

BLACK SLUICE

INTERNAL DRAINAGE BOARD



Northern Works Committee Meeting

Tuesday, 12th May 2026 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: 5th May 2026

To all Northern Works Committee Members

Dear Member

Northern Works Inspection and Meeting on 12th May 2026

Please find enclosed the papers for the Northern Works Committee Meeting to be held after the Inspection Tour of the northern area on Tuesday 12th May 2026.

We shall depart at 8:30am from the Boards Offices and arrive back for the meeting around 1:30pm. 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 7th October 2026 (**pages 1 - 10**)
5. Matters arising.
6. To discuss the Operations Report and Inspection (**pages 11 – 20**)
7. To discuss the Engineer's Report (**pages 21 - 28**)
8. Rainfall (**page 29**)
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
7th October 2025 at 2pm

Northern Works Members

Chairperson - * Mr Mark Rollinson

- | | |
|-------------------------|----------------------|
| * Mr Tom Ashton | * Mr Paul Holmes |
| * Mr Mark Leggott | * Mr Robert Needham |
| * Mr Peter Robinson | Cllr Richard Austin |
| * Cllr Peter Bedford | Cllr Neil Drayton |
| Cllr Stuart Evans | Cllr Ralph Pryke |
| Cllr Claire Rylott | Cllr David Scoot |
| * Cllr Suzanne Welberry | * Cllr Andrew Hagues |

Co-opted Members

- | | |
|--------------------|----------------------|
| Mr Michael Brookes | Mr David Casswell |
| Mr Joshua Casswell | Mr James Emerson |
| Mr Brian Hammond | Mr James Pocklington |
| Mr Stephen Pugh | Mr Roger Welberry |

Southern Works Members

Chairperson - * Mr Chris Wray

- | | |
|----------------------|--------------------|
| * Mr William Ash | Mr George Atkinson |
| * Mr Vic Barker | Mr Mark Mowbray |
| Cllr Margaret Geaney | * Cllr Z Lane |
- Co-opted Members**
- | | |
|---------------------|---------------------|
| * Mr James Casswell | Mr Keith Casswell |
| Mr Ross Dorrington | * Mr David Leverton |
| * Mr Andrew Mair | * Mr Mark Taylor |

(* Member Present)

In attendance: Mr D Withnall (Chief Executive)
Mr P Nicholson (Projects Director)
Mrs A Chamberlain (Finance & Admin Director)
Mr K Methley (Pump Manager)

The Meeting was chaired by Mr M Rollinson.

2525 Recording the meeting – Agenda Item 1

Members were informed that the meeting would be recorded.

2526 Apologies for absence - Agenda Item 2

Apologies for absence were received from Cllr S Evans, Cllr C Rylott, Cllr D Scoot, Cllr M Geaney, Cllr N Drayton, Cllr R Austin, Mr K Casswell, Mr D Casswell, Mr J Pocklington, Mr R Dorrington, Mr M Mowbray, Mr M Brookes, Mr G Atkinson, Mr B Hammond and Mr R Welberry.

2527 Declarations of interest - Agenda Item 3

Swarby Flooding – Enforced Actions

The Chairperson declared an interest.

2528 Minutes of the last meeting of the Southern Works Committee - Agenda Item 4

The Minutes of the last Meeting of the Southern Works Committee held on 25th March 2025, 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.

2529 Matters arising from the Southern Works Committee Meeting - Agenda Item 5

Minute 2459 (page 10) Sempringham Fen – leak from concrete pipe

Mr V Barker noted the difference in the item as it is a steel pipe sealed with concrete, and he is unsure if the EA have dealt with it. The Projects Director updated the EA have been to site. Mr V Barker will observe the work done.

Minute 2456 (page 2) Flooding at Donington Road Horbling Fen Drain

Mr James Casswell declared an interest.

The Projects Director updated on the Town Drain which is an EA drain that was taken on by the Board in 2017/18. For a number of years when heavy rainfall was experienced, the drain overtopped onto the road causing flooding to the adjacent property with the last event causing internal flooding to the cottages on Swaton Lane and one property on the edge of the village. It was agreed, in conjunction with the landowner to implement some overflow into the Boards system. Previously the Landowner cut his own channel in, what was EA bank, to allow some of that water to go into the Boards drain. It was agreed the Board would look at the levels of the bank along that section, as there is a low point on the side of the road further upstream that overtops onto the road, and we have set the spillway at 300mm lower than the lowest point onto the road and that will encourage it to overtop into the Boards drain and the northern catchment. The Projects Director noted in his opinion this will help but may not cure the problem.

Mr P Holmes questioned the difference in costs to the planned costs. The Projects Director explained the on-site discussions produced work than was different to the original plans. The Chief Executive pointed out it was not all funded by the board.

2530 Minutes of the last meeting of the Northern Works Committee - Agenda Item 6

The Minutes of the last Meeting of the Northern Works Committee held on 13th May 2025, 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.

2531 Matters arising from the Northern Works Committee Meeting - Agenda Item 7

Minute 2481 Item 3 Emergency Response Plan.

The Chief Executive updated on a claim which has appeared in the County Court.

The update from the Board's Solicitor was as follows:

'The Court accepted Counsel's submission that the particulars of claim as drafted were inadequate and that expert evidence would be required if the Claimant wishes to pursue her allegations. The Judge has therefore ordered the Claimant to file and serve further and better particulars by 16th October'

The Chief Executive expanded if there is no expert advice or no further allegations this claim will not go any further and could conclude in the Boards favour.

The Chief Executive continued this is a Ratepayer in East Heckington whose paddock was flooded and had to find temporary alternative accommodation for her horses. Plus, it was claimed the horse feed was also submerged. The Board visited site after reports that some access culverts were blocked, and it was found that there were no blockages. The Board doesn't believe they are liable, and the evidence submitted to the court would suggest as much. So far, we haven't had any costs.

The Chairperson noted how this would set a precedent and impact on the Emergency Plan and the Chief Executive highlighted this would mean anyone who was flooded in their garden or field could then make a claim. Therefore, this could be about considerable amounts of money and would not only impact on the Board but other IDB's and ultimately the Environment Agency.

2532 Update on IDB Recovery Fund – Finances & Delivery - Agenda Item 8(a)

The Projects Director updated where funds have been spent.

Tranche 1

(a - e) Helpringham Fen Pumping Station, South Kyme Pumping Station, Ewerby Fen Pumping Station, Dunsby Fen Pumping Station, Pinchbeck North Fen Pumping Station

All the detailed sites above are awaiting National Grid connections. Equipment is ready, but delays are due to wayleave issues and supply chain coordination. The goal is to replace motors that fail under high amps, preventing overheating and shutdowns.

Concerns were raised about investing in electrical upgrades at stations that might be merged or decommissioned in future catchment restructuring. The members

agreed that while long-term planning is essential, current operational needs must be met.

(f) Dyke Fen Pumping Station

The work on this site has been completed.

(g) Donington Northorpe Culvert Repair

The work on this site has been completed.

(h) Catchment Wide Bank Slips

Work has been completed.

(i) Donington North Ings Access Track

A new access road was built to avoid a problematic level crossing. Negotiations with Network Rail continue regarding the old crossing and culvert maintenance.

Tranche 2

(j) Great Hale Pumping Station

The work on this site has been completed.

(k) Installation of water level controllers at various Pumping Stations

Funding was achieved to replace the water level controllers at various pumping stations. Radar sensors were used to replace outdated submerged sensors at sites like Dowsby Fen. This improves accuracy and resilience during high water events.

(l) Mobile Pumps

New mobile pumps (two 8-inch, one 6-inch) and fuel bowsers were acquired. These are critical for emergency response and supplementing station capacity.

(m) Damford Grounds Pumping Station Refurbishment

This was a retrospective bid for funding for work completed in August 2024.

Tranche 2b

(n) Dunsby AWC

This project didn't achieve funding.

(o) Embankment Projects Ewerby Fen, South Kyme and Trinity College

These projects have experienced delays getting started due to contracting and logistical issues. Jackson Civil Engineering has been selected as the contractor, but final details regarding temporary works are still pending before contracts can be signed. Ewerby, in particular, faces complications due to the presence of a National Grid transformer that obstructs the planned flood wall installation. This has necessitated coordination with National Grid to remove the transformer before work can begin, pushing Ewerby's start date to late November or early December—an unfavourable time for such works. Originally estimated at £7.5 million, the total cost for all four sites has now been dramatically reduced to approximately £1.7 million, with Damford alone costing around £110,000. Despite the delays, the board remains committed to completing all works by March 2026 to meet the requirements of the IDB Recovery funding.

(p) Kyme Eau embankments at Damford Grounds Pumping Station

The Damford site was highlighted as the most straightforward of the four targeted locations, with piling works completed in August to prevent water seepage through the raised bank. This intervention involved installing a section of sheet piling within the existing embankment to block the flow path of water, and while early indications are positive, its long-term effectiveness remains to be seen.

(q) Gosberton Pumping Station improvements

The Gosberton Pumping Station was included in the list of infrastructure sites undergoing maintenance and refurbishment as part of the board's wider programme of works. While the update was taken as read during the meeting, it was noted that the station has received attention under the IDB Recovery Fund, which aims to restore and enhance operational resilience following recent flood events and long-term wear. Although no major structural failures were reported at Gosberton, the station's inclusion reflects a proactive approach to asset management, ensuring continued reliability in water level control across the catchment. The works at Gosberton are part of a broader strategy to maintain pumping capacity while awaiting the outcomes of the catchment-wide survey, which may influence future investment priorities. The board acknowledged the importance of keeping such stations operational, especially given the increasing frequency of high rainfall events and the pressure on downstream infrastructure.

2533 Update on Grant Schemes – Finances & Delivery - Agenda Item 8(b)

The Board Report for September 2025 is an indication of the funding achieved for each project.

(a) Sempringham Fen Pumping Station refurbishment

The committee received an update on the refurbishment works at Sempringham Pumping Station, which have now been completed. The project included the installation of a new weed screen cleaner and the replacement of a deteriorating headwall on the gravity channel. In addition, a manually operated tilting gate was installed to improve control over water levels and enhance the station's ability to manage gravitation from the catchment. The tilting gate, while currently manual, has been designed with the potential for future electrification, allowing for remote operation via telemetry if required. The refurbishment aims to provide greater flexibility in water level management, particularly in response to requests from riparian landowners for irrigation support. The board noted that while the station is not intended to function as a water storage facility, the improvements will allow for more precise control during high-flow events and seasonal variations. Safety enhancements were also made, including the installation of handrails and extended fencing around the new precast unit to ensure secure access for monitoring and maintenance.

(b) Allan House Pumping Station outfall repair - £1,077,033

The members received a comprehensive update on the ongoing repair works at Allan House Pumping Station, which have proven to be more complex and time-consuming than initially anticipated. The project involves tracing and replacing a failed section of outfall pipe that runs from the pumping station through the river bank discharging into the Haven. After extensive excavation and investigation, four new chambers have been installed to trace the pipe's route, including in Asda's car park and another near Irby Street. However, a critical section of pipe running beneath the railway line remains unsurveyed, and the board is hopeful

that no additional chamber will be required on Network Rail land, as this would introduce further delays and complications. In parallel, structural modifications to the pumping station building are underway, including raising the internal panel height by installing a flat roof, which is expected to be completed within the week, weather permitting. Despite the challenges, the board anticipates that the total expenditure will remain below the allocated £1 million budget, with the final phase involving the installation of new pumps and control panels once the outfall works are complete.

(c) Black Sluice Catchment Study - £385.000

The board received an update on the ongoing Black Sluice Catchment Study, which is a critical strategic initiative aimed at assessing the long-term resilience and capacity of the drainage infrastructure across the catchment. The study, which includes hydraulic modelling and climate change impact assessments, is expected to be completed by March–April 2026. Preliminary results have begun to emerge, particularly for the Swineshead catchment, offering insights into performance under various flood event scenarios. The board acknowledged that while the study may not drastically alter the current understanding of the system, it will provide a vital evidence base for prioritising future investment and refurbishment works. It was noted that even with the study's findings, implementation of any major changes could take 10 to 15 years due to the scale and cost of works required. The study will also inform decisions on catchment-wide capacity increases, especially in light of climate change projections, which may necessitate a 10% uplift in system capacity. However, concerns were raised about the practical limitations of such improvements, particularly when downstream systems like the South Forty Foot Drain are already at full capacity during high tide events. The board emphasised the importance of aligning future infrastructure upgrades with the outcomes of the study to ensure cost-effective and sustainable flood risk management.

(d) Wyberton Marsh Pumping Station New Transformer – Estimate £167,000

An update was provided on the transformer upgrade at Wyberton Marsh Pumping Station, which has encountered delays due to space constraints on site. Following a site visit with National Grid earlier in the year, initial plans for the installation were revised when it was determined that additional room would be required to accommodate the new equipment. As a result, the board is now in the process of negotiating the purchase of a small parcel of adjacent land—measuring approximately 5 metres by 2 metres—from a neighbouring landowner to extend the station's boundary. Discussions with the land agent have begun, with the board awaiting confirmation of the expected cost. This land acquisition is essential to enable the transformer installation and ensure the station's continued operational reliability. The board noted that while the area required is modest, the upgrade is critical to support future capacity and infrastructure resilience.

(e) Embankment repairs at Trinity College , Damford, Ewerby & South Kyme

These schemes are being completed as part of the Tranche 2b IDB Recovery fund as detailed earlier in the meeting.

(g) Swineshead Pumping Station replacement

The board discussed the urgent need to replace Swineshead Pumping Station following a structural assessment that revealed severe deterioration. Engineers expressed concern over the station's integrity, noting it is surprising the structure

remains standing, as it is uniquely founded on steel rather than the more robust concrete and steel combination used elsewhere. The station's condition is beyond feasible refurbishment, and full replacement is the only viable option. A preliminary design phase is underway, supported by £500,000 in funding, which will be used to explore pump type options and develop a feasible layout. However, this funding is unlikely to cover the full design process, and future financial support remains uncertain due to changes in the EA's capital funding programme. The estimated cost of replacement is between £10 million and £20 million. In the interim, the board is pursuing upgrades at Donington Northings and Chainbridge Pumping Stations to help alleviate pressure on the system, though these sites do not match Swineshead's capacity. The board also discussed contingency planning in the event of a total failure, noting that hiring temporary high-capacity pumps would be prohibitively expensive—estimated at £70,000 per week excluding setup and fuel—and would still not fully mitigate the impact. The board acknowledged the critical importance of progressing the replacement and securing long-term funding to avoid significant flood risk.

The board was briefed on significant changes to the Environment Agency's capital funding programme, which has transitioned from a six-year plan to a five-year rolling programme. This shift has had immediate implications for project funding, as many EA-led schemes that could not be completed within the original timeframe have now absorbed a substantial portion of the budget allocated for the first year of the new cycle. As a result, available funding for new projects in the coming year is expected to be extremely limited. The board noted that while most of its current schemes have retained their indicative funding, the Swineshead Pumping Station replacement has been excluded due to its status as not yet being in construction. Under the new funding model, refurbishment projects under £3 million will be eligible for 100% funding and can be signed off locally by the EA area manager. However, new construction projects exceeding £3 million will require a minimum 10% local contribution. The board expressed concern over the long-term impact of these changes, particularly for high-cost infrastructure replacements, and emphasised the need to strategically align future bids with the revised funding criteria to maximise success.

2534 Update on Board Funded Schemes - Agenda Item 8(c)

The Projects Director updated on the Board Funded Capital Schemes.

(a) SFFD Desilting Guthrum to Black Hole Drove PS estimated £105,000

The channel in this area has experienced significant silt build-up, particularly near the pumping station where the channel widens, making conventional damming techniques impractical. To address this, the board is considering the use of specialist contractors to install temporary dams and manage water levels during the works. The desilting will be carried out using large hydraulic machinery capable of lifting and depositing the material, a method proven effective in previous operations. In conjunction with the desilting, a structural inspection of Black Hole Drove Pumping Station is planned to assess the condition of the pumps and the station's overall integrity.

(b) Jetting to Major Pipelines - £40,000 estimate

The board was informed that jetting works on major pipelines are scheduled to commence within the next three weeks. ADC has been appointed to carry out the

programme, which will be closely supervised to ensure thorough completion across all targeted locations.

(c) Blackhole Drove PS under pump Inspections - £35,000

Inspections are to take place for structural inspection survey works to be carried out, as detailed in the earlier item at 2534 (a)

(d) North Forty Foot desilting - £20,000

Work is to commence in 2025/2026 and continue 2026/2027 to lower water levels and remove silt from the watercourse.

(e) General culvert replacement contributions - £5,000

The Budget allocated is for Board contributions where we use a culvert. It is the landowner's responsibility to maintain watercourses and enable access to their land.

2025 / 2026 Pumping Station Schemes

(a) Kirton Marsh PS replace MCC – Estimate £80,000

The replacement is due to take place during February / March 2026.

(b) Kiton Marsh PS replace syphon valve – Estimate £5, 000

The valve has been replaced well within budget.

(c) Horbling Fen PS 1 x pump motor refurb – Estimate £4, 000

This has been completed.

(d) Holland Fen PS 1 x pump motor refurb – Estimate £5,000

This has been completed.

(e) Great Hale Fen PS 1 x pump motor refurb – Estimate £5, 000

This has been completed.

(f) Cooks Lock PS AWC refurb – Estimate £95, 000

We have the equipment just waiting for an installation date.

(g) Great Hale Fen PS replace MCC – Estimate £85,000

This installation was due to be completed early 2026 but it is hoped that the work will be completed for the end of 2025.

2024 / 2025 Funded Scheme

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

The members received an update on the successful implementation of the Lowland Agricultural Peatland Water Level Management Infrastructure Programme (LAPSIP), funded through DEFRA's peat protection initiative and administered by ADA. The scheme involved the installation of solar-powered control units connected to tilting gates, allowing for remote water level management via telemetry. These units were installed with custom-built walkways to ensure safe access for monitoring and maintenance. While the gates are not expected to require frequent adjustment, the board acknowledged the importance of occasional operation to prevent mechanical seizure. The

inclusion of remote operability was made possible through the funding package and reflects a forward-thinking approach to water level control in sensitive peatland areas. The board noted that although the installation phase faced last-minute challenges, the scheme has been well received and represents a positive step in enhancing environmental resilience and operational flexibility.

2535 Update on Current Cutting Programme - Agenda Item 8(d)

The board received an update on the progress of the summer cutting programme, which is being closely monitored through weekly reporting and mapping tools on the board's website. As of the most recent update, approximately 62% of flailing and 49% of cutting has been completed, which is considered a strong position for this point in the season. However, recent mild and wet weather conditions have accelerated vegetation growth, particularly in high-consequence drains, prompting the need for additional cuts. Notably, the Wyberton Pump Drain has already required a second cut and is likely to need a third—an unusual occurrence that highlights the impact of changing seasonal patterns. While this may increase operational demands, the board noted that savings from reduced pre-season cutting earlier in the year, due to prolonged dry conditions, may help offset the additional costs

2536 Update for 2025/26 Winter Maintenance – possible change in approach- Agenda Item 8(e)

The members were updated on the upcoming winter desilting programme, which has been set at an ambitious target of 94 kilometres—significantly higher than the typical annual figure of around 75 kilometres. This increase reflects the need to address areas that were deprioritised during the previous year due to the focus on IDB-funded structural repairs and emergency works. The programme will be delivered over the winter period and may need to be phased across two years depending on ground conditions and availability. The members noted that improved reporting from operational staff and enhanced surveying capabilities—particularly through the use of GIS mapping and targeted inspections—have helped identify priority areas for intervention. These areas have been marked in red on the maps and will guide the deployment of resources. There was emphasis on the importance of maintaining flow capacity and reducing flood risk across the network, especially in light of increasingly unpredictable weather patterns.

Bushing to also be completed during winter maintenance.

2537 Report on Cliff Beck Maintenance - Agenda Item 8(f)

The members discussed ongoing concerns regarding the Cliff Beck watercourse following the Environment Agency's withdrawal of maintenance funding. Historically maintained under a Public Sector Cooperation Agreement, Cliff Beck now faces significant vegetation overgrowth and reduced conveyance capacity, particularly in light of increasing upstream development such as the Handley Chase housing scheme. Drone footage presented to the board revealed extensive blockages and poor visibility of the channel, raising serious flood risk concerns for downstream areas. The board estimated that restoring Cliff Beck to IDB standards would cost approximately £577,000, a figure deemed unsustainable without external support. There was also concern that improving

conveyance could exacerbate flooding further downstream, particularly at the junction with North Beck. As a temporary measure, the Executive Committee has agreed to clear vegetation to enable further surveying and assessment, but emphasised that this does not constitute a commitment to long-term maintenance. The Environment Agency's current proposal to manage flows via a flood storage reservoir near Mareham Lane was met with scepticism, with members questioning its effectiveness and long-term viability. The board will continue to monitor the situation and engage with stakeholders, including MPs and local authorities, to seek a sustainable resolution.

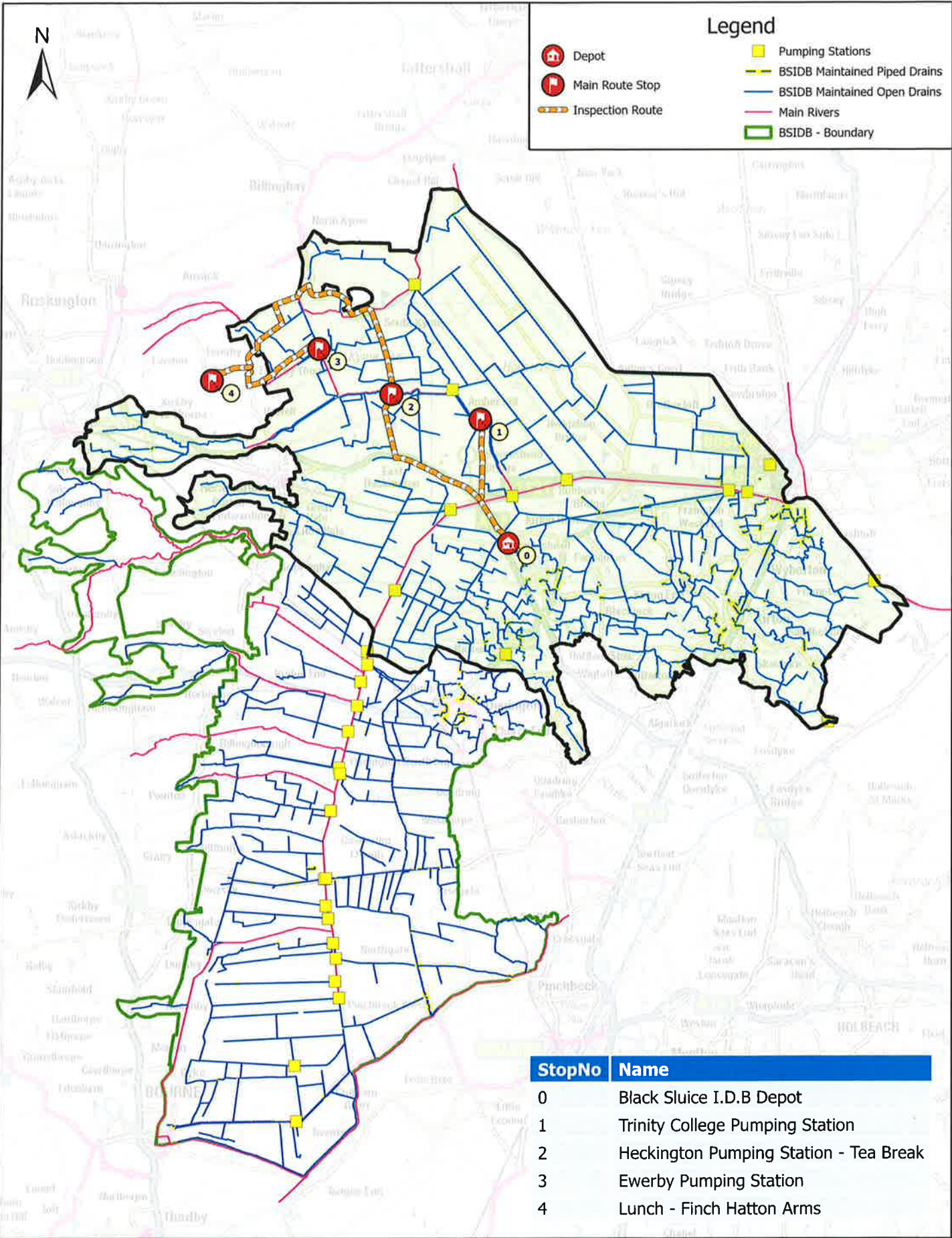
2538 Enforcement Actions - Agenda Item 9

The board was informed of recent enforcement actions undertaken to address non-compliant activities within the district. Tessa has been actively issuing information and action notices to landowners and third parties where breaches of board byelaws or unauthorised works have been identified.

2539 Any Other Business - Agenda Item 10

The board raised serious concerns about the potential flood risk posed by reservoir discharge coinciding with high tide and fluvial events, particularly affecting the South Forty Foot Drain. Members stressed that while such events may be statistically rare, their impact could be catastrophic, and therefore must be properly accounted for in the Environment Agency's risk modelling. It was confirmed that the EA is currently running a simulation using real data from the January 2025 flood event to test the accuracy of its 2018 model, with results expected by the end of the year. Additionally, a full catchment study incorporating climate change allowances—such as a 10% increase in drainage capacity—is scheduled for completion in 2027. The board emphasised the importance of ensuring these studies reflect realistic worst-case scenarios to inform future infrastructure planning and emergency response strategies.

There being no other business the meeting closed at **15:25**.



StopNo	Name
0	Black Sluice I.D.B Depot
1	Trinity College Pumping Station
2	Heckington Pumping Station - Tea Break
3	Ewerby Pumping Station
4	Lunch - Finch Hatton Arms



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Northern Works Committee Tour 2026

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BLACK SLUICE INTERNAL DRAINAGE BOARD
NORTHERN WORKS COMMITTEE - 12th May 2026

AGENDA ITEM 6

OPERATION & INSPECTION REPORT

1.Trinity College PS

As previously reported to this committee this Pumping Station has had issues with water ingress around and through the raised main riverbanks owned and maintained by the Environment Agency.

This was also happening at 3 other sites, all within the Northern Works area and all at some of the Board's earliest built electrically operated pumping stations constructed in the late 1950's.

This site was the last to show signs of water ingress around the Pumping Station, and currently its effects, at least those that can be seen above ground, are less significant than at the other 3 sites.

As discussed at previous meetings IDB funding was successfully achieved for the repair of the embankments at each of the sites with, the engineering design, tender packs and project management awarded to Stantec Engineering Consultants.

Two separate tenders were agreed due to the nature of the works required at Damford PS it would remain as a stand alone tender. The other 3 sites Trinity College, South Kyme Fen and Ewerby Fen were packaged into a single tender.

Part of the requirement for each site is an element called Temporary Works.

This can range from access roads, site compounds for welfare, parking, storage of plant and equipment, access culverts, all of which are removed on completion of the works on site and returned to preworks condition, all as agreed with the landowner.



Photo 1 a still image from the video taken on 07/01/2025 showing water flowing around the West side of the Pumping Station



Photo 2 showing where the water was coming through the bank

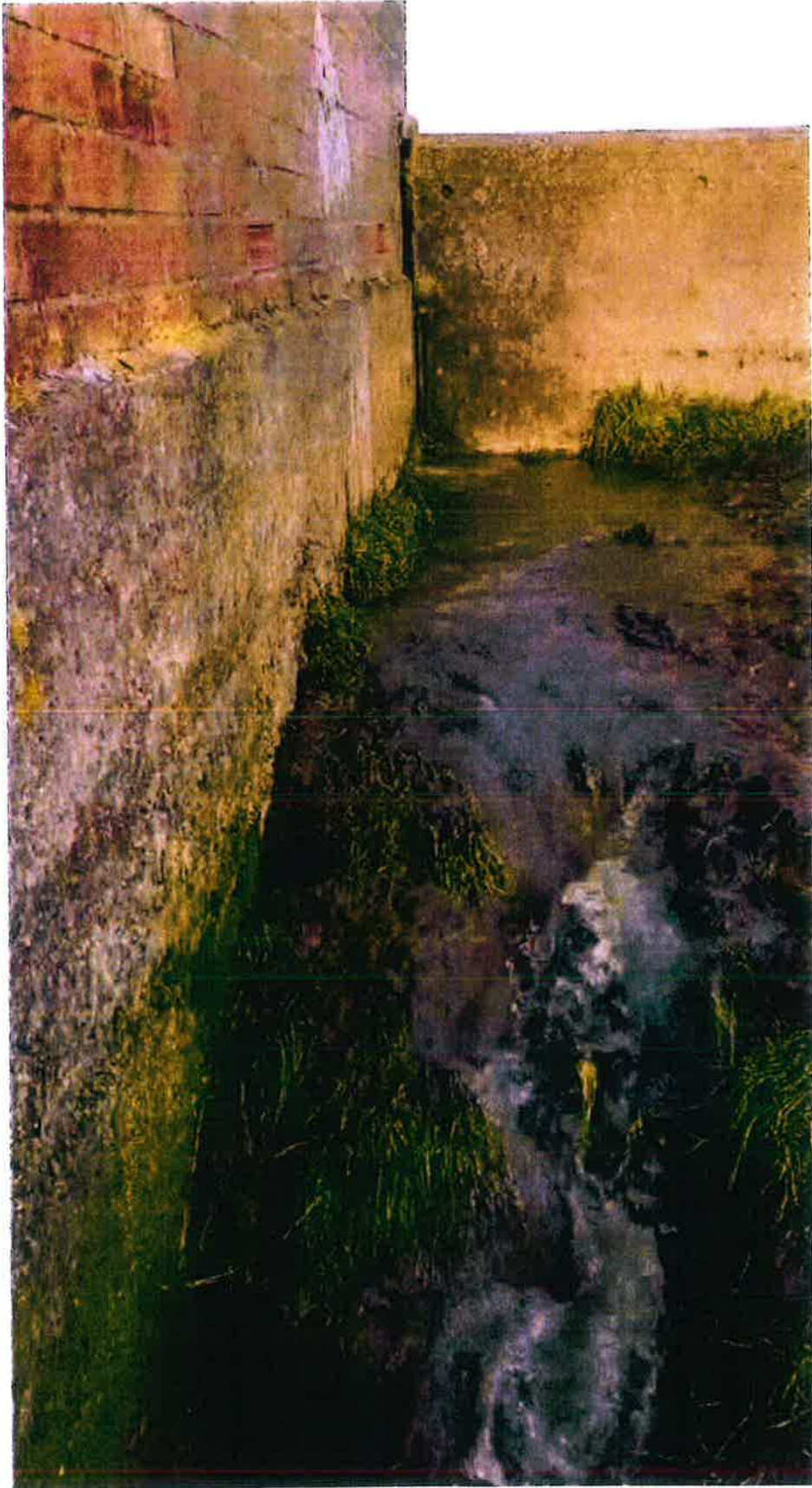


Photo 3 showing the flow path of water coming through the bank on the East side of the Pumping Station, and the original wall to be replaced as part of the works.

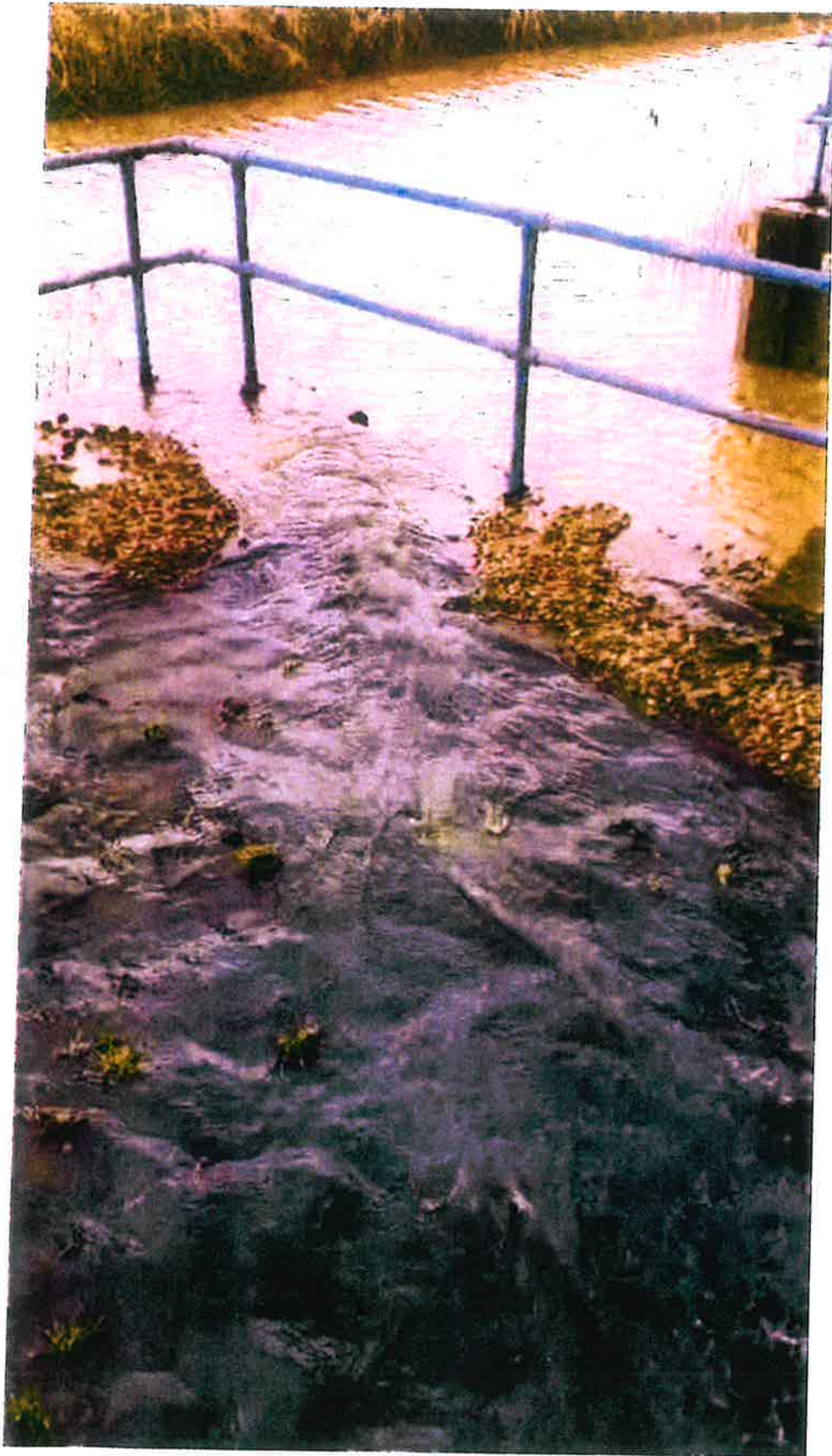


Photo 4 showing the flowpath back into the Board maintained drain

2. Heckington Fen Pumping Station

The pump couplings at this station need replacing due to wear.

(explanation on the Tour)

3. Ewerby Fen Pumping Station – exceedance rainfall events





As previously discussed at the 2025 Northern Works Committee meeting, ongoing issues with flows around or through Environment Agency main river raised embankments continues to be a problem at four of the Board's pumping stations at Ewerby Fen, South Kyme Fen, Trinity College and Damford Grounds.

Initially identified in 2019, during heavy rainfall events and higher water levels in main river outfalls, there are increased flow paths of water around these pumping stations.

South Kyme Fen Pumping Station was the first to show signs of water seepage around the sides of the building, which was then significantly the worst of the four. During a high water level event this station is not safe for the Board's operatives to visit due to the flow paths across the access to the site.



South Kyme Pumping Station



As previously discussed at the meeting of the Northern Works Committee in 2025, Ewerby Fen did not present initially as the worst, but during the high water level events of Storm Babet 2023, Storm Henk 2024 and the high rainfall event at the start of January 2025 it has progressively got worse now creating a large hole in the embankment below the existing concrete retaining wall.



BLACK SLUICE INTERNAL DRAINAGE BOARD
NORTHERN WORKS COMMITTEE - 12th May 2026

AGENDA ITEM 7
ENGINEER'S REPORT

Capital Asset improvements

1. 2026/27 Defra/EA Funded Flood and Coastal Erosion Risk Management (FCERM) Grant in Aid (GiA) Schemes

- (i) Wyberton Chain Bridge PS Refurbishment – Estimate £2,758,848
Includes 60% OB (£802,188)

This site has previously had a visual condition assessment completed by Board's officers. The inspection is currently the first part of an indicative allocation for funding towards developing a specification for refurbishment. Previous site inspections having been completed by consultant engineers Stantec who have been commissioned to develop a specification for 2 tender packages. The first to include all the Mechanical and Electrical elements, which will include the most significant change of pumps, as part of the requirement to enable compliance under current fish and eel regulations. A feasibility study will be completed to determine pump and pump motor replacement specification. The second will be the structural tender specification which will include recommendations of the report from structural inspections, which were completed at the beginning of April 2025.

Following the structural inspections the steel I beams and stanchions supports have been shot blasted and painted. A new access door from the weedscreen deck into the lower room has been core drilled and installed by the Board's staff.

Tenders for the planned works have started to be received and are currently being evaluated by Stantec prior to award. It is projected that these works are to be completed during the summer months of 2027

- (ii) Cooks Lock PS Structural repairs – Estimate £215,000

As part of a package of works, Stantec Engineering Consultants have been commissioned to complete structural inspections to the wet dry zone on the intake channel and also to the lower pump room, and suction channel. Following visual inspections previously completed by Board's officers, which identified evident oxidation to the structural steel. Stantec completed the structural survey at the beginning of April 2025. The Structural Engineers report provided recommendations to shot blast and paint the exposed steel I beams and stanchion supports, with the excessively corroded stanchion supports replaced. A new access door from the weedscreen deck into the lower room has been core drilled and installed by the Board's staff.

(iii) Great Hale Fen PS Structural repairs - Estimate £432,000

As reported at the Cooks Lock PS site, this site is also part of a package of works, Stantec Engineering Consultants have been commissioned to complete structural inspections to the wet dry zone on the intake channel and also to the lower pump room, and suction channel. Following visual inspections previously completed by Board's officers, which identified evident oxidation to the structural steel, and also some potentially structural concrete defects. Stantec completed part of the structural survey required at the beginning of April 2025 and returned to site to complete inspections of the pump chamber and wet well areas when water levels were reduced.

It was identified in the pump chamber and wet well inspections that there was significant deterioration of the concrete to the underside of the weedscreen deck, which now requires complete removal and replacement.

Stantec have been commissioned to provide a design and a tender for these works.

The Structural Engineers report provided recommendations to shot blast and paint the exposed steel I beams and stanchion supports, with the excessively corroded stanchion supports replaced. A new access door from the weedscreen deck into the lower room has been core drilled and installed by the Board's staff.

(iv) Swineshead Pumping Station replacement - £1,000,000
Current allocation received - study £500,000

As previously reported to the Northern Works Committee(NWC) meeting on 13th May 2025.

Stantec Engineering Consultants completed a structural survey in March 2024 and the full report included in the 2024 NWC papers, providing the following conclusions and recommendations.

Conclusions

4.1 The steel sheet piled walls and pump support steelwork at the inlet have corroded to an extent that they have reached the end of their serviceable life. It is unlikely that any numerical structural assessment could demonstrate their stability or any acceptable factor of safety.

4.2 The poor condition of the pump support steelwork is a particular concern. The extent of corrosion is likely to have reduced the beam strength across the structure and could potentially fail.

5. Recommendations

5.1 The structure should be extensively repaired and reinforced (if feasible) or fully replaced.

Following this report and also included within the 2024 NWC a report initially presented to the Executive Committee meeting on 21st May 2024 outlined the proposed estimated costs and also a potential timeline for a programme of works.

However, due to there being no FCERM GiA indicative allocation in the current GiA programme, it has been agreed that due to the priority of this scheme over another that the Board has received funding, approval has been granted to reallocate these funds.

Therefore, currently Stantec are to continue, following a recent site visit, with the development of a Pump Feasibility Study to look at the best options for pumps considering the requirements of the pumping station in relation to operating regimes and electricity costs, to develop towards an outline design for the new pumping station.

Early contractor engagement will be necessary to further develop a budget estimate at the design stage, which will assist with anticipated costs and buildability. This information will help in the development of the Outline Business Case which is the scheme report as part of the approval process towards obtaining funding required.

(v) Holland Fen PS Structural Repairs – Estimate £492,000

As part of a package of works, Stantec Engineering Consultants have been commissioned to complete structural inspections to the wet dry zone on the intake channel and also to the lower pump room, and suction channel. Following visual inspections previously completed by Board's officers, which identified evident oxidation to the structural steel. Stantec completed the structural survey at the beginning of April 2025.

The Structural Engineers report provided recommendations to shot blast and paint the exposed steel I beams and stanchion supports, with the excessively corroded stanchion supports replaced, this work having now been completed at this site. A new access door from the weedscreen deck into the lower room has been core drilled and installed by the Board's staff.

(vi) Wyberton Marsh PS Structural Repairs –

As part of a package of works, Stantec Engineering Consultants have been commissioned to complete structural inspections to the wet dry zone on the intake channel and also to the lower pump room, and suction channel. Following visual inspections previously completed by Board's officers, which identified evident oxidation to the structural steel. Stantec completed the structural survey at the beginning of April 2025.

The Structural Engineers report provided recommendations to shot blast and paint the exposed steel I beams and stanchion supports, with the excessively

corroded stanchion supports replaced, this work having now been completed at this site. A new access door from the weedscreen deck into the lower room has been core drilled and installed by the Board's staff.

(vii) 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.

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

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

(viii) Cooks Lock PS new transformer – Estimate £55,000

This was proposed along with the programme of works to replace or remove the original HV electrical transformer, subject to alternative LV supply being applicable. It is now expected that the electrical supply to the site will form part of the scheme of refurbishment that is to be proposed along with the scheme of Structural Repairs.

2. 2026/27 Board funded capital schemes

(i) Claydyke Desilting – Estimate £130,000

It is proposed that the Claydyke from Holland Fen PS to the junction of the Gill a c4900km is desilted.

(ii) North Forty Foot Desilting – Estimate £60,000

It is proposed that the desilting works are continued started in 2025/26.

(iii) Jetting/CCTV survey of Major Pipelines – Estimate £50,000

A programme of works for the camera inspection and condition survey of pipelines within the catchments are to be completed in the Northern Works area.

(iv) Wyberton Marsh PS roadway refurbishment – Estimate £20,000

A section of this roadway requires upgrading to enable access with all types of vehicles.

(v) South Kyme Fen PS refurbish weedscreen cleaner and controls – Estimate £105,000

The syphon valve at this pumping station requires replacement due to being faulty. The syphon breaker valve is a paddle operated butterfly valve designed to automatically control the priming and de-priming of the siphonic discharge. It is mounted on top of the discharge pipework. On pump start-up the valve allows air to discharge from the top of the siphon. When the pump stops the reverse flow acts on the paddle and opens the valve thereby destroying the vacuum in the pipe preventing continuing reverse flow through the pump.

(vi) Heckington Fen PS pump coupling refurbishment – Estimate £5,000

The pump couplings at this pumping station are worn and now require replacement.

(vii) Wyberton Marsh PS pump coupling refurbishment – Estimate £5,000

The pump couplings at this pumping station are worn and now require replacement.

(viii) Holland Fen PS under-pump inspections – Estimate £28,000

The under-pump inspections, requiring dam placement and reduction in water levels are now required at this pumping station.

(ix) Depot storage and concrete hardstanding – Estimate £100,000

There is a requirement for additional concreted areas in the Depot, and also covered storage areas. The concreted areas are potentially to be completed by the Board's workforce.

(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.

4. 2027/28 Defra/EA Funded Flood and Coastal Erosion Risk Management (FCERM) Grant in Aid (GiA) Schemes

(i) Holland Fen PS new transformer – Estimate £75,000

This was proposed along with the programme of works to replace or remove the original HV electrical transformer, subject to alternative LV supply being applicable. It is now expected that the electrical supply to the site will form part of the scheme of refurbishment that is to be proposed along with the scheme of Structural Repairs. It is expected that these works will be completed in the current financial year 2026/27.

5. 2027/28 Board funded capital schemes

(i) Holland Fen PS replace MCC– Estimate £110,000

The Motor control Centre(MCC) at this site is now due for replacement.

(ii) New Hammond Beck Desilting – Estimate £75,000

It is proposed that the desilting works of this watercourse are completed.

(iii) Kirton Marsh PS new roof– Estimate £23,000

It is proposed that the roof at this PS is replaced with a new apex roof as previously completed at other single pump stations.

(iv) Bicker Fen refurbish 1 x axial flow pump - £33,000

It is proposed that the pump at this pumping station is refurbished

(v) Bicker Fen PS replace weedscreen cleaner - £155,000

It is proposed that the weedscreen cleaner at this PS is replaced

(vi) Wyberton Marsh PS replace MCC - £110,000

It is proposed that the Motor Control Centre at this PS is replaced

(vii) Wyberton Marsh PS under-pump inspections - £25,000

The under-pump inspections, requiring dam placement and reduction in water levels are now required at this pumping station.

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

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

(v) 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.

6. IDB Recovery Fund Works

The following is a summary of where the Board are expected to be with the IDB Recovery Fund works at 31 March 2026

<u>Mar-26</u>				
			<u>Approved</u>	<u>Claimed</u>
Helpringham Fen Pumping Station Pump Refurbishment		AT1-022	£ 252,709	£ 252,709
South Kyme Fen Pumping Station Pump Refurbishment		AT1-023	£ 431,709	£ 431,709
Ewerby Fen Pumping Station Pump Refurbishment		AT1-024	£ 419,709	£ 419,709
Dunsby Fen Pumping Station Pump Refurbishment		AT1-025	£ 204,709	£ 204,709
Dyke Fen Pumping Station AWC Refurbishment		AT1-026	£ 25,000	£ 25,000
Pinchbeck Nnorth Fen Pumping Staion Refurbishment		AT1-027	£ 228,000	£ 228,000
Donington Northorpe Culvert Repair		AT1-032	£ 165,000	£ 165,000
Electricity Costs		AT1-033	£ 452,936	£ 452,936
Catchment Wide Bank Slips		AT1-034	£ 897,220	£ 897,220
Donington Northorpe Access Drack		AT1-151	£ 185,430	£ 185,430
TOTAL			£ 3,262,422	£ 3,262,422
<u>Approved Projects Tranche 2</u>				
Great Hale Pumping Staion Refurbishment		AT2-0023	£ 30,000	£ 30,000
Installation Level Controllers at Pumping Staitons		AT2-0025	£ 80,000	£ 80,000
Mobile Pumps		AT2-0027	£ 250,000	£ 250,000
Damford Grounds Pumping Staion Refurbishment		AT2-0056	£ 155,000	£ 155,000
TOTAL			£ 515,000	£ 515,000
<u>Tranche 3 Applied</u>				
Dunsby AWC		AT2B-004	£ 247,000	
Embankments Projects		AT2B-009	£ 1,555,000	£ 1,555,000
Kyme Eau Embankment AT Damford		AT2B-010	£ 105,346	£ 72,346
Gosberton PS Improvements		AT2B-015	£ 1,168,700	
TOTAL			£ 3,076,046	£ 1,627,346

3. 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.

4. 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, details of which can be found on the Board's website.

BLACK SLUICE INTERNAL DRAINAGE BOARD

NORTHERN WORKS COMMITTEE -12TH MAY 2026

AGENDA ITEM - 08

Rainfall at Swineshead

MONTH	Rainfall		Actual / Average
	Actual	25 Year Average	
	mm	mm	%
Apr-26	6.2	36.4	17.03%
Mar-26	20.8	34.3	60.64%
Feb-26	54.6	37.7	144.83%
Jan-26	64.8	44.7	144.97%
Dec-25	58.6	49.4	118.62%
Nov-25	71.8	51.1	140.51%
Oct-25	64.4	63.3	101.74%
Sep-25	20.8	47.9	43.42%
Aug-25	18.0	62.3	28.89%
Jul-25	56.4	68.6	82.22%
Jun-25	45.2	52.3	86.42%
May-25	64.0	54.0	118.52%
Totals	545.6	602.0	90.63%

