
125	75	9,375	23,165
125	70	8,750	21,621
125	65	8,125	20,077
125	60	7,500	18,532
125	55	6,875	16,988
125	50	6,250	15,444
125	45	5,625	13,899

6. HOW THIS POLICY WILL BE APPLIED

Summer Cutting

1. Notice is included with the drainage rate brochure and plan kept up to date on the website.
2. The Works Supervisor will endeavour to contact the occupier.
3. If the crop is due to be harvested imminently the programme will be adjusted to accommodate this where practicable.
4. If the crop is not due to be harvested imminently then the standard compensation rates will be agreed with the occupier.
5. The occupier is to be handed a leaflet explaining the process and policy or emailed it as a PDF attachment.
6. The GIS Technician raises claim forms and posts to the occupier as per the drainage rate records.
7. The occupier signs and returns the claim form including their bank details, within twelve months of the form being sent.
8. The GIS Technician records the receipt of the claim form and if correct passes to finance for payment.
9. Payment is authorised by the Chief Executive Officer or Finance Manager.
10. Claim is paid by the end of the following month it is claimed subject to the occupier matching the records on the drainage rate records.

Winter cleansing

1. Notice is sent in a letter in September/October prior to the works commencing in December of the same year.
2. The GIS Technician collates the crop loss from the drivers weekly report sheets.
3. The GIS Technician raises claim forms and posts to the occupier as per the drainage rate records.
4. The occupier signs and returns the claim form including their bank details, within twelve months of the form being sent.
5. The GIS Technician records the receipt of the claim form and if correct passes to finance for payment.
6. Payment is authorised by the Chief Executive Officer or Finance Manager
7. Claim is paid by the end of the following month it is claimed.

Land Loss

1. Notice is sent in a letter in September/October prior to the works commencing in December of the same year.
2. The GIS Technician collates the land loss from the drivers weekly report sheets.
3. The GIS Technician raises claim forms and posts to the occupier as per the drainage rate records requesting the details of the owner of the land, if not known.
4. The GIS Technician sends the claim forms to the owner if different to the occupier.
5. The owner signs and returns the claim form including their bank details, within twelve months of the form being sent.
6. The GIS Technician records the receipt of the claim form and if correct passes to finance for payment.
7. Payment is authorised by the Chief Executive Officer or Finance Manager.
8. Claim is paid by the end of the following month it is claimed.

Appendixes

Please see attached the following documents:

1. Compensation for Loss of Cropping
2. Claim Form for Crop Loss (Occupiers)
3. Claim Form for Land Loss (Owners)

Black Sluice Internal Drainage Board

Station Road
Swineshead
Boston
Lincolnshire
PE20 3PW

01205 821440

www.blacksluiceidb.gov.uk

mailbox@blacksluiceidb.gov.uk

COMPENSATION FOR LOSS OF CROPPING

The Board wish to gain access onto cropped fields and are willing to pay compensation to the Occupier:

Current Rate of compensation £ per metre Date / /

NAME OF OCCUPIER

ADDRESS OF OCCUPIER

.....
.....
.....
.....

TELEPHONE NUMBER

FIELD No:

DRAIN No:

LENGTH OF DRAIN CONCERNED

METRES

COMPENSATION PAYABLE

METRES X £

METRE

= £

Agreed on behalf of Occupier.....

Agreed on behalf of Board.....

BLACK SLUICE INTERNAL DRAINAGE BOARD

CLAIM FORM FOR CROP LOSS (OCCUPIERS)

26/10/2020

RPA Sheet ID	RPA Parcel ID	Length (m)	Width (m)	Area of Crop Loss (Hectares)	Rate of Compensation	Amount of Compensation
Drain 22 / 28 Gosberton						
TF1927	5141	398	0.00	0.0000	£1,310	£1.00

I/we the undersigned and being the occupier of the above mentioned fields am/are prepared to accept in full and final settlement of my/our claim for compensation the sum of:-

£1.00

Signature

Date

Occupier: BLACK SLUICE I D B
STATION ROAD
SWINESHEAD
BOSTON
LINCS
PE20 3PW

Please sign and return GREEN copy to BSIDB.

The white copy is for your own records.

Payment of Crop Loss Compensation

It is the Board's policy to make all payments wherever possible by direct transfer.

Please provide account details below:-

Account in name of

Sort Code

Account Number

BLACK SLUICE INTERNAL DRAINAGE BOARD

CLAIM FORM FOR LAND LOSS (OWNERS)

LAND LOSS

Drain: /

26/10/2020

RPA Sheet ID	RPA Parcel ID	Length (m)	Width (m)	Area of Land Loss (Hectares)	Rate of Compensation	Amount of Compensation
--------------	---------------	------------	-----------	------------------------------	----------------------	------------------------

I/we the undersigned and being the owner of the above mentioned fields am/are prepared to accept in full and final settlement of my/our claim for compensation the sum of:-

£0.00

Signature

Date

Occupier:

Owner:

.....
.....
.....
.....

Please sign and return GREEN copy to BSIDB.

The white copy is for your own records.

Payment of Land Loss Compensation

It is the Board's policy to make all payments wherever possible by direct transfer.

Please provide account details below:-

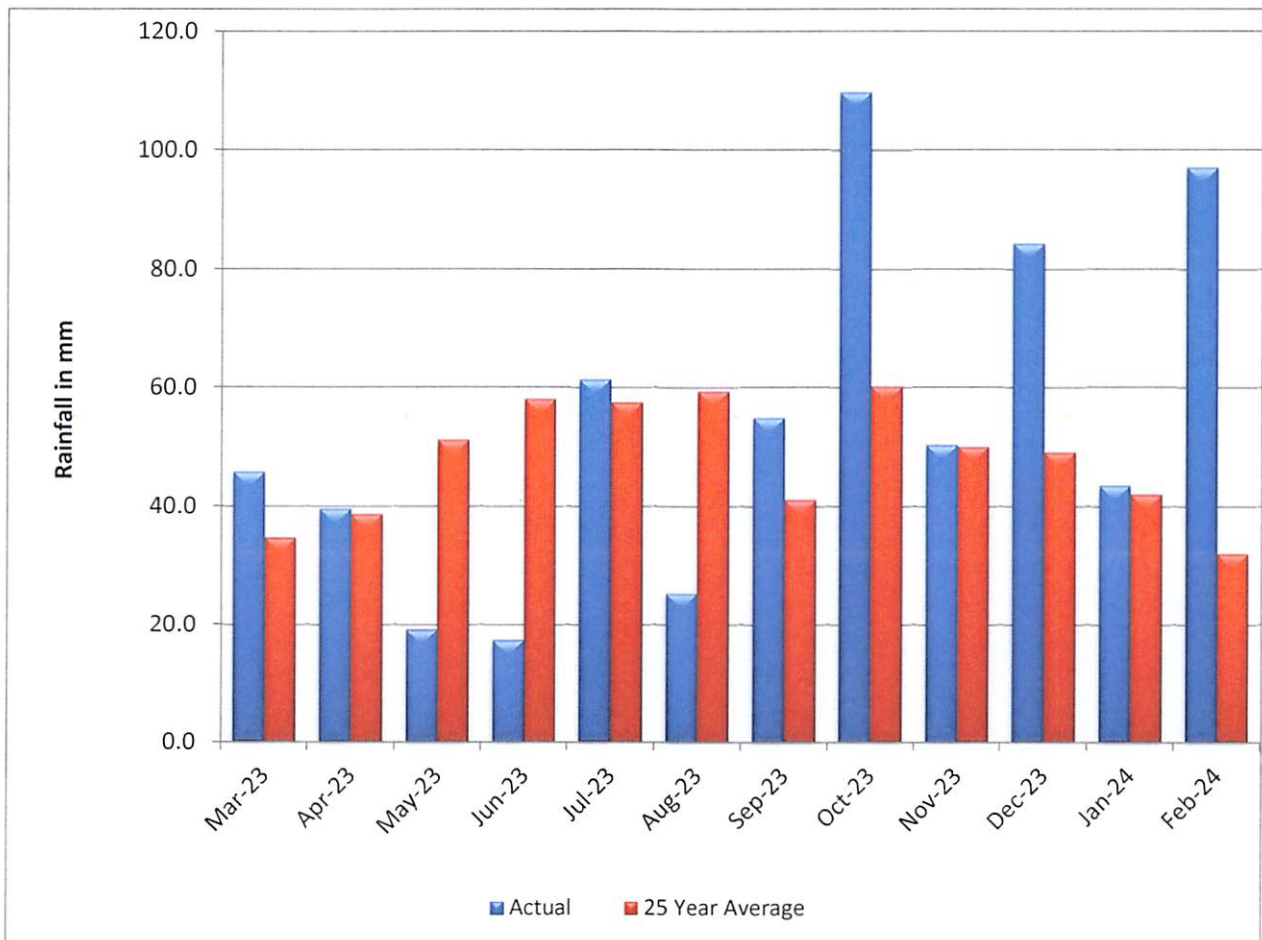
Account in name of

Sort Code

Account Number

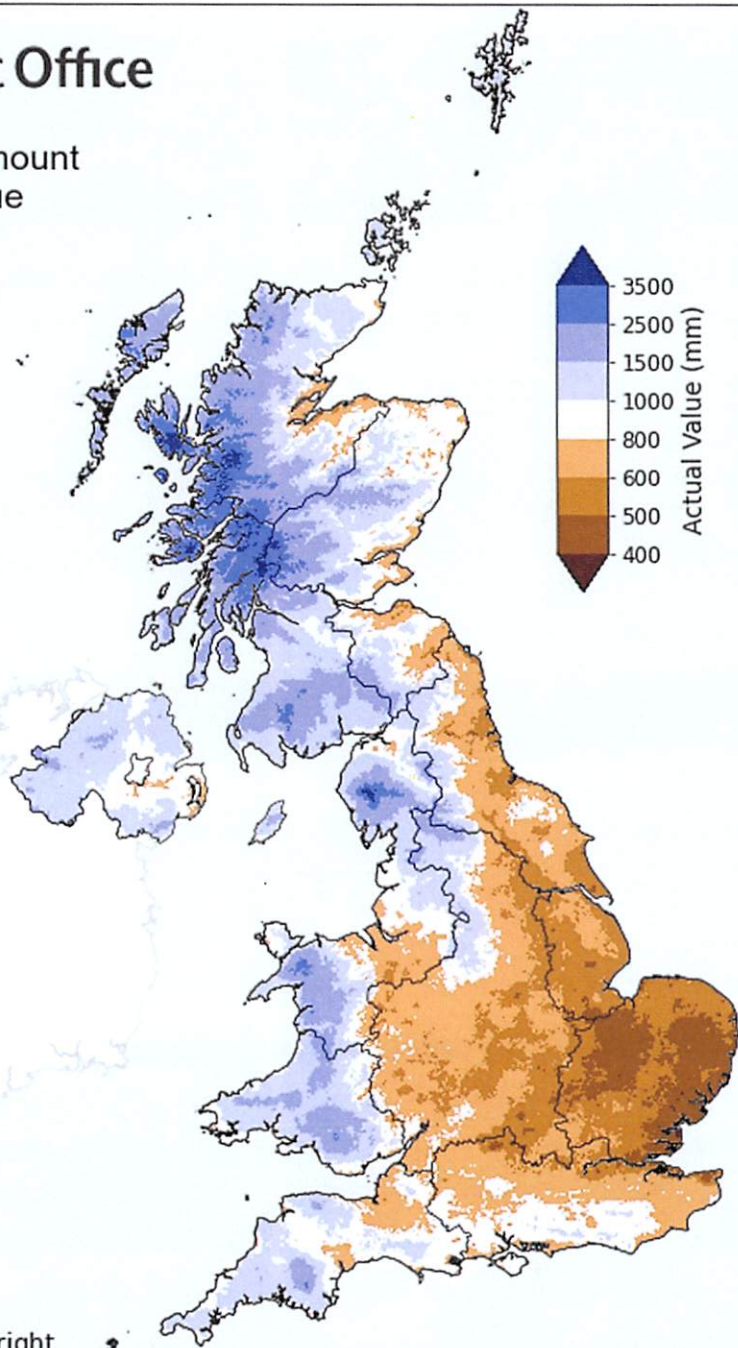
BLACK SLUICE INTERNAL DRAINAGE BOARD Rainfall at Black Hole Drove Pumping Station

MONTH	Rainfall		Actual / Average
	Actual	25 Year Average	
	mm	mm	%
Mar-23	45.8	34.7	131.99%
Apr-23	39.6	38.7	102.33%
May-23	19.2	51.2	37.50%
Jun-23	17.4	58.1	29.95%
Jul-23	61.4	57.5	106.78%
Aug-23	25.4	59.4	42.76%
Sep-23	55.0	41.2	133.50%
Oct-23	109.8	60.2	182.39%
Nov-23	50.4	50.1	100.60%
Dec-23	84.4	49.1	171.89%
Jan-24	43.6	42.1	103.56%
Feb-24	97.2	32.1	302.80%
Totals	649.2	574.4	113.02%



 **Met Office**

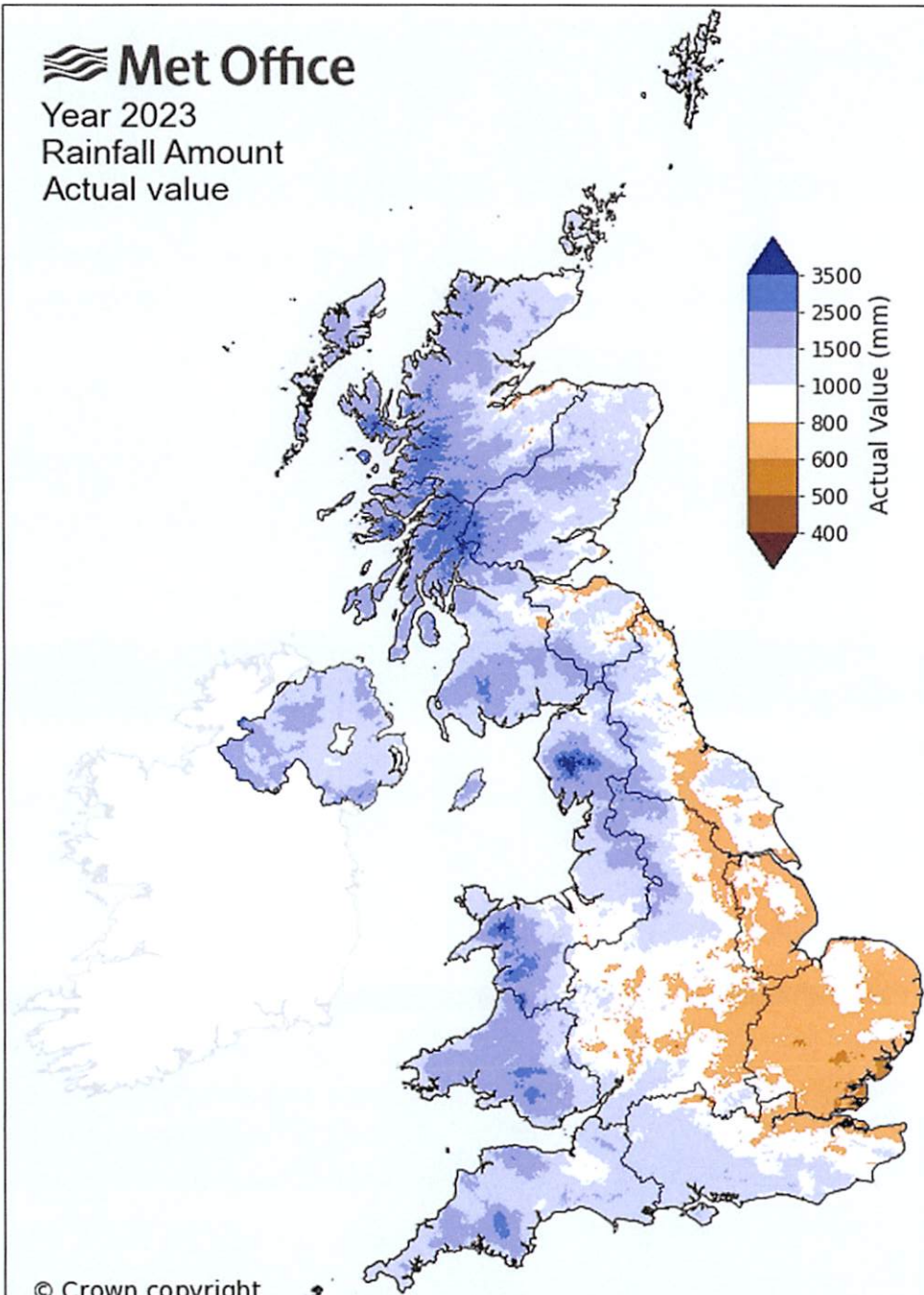
Year 2022
Rainfall Amount
Actual value



© Crown copyright

 **Met Office**

Year 2023
Rainfall Amount
Actual value



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