

BLACK SLUICE

INTERNAL DRAINAGE BOARD



Joint Works Committee Meeting

Wednesday 28th November 2018 at 2:00pm

Station Road, Swineshead, Lincolnshire PE20 3PW



Black Sluice Internal Drainage Board

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Our Ref: IW/DPW/B10_1

Your Ref:

Date: 21st November 2018

To all Northern and Southern Works Committee Members

Notice is hereby given that a Meeting of the Joint Works Committee will be held at the Offices of the Board on Wednesday, 28th November 2018 at 2pm at which your attendance is requested.

Prior to the meeting Risk Management Training from the Internal Auditor will be held from 12:00 midday to 1:30pm. A buffet lunch will be provided from 1:30 to 2:00pm.

Yours sincerely

Chief Executive

AGENDA

1. Apologies for absence.
2. Declarations of Interest.
3. To receive and, if correct, sign the Minutes of the last Meeting of the Southern Works Committee held on 7th March 2018 (**pages 1 - 14**)
4. Matters Arising from the Southern Works Committee Minutes.
5. To receive and, if correct, sign the Minutes of the last Meeting of the Northern Works Committee held on 11th April 2018 (**pages 15 - 29**)
6. Matters Arising from the Northern Works Committee Minutes.
7. To receive a report on Engineering Works for 2018 (**pages 30 - 35**)
(a) Capital Scheme Budget (**page 36**)
8. To receive and review a proposal for easy identification of consented obstructions (**pages 37 - 39**)
9. To consider Period 07 Management Accounts (**pages 40 - 44**)
10. Rainfall (**pages 45 & 46**)
11. Any Other Business.

BLACK SLUICE INTERNAL DRAINAGE BOARD

MINUTES

of the proceedings of a Meeting of the
Southern Works Committee

held at the offices of the Board
7th March 2018 at 4pm

Members

Chairman - * 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	* Mr A Mair
Mr M Mowbray	Mr M E Richardson
* Cllr B Russell	* Mr C Wray
Mr J R Wray	

(* Member Present)

In attendance at the meeting:

Mr I M Warsap (Chief Executive)
Mr P Nicholson (Operations Manager)
Mr D Withnall (Finance Manager)
Mr C Richards (Pump Engineer)
Mr P Holmes (Chairman Northern Works Committee)
Mr J Fowler (Chairman Structures Committee)

Additional attendees:

Mr C Richardson Guest

1240 **APOLOGIES FOR ABSENCE - Agenda Item 1**

Apologies were received from Mr W Ash, Mr C Dring, Mr J Wray, Mr R Dorrington, Mr M Richardson and Mr M Mowbray.

The Chairman welcomed Mr C Richardson as a Guest at the meeting and was looking forward to hearing his views.

1241 **DECLARATIONS OF INTEREST - Agenda Item 2**

(a) **Drain 27/1 Haconby**

A declaration of interest was received from Mr J Atkinson with regard to Minute 1244(k).

1242 **MINUTES OF LAST MEETING - Agenda Item 3**

The Minutes of the last meeting of the Joint Works Committee's held on 8th November 2017, copies of which had been circulated were considered and it was agreed the Minutes should be jointly signed as a true record.

1243 MATTERS ARISING - Agenda Item 4

(a) External Studies, Strategies & Agreement - Minute 1191

Mr V Barker asked if the Chief Executive could update the Committee, the Chief Executive responded, in reference to the Black Sluice (Boston) Pumping Station (BSPS), there have been meetings with our local EA representatives and with the Regional Flood and Coast, the latest one was January 2018 and the next one will be in April 2018. The negotiations for the business case from the Boards' point of view with regard to the application for funding to put two new electric engines into the pumping station with the viability then of reducing the annual maintenance costs whereby we can receive that pumping station as an asset transfer to the point that on the 9th March 2018, at which attending will be Matt Warman MP, Chairman of RFCC Committee, the Regional Director EA, Chairman South Forty Foot Steering Group who is also Chairman of ADA, two Executive Board Members and three Officers of the BSIDB. We have representation from the Finance Department and Councillors from Boston Borough Council, Lincolnshire County Council these are quite high level attendees where the Chairman of the Board is making the introduction. The point of action from the Boards' point of view is that the time has come after years of negotiation and catchment surveys/studies; the decision has to be made. Does the BSPS move forward in the way that BSIDB are preparing for? As the most relevant and appropriate risk management authority to accept the responsibility and future control of the pumping station, or if the finance is not there the EA are to decommission the pumping station.

Mr Barker thanked the Chief Executive for the update, he believes that monies should be found from somewhere because of the water we have coming into the system we should have something fit for purpose. The Chairman responded that even ratepayers would struggle to raise the money required but our Council partners would not be able to raise the amount of money required for us to take the pumping station on without a serious injection of cash and it would be folly to try and force that route. Mr Barker added that ratepayers are paying for the land to be drained, and should they say that if you are not draining the land in an emergency?

Mr Rollinson concluded that the Board will have a lot better idea after the meeting on Friday. We will inform all members of the Board after that meeting.

1244 TO RECEIVE THE INSPECTION WORKS BROCHURE - Agenda Item 5

The Operations Manager presented on the screen and referred Members to their tour brochures:

(a) GIA Works Drain 2/11 - Malting Lane, Donington

The Operations Manager referred Members to page 4 of the brochure showing as a point of interest. He stated that funding has been achieved for £60,000 towards putting some new pipeline in the central sections.

He explained that as it progresses to its outfall the pipeline changes from a 300mm diameter to 600mm diameter, he continued we have completed various parts of this pipeline on various schemes towards changing this over the last 25 years so this is the next step in completing the next stage of improvements to that pipeline.

(b) Donington Mallard Hurn Pumping Station – Proposed New Roof

The Operations Manager referred Members to page 5, stating as a point of interest that there is an allocation for a new pumping station roof at Mallard Hurn within the budget for 2018/19.

He added that in regard to progression of the potential desilting works along the South Forty Foot Drain (SFFD) there is a meeting being held with the EA on the 8th March 2018 which we hope will progress towards a purchase order. The intention being that in October 2018 BSIDB will be progressing phase 1 up to the A52 and then looking to progress the following year into phase 2 as detailed within the brochure. He explained there are certain scenarios that may make that difficult for the Board moving forward, including Triton Knoll, Viking Link and also the high pressure gas main that travels through that site. Initial engagement with some landowners for future lagoon sites has taken place.

(c) Environment Agency Bank Armouring Works at Swaton Eau

The Operations Manager stated whilst on the Inspection tour we visited the EA site armouring works at the Swaton Eau. At the identified low spots, following a catchment survey, the EA are reinforcing the bank to the existing levels.

Mr Rollinson made reference to the fact that this has no bearing on Swaton flooding.

Mr P Holmes asked if we need to look at our Emergency pumping procedures? i.e. not turn off the BSIDB pumps and let it flood as designed.

The Chief Executive stated that Mr S Hooley, the EA Project Manager, has responded to his questions regarding increased flood risk and the revaluation of land. The email response;

“there is no land at any increased of risk of flooding as a result of the armouring works – flood risk will reduce at this location as the banks are less likely to breach. The banks have had the top soil striped from the crest to the toe including partially into the field before a geotextile has been added along this section of bank. The top soil will then be replaced and grass seeded with crest level post the works will be maintained at its current level this protection will ensure in a flood event if the ground is eroded it will be limited by the geotextile which will reduce the risk of a breach”

The Chief Executive stated he would respond to this email and argue the fact that there is no increase in the flood risk – this point is clearly identified as a flood storage area.

He wants the EA to recognise this and try to give him some idea of what size is it one field or is it going to A52 or spread towards Swaton not saying threaten Swaton but we need to know the answer to these questions.

Mr Barker added that the threat is a pipe or culvert under the A52 into Horbling Fen and historically Horbling Fen has always had problems with flooding and that would be where the threat is. The Chief Executive responded he is aware of the pipe but if the Swaton Eau is in full flow because the SFFD is full that pipe is only going to be running one way, south to north under the A52, and there is no water going to run back. Mr Barker added that this is the pipe your thinking that takes water from Rookfield, he's thinking there will be another drainage pipe to take the land drain water from the area we are in across to the Horbling Pump.

Mr James Casswell interjected stating that he rents land on both sides of these works, it is Crown land – it was previously rented by Peter Harborow. He mentioned that water has come over once or twice into the small slight field nearest to the A52. Mr Casswell did not get a huge amount of information prior to the works starting. The EA had been talking to the Crown Estates who did not tell the tenant, it was not mentioned that it might be a flood storage area. It was told to him that they are just levelling that bank to equal it up and strengthening it a little bit. He struggled to see the point of these works if they are making that as a run off flood area. The Chairman added the cost of these works (£300,000) and that we were amazed this was the lowest point of the SFFD catchment. The Operations Manager asked Mr J Casswell if that bank is considerably lower than the other side because visually it does not look it. Mr J Casswell responded he was not aware it was so if it has been, again, I assume they have measured it but no visually I have not seen it however Mr P Harborow did say it had only ever come over that side near the A52 but there is not much in it.

(d) Drain 36/2 – Bank Slip at Swaton Beck

The Operations Manager asked the Committee for a decision upon the site visit at Swaton Beck and the problems we have with bank movements and slippages on that section.

He outlined three potential options on page 9 of the brochure stating we have an £8,000 budget towards this scheme. If we were to go in and spend that budget that would be to leave the existing revetment in place, reduce the bank profile, this means to lay the bank back to a flatter profile to try and take some of the weight out of the bank and assist in stabilising the bank movement and that would be basically a man and a machine to do this work - as stated in option 1.

Option 1

To completely leave the existing pitched stone revetment in place, reduce the bank profile, reinstate the land drains and the outfalls and make sure everything is working as it should.

Option 2

To do a similar thing as option one and leave the existing revetment in place but dig into the bank and remove the soil, create a shelf and put another revetment layer in that bank to assist in stabilising that movement and then still lay the bank back to a flatter profile.

Option 3

Offer the allocated scheme budget of £8,000 (2017/18) as a minimum towards a partnership funding with the EA incorporating a stabilisation channel into the programme for the Natural Flood Management project. Assistance with Board's resource, plant and labour, could also be offered towards delivering further elements of the scheme.

He referred to the email from K Samms detailed in the brochure the email stated:

"Currently we would like to start works next winter, but this is optimistic. We anticipate a phased approach to delivery to fit in the farming calendars and as and when we can get farmers on board with the project. We should have a much better idea of timescales once we have undertaken some targeted farmer engagement. We are aiming to have all features installed by 2020."

The Operations Manager stated that he agrees it is optimistic to have anything in place by 2020 but because we have not done anything so far on what Mr C Richardson may or may not say he does not think it is still moving so there is potential to do nothing.

The Chief Executive added a fourth scenario along the lines of the theory that the land drains could have parted. Therefore, the water running from the field to the land drain is not running into the drain it is running down saturated in this sand/silt gravel layer hence causing the heave or the shift. Most probably within the original budget allocation labour and plant and materials with regards to connecting pipe with the landowner on site (Mr C Richardson) going to identify by rodding or finding the location of the break if we cannot rod up then measure and find the pipe and dig a cross trench and reconnect those land drains to hopefully to take that water into the drain hence stopping the possibility of movement.

If we don't do this work, we will never know if it is the fix – Mr Holmes believed this would be a better budgetary spend rather than anything to try curing the cause of the problem rather than the symptoms of the problem.

The Chairman asked if Mr C Richardson would like to add anything. Mr Richardson responded that some of the land drains have disappeared because I know what was there before and they are not there now, the ones which are there now he has tried to rod them but you go in 6, 8, 10 foot and you cannot go any further. He believes that most of them have parted with the slip so yes this would be his favourite option. With regards to profiling, in respect of the bank concerned the profile was lessened the last time we did something and this has not done anything. He still thinks that changing it to a shallow angle still leaves that weight on top of the sand and therefore there is still the potential of slips, so unless you can stop that bottom from slipping there is no point in changing the profile.

The Chairman asked have you had a drainage quote for land drains and connect them all up, Mr Richardson responded no. The Chairman concluded he was wondering if we were better off to get a drainage professional in, make a contribution towards that and then come up with a deal with Mr Richardson, he responded that the Crown has had a lot of drainage work done in the past year and have paid for all this work - they have sort of a deal with a contractor, what they would say for that, they have paid for drainage work at Swaton in the last 6 months.

The Chairman concluded that the best course would be to not do anything to the revetment works at the moment and then get the Operations Manager, the landowner (Mr Richardson) and possibly the Crown Estates to negotiate. Mr Richardson stated that he does not have a water logging problem, the problem is possibly the water is going into that sub soil land and causing the slip so the only problem its causing is really the slippage. The bank is reasonably stable now due to the vegetation has re-established and seems to be holding it and moving anything may take it back to stage one, the only danger he could see would be there is a bit of a hollow so any machines that were going along there will reduce stability. He does flail it and keep it mown on the bank but it is not bad enough for that but a larger plant vehicle the biggest danger could be for the Boards equipment. The Chairman clarified that any works is to cure the stability of the bank not to assist landowners land drainage.

The Chairman asked the Members if this should be investigated further – ALL AGREED.

(e) Billingham and Gosberton Pumping Station – Break Ins

The Operations Manager reported to the Committee the problems we have had with break-ins - we have had one at Billingham and another at Gosberton.

At Gosberton there was the theft of the Royal Smals trailer. The Operations Manager would like the Committees viewpoint on the potential for increased security at some of the pumping station sites. This would be to install CCTV cameras for surveillance not only from a security point of view but also for a fault diagnosis of the weed screen cleaning equipment (where installed) and for the water level management on site.

The Operations Manager asked the Members should the Officers pursue the potential for installing CCTV at one of the pumping stations? Currently a budget cost which shows £2,200 has been received. This is a quote from only one contractor. If the Committee thinks it's worthwhile in pursuing then we will obtain other quotes.

Mr C Wray believes that figure sounds about right between £2,000 - £3,000 but questioned the annual cost on top of that figure for up keep and service. The Pump Engineer responded that this figure would be difficult to say as it is would be done in house. Mr Wray reiterated that servicing would be done in house – the Pump Engineer confirmed yes.

Mr Wray then asked what would be the financial gain to the Board annually to that end saving man hours running about. The Operations Manager stated the full details of how this would be financially beneficial with the man hours saved would need to be ascertained against the onsite benefits, although we have not costed these benefits. He gave the example of the telemetry. Sometimes there is an anomaly and are not quite sure what, if any, callout is required. Generally, what it comes down to is understanding if it requires one of the pump engineers to attend site or one of the workforce. So the added benefit from this system, we can see what's going on remotely and can make that judgement call so much easier.

The Chairman clarified that there is no money budgeted in this financial year but there is spare cash in the pumping station maintenance account.

Mr J Casswell asked have you had many other break-ins - is this the end of a long history of it or is it a one off? The Operations Manager responded not particularly at pumping stations we obviously over the years, replaced glass with steel doors and windows due to vandalism which is people taking pot shots to break the glass but security wise we don't think we have had too much problem. He believes the main driver behind installation of the CCTV system is the added benefit we would get from the remote viewing of our equipment.

Mr J Casswell asked from a crime point of view if you put them on those three then if anyone wants to break in they will go to other ones anyway it nearly comes down cost effective for you for operational reasons.

The Chairman pointed out that the pumping stations problems are the windows which have been damaged in the past.

Mr C Wray added that looking forward to the future you will have cameras on all of them looking ideally to have so that you can see your network and everything you are responsible for from the Office within five minutes of an issue in an ideal world.

The Operations Manager added that it is right to say that other IDBs are already doing this and like he said from a remoteness point of view there is a benefit to be able to view what's on site, he asked if Members want the Officers to pursue some options going forward. The Chairman added that there is some funding available in the pumping station maintenance budget at the yearend - see what is left and come up with a plan and prioritise. The Chief Executive stated that it is the deterrent, he strongly recommends that in several years' time every pumping station will be covered by CCTV – so let's get started and continue if there is some spare funding available then let's get started. The Finance Manager interjected with a sum of £23,619 remaining in the pumping station maintenance budget.

The Chairman felt that it should be prioritised and certainly have a rolling plan with a couple each year.

The Chief Executive asked for confirmation that this is approved to go ahead with that expenditure for those CCTV cameras and to what level of expenditure for funding this year. The Chairman clarified that clearly there is funding to do the two now and have a rolling programme going forward. ALL AGREED.

The Pump Engineer concluded that from the telemetry side of it a lot of the equipment in the pumping stations is very old whereas the Billingborough and Gosberton pumping stations have got fairly new outstations so they could go into another pumping station where you are not going to put a camera and bring them up to date, moving things around you are going to get the two benefits.

(f) South Forty Foot Drain Desilting Works Phase 1

The Operations Manager stated as a point of interest on site at Billingborough that BSIDB have completed phase 1 of the South Forty Foot desilting works also subject to Crown approval for lagoon number three which is on the set aside field adjacent to the pumping station.

(g) Sempringham Pumping Station - Proposed New Roof

The Operations Manager stated as a point of interest also for the Committees views we have a budget of £10,000 in 2019/20 for a new roof at Sempringham pumping station. Currently we are in the process of a business case approval for a potential scheme for a refurbishment at this pumping station predominately for a new weed screen cleaner. There is the potential to look at the site in total and the fabric of the building so it may be that within that budget we can accommodate a new roof as well.

So if we can, once that business case is approved - hopefully in this year, we may reallocate this funding towards one of the other pumping stations. He asked if this could be approved by the Committee. The Chairman enquired when you say a new weed screen cleaner you mean an initial one - there is not one there at the moment, the Operations Manager responded no at Sempringham we will be putting in an automatic weed screen cleaner. The Finance Manager interjected that this is not for approval this is for recommendation to the Board. The Chairman then asked the Members if they recommended this to the Board, ALL AGREED.

(h) EA Main River De-Maining - Cliff Beck

The Operations Manager stated as a point of interest that whilst drafting the route for the tour the Chairman asked if would we be going near the Cliff Beck, there are some detailed photographs of the Cliff Beck - one of the EA main rivers originally proposed for de-maining. The reasons why the BSIDB are not taking this one on are shown in the pictures on page 15 of the brochure, he hopes this goes some way to showing the large amount of bushing works that are stopping the Boards machines gaining access to that main section in the middle which is circa 650 metres and as it says the EA have no funding for bushing works therefore we are not going to be taking this on within this tranche.

The Chairman concluded that at the Board meeting it was agreed that should funds become available in the future if they de-bush it we may look at it again but certainly we could not take it on in that state.

(i) Drain 36/3 - Screddington North Beck

The Operations Manager stated this was viewed on the tour to look at the condition of the banks and the channel. Some works have been done to put some revetments in place around the northern side from Mareham Lane and the southern side from the roadway on the west end of the drain. He asked for the opinion of the Committee around what we do going forward? There is a central section that there are several slips and some of those slips are quite considerable and some are quite a lot smaller but he has identified a budget. Including the £10,000 that we currently have in this years budget there is an additional, he believes, £30,000 worth of work if we were to go and look at repairing some of those major slips before they get any worse.

The Operations Manager stated there were varying opinions regarding a way forward. He thinks from what we saw that where the drain changes direction they were the main slips so in one or two places we think it could be associated with land drains again. He asked for guidance from the Committee for a decision on the way forward on what we do and what budget we can apportion towards it we have not got anything in a budget at the moment over and above £10,000 we have in the budget this year.

The Chairman repeated what Mr N Morris said on the tour that piling it there and, not saying we go for wholesale piling project, but do a bit of experimentation there. The Operations Manager agreed, to identify an area and try this methodology. If this method works it could be continued to resolve the problem areas.

Mr K Casswell interjected, and if it works you will do bits and pieces as required rather than go wholesale in there trying to do too much to it. The Operations Manager responded that you will then have a per metre cost and once we have this cost we can look see how far the budget would go.

The Chairman stated that it appeared today that we are very good at maintaining fen drains or lowland drains and we still have a lot to learn about the highland carriers and with the de-maining going on from the EA it looks like we will be taking more and more of these on in the future a little bit of investment on how to deal with them in the future.

The Chief Executive stated that the proposal mentioned circular driven vibrated double row posts and some stone revetment in isolated lengths is certainly worth investigating I do believe having first-hand experience looking at the north bank it just seems to be an odd colouration association with broken land drainage pipes being through our own fault or not has a slight bulging of the banks so if we are onsite we certainly want to be identifying and putting small headwalls in making sure those pipes are running.

It's this low cost maintenance there could be a finger pointed at ourselves we should be tidying those up as we go along.

Mr C Wray added that it might be worth trying some vibrations piling because once you have the gear it's cheap to lay piles down a length and at least if you know costs going forward it does give you the experience and knowledge to know whether it will work or what will work. The Operations Manager responded that we have used timber piles before and it is a method we used the only difference we only used the timber piles then we covered them soil we did not cover them with stone so that would be the difference in methodology that Mr Morris was talking about but yes I think it's worth more than an experiment if we define a small area and see if it works and we know we can roll that out – the Chairman expressed like a case study.

The Chief Executive stated I think we need the conviction to do the work on the understanding that there is a finger of accusation of guilt of failure if it does not work, because if we don't try it we are never going to know we have all the equipment on site, we have a modern hydraulic vibrating pile head so lets go and try it.

Mr C Wray concluded it has worked in the past at Swaton until it was fetched out and it has helped improve something similar – The Chairman asked could this be done within the existing budget of £10,000, the Operations Manager responded yes we could identify a trial area.

The Chairman concluded we will have a case study within the existing budget, ALL AGREED.

(j) Dyke Fen Pump Station – Proposed New Control Panels

The Operations Manager outlined the budget in 2019/20 for the new control panels at Dyke Fen pumping station allocated at £35,000 which I think will be fairly tight if not potentially unachievable we will need to review this going forward. The Pump Engineer explained he has had the experience of putting in the new control panels at South Kyme. The Pump Engineer stated that this is now going to be nearer £40,000 as there is a lot of kit and there is more kit at Dyke Fen than there is at South Kyme as well the starters are bigger and it is going to need more control. This is upgrading what is already there and it's the Boards oldest panel.

Mr Holmes asked how old would this be, the Pump Engineer responded 1980, the Chief Executive added all we can do is obtain the quotations for what year the proposal is to put in the budget and seek approval. The Pump Engineer explained that most of these prices are done within a 10-year programme and it rolls on every year those prices have not necessarily moved with the price rises.

The Chairman asked what did South Kyme's control panel cost, the Pump Engineer responded the panel was £32,669 but because they had given me a verbal quote at £32,000 when they actually looked at it, it was going to cost him more because he had given me that quote

he kept to it so I don't think going forward there will be much change out of £35,000. The Chairman stated it seemed a lot of money but when you put it over 30 + years it's not.

(k) Drain 27/1, Culvert 604 – Haconby Fen

Mr J Atkinson declared an interest for this agenda item.

The Operations Manager stated we visited Haconby Fen today and looked at culvert no 604, a circa 1850s brick arch culvert which is now in a state of disrepair. This culvert has been referred as an agenda item to the Structures Committee meeting on the 21st March 2018. There is an issue around ownership of the structure, obviously depending on ownership will depend on what the Board does going forward and to what condition the existing structure remains or is replaced. Overall replacement costs could be £18,000 to £20,000 there was an opinion that it may be historical damage over 10 years ago and generally there is only two lorries a year go over it that have any weight on them.

Mr C Wray, stated that until you understand who is libel and responsible for it this is what it hinges on.

The Chairman asked if we are going to have legal opinion on this before the Structure Committee meeting, the Chief Executive responded we have asked the question and we hopefully will have this.

The Chairman made a point to note that although the Board does use it we don't need to use it we also store equipment in the yard. Obviously going forward the major benefit would be to the developer of the property so should we make a contribution in the future we certainly want to get rid of the ongoing responsibility. Mr K Casswell added that in his opinion the developer is creating the pressure.

Mr J Fowler asked if we could see any deeds or sale details of those properties that may or may not mention access and obligations of that crossing. The Finance Manager responded we will be able to request them from Land Registry; these properties have already been sold so they must be on the Land Registry it will have rights of way.

(l) Drain 23/1 Dowsby Drain - Proposed Works

The Chairman stated that before we went onto the Dowsby Lode Mr Barker had made reference to the issue of ash saplings in the bank. Mr Barker stated that bushing only one side he believes that if there is gain in the Summer by machines going faster on the other side some of that ought to be passed back to work in the slack period to put the matter right. The Operations Manager asked about the arising's on the verge, Mr Barker responded that the arising circa 45 years ago when I first went down the fen and when they have been there a bit. The GPO put their telephone wires underground, when somebody went to move that soil they were actually catching the GPO telephone wires because they were in the arising's they were not as deep as they should have been or could have been.

Mr Barker continued if you try to take the top off to make it right for mowing you have to be wary of GPO wires but there are still the ash saplings and soon to be ash trees when they become trees they will become harder work to maintain. The Chairman believes that it is the responsibility of the Country Council, the Finance Manager added that Highways will not do it either they have the right to put them in if you want to do anything different for the Boards purposes then it would be our liability. The Chairman added that there are alternatives, either flailing the far bank, the Operations Manager responded yes.

The Operations Manager stated that in the 2019/20 budget there is a £50,000 continuation for the Dowsby Lode scheme works. He pointed out on the map in the brochure works commenced from the pumping station and 800m upstream having been completed. There is a glacial melt seam where there is a change in the soil structure, following the bank improvements there was some slippage. This has since been repaired. A survey has been completed on the Dowsby Lode, but a more detailed survey is now needed to identify what works are required. A couple of years ago we visited the site on the tractor and trailer and we discussed the reasons behind the raised bank on the northern side of this drain and why it's there. Originally this was a highland carrier drain with gravity outfall into the forty foot.

For some reason the southern side was levelled out but the northern side was not and once a more detailed survey of land levels etc. is completed it may be that the northern side is a lower land level and that's why the raised bank is still in place. Some of the options proposed include removing the raised bank.

Mr Barker stated that the lowest level, to his knowledge, on that drain is about where it says Dowsby drain on the map in the brochure.

Option 1

2.7km drain works to design (bed width, depth and profile), to include slip repairs and incorporate any lateral connections/land drain outfalls, utility crossings, water control features. South side only. Estimate c£25,000-30,000

Option 2

5.4km drain works to design (bed width, depth and profile), to include slip repairs and incorporate any lateral connections/land drain outfalls, utility crossings, water control features. North and South side, to include improvements (profile and top running width) to raised northern bank sections, to enable future access to maintain from both sides. Estimate c£50,000

Option 3

5.4km drain works to design (bed width, depth and profile), to include slip repairs and incorporate any lateral connections/land drain outfalls, utility crossings, water control features. North and south side to include levelling of the raised northern bank sections, to enable future access to maintain from both sides. Estimate c£50,000

The Operations Manager stated if we only continue those works from the south side Option 1 I believe would cost circa £25,000 to £30,000 if we were to complete the scheme on both sides of the drain to keep the raised bank on the northern side or to remove the raised bank on the northern side the value of Options 2 and 3 are the same. Obviously following the survey when we have more detail from that survey this will give us a better idea of our options going forward. Unfortunately, we don't have the detailed survey yet but once we have these options may become more apparent.

The Chairman asked the reason for removing the raised bank. Mr Atkinson responded we have not been there that long if you work from the northern side need the south be touched at all the north is not in bad condition, the Operations Manager responded as far as he is aware the south side profile is where the issues are, the northern bank has got lots of badger setts obviously pre works engagements will be required with environmental surveys before topographical engineering surveys can be completed. However, going forward the idea is that we can maintain this drain from both sides. Currently it is predominately maintained from the south side. Going back 15/20 years it used to be maintained from the north side on the raised bank. The north bank is now in a poor condition and would require reprofiling and crest widening to work from safely with Board's plant.

Mr Atkinson asked could it be a slopping bank as opposed to a raised bank, the Operations Manager responded yes potentially if there is no engineering benefit for it to be at a raised profile then the ideal would be that the bank is removed. To establish first is why the bank is there and if it can be removed.

The Chairman concluded that once we have the survey then we can move forward with a decision.

Mr Barker referred to the map in the brochure stating west where you have the red line there is a pinch spot in the drain, the drain you can see its wider that is sort of holding the water back so there is something in there and you need to get rid of that pinch spot. The Operations Manager responded this is what the detail of the survey will bring out and that's what our intention is, it's to have a detailed survey from which a decision on the design and profile can be established and therefore which banks we are going to work on.

The Chief Executive asked about the materials on the north side - are they course materials or as raised out of improvement to the Dowsby Lode, Mr Barker responded that it is soil pre the Dowsby Lode pump going in because it was a highland carrier. The Chief Executive asked if a raised bank from the south side had been removed at some point then? Mr Barker responded yes he thought so.

The Operations Manager stated he will have the detailed survey completed which will provide the data which is needed to make a decision.

1245 REPORT ON RAINFALL - Agenda Item 6

The rainfall figures at Black Hole Drove were presented, copies of which had been circulated.

Mr Barker stated that at the Board meeting he had said he would find out about the situation in 1958 as to why we had the two extra pumps fitted to the Black Sluice (Boston) Pumping Station. He stated that there was 3 inches of rain in June followed by 4 inches in the first few days of July, just these storms happen and this is why we need those pumps. The Finance Manager presented a slide detailing the rainfall from 1944 in decades based on a 25-year average.

Mr K Casswell commented that not all the events have been in really wet years, it's when you get 3 to 4 inches of rain in a storm that creates the flooding because the water cannot go anywhere - everything fills up. The Pump Engineer agreed that it fills up the Forty Foot quite quickly from the highland carriers.

The Operations Manager referred Members to the front cover of the brochure which shows a photo of Black Hole gravity outfall taken in November 2017. It shows it actually gravitating – he cannot remember the last time it actually gravitated, this is following the desilting works completed in the South Forty Foot.

The Chief Executive reported that the East Midlands Long Boat Association have walked the banks to Black Hole Drove. By the 30th March 2018 the EA are going to lift the water level to the summer water levels. There is an application for twenty long boats to come down the South Forty Foot navigation lock at Black Sluice to come down to Black Hole Drove.

There being no further business the meeting closed at 17:06.

BLACK SLUICE INTERNAL DRAINAGE BOARD

MINUTES

of the proceedings of a Meeting of the
Northern Works Committee

held at the Offices of the Board on the
11th April 2018 at 15:40pm

Members

Chairman - * Mr P Holmes

Cllr R Austin	* Cllr P Bedford
Cllr C Brotherton	* Cllr M Brookes
* Mr K C Casswell	* Mr D Casswell
* Cllr M Cooper	* Mr J Fowler
* Mr R Leggott	* Mr J E Pocklington
* Mr R Needham	* Mr P Robinson
* Cllr C Rylott	Mr N Scott
* Cllr P Skinner	Cllr Mrs S Waring
Mr R Welberry	

(* Member Present)

In attendance: Mr I M Warsap (Chief Executive)
Mr D Withnall (Finance Manager)
Mr P Nicholson (Operations Manager)
Mr P Green (Works and Engineering Manager)
Mr K Methley (Assistant Pump Engineer)
Mr M Rollinson (Chairman Southern Works Committee)

1254 APOLOGIES FOR ABSENCE - Agenda Item 1

Apologies for absence were received from Mr N Scott, Mr R Welberry, Cllr C Brotherton and Cllr Mrs S Waring. Cllr R Austin was non attendees.

1255 DECLARATIONS OF INTEREST - Agenda Item 2

(a) Ewerby Fen Catchwater (EA Main River)

A declaration of interest was received from Mr N Scott (via email) with regard to Minute 1257(a).

(b) Drain 5/30 Bank Slippage - Amulree, Kirton Holme

A declaration of interest was received from Cllr C Rylott with regard to Minute 1257(h).

1256 MINUTES OF LAST MEETING - Agenda Item 3

The Minutes of the Joint Works Committee regarding the Northern Works Committee which was held on 8th November 2017 copies of which had been circulated were considered and it was agreed the Minutes should be jointly signed as a true record. There were no matters arising.

The Chairman made reference to the picture on the front of the Inspection Brochure which is Drain 777 at Kirton Marsh. He explained that this is a drain that was probably from one end to the other only a couple of hundred yards long but with 18 inches / 2 foot depth of water difference from the outfall to where it comes in, due to the snow compacting and drifted into it, it was holding water up as it had gone to ice, luckily there was a 360 Excavator in the area and it was dug out to enable flow.

The Operations Manager presented the Inspection of Works:

(a) Ewerby Fen Catchwater (EA Main River)

Mr N Scott declared interest (see minute 1255(a)).

The Operations Manager referred Members to page 27 & 28 Ewerby Fen catch water drain which is an Environment Agency (EA) main river. It is one of the seven proposed for de-maining within the first tranche of the low consequence watercourses the EA are de-maining. He stated that along with two EA Officers he walked all seven watercourses in August 2017. He directed Members to the onscreen photographs, following that walk over it was decided that this watercourse was in need of some improvement, some bushes need removing. Some culverts within the length were no value to either the landowner or to the Board so it was decided the Board could remove them. This was taken to the Board and the decision was that this watercourse was in a good enough condition to adopt and take on.

Following that decision the Officers informed the EA that we would adopt this watercourse once the process was followed through. Earlier this year landowners from either side of this watercourse both did an independent walk over. The Operations Manager spoke to one of the landowners following that walkover and he expressed his concerns about what he had seen and what he knew about the characteristics of that watercourse, he explained what had happened during a heavy rainfall event and how quickly water levels increase particularly at the top upstream end where the landowner lives and owns the majority of the land. The Operations Manager said the landowner had asked him if he should report it to the EA and the Operations Manager agreed yes. Following on from that the Operations Manager had another meeting on site with both the landowners and an EA representative and the Officers have decided to review the taking on of this watercourse in its current condition but there is no funding available around any improvements to the watercourse as there isn't with any of the other watercourses in this first tranche.

The Operations Manager stated that unless we can agree to take it on in its present condition then the EA have said that there is no funding to improve its current condition so the options are 'to give it up' and it becomes riparian or the Board takes it on in its present condition. He has not had a response back from the EA on whether the Board will continue to maintain it under the Public Sector Cooperation agreement.

Mr J Fowler asked to clarify that there is no commuted sum that would be due to come with this watercourse.

The Operations Manager responded there is section of raised bank which has an asset value, he believes, along that watercourse – but no.

Mr K Casswell added that we have to assume if there is no money to do anything to it, and we don't take it on they will not give us money to maintain it and it will be just left as is therefore it ultimately ends up unmaintained.

The Chief Executive stated that this is an EA low consequence highland runner main river which is a high consequence watercourse to the Board. If we say no and it reverts to riparian control, the riparian owners may not control it or take any care of future maintenance. This could set a precedence and it could go full circle and come back to this Board to make a decision to adopt it as a Board maintained watercourse and this is what he is conscious about not getting involved with this circle of events. There is no more money coming from the EA there is a commuted sum, collectively circa £60,000 coming with the first de-maining tranche with that money do we focus on enhanced maintenance of these watercourse for 2/3 years to bring them into line – yes/no? Knowing that if we say no they sit as they are for a long time. The Operations Manager stated that once we take over the maintenance it's how we maintain them in the future, do we treat them as Board maintained drains and look at putting them into a Board maintained condition. Obviously this will come at a cost and if we accept that cost over how many years do we look to get them into an acceptable condition.

The Chairman explained that every one of these is in a different situation and you would have different landowners with a completely different view and appetite to whether that watercourse be maintained or not. Clearly in this situation we have two landowners both of them fairly well progressive farmers who are keen to get that watercourse and keep it maintained and the de bushing works done. Can we propose to them they get the bushes sorted out and make it fit for purpose and then we are happy to take it on and maintain it in the future, each watercourse is individual and this would not set a precedence.

The Operations Manager responded and classified the landowners have a potential appetite.

Mr K Casswell believes that in the spirit of the de-maining process the EA should be making funds available to put these watercourses in a form that they can be taken on. The de-maining process is going to come to a halt if the EA are not going to do this. They should find the money to put them in a position of acceptance and this the crux of the problem they are not finding the funding locally.

The Chief Executive reiterated this is a problem, he stated he is on the Technical Working Group for the rest of the main rivers and when the central EA Officers tell us in minuted minutes there is the money available and take them to regional level then they say there is not the money available – the message is not getting through. He concluded we are never going to be offered an EA main river whether it be low consequence, medium or high consequence with pristine banks in order to take over.

The Chairman stated that we need to brush over it to say that is the best case scenario we are never going to get a pristine watercourse we have to make plans that its not going to be handed over to us because if the only other option is to walk away and make it riparian.

Mr K Casswell felt that if we walk away and it becomes riparian and in 5 years' time the watercourse is in an even worse state than now and somebody says its causing a problem can you take it on we may as well bite the bullet now. He believes that the Board should try and keep some pressure on the EA about this problem, and he will put it to the ADA Executive in July 2018. The Chairman agreed the Board should be putting all our energy into getting as much help as we can.

The Chief Executive stated that from an Officer point of view that we progress with the rationalising the main river process proposed on the rivers. We have identified and we have said that they are clearly not good enough because we cannot go down either bank with mechanical means for access. At the same time we are looking at our own maintenance regime in order to reduce some of our low consequence watercourses to only every second year cuts or even third year cuts. In some of the watercourses there is no water so we are looking at cost savings on that side to be able to bring that money onto these higher consequence IDB maintained drains albeit they are low consequence EA rivers. I would like us to continue to progress we will re introduce it with a view to stopping it but I do think if we take a negative attitude towards it all it goes against everything we are trying to do and other IDBs are trying to do with opening the Environment Agency up to releasing some control and placing more power with other risk management authorities.

Mr K Casswell stated his concerns were the same, if we identified in this first tranche that there were going to be five he believes we should try and progress with those five the other two were declined for particularly bad access reasons.

Mr Rollinson acknowledged that this is not Cliff Beck this watercourse is maintainable this is not a big job for us to take this on. When we saw the water travelling down that today, and the water in the Skirth it is important we have control of this watercourse. We should approach the landowners for a one off contribution to de bush the banks because their alternative is riparian ownership where they have to fully maintain it. Going forward if the Board maintains that watercourse then it's going to be maintained at a better level than the EA. We should take on this main river from the EA.

Mr R Needham queried if they are going to benefit from the watercourse actually being done out then I think they should contribute, the Chairman responded that the landowners may want to put their own workforce in there to clear it and do it themselves we have to work with them, an approach to them in the first instance.

The Chief Executive stated that it's not just this main river, it's all landowners associated with any demaining issues within the Rationalising the Main River Network (RMRN) budget. As long as we have a process set right for this one this is what we want to continue. All AGREED.

(b) Damage to Concrete Farm Yard - Claydike Farm, Holland Fen

The Operations Manager presented on screen. He outlined the history in 2006 he referred members to page 30 which details previous records. In 2006 the Board had caused damage to the concrete yard area adjacent to Claydike Farm at Holland Fen, but unfortunately he has not been able to find any history before 2006. The Board completed a repair of partial section of the concrete pad before 2006 – but have not established when exactly that was. The Operations Manager stated he met with the landowner in May 2017 when discussing some compensation for crop loss following desilting works the landowner then mentioned the condition of the concrete again.

The Chief Executive met with the landowner on site August 2006 and agreed the Board's machine had caused damage to the concrete area and agreed to monitor the situation, the concrete hard standing remains serviceable for access to Claydike farm at the present time. If the landowner approached the Board now and wished to construct the hard standing in a similar position adjacent to the drain he would now need to apply to the Board for consent to relax the byelaws. It is believed this concrete hard standing was originally put down in the 1970s hence why the byelaw application wouldn't be relevant then. The Operations Manager outlined the following proposals which he would like the Committee to consider;

The area in question is 72m² if a c2m (half of the bay width) section is replaced at 200mm thickness this would require c15m³ RMC - Estimated cost £6,000.

If the whole bay width c4m were to be replaced this would require c30m³ Estimated cost £10,000.

A decision is required from the Committee -

- i) Do nothing and monitor
- ii) The Board replace the c2m x 36m section at an estimated cost of £6,000
- iii) The Board replace the c4m x 36m section at an estimated cost of £10,000
- iv) The Board replace the c2m x 36m section and agree a level of contribution from the landowner, if so what level of contribution?
- v) The Board replace the c4m x 36m section and agree a level of contribution from the landowner, if so what level of contribution?

The Chairman requested to add another scenario basically if its 4m x 36m section is 30 cube of concrete x £100 is £3,000 he suggested that we say to the landowner that we will offer to pay for £3,000 of concrete for him to get the rest of the work done bearing in mind we are bettering what is there already, we accept responsibility that we probably contributed to the damage over the years but also for him to apply for consent to relax the byelaw to put a structure within the permitted distance from a Board maintained drain we will then waive the £50 fee but then also we then relinquish all responsibility and liability on that concrete pad going forward.

The Finance Manager explained the Board has a standard wording which goes on the consent which says “we will not be responsible for any damage caused because we need access to it”, by applying for the consent that standard statement could go on which will cover it off for the 20 years time when it’s been broken again.

Mr Holmes pointed out that rather than giving him a sum of money, we actually paying for the concrete £3,000 towards the job and its up to him when he does the work and what he does with it and how far he goes with it.

Mr Rollinson clarified so we have commuted liability at the same time – yes; I propose we do this.

Mr Leggott, wondered if I would be tempted at that, I might be at £5,000 but not at £3,000 – Mr Rollinson responded he could come back.

Mr Rollinson added that Mr Leggott is quite correct if we put an initial offer to him of £3,000 he come back and says he will do it for £4,000 it would need to come back to the Board.

The Chairman explained that the concrete is more than half of the job of actually concreting, if he was going to replace the whole slab 36m x 4m and we are contributing £3,000 towards it we are contributing over half certainly half of the whole job.

Cllr Skinner asked if we could phrase it differently ie materials only – the Chairman responded no then there would be hard-core as well. Cllr Skinner asked then do we say it’s a one off and none negotiable.

Mr D Casswell agreed that this would be a good offer to go to the landowner this Board goes across there once a year – that amount of damage is not for just once a year traffic from the Boards machine.

Mr J Fowler asked if the Board could commute any liability to the previously laid concrete as well beyond the patch, the Finance Manager responded only what is within the 9 metres – yes.

The Chief Executive clarified a proposal has been received that the offer to the landowner will be £3,000 of concrete, for the Board to purchase the concrete material for the landowner rather than a sum of money exchange hands. All AGREED.

(c) LCC Highways Culvert Collapse - Middle Drove, Boston West

The Operations Manager referred the Committee to photographs on screen showing the collapsed culvert this was brought to the Boards attention on 13 March 2018. The upstream end started to collapse over the end of the culvert, we contacted LCC as the responsible party involved with ownership of that culvert under the road around removal of the blockage and we went to remove the blockage to allow conveyance of the water through the culvert. Unfortunately the culvert was armco pipe which was in a poor condition so we dug about 2 metres of the pipe away and left a shear face (the photos shows where the piles were placed).

Unfortunately following that removal we had quite a considerable amount of rain, the support was undermined the water got around it and the existing pipe slipped down again. The Operations Manager went out to site during the Easter break, on 3rd April 2018, and spoke to LCC Highways. Specifications have been agreed around replacing it. They are on site as of 9th April 2018 when commencement of removal of the old culvert and replacing with a new one began.

Mr Rollinson asked if the road is still open, the Operations Manager responded no the road is closed, it was closed on 3rd April 2018 as it was immediately dangerous.

(d) Drain 12/2 Proposed UV Lining - Langrick Road, Boston

The Operations Manager updated Members on one scheme, we are looking to secure £81,000 value of Grant in Aid towards a £450,000 total scheme cost. This is built up of potential UV lining some of the existing sections of pipeline across Langrick Road, back into the North Forty Foot Drain, this is a continuation of a section of pipeline replaced previously. The North Forty Foot Drain desilting works are proposed on conclusion of a business case that the EA consultants are working on for us at this moment that will be one scheme that will hopefully start this year and be concluded next year,

Mr Rollinson asked about this UV lining of the pipe have we any indication or figures regarding the longevity or how long the pipe will last having been lined, the Operations Manager responded they quote 50 years – so it is worthwhile and cost beneficial.

(e) Proposed De-silting of the North Forty Foot Drain – Cooks Lock Pumping Station

The Operations Manager updated on this scheme for an indication we have shown on item 5 the desilting operation and proposed silt lagoons sites similar to what we built for the South Forty Foot works. No dialogue or correspondence with any landowners around sites for silt lagoons has been undertaken yet this is only a basic outline of the costs and an idea of a proposal.

Mr K Casswell asked the delay in getting permission to do this does this affect the local levy contribution towards this scheme and roll into the same problem? The Operations Manager responded it does not make it any easier.

Mr J Fowler asked is the desilting by Royal Smals pump does the stoning of the drain in a previous time make any difference to the pump. The Operations Manager responded the only consequence when this was discussed onsite was it will slow the process down a little and they will allow for what they call a little more slippage. They would not cut such a tight profile and will lift the cutter head so that stones are not being struck all the time. It is not a problem and will use a different type of head to what has been used on the South Forty Foot works. Allowance for the rougher material going through the pipes has been included in the estimate, the process is slowed down so more control can be placed in the process.

The Chief Executive explained Royal Smals gave us an indication that the machine used in the South Forty Foot is one of the smallest machines and its specifically more focused on urban works, which is this type of work.

(f) Wyberton Towns Drain - Q1 Development

The Operations Manager stated this is a point of interest as an update to where we are with the potential realignment of the Wyberton Towns Drain adjacent to the Q1 site. We have now agreed the realignment with Chestnut Homes. This was indicated on the screen. Since that confirmation of the new line there has been nothing further to report. It would be my preference that works are completed by the Board in order that control is maintained over the specification around the completed works.

The Chief Executive expressed the Officers are quite happy with this realignment there is not really any alternative because there is a large water main with a 4 metre easement and there are 33 kv overheads which have an easement as well, we are on the boundary of these easements, it offers the best realignment. The curve on the drain takes away the awkwardness of the double bend and it enhances the Wyberton Football Club playing field area so it's a win win for two or three organisations and all the works to be carried out with recovered costs from the developer.

The Chairman explained that further down the Towns Drain, there has been problems with slippages. What future comebacks have we got if it slips? The drain took that course for a reason my fear is and knowing how it is further up – the Chief Executive responded we would write conditions into the agreement with them regarding continuation repair work because of slippage.

(g) Culvert UV Lining Works - Washdike Road, Kirton Meeres

The Operations Manager explained due to the present water levels, the current works have been called off, part of the requirement whilst completing these works is that they are lifting the water and moving it around the site whilst a dam is in place and holding water up. With the increase in water levels currently there have been problems moving water around onsite. When water levels are back to normal works can resume. This is a Grant in Aid scheme to value of £37,500. The cost of the re-lining works £27,500 and then once completed there is headwall work by the Board to protect the end of the pipes as per the specification for new culverts.

(h) Drain 5/30 Bank Slippage - Amulree, Kirton Holme

Cllr C Rylott declared an interest.

The Operations Manager explained that this site was viewed on the Inspection Tour along Kirton Drain as there have been problems historically with bank slippage adjacent to this property called Amulree. In 2004 it was agreed with the present householder that the Board would complete revetment to the slippage of the bank at the back of their property. Following the investigation over a number of years before 2004, although there was not any significant bank slip identified from the cross sectional

surveys which were completed, it was agreed to put some revetment along the length of the property on the Kirton Drain bank.

It is now failing, unfortunately due to higher water levels we could not see that today but the photographs on screen shows the revetment with the water level at its normal level and it shows that the wooden revetment is now failing after a 14 year period.

A meeting was held with the property owners in February 2018 to discuss potential options and what they would like to see as their preferred option. I went to meet with them again yesterday to confirm the tour would be visiting tomorrow.

He proposed four options for consideration as follows:

1. Replace existing failing revetment with new timber boards to bank c£3,000.
2. New revetment placed at a higher design level 4m close-piled sheets & re-profile bank, to create a flatter profile and increase the top crest width c£9,000. To take some of that bearing weight off the bank, to provide more stability with a view to curing the problem in its longevity.
3. New culvert past property 30m x 1.2m twin wall plastic, budget estimate c£23,000.
4. Re-align drain c80-100m. Move existing drain over c2m to include revetment to newly created bank profile, budget estimate c£20,000. On site there is a more significant change in direction which equates to around about 80 – 100m where the drain could be moved over which would be another way of curing the potential problem of that bank slip.

The Operations Manager stated he had told the property owners there is not a lot of point in discussing anything further until the Northern Works Committee have met and an option for the Board agreed, then go back to the property owners to discuss terms with them around the Board's option.

He asked the Committee if there were any of the above options for consideration or are there any other options that the Committee would like to consider and what option would we like to go with to take back to the property owner for further discussion.

The Operations Manager stated that after discussion with the owners, their preferred option would be partial revetment, and partial piping.

The caveat in 2004 if the Board were to consider culverting the drain it would be 100% contribution from the owner.

Cllr Cooper commented revetment works did not work last time – the Operations Manager stated it had worked for 14 years. Cllr Cooper expressed that close steel piling would be a better bet if they would go 50% contribution and it would give them confidence in the long time.

Mr Rollinson agreed with what Cllr Cooper is saying but he has extended this property. General consensus by Members was the extension was years ago.

The Chairman asked why can't we contact the owner with the cost of replacing the revetment work will cost £3,000 we are prepared to pay if he would like option 2 if he would like to uplift it then it will cost him £6,000 we are going to pay for £3,000 to do it like for like if he wants a better job.

The Finance Manager asked if the piling and stoning behind, timber piles stone revetment behind it this would give a better option – the Works & Engineering Manager responded you have to start digging out the bank and it would destabilise it.

A Member referred to the steel piling would this cause a health & safety issue because you have it would be circa a metre which is a straight side. The Works & Engineering Manager believes it is 1.2 metre is the level for Health & Safety – you will have a drop off. The Chairman clarified it would only be on one side. The Chief Executive responded if this was the option taken then we would make sure that the occupiers manage that risk.

The Chief Executive explained because of the dwelling and the weight that complex is putting on the bank, not saying that is why it is moving but it must be contributing to it. The modern technique and modern machinery in that these piles are interlocking and floated down they can be bought in various lengths interlocking steel piles to design level along existing line of that revetment timber bank. If the occupiers are prepared to pay for the extra-enhanced works, it is certainly more of a permanent fixture. He added that some enhance flail mowing, some bushes and trees work would be introduced at the same time.

Cllr Brookes expressed his concerns if we proposed it will cost us £3,000 to put it back how it is and we are prepared to uplift if they say they will not pay the extra you just go on and put it back well its going to cost us £3,000 and they are not going to be paying anything you need to be careful how its pitched to them if we just did the revetment work we would still want 50% contribution.

Mr Rollinson reminded Members that they previously paid 50% towards the 2004 works or we only contribute £1500.

The Operations Manager explained the basis of the owner's request was that the concrete around the inspection chamber is cracked. They have re-turfed next to the manhole because of slippage and the path is now at an angle when it was previously straight. There is a lot maybe anecdotal/ arguable evidence. Is that bank profile any worse than anywhere else along that drain, probably not, but that house is built there that's where the problem is.

The Operations Manager stated that the historical survey data was in conclusive at the time and the revetment was completed, therefore in a way we have set a little bit of a precedence for ourselves.

Mr D Casswell asked if the revetment option is done do you use wood again as a material as there is no longer lasting type of material to use. The Operations Manager responded normally we use pressure treated timber with an expectance of 15 to 20 years similarly we have just completed a scheme at Bicker village which lasted 25 years using similar treated wooden boards so yes I understand what you are asking if there

was another option ie plastic, I have not looked at a different type of material it may come in at a similar cost or may be a lot more.

Mr Fowler stated that in this case the timber is failing and it does not look like it has stopped the movement of the bank my vote would be piled and the owners asked for a 50% contribution.

Cllr Bedford added that it should be 50% on any option.

Cllr Brookes option 2 and ask for 50% - Members generally agreed yes.

Mr Leggott stated if the owner does not accept option 2 he has to have something which is option 1 as a fall back.

The Finance Manager do we have the fall back or do we wait for it to obstruct the water flow because its not causing a problem for the Board at the moment.

Cllr Brookes the fall back should be option 1 but still pay 50% contribution.

The Chairman proposed option 2 with a 50% contribution from the occupiers and with a fall back of option 1 also with 50% contribution. All AGREED.

(i) Great Hale Pumping Station

The Operations Manager explained within our budgets proposed for next year a refurbishment of the weed screen cleaner at Great Hale pumping station. The basis of the costs is the replacement of the moving parts of the cleaner the cabling etc. Currently we are evaluating between this particular site and also Chain Bridge pumping station weed screen cleaner they are of a similar age but Chain Bridge because of where it is and the characteristics of that catchment the pumps operate more hence the weed screen cleaner works more so purely as a cost benefit exercise it may be that we decide to swap them round and replace Chain Bridge it's a similar cost profile. The other issues at Great Hale we are considering at the moment which is the public access over the concrete deck outfall area and also some of the works we have recently completed to manage the vegetation around the site bushes and trees whereby some have been completely removed and some we have reduced to a more manageable level.

The Operations Manager explained that the access along the side of the pumping station which is currently the only access for the landowner to a circa 10 acre field. It is proposed to investigate firstly the legalities and the Boards responsibilities, the Health & Safety aspect around crossing over those structures, structural integrity we are looking at an initial proposal of stopping the access across all of these accessible points at varying pumping stations around our catchment and asking that any interested parties come back to us and request access across the pumping station.

Mr Rollinson asked if the land is land locked how can they gain entry if they cannot go across the outfall crossing point? The Chief Executive responded there is access through private land, albeit a long way around.

The Chief Executive added we will be following advice from Solicitor we will be erecting public notices in the forthcoming weeks at all pumping stations along the lines of "it is the intention of the BSIDB to stop the use of this pumping station as a crossing point with effect from the 1st October 2018 if you claim a legal right to use this pumping station as a crossing please inform the Board in writing no later than 1st September 2018 claims should be sent to the Operations Manager BSIDB."

He further explained that soon after the 1st September we will be implementing a scheme of locking up the crossing points. We are aware there is probably only six that are used other than pedestrian use so there will be a priority list and arguably Great Hale is number one thankfully Network Rail already have a gate at this pumping station therefore after discussions with them its should be just a formality. As and when the particular people who are using the crossing points for whatever reasons prove to us and our legal team satisfactorily that they have the required insurances and that they are prepared to assist with part payment towards gates and locks etc we will agree to them obtaining access.

The Chief Executive continued to explain the scenario that modern tractors with modern trailers carrying heavy loads travelling across these pumping station outfall/suction bays the vibrations going into these structures you can quite easily envisage damage to some of the high tech mechanisms within the control panel and it could cost the Board a lot to repair. A scenario could be that one night when one of our workforce visits a pumping station, slips on a cow pat and falls into the water, there are various items of risk that we have identified that we want to remove. I'm sure we are going to come up with some challenges of historical use, or right of passage but our legal team are prepared to take those on board and address them on an individual case by case. This is the methodology moving forward this is for information only so that if and when you are challenged by any of the individuals using these crossing points once we erect these notices you have answers for them.

The Operations Manager stated that structural surveys are to be completed at each site to establish an asset condition of those structures. That may come back on ourselves because we need to access Great Hale site to get to the dump area at the very minimum with the teleporter to clear away the weed.

Mr J Pocklington asked do you take any excavators over there or not, the Operations Manager responded we have in the past.

The Chief Executive acknowledged that as part of the structural survey will apply a safe weight limit, it may come back on ourselves, we may have to find an alternative route.

The Chairman referred to the plan on page 40, asking is there any way, is there enough area, for the dump area to be on the other side in order to access it and not need to go over the suction bay. The Chief Executive responded that through the Officers own implementation of risk and identifying and controlling that risk it is knowing the heaviest vehicle in the future needing to cross over that outfall bay. The teleporter can remove the weed from the weed screen cleaner dump area which is done anyway we have to wait to see what is said by the Structural Engineer.

The Operations Manager stated in order to make this Committee aware as a point of interest within the bounds of the site at Great Hale pumping station we have been approached by an adjacent landowner to lift water from the South Forty Foot and transfer it into Great Hale pump drain to then retransfer it from Great Hale pump drain into the landowners reservoir this is something which is ongoing.

Mr Rollinson reminded Members that when this item came up before we were going to charge the applicant a wayleave – the Chief Executive responded this has come up at other Committees. The Officers are currently at the position where by an abstraction licence is being granted from the EA to abstract from the South Forty Foot drain. It has been agreed with the Boards legal team that a commuted sum from the applicant (which has been paid) to put the underground apparatus at Great Hale pumping station. The Officers have implemented and agreed and will implement cut off levels that are being indicated to the applicant with regard to draw down levels at the same time as water is being pumped out of the South Forty Foot at Great Hale pump drain the pump that is going to lift it further upstream into the reservoir must be running at the same time to balance all instances. The Officers are quite happy we have covered ourselves with regards to controlling the applicant with regards to abstraction and with no additional costs to the Board.

Mr Rollinson asked would it have been easier to come up with a deal for the Board to close the gravity outfall and back the water up in the drain, the Chief Executive responded this pumping station we very rarely pump during the summer months because the existing abstraction system, we do gravitate but there is not a lot of water that passes out of the catchment.

Mr Needham asked he remember going back 15/20 years that they altered the slack door they lowered it for this purpose on that part to allow for the water to free flow back from the South Forty Foot because I presume it would be a winter abstraction to fill the reservoir. The Chief Executive stated the tilting gate can only tilt one way, out of the Boards system. The Operations Manager added that we could control that level by altering the level of the tilting gate we did that quite recently, if we lift that level to appease a landowner downstream end of the system there is a potential detriment to someone upstream so we have to very conscious of those controls.

(j) Potential South Forty Foot Desilting Works

The Operations Manager stated this is for information; the potential continuation of the desilting of the South Forty Foot Drain after recent conversations with Mr A Clack (EA Officer) the Officers are working towards a completion of the SFFD desilting works upto the A52 this year commencing in October 2018. Then the Officers will be looking at continuation from the A52 working towards the A17 in October 2019. He stated that this is in the early stages of discussions that phase 2 will most likely be phase 2, 3 and 4 because he believes the next phase completed from the A52 downstream will only be 3 km in length of the overall 9 km distance between the A52 and A17. Depending where future lagoon sites can be secured will mean that one lagoon per 3 km section will be required.

If the lagoon is not sited directly adjacent to the Forty Foot banks as previously has been done then obviously this reduces the length Royal Smals can pump and the more lagoons they will need. Future works before each phase will be de-vegetation of the banks the previous year to the desilting works being completed. This year the proposal is that a 3 km section from the A52 more or less to the bottom of Bicker Fen will have all the trees and bushes removed this October 2018 in preparation for desilting works in October 2019.

He is now developing a working programme away from the October start date as some pre works need to be in place around de-vegetation of the channel so the de-silting process works and does not get clogged up with weed. There are some other issues around these particular sections on the A52 to A17 these being Triton Knoll, the Viking Link and the High Pressure Mains Gas. The Viking Link corridor has not been narrowed yet we don't definitively know where that working corridor is going to be.

Cllr M Cooper stated he has a map with the link for the Viking Link now which he can share with BSIDB, also the Triton Knoll haul road which comes up from the A17 past Great Hale pumping station and runs tight to the side of the Forty Foot they are looking to start that this Summer because they are looking at a completion date by January 2019.

The Finance Manager asked if this haul road would go all the way to the pumping station, Cllr Cooper responded yes but it's on the wrong side. Mr Rollinson added that it would go to Bicker Fen pumping station. Cllr Brookes regarding sorting out this road to Great Hale pumping station he wondered if there would be any advantage if and when Viking Link put their road down that side if there could be any arrangement we could come to with Viking Link about sorting that road way out because that would benefit them because they will need access down that side and would benefit the Board in the long run so it might be worth having a word and they do have community funds available. He clarified that they have to build a road down there anyway. Cllr Cooper confirmed that both of them have to build a road to get the haulage in. Cllr Brookes suggested there could be some negotiation to get heavy vehicles down there if there was some way there could be some mutual benefit something which would leave the Board with good roads afterwards. The Chief Executive responded that the Officers will take this on board we have our own thoughts clearly Triton Knoll is more advanced than Viking Link we have regular meetings and contractors are already on site across the County.

The Chairman thanked the Operations Manager and the team for the Inspection tour today.

1258 REPORT ON RAINFALL - Agenda Item 6

The Chairman asked for March 2018 rainfall to be added to the report, sheets were distributed at the meeting.

1259 ANY OTHER BUSINESS

(a) Drainage Rate Brochure

The Chief Executive distributed a copy of the drainage rate brochure for information to the Members of the Committee. He highlighted to the Members that this year is an election year and the Returning Officer is already progressing this.

The Finance Manager added that if Members have any feedback on this brochure or any ideas for future years it is something which is produced in house and externally printed, please let the Finance Manager know.

(b) Netherlands Inspection Tour

The Chief Executive explained there have been some questions regarding the Netherlands Inspection tour mainly regarding the mini bus.

He stated everything is in hand and we are very close to finalising the details with regards to the coach from the Office to the airport. A coach has been organised and will collect Members on route to Humberside Airport more information will be given nearer the time, please don't try to organise your own transport or parking at the airport. He explained to the Committee Members asking if there are any Board Members or Works Members that are still interested to go there are places available.

He stated that currently there are thirteen Board & Works Members attending the tour plus one ADA representative the new Press Officer Ryan Dixon who is responsible for the ADA Gazette we have invited him in the same way this Board invited Ian Moodie – Ian has graciously passed this invitation onto Ryan and it has been well received, that this Board is actively looking to get ADA Officers involved.

The Chairman thanked the Chief Executive and team for keeping our feet dry in these trying and testing times with both rainfall and our partners at the EA.

There being no other business the meeting closed at 17:10.

BLACK SLUICE INTERNAL DRAINAGE BOARD

JOINT WORKS COMMITTEE MEETING - 28th NOVEMBER 2018

AGENDA ITEM No 7 - ENGINEER'S REPORT

1. CAPITAL ASSET IMPROVEMENTS

1.1 2018/19 Defra/EA Funded Grant In Aid (GiA) Schemes

Remaining GiA Scheme works to be completed this financial year:

- (a) Donington Malting Lane pipeline replacement £60,500 (2016/17 GiA received) Pipe condition survey report completed, schedule of works to be agreed for completion this financial year.
- (b) North Forty Foot cleansing/revetment & Langrick Road pipeline, lining/replacement works.
Business Case package cost £13,111.
- (c) Sempringham Fen weedscreen cleaner/pumping station refurbishment.
Business Case package cost £10,325.

1.2 2018/19 Board Funded Capital Schemes

Remaining Capital Scheme, works to be completed this financial year:

- (a) Swaton Bank Stability £8,000.
- (b) Scredington Beck improvements £10,000.
- (c) Donington Northings PS replacement weedscreen cleaner £107,000 (estimate).
- (d) Mallard Hurn PS new roof £8,300 (estimate)
- (e) Gosberton weedscreen cleaner
- (f) Graft Drain improvements £20,000
- (g) Jetting to Major pipelines £55,000. Works currently being completed in the Donington Catchment.
- (h) General culvert replacement £21,524, all based on current survey information:

No. 1253	Horbling Fen	40m x 0.6m	£9,524 (estimate)C
No. 1283	Aslackby Fen	12m x 0.6m	£5,000 (estimate)C
No. 755	South Kyme	12m x 0.9m	£7,000 (estimate)C

1.3 Proposed Works 2019/20

Please refer to the Capital Scheme Budget on page 36.

(a) Defra/EA Granted Schemes

- (i) North Forty Foot cleansing/revetment & Langrick Road pipeline, lining/replacement works, total scheme value is £450,000 being built up as follows: -

£81,000 GiA
£56,889 Board contribution
£299,000 Local Levy support

A full Business Case is now being completed for final approval.

- (ii) Sempringham Fen weedscreen cleaner/pumping station refurbishment, total scheme value is £170,175 being built up as follows: -

£43,000 GiA
£17,175 Board contribution
£110,000 Local Levy support

Based on the Outline Business Case for this scheme there may be more benefits available, which would affect the GiA and Local Levy contribution, but not expected to affect the value of the Board contribution. A Full Business Case, is now being completed for final approval, which is expected to be approved in this financial year. This scheme originally re-profiled from 2015/16.

(b) Board Funded Capital Schemes

- (i) Jetting to Major pipelines £25,000.
- (ii) General culvert replacement £2,984
- (iii) Graft Drain improvements £20,000
- (iv) Dowsby Lode Improvements £50,000
- (v) Wyberton Town's drain re-alignment £23,500
- (vi) Jetting to major pipelines £25,000

(c) Pumping Station Schemes

- (i) Wyberton Chain Bridge PS refurbish weedscreen cleaner £45,000 (estimate)
- (ii) Dyke Fen PS replacement control panel £43,300 (estimate)
- (iii) Pinchbeck Fen PS new roof £9,000 (estimate)

2. DRAIN MAINTENANCE

(a) Annual Summer Flailmowing/Cutting

The summer flail mowing and cutting commenced with the flail mowers on 9th July, and the cutting on 16th July. A sixth 13 ton excavator operating one of the Boards 4m cutting baskets has been hired in for thirteen weeks. Therefore, the Boards maximum production has three flails (Spearhead Twiga No 1 SPV 2 with side flail and cutting basket, Twiga No 2 SPV2 with side flail and front flail, and Twiga No 3 SPV2 with side flail and front flail) flailing in front of the six cutters (Hitachi ZX 210, JCB JS 160, JCB JS 145, 2 x JCB JS 130 and hired in JCB131) albeit the Twiga No 1 does change cutting heads and cuts some watercourses.

The 67km (Northern & Southern Works areas) of high profile watercourse assets are constantly being monitored to determine whether a second flail and/or cut is required, these will most probably require a second cut.

The SKDC (c£33k) & Mayflower (c£11.5k) Hand Roding contract works have been completed. All the Board hand roding watercourses have been completed.

Additional hand roding works are also being completed for the Environment Agency through PSCA.

A bulldozer has been hired in to grade out the previous year's winter cleansing arisings, these works are completed within a small window of opportunity (between harvest and drilling) and will continue as budgets dictate.

EA Waste Management exemptions have been applied for over the next year for burning wood on site, dredging inland watercourses and spreading watercourse arisings over adjacent land.

(b) Prior Notice Given for Summer Cutting

Notice was issued within the 2018/19 Drainage Rates brochure, along with a provisional works programme, stating that all landowners/farmers can view weekly updated accurate summer cutting works programmes on the Boards web site.

Landowners/farmers, were requested, to contact the Board with any summer cropping issues throughout the summer cutting season.

This has been a success, and we recommend that the Board continue with this approach.

(c) Summer Crop Loss/Damage Compensation

In line with the summer cutting landowners/farmers are encourage to agree to the Boards equipment travelling through their crops whereby the Board agree crop loss compensation instead of the higher costs associated with removing the machine and subsequently returning once the crop has been harvested, albeit in some cases a new crop may have already been planted.

The cutting programme in the drainage rates brochure along with the updated programme on the website will remind all landowners adjacent to all the Board maintained watercourses of the Boards intension to carry out summer vegetation flailing/cutting to the programmes identified on the Boards web site and therefore try to manage fields accordingly. At the same time the programme should be used to assist timely removal of any obstructions (electric fencing, bird scarers, irrigation pumps & pipes etc.).

(d) Winter Crop and Land Loss Compensation

The Boards written intention of improvement cleansing works have been issued to landowners in November 2018 for the works to be undertaken throughout December to April 2018. The notice being given, the farmer can decide whether to plant the affected area or not, the arisings are spread and levelled by the landowner or by the Board generally the following year.

(e) Proposed Desilting, Bushing and Cleansing Works

The total length of proposed watercourse being 67 km.

The total length of proposed watercourses cleansed over the 2017/18 season was 52km, this will maintain a 1 in 10 year cleansing programme over the entire catchments.

Letters have been sent to landowners/occupiers adjacent to the drains above giving notice that the Board intend to bush where required and de-silt during the winter months.

Letters will also be sent to occupiers where the Board proposes to carry out other bushing works in preparation for next year's de-silting. We are currently employing Scarborough Nixon Associates as an external Environmental Consultant to carry out surveys of any relevant drains on our desilting programme.

3. PUMPING STATION MAINTENANCE

At the end of September (Period 7) the budget for maintenance works is £196,717 with the actual expenditure being £148,363.

4. EXTERNAL RECOVERABLE WORKS

Current external recoverable income is £96,236 for rechargeable works compared to £512,476 last year.

5. HEALTH & SAFETY

The Board appointed Cope Safety Management as their Health & Safety consultants for a 5-year period ending May 2019.

All employees and contractors to the Board required to work alone, are now using the automated Peoplesafe system using mobile phone technology.

6. EXTERNAL PARTNERSHIPS, STRATEGIES & AGREEMENTS

(a) Boston Barrier

The barrier construction is well underway with the coffer dam piling nearing completion in order to commence the main barrier works. A site visit is being co-ordinated for the works inspections in February and April if the members are interested in attending.

(b) EA/BSIDB Public Sector Cooperation Agreement (PSCA)

We have, as in other years, continued to flail and cut the highland carrier main rivers along with the health and safety bank top cut. All works completed with our own machinery and recharged back to the EA.

(c) South Lincs Water Partnership (SLWP)

The Chairman and Chief Executive are members of the Technical Steering Group (TSG) working towards developing an Integrated Water Resource Management Plan (IWRM) for the Black Sluice Catchment.

The SLWP consists of several key organisations such as the Environment Agency, Anglian Water Services, Natural England, Lincolnshire Wildlife Trust including South Lincolnshire Fens Partnership, Lincolnshire County Council, Greater Lincolnshire LEP, Fens Agricultural Water Group, NFU, UK Irrigation Union, WDIDB and BSIDB.

The TSG's next steps are to produce a business plan with more focus towards water resources with good governance within a strong business case.

This will include: -

- high volume open water transfer through our catchment from the North
- increased capacity flows and flood resilience works to the SFFD
- increased agricultural access to water (possibly by means of agricultural irrigation reservoirs)
- increased fen land/wet land availability (probably adjacent to the large reservoir)
- a c600 hectare (1,500 acre) reservoir capable of holding c50 million cubic metres of water, that equates to a similar size to Grafham Water Reservoir
- the availability of navigation through our catchment (Boston to Peterborough Wetland Corridor), which in turn will require further locks along the system
- increased benefits to tourism and leisure

This project is linked to the Priority Catchment Abstraction Reform project and a breakfast introduction and discussion group meeting is being arranged by the EA for Tuesday 11th December at Doubleday's, Swineshead.

(d) Rationalising The Main River Network (RMRN) – De-Maining

The five lengths of main river (Ewerby Catchwater, Northlands Dyke, Horbling Catchwater, New Cut and Diversion, Pointon Lode and Atkinson's Cut) totalling 12.3km which includes one bridge and a penstock sluice have a combined transfer value of £59,310. The transfer agreements have been signed by both parties and we are now awaiting the official announcements and transfer on the 22 November. (this report was prepared on the 12 November)

(e) The Black Sluice Pumping Station (Boston) (BSPS) Effectiveness Initiative Project

Following the announcement to the RFCC on 12 October with no objections (following questioning) a press release along the lines set out below went out on the 15 October, there has been very little coverage or concern received to date.

A partnership including the Environment Agency (EA), Black Sluice Internal Drainage Board (IDB), Lincolnshire County Council (LCC), Boston Borough Council (BBC), Anglian Northern Regional Flood and Coastal Committee (RFCC), the Association of Drainage Authorities (ADA) and the National Farmers Union (NFU) has been working to review how water is managed in the SFF Catchment near Boston.

This partnership is working together to investigate ways to further manage flood risk across the catchment, including that to agricultural land. Work has already begun to strengthen banks along the South Forty Foot Drain, trial ways to slow the flow of water in the upper catchment to better protect rural homes. During this work it has been decided that a pumping station that has rarely been used for the last 70 years will be decommissioned.

The pumps at Black Sluice pumping station in the South Forty Foot catchment have remained idle for more than 98% of the time since it was built in the 1940s. Rigorous studies have shown that decommissioning the pumping station won't increase flood risk to local homes or businesses, and using the adjoining sluice and navigation lock when flows on the South Forty Foot are high will manage flood risk more effectively. This approach was used to successfully discharge the water out of the catchment during a period of heavy rain early this spring.

Over the next few months, the partnership will work with Heritage Lincolnshire to consider the future of the pumping station building – one option is that it becomes a heritage hub or a community educational resource.

In 2015, the pumping station was included as part of a wider public consultation on flood risk across the catchment. As a result, the EA, Black Sluice IDB and other partners worked closely to explore funding to allow the IDB to take over management of the pumping station.

However, a thorough review found that the substantial cost to refurbish and maintain it did not offer a significant benefit for the wider area. Instead, the partnership will invest the money across the catchment where it will be more effective at reducing flood risk.

The Environment Agency will continue to manage the waterway for navigation, allowing boats to travel through Black Sluice lock and onto the South Forty Foot Drain.

The partnership will offer public drop-in sessions at the Boston Community Hub on Marsh Lane, Boston on a Wednesday from 12 till 7pm.

(f) SFFD Embankment Armouring to 'Low Spots'

One length of 'low bank' on the Swaton Eau raised bank has been armoured in order to allow flood water to run over the bank without the fear of a breach.

The EA have informed us they are reviewing other similar low lengths to armour but as yet have not released any information regarding locations.

(g) SFFD De-Silting Works

Works are currently underway between Neslam Bridge and the A52 with the silt being pumped into a settlement lagoon near Billingborough Pumping Station.

Further bushing works north of the A52 are also being completed in preparation for the 2019 de-silting programme along the SFFD.

The Rippingale silt lagoon has been successfully spread and levelled only fourteen months following completion of the works. The Sempringham silt lagoon, was partially dried out, and with the assistance from the landowner has also been spread and levelled.

(h) Swaton Natural Flood Management

This project is moving forward by working with farmers to implement trial Natural Flood Management measures to reduce flood risk to the three villages within the Swaton Catchment, it is possible that the Board could become involved with these works.

(i) Upper Catchment Natural Flood Management and Control Analysis

We have obtained a grant to employ a Graduate Flood Risk Specialist and a Farm Engagement Advisor for twelve months, they will be reviewing and assessing how best to slow, hold and/or divert high flows within all our fast reacting upper catchments. They will be engaging with the local farming community, RMS's and other interested organisations with a direction to complete Outcome Reports to assist with business cases seeking funding to help reduce flooding via Natural Flood Management.

**Black Sluice Internal Drainage Board
Capital Scheme Budget
2018/19 to 2028/29**

Year	Type	Scheme	Total	Grant	Local Levy	Drain	PS	Dev Fund
2018/19	Pump	Donington NI, replace weedscreen cleaner	£ 107,000				£ 107,000	
	Pump	Mallard Hurn PS, new roof	£ 8,300				£ 8,300	
	Pump	Gosberton p/s weedscreen 17/18					£ 84	
	Pump	Sempringham Fen p/s refurbishment	£ 10,325				£ 10,325	
	Drain	Jetting to major pipelines	£ 55,000			£ 55,000		
	Drain	Kirton Meeres culvert				£ 629		
	Drain	Graft Drain improvements	£ 20,000			£ 20,000		
	Drain	Malting Lane		£ 60,500				
	Drain	Claydyke cleansing				£ 393		
	Drain	Swaton Bank Stability 17/18				£ 8,000		
	Drain	Scredington Beck Improvements 17/18				£ 10,470		
	Drain	NFF Revetment & Langrick Road pipeline scheme	£ 13,111			£ 13,111		
	Drain	General Culvert replacement	£ 21,524			£ 21,524		
				£ 235,260	£ 60,500	£ -	£ 129,127	£ 125,709
2019/20	Pump	Chain Bridge PS, refurbish weedscreen cleaner	£ 45,000				£ 45,000	
	Pump	Dyke Fen PS, replacement control panel	£ 43,000				£ 43,000	
	Pump	Pinchbeck Fen PS, new roof	£ 9,000				£ 9,000	
	Drain	Dowsby Lode Improvements	£ 50,000			£ 50,000		
	Drain	Graft Drain improvements	£ 20,000			£ 20,000		
	Drain	Wyberton Towns Drain re-alignment	£ 23,500			£ 23,500		
	Drain	Jetting to major pipelines	£ 25,000			£ 25,000		
	Drain	Sempringham Fen PS refurbishment	£ 170,175	£ 43,000	£ 110,000	£ 17,175		
	Drain	NFF Revetment & Langrick Road pipeline scheme	£ 436,889	£ 81,000	£ 299,000	£ 56,889		
	Drain	General Culvert replacement	£ 2,984			£ 2,984		
			£ 825,548	£ 124,000	£ 409,000	£ 195,548	£ 97,000	£ -
2020/21	Pump	Wyberton Marsh PS, replace weedscreen cleaner	£ 110,000				£ 110,000	
	Drain	Graft Drain improvements	£ 60,000			£ 60,000		
	Drain	Jetting to major pipelines	£ 50,000			£ 50,000		
	Drain	General Culvert replacement	£ 2,854			£ 2,854		
			£ 222,854	£ -	£ -	£ 112,854	£ 110,000	£ -
2021/22	Pump	Great Hale PS refurbish weedscreen cleaner	£ 46,000				£ 46,000	
	Pump	Dunsby Fen PS, replace control panel	£ 30,000				£ 30,000	
	Drain	Jetting to major pipelines	£ 55,000			£ 55,000		
	Drain	Graft Drain improvements	£ 60,000			£ 60,000		
	Pump	Horbling ps new roof	£ 9,000				£ 9,000	
	Drain	Leaves Lake Drove SFFD outfall	£ 90,000	£ 90,000				
	Drain	Lane Dyke Culvert replacement	£ 90,000	£ 90,000				
Drain	General Culvert replacement	£ 27,311			£ 27,311			
			£ 407,311	£ 180,000	£ -	£ 142,311	£ 85,000	£ -
2022/23	Pump	Dunsby PS, replacement weedscreen cleaner	£ 90,000				£ 90,000	
	Pump	Kirton Marsh PS new roof	£ 10,000				£ 10,000	
	Drain	Graft Drain improvements	£ 60,000			£ 60,000		
	Drain	SFFD Desilting Guthrum to Blackhole Drove PS	£ 65,000			£ 65,000		
	Drain	General Culvert replacement	£ 6,857			£ 6,857		
			£ 231,857	£ -	£ -	£ 131,857	£ 100,000	£ -
2023/24	Pump	Gosberton PS, replace control panel	£ 65,000				£ 65,000	
	Drain	Quadrang North Fen roadside revetment	£ 24,000			£ 24,000		
	Pump	Helpringham Fen PS, new roof	£ 10,000				£ 10,000	
	Pump	Dowsby Fen PS, refurbish axial flow pumps	£ 25,000				£ 25,000	
	Drain	SFFD Desilting Guthrum to Blackhole Drove PS	£ 65,000			£ 65,000		
	Drain	Jetting to major pipelines	£ 40,000			£ 40,000		
	Drain	General Culvert replacement	£ 7,494			£ 7,494		
			£ 236,494	£ -	£ -	£ 136,494	£ 100,000	£ -
2024/25	Pump	Ewerby Fen PS Replace control panel	£ 45,000				£ 45,000	
	Pump	Dunsby Fen PS Refurbish axial flow pump	£ 13,000				£ 13,000	
	Pump	Dyke Fen PS Refurbish 2x axial flow pumps	£ 26,000				£ 26,000	
	Pump	Dyke Fen PS new roof	£ 15,000				£ 15,000	
	Drain	Jetting to major pipelines	£ 60,000			£ 60,000		
	Drain	Dyke Fen (New Dyke) revetments	£ 25,000			£ 25,000		
	Drain	NFF Desilting	£ 50,000			£ 50,000		
	Drain	General Culvert replacement	£ 7,224			£ 7,224		
			£ 241,224	£ -	£ -	£ 142,224	£ 99,000	£ -
2025/26	Drain	Claydyke desilting	£ 65,000			£ 65,000		
	Drain	NFF Desilting	£ 35,000			£ 35,000		
	Drain	Jetting to major pipelines	£ 60,000			£ 60,000		
	Pump	Kirton Marsh PS refurbish axial flow pump	£ 14,000				£ 14,000	
	Pump	Donington NI Replace control panel	£ 65,000				£ 65,000	
	Drain	Dyke Fen (New Dyke) revetments	£ 35,000			£ 35,000		
	Drain	General Culvert replacement	£ 7,048			£ 7,048		
			£ 281,048	£ -	£ -	£ 202,048	£ 79,000	£ -
2026/27	Drain	Jetting to major pipelines	£ 60,000			£ 60,000		
	Drain	Cleansing Wyberton Marsh	£ 60,000			£ 60,000		
	Drain	Bourne Fen 28/10 drain revetment	£ 30,000			£ 30,000		
	Pump	Gosberton Fen PS Refurbish 3 x axial flow pumps	£ 40,000				£ 40,000	
	Pump	Hacconby Fen PS Replace control panel	£ 35,000				£ 35,000	
	Drain	Claydyke desilting	£ 65,000			£ 65,000		
	Drain	General Culvert replacement	£ 25,969			£ 25,969		
			£ 315,969	£ -	£ -	£ 240,969	£ 75,000	£ -
2027/28	Drain	Old Hammond Beck Desilting	£ 80,000			£ 80,000		
	Drain	New Hammond Beck Desilting	£ 40,000			£ 40,000		
	Drain	Jetting to major pipelines	£ 60,000			£ 60,000		
	Pump	Bicker Fen 1 x axial flow pump refurb	£ 15,000				£ 15,000	
	Pump	Bicker Fen replacement control panel	£ 33,000				£ 33,000	
	Pump	Cooks Lock p/s refurbish weedscreen cleaner	£ 50,000				£ 50,000	
	Drain	General Culvert replacement	£ 27,989			£ 27,989		
			£ 305,989	£ -	£ -	£ 207,989	£ 98,000	£ -
2028/29	Drain	Old Hammond Beck Desilting	£ 80,000			£ 80,000		
	Drain	Jetting to major pipelines	£ 60,000			£ 60,000		
	Pump	Donington NI refurbish 3 x axial flow pumps	£ 43,000				£ 43,000	
	Pump	Kirton Marsh p/s replace control panel	£ 37,000				£ 37,000	
	Drain	General Culvert replacement	£ 35,989			£ 35,989	£ 11,000	
			£ 266,989	£ -	£ -	£ 175,989	£ 91,000	£ -

BLACK SLUICE INTERNAL DRAINAGE BOARD

JOINT WORKS COMMITTEE MEETING - 28th NOVEMBER 2018

AGENDA ITEM No 8 - IDENTIFICATION OF CONSENTED OBSTRUCTIONS

The Board's plant have encountered problems with unconsented structures/apparatus within the 9m byelaw distance. Most recently whilst completing summer maintenance one of the Board's machines hit and damaged an unconsented structure, an irrigation pipe. The damage to the irrigation pipe then caused a slip on the drain bank requiring repair. The landowner was notified of the damage to effect a repair to the irrigation pipe.

Following this, the Board's Officers met with the landowner to discuss options, to identify unconsented structures within the 9m byelaw distance, and prevent reoccurrence of future damage.

The following proposals are to be considered:

- (a) How best to identify future consented apparatus positioned within the 9m byelaw distance in order to eliminate all future damage. i.e. we could apply conditions; positioned at or below ground level where possible, identified with a highly visible marker post secured within a foundation that must be trimmed/sprayed off annually?**

This point was discussed following the meeting with landowner. The ideal from the Board's position would be that existing unknown structures should be clearly marked, whereby the new marker posts are consented, which avoids the issue of retrospective consenting.

This is proposed in the form of permanent marker posts (concrete, steel, plastic(suitable?)), a minimum height of 1.5m above ground level fixed into a permanent foundation.

The post is then to be painted/coloured an agreed visible colour/s, and the agreed area around the post kept clear of vegetation, either by strimming or spraying.

It will be not advised that spraying off of vegetation on the watercourse bank be completed to avoid potential stability issues.

- (b) How are we going to reliably inform our machine operators where all consented apparatus is positioned and how are we guaranteeing they are reviewing and using this information?**

Once the specification has been agreed, the information about the all apparatus sites will be included as a map layer. The information from the map layer will be provided to each machine operative as a map indicating where the apparatus is, and that each site known and identified on the map should be identified with the marker posts. Future digital map for operatives to have warnings of apparatus within the working area, to include in/under/over Board maintained watercourses. Investigate electronic sensor technology to include software and hardware to identify apparatus.

(c) How do we get the message over to farmers to better inform us and subsequently apply for byelaw relaxation when wanting to position equipment (looking forward irrigation pumps/pipes will be ever increasing in number)?

In the same way that we currently are doing within the rating brochure, information on the website, local meetings/ site discussions.

Provide knowledge that unknown/unidentified structures could be damaged by Board machinery, be removed without consent.

Equipment positioned for long distances parallel to Board's drain to be at an agreed distance from top of bank and clearly marked using same marker posts at 10m intervals.

Black Sluice IDB/ADA to liaise with the Environment Agency to ensure that all consented abstractions not only comply with hands off flow levels but also the Board's byelaw conditions are complied with.

Offer an Amnesty to all landowners to provide information on all 'consented apparatus' located within 9m of a Board's drain in order that this can be checked against the information held on the Board's database used to create the different map layers.

(d) How do we convince our men to notify us of all the equipment they discover throughout the year adjacent to the watercourses we maintain and how do we best manage this information?

The easiest way is normally the best way. Via TomTom direct message if on a machine, phone call if not, each provides a data point along with a description of what, where etc.

(e) How best do we approach unconsented historical equipment owners and apply approval/consent for this apparatus?

Set up a meeting as soon as possible with the landowner.

Advise and provide info on Board's Byelaws and policy.

Agree to implementation of the marker posts. For our purposes the marker post can be consented, avoiding retrospective consenting (which we cannot do anyway) of historic unconsented apparatus.

It is proposed that all unconsented apparatus be marked by a consented marker post/s. Either using one post, with a 2m exclusion zone either side, at the position of the apparatus on either side bank, or 2 x posts positioned 2 metres either side of the apparatus on either side bank.

It is proposed that the landowner applies for consent to place the post/s adjacent to the structure. Formal approval from the Board being granted upon specification requirements being met.

The consent fee (currently £50.00 flat fee) would apply.

The Board to specify the type of marker post to be used, which could also be supplied and purchased from the Board. Post to be positioned a minimum distance from the top of the bank 0.5m to 1.0m. Post to be a permanent marker securely driven into the ground at a minimum height of 1.5m above ground level. Responsibility for purchase, placement maintenance etc. would be the landowners following the specification agreed.

(f) Review how to implement a 'no-cut' zone when our operators encounter possible hazardous areas, i.e. footbridges that could be supporting hidden cables/pipes etc.?

Should be identified initially on the utilities map layer. If not, as sites identified and prioritised suitable marker post/s placed (same as specified for unconsented apparatus) 2m exclusion zone either side of the marker post from the hazardous area.

P Nicholson

Operations Manager

Black Sluice Internal Drainage Board

Project Summary

2018/19

Period 07 - October 2018

Description	Period Current Year			Year To Date					Last Year	
	Actual	Budget	Variance	Actual	Budget	Variance	Forecast	Variance	Actual YTD	Variance to Current Year
Rates & Levies	11,843	8,481	3,362	1,562,938	1,532,010	30,928	1,559,576	3,362	1,557,366	5,571
Interest & Grants	22,874	83	22,791	22,106	581	21,525	1,791	20,315	522	21,583
Development Fund	0	0	0	0	0	0	0	0	83,830	(83,830)
Other Income	6,566	400	6,166	25,238	10,055	15,183	23,674	1,564	12,089	13,148
Rechargeable Profit	(7,105)	0	7,105	3,841	0	3,841	0	3,841	343	3,498
Solar Panel Income	1,201	940	261	15,394	12,598	2,796	15,137	257	12,944	2,450
Total Income	35,379	9,904	39,684	1,629,516	1,555,244	74,272	1,600,178	29,338	1,667,094	(37,579)
Schemes	0	0	0	18,515	88,200	69,685	(58,874)	(77,389)	116,291	97,776
Pumping Station Schemes	91,235	10,000	(81,235)	99,616	100,000	384	70,706	(28,910)	60,637	(38,978)
Pumping Station Maintenance	15,632	28,520	7,073	148,363	196,717	(16,225)	220,013	7,071	98,188	(108,075)
Electricity	5,815			64,579					6,679	0
Drain Maintenance	109,874	92,172	(17,702)	429,822	351,846	(77,976)	413,088	(16,734)	349,634	(80,188)
Environmental Schemes	124	937	813	6,418	8,908	2,490	7,234	816	7,101	684
Administration & Establishment	51,608	38,981	(12,627)	305,983	295,439	(10,544)	302,167	(3,816)	281,072	(24,912)
EA Precept	0	0	0	138,276	138,276	0	138,276	0	138,276	0
Solar Panel Expenses	0	0	0	1,095	0	(1,095)	1,091	(4)	1,067	(29)
Total Expenditure	274,287	170,610	(103,677)	1,212,667	1,179,386	(33,281)	1,093,701	(118,966)	1,058,945	(153,722)
Surplus / (Deficit)	(238,908)	(160,706)	(78,202)	416,849	375,858	40,991	506,477	(89,628)	608,149	(191,300)
Movement on reserves										
Plant Reserve	(22,003)	34,348	56,351	(161,535)	(142,181)	19,354	0	161,535	(104,611)	56,924
Wages oncost Reserve	(6,488)	0	6,488	31,676	0	(31,676)	0	(31,676)	(12,652)	(44,327)
Surplus / (Deficit)	(210,417)	(195,054)	(141,041)	546,708	518,039	53,313	506,477	(219,487)	725,412	(203,896)

Black Sluice Internal Drainage Board Drainage Rates & Special Levies

2018/19

Period 07 - October 2018

Drainage Rates & Special Levies Due

Drainage Rates

Annual Drainage Rates - Land and/or buildings	1,055,802.64	
Land/Property - Value Decreased	(22,682.19)	
Land/Property - Value Increased	21,874.72	
New Assessment	807.47	
Write Offs & Irrecoverables		
Summons Collection Costs		
Credit Due	(1,398.69)	
Costs Due	0.06	

Balance	1,054,404.01	50.41%
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Special Levies

Boston Borough Council	784,760.51	
South Holland District Council	126,089.96	
North Kesteven District Council	68,105.02	
South Kesteven District Council	58,113.22	
	1,037,068.71	49.59%

Total Due	2,091,472.72	100.00%
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Drainage Rates & Special Levies Collected

B/F Arrears/(Allowances)	0.38	
Payments Posted	1,035,154.19	99.05%
Bourne North Fen Trust Contribution	9,248.64	
Special Levies Received	518,534.36	50.00%

Total Received	1,562,937.57	
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Drainage Rates & Special Levies Debtors

Special Levy Outstanding	518,534.35	50.00%
Drainage Rates Outstanding	10,000.80	0.95%
	528,535.15	

	2,091,472.72	
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Black Sluice Internal Drainage Board

Income & Expenditure Summary

2018/19

Period 07 - October 2018

	This Year	Last Year	Variance
Drainage Rates	1,044,403	1,018,148	26,255
Special Levies	518,534	539,218	(20,684)
Recoverable	96,236	512,476	(416,240)
Misc Income	48,223	97,624	(49,402)
Solar Panel Income	15,394	12,944	2,450
	1,722,790	2,180,410	(457,620)
Employment Costs	639,440	648,710	9,270
Property	90,046	30,866	(59,180)
General Expenses	114,102	118,539	4,437
Materials / Stock	7,890	22,400	14,511
Motor & Plant	229,510	110,392	(119,118)
Miscellaneous	186,462	682,019	495,557
Recharges	(452,722)	(436,412)	16,311
Plant	361,355	278,484	(82,871)
Total Expenditure	1,176,082	1,454,998	278,916
Net Surplus / (Deficit)	546,708	725,412	(178,704)

Black Sluice Internal Drainage Board
Balance Sheet at Period End
2018/19
Period 07 - October 2018

	<u>This Year</u>		<u>Last Year</u>	
	£	£	£	£
Operational Land & Buildings Cost	739,350		739,350	
Pumping Stations Cost	3,861,354		3,861,354	
Non-operational Property Cost	130,000		130,000	
Vehicles, Plant & Machinery Cost	768,508		877,147	
Fixed Assets		5,499,212		5,607,851
Stock	30,393		22,935	
Debtors Cont	53,974		40,005	
VAT	31,365		85,766	
Grants Debtor	0		(16,199)	
Car Loans	25,814		39,309	
Prepayments	60,250		56,923	
Draw Acc	(50,304)		(57,762)	
Call Acc	310,050		310,000	
Petty Cash	449		358	
Highland Water	0		0	
Rechargeable Work in Progress	91,368		212,168	
Natwest Government Procurement C	(3,509)		(1,050)	
Brewin Dolphin Investment	485,220		0	
Reserve Account	879,907		1,090,734	
Total Current Assets		1,914,975		1,783,187
Trade Creditors	(9,416)		3,032	
PAYE & NI Control Account	(20,656)		(19,931)	
Superannuation Contrl Account	(5,471)		(12,867)	
Union Subs Control Account	0		(101)	
Accruals	(111,088)		(196,534)	
Wag & Sal Cont	0		0	
Wage Adv	0		0	
Suspense	(0)		(0)	
Total Liabilities		(146,630)		(226,401)
Pension Liability		(3,353,000)		(3,343,000)
		3,914,557		3,821,636
Capital Reserve	5,493,709		5,450,044	
Revaluation Reserve	0		0	
Property Revaluation Reserve	0		0	
Pension Reserve	(3,353,000)		(3,343,000)	
Brewin Dolphin Revaluation	(14,780)		0	
Total Capital		2,125,929		2,107,044
Revenue Reserve	1,166,811		910,190	
Development Reserve	153,405		131,590	
Plant Reserve	(118,398)		(87,474)	
Wag Oncost Reserve	40,103		34,874	
General Resere	546,708		725,412	
Total Reserves		1,788,628		1,714,592
		3,914,557	0	3,821,636
<u>Cash & Bank Balances</u>				
Drawings Account		(50,304)		
Call Account		10,050	310,050	
Natwest Reserve Account @ 0.01%		879,907		
Petty Cash		449		
Chargecard		(3,509)		
Monmouthshire BS @ 0.15%		300,000	30 Day Notice	
		1,136,592		

Black Sluice Internal Drainage Board Investment Summary 2018/19 Period 07 - October 2018

Portfolio Overview

OWNER NAME

Black Sluice Internal Drainage Board -
New Account

LAST 12 MONTHS PERFORMANCE

-2.54%



TOTAL VALUE

485,219.99 GBP

ESTIMATED ANNUAL INCOME

17,463.59 GBP

INVESTMENT OBJECTIVE

Income

MANAGEMENT TYPE

Discretionary

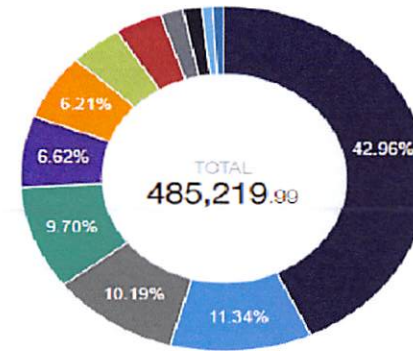
RISK PROFILE

Risk Level 3

My Accounts

ACCOUNT	TOTAL CASH	TOTAL STOCK	TOTAL VALUE	TOTAL INCOME
BLACK1655	4,250.80 GBP	480,969.19 GBP	485,219.99 GBP	17,463.59 GBP
	4,250.80 GBP	480,969.19 GBP	485,219.99 GBP	17,463.59 GBP

Portfolio Summary



UK Bonds
208,430.96
GBP

Absolute Return
49,429.14
GBP

Overseas Bonds
32,133.48
GBP

North American Equities
20,260.31
GBP

Asia Pacific Equities
8,950.50
GBP

Japanese Equities
4,406.40
GBP

UK Equities
54,999.95
GBP

Property
47,086.00
GBP

Other Investments
30,108.00
GBP

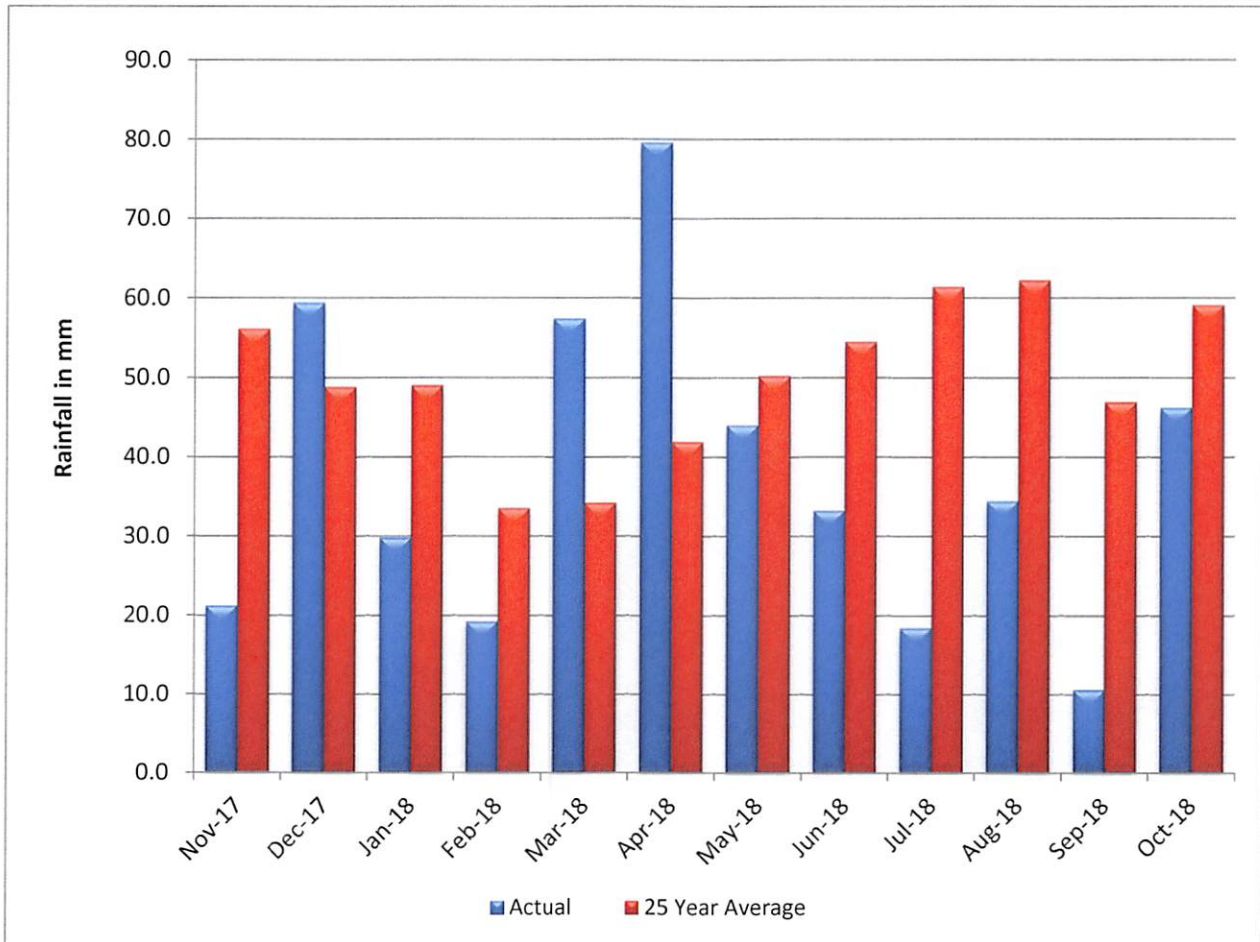
Global Investments
18,076.60
GBP

European Equities
7,087.65
GBP

Cash
4,250.80
GBP

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

MONTH	Rainfall		Actual / Average
	Actual	25 Year Average	
	mm	mm	%
Nov-17	21.2	56.1	37.79%
Dec-17	59.4	48.8	121.72%
Jan-18	29.8	49.0	60.82%
Feb-18	19.2	33.5	57.31%
Mar-18	57.4	34.2	167.84%
Apr-18	79.6	41.9	189.98%
May-18	44.0	50.2	87.65%
Jun-18	33.2	54.5	60.92%
Jul-18	18.4	61.4	29.97%
Aug-18	34.4	62.2	55.31%
Sep-18	10.6	46.9	22.60%
Oct-18	46.2	59.1	78.17%
Totals	453.4	597.8	75.84%



BLACK SLUICE INTERNAL DRAINAGE BOARD Rainfall at Swineshead Depot

MONTH	Rainfall		Actual / Average
	Actual	25 Year Average	
	mm	mm	%
Nov-17	29.9	56.0	53.39%
Dec-17	50.3	51.0	98.63%
Jan-18	38.0	51.0	74.51%
Feb-18	18.5	35.2	52.56%
Mar-18	40.2	35.5	113.24%
Apr-18	53.6	42.7	125.53%
May-18	53.3	49.5	107.68%
Jun-18	11.2	52.7	21.25%
Jul-18	28.4	65.5	43.36%
Aug-18	58.2	66.7	87.26%
Sep-18	28.9	47.2	61.23%
Oct-18	63.4	62.5	101.44%
Totals	473.9	615.5	76.99%

