

MIDDLE LEVEL COMMISSIONERS

Report of the Middle Level Board on the financial year 2021/22 for submission to the General Meeting of the Commissioners to be held on Thursday 4 November 2022

MEMBERS OF THE MIDDLE LEVEL BOARD – 2021/22

(year in which first elected in brackets)

JONATHAN BROWN (Chairman)	(2006)
PATRICK ALLPRESS	(2011)
GREGORY BLISS	(2011)
DUNCAN BOUGHTON	(1985)
ROBERT BROWN	(2013)
THE LORD DE RAMSEY	(1980)
FRED HARTLEY	(2004)
JOHN HEADING	(1991)
MARC HEADING	(2004)
MATHEW LATTA	(2012)
ANDREW LENSEN	(2021)
SAM RABY	(1991)
PAUL WEST	(2012)
HUGH WHITTOME (Vice Chairman)	(2002)
STEPHEN WHITTOME	(1989)

CHRIS CROFTS

(representing the Borough Council of King's Lynn and West Norfolk under the provisions of the Land Drainage Act 1991)

Mrs DEE LAWS

(representing Fenland District Council under the provisions of the Land Drainage Act 19921)

ALEX MISCANDLON

(representing Fenland District Council under the provisions of the Land Drainage Act 1991)

WILL SUTTON

(representing Fenland District Council under the provisions of the Land Drainage Act 1991)

JEFFREY R CLARKE

(representing Huntingdonshire District Council under the provisions of the Land Drainage Act 1991)

OFFICERS :

Chief Engineer, Clerk and Chief Executive to the Commissioners - D Thomas B.Eng, M.C.M.I.

Solicitor and Assistant Clerk – Ms L McShane

ACCOUNTS IN RESPECT OF THE FINANCIAL YEAR 2020/21

The Commissioners' revenue balance on 31st March 2021 was £4,418,539.90 and during the year was increased by £149,362.56 to £4,567,902.46.

The sum of £331,294.26 was received from the Environment Agency (EA), being the standard annual calculated contribution in respect of highland water contributions for maintenance works.

The precept paid to the EA amounted to £1,946.57 compared with £1,947.00 in 2020/2021.

The Commissioners have borrowed £11 million from the Public Works Loan Board for the St Germans Pumping Station replacement scheme and the balance outstanding at 23rd March 2022 was £7,730,645.23. A loan of £1.75 million has also been taken with the Public Works Loan Board for the office/depot relocation to Whittlesey Road, March. The balance outstanding on this loan at 23rd December 2021 was £875,277.13.

Development contributions were received in respect of all development which would give rise to an increase in the rate or volume of surface water discharge to maintained watercourses within the catchment.

There are no unusual features in the Navigation (Middle Level Act 2018) and Adventurers' Accounts. Within the (2018) Navigation Accounts the sum of £115,076.48 was received during the year for Navigation Registration/Licence Fees and the retained balance at 31st March 2022 for the installation of facilities as required by the Act was £38,839.63.

MEMBERS ATTENDANCE

The attendances of most of the Members of the Board have been excellent as usual.

ETHNIC MONITORING

The Commissioners' workforce is ethnically classed as white European.

During the year three members of staff resigned and were replaced and the new post of Junior Secretary/Receptionist was filled.

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THIS REPORT IS AS IT WAS PRESENTED TO THE BOARD
AT THE APRIL 2022 MEETING
(with the removal of employee matters and appendixes)

April 2021 to March 2022

Health & Safety

Move from Croner to Cope – the MLC used to employ Croner to provide advice on health and safety issues at a high level, with Cope Safety consultants providing more practical advice. However, this arrangement has been reviewed and the contract with Croner has been cancelled as it is believed Cope can provide all the services we require. As there is a period of notice for cancellation, we will continue to be able to call upon Croner until the end date.

Accidents and near misses are recorded at the monthly Works Meeting and any actions identified to reduce the risks linked to these occurrences are taken. Good practice is also shared between IDBs as appropriate. During the period there have been no significant accidents or near misses however a private boater did fall and injure himself whilst using one of the MLC rural moorings. These moorings are provided at the users' own risk. The Board was made aware at the November meeting that the boater has reported the incident to the HSE who in turn made contact with us. The Chief Executive responded providing factual information. Our insurers were notified but we have heard nothing since.

COVID-19 Actions

The offices are now open to the public. The holding area remains in place together with sanitation stations, but otherwise we have reverted to the pre-pandemic arrangements.

Clerk's Report

Partnership Working and Public Sector Cooperation Agreements (PSCAs) – works have again mainly centred around annual maintenance in the Swavesey district area which continues to be highly beneficial to both authorities. The Environment Agency (EA) used the MLC as a conduit for placing orders for survey work and remains keen to explore further opportunities for IDBs to undertake partnership works including works on the Old Bedford once the Middle Level Barrier Bank works have been concluded.

Middle Level Bank Raising Project – it is extremely pleasing to be able to report that the grant-in-aid (GiA) bid for funding has been approved. A brief presentation on the project and progress to date will be given at the meeting, but in summary scheme approval has been granted for a total project value of £23.9M. This includes an optimism bias and contingency hence at present the Board has access to £12.5M in grant. Release of additional funds up to the full amount would require submission of a request for release of additional funding with supporting documentation. It was expected that the spend for the 2021/22 financial year would be in the region of £141K, mainly covering consultancy services, however, the EA was encouraging additional in year expenditure and hence the opportunity was taken to purchase piling (to be taken into stock for later use on this project) and also to purchase a remote-control survey boat to aid assessment of silt depths throughout the system. To date approximately £650K of grant has been claimed and received.

At the Board's November meeting it approved proposals to set up a consultancy team to develop a full business case covering delivery of future phases which will be submitted for approval to the project delivery board (headed by the MLC) and for developing and managing future phases of project delivery. The Board also approved purchase of project materials to go into stock. All costs to be covered by GiA funding. The Project Board has since been set up, and has met, and is guiding

the direction of the project. Work is currently in hand to get the consultancy contract finalised and out to tender. In addition, prices for dredging to bank, which will form this year's key elements of the works, are in hand.

Red Diesel – in early March ADA made a significant breakthrough in its discussions with Defra on the potential for IDBs to continue to use red diesel. They are now confident that in all but a few limited instances drainage boards will be allowed to continue to use it. This will include use of owned plant, contractors and for powering pumping stations. The exception appears to be where the sole beneficiary of maintenance works is an urbanised area (ie where there can be no agricultural benefit shown), for example a head water passing through a housing or industrial estate. Here, vehicles will have to use plant filled with white diesel.

Water Resources East (WRE) – the Chief Executive continues to represent ADA boards (in the East of England) as a non-executive director on the board of WRE. Over the majority of the last year, he has been working hard to ensure that the current and future needs of water supply for agriculture and the environment are planned for. The specific points made have been;

- The current licenced amounts do not necessarily represent the current need in a dry year and should not therefore be used as an initial starting point for planning future water needs.
- Account needs to be taken in relation to the potential extra water needed for changes in farming practices such as wet farming.
- Consideration needs to be given to the environmental targets being given to the agricultural sector and that without water it is unlikely that these can be delivered.
- That the 'wet network' of IDB and landowner ditches provides considerable environmental benefits and that to exploit this, water security to this system needs to be in place.
- That farming and the environment are inseparably linked and that water for one is a benefit to the other.

The Chief Executive has also pointed out that protecting low flows in main rivers by not releasing water for adjacent sub-catchments could lead to negative environmental impacts in the sub-catchments which outweigh those suffered by the main rivers, hence a holistic approach needs to be in place.

A draft WRE plan has been produced and consulted on and there are proposals for two new reservoirs, one in Lincolnshire and one in Cambridgeshire which are currently subject to screening options to resolve which locations are best suited for housing them.

Board Tour of Inspection – it was proposed that a decision on whether or not to hold a tour of inspection in 2022 is deferred until this April's meeting. **The Commissioners are asked what they would wish the focus of an inspection to be?**

Environment Bill 2019-21 – the bill received royal assent on 9th November 2021. The Bill encompasses clauses on environmental targets, improvement plans, monitoring and sets up a new body called the Office for Environmental Protection (a watchdog organisation). For IDBs it also has provisions that allow IDBs to value land for rating purposes outside of their districts and hence this paves the way to allowing IDBs to consider extending their boundaries, or for new IDBs to be created (clauses 94 and 96).

The Association of Inland Navigation Authorities (AINA) – the Chief Executive has been appointed as Vice Chairman of AINA with Philip Morgan of the Canal and River Trust taking on the Chairmanship. Also, during the year, the Assistant Clerk/Solicitor attended a climate change meeting which covered initiatives being put in place to move the navigation sector towards reducing its carbon footprint.

Fen Biosphere – the project is effectively on hold pending a review of its direction and core objectives. This follows in particular Fenland District Council (FDC) announcing its unwillingness to support the bid. The Chief Executive however recently met with the Mayor of the Combined Authority

who is keen to see this bid further developed and a joint meeting to discuss how to move this shared vision forward will be arranged shortly.

Cardea Site – Persimmon Homes have advised that the land re-purchase they need to meet the MLC's requirements of clear access routes to the ponds is well advanced and in a gesture of goodwill the commuted sum payment of £770K plus the additional £50K has been received. The latter is the sum the MLC have identified to bring the assets up to an adoptable condition. It is therefore expected that by the autumn the agreement should be completed and the balancing facilities will be under MLC control. This will mark the first time the MLC have adopted facilities of this type.

Consultations – the MLC continue to respond to defra consultations either directly or through correspondence with ADA as and when appropriate to do so.

Reform of Water Abstraction Licensing – the EA consulted on proposed changes to the charges for abstraction licences last autumn. A revised charging structure and rule set consequently came into being on 1st April 2022.

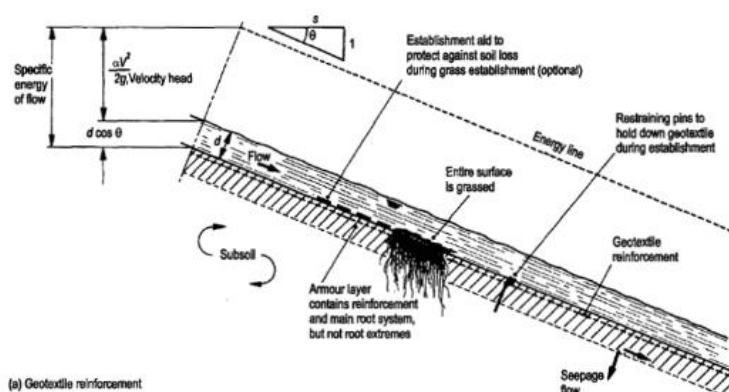
Middle Level Barrier Banks Works – these works are being undertaken by the EA.

River Great Ouse Dredging Pilot – this is now within the remit of the Tactical Plans for the Fens project, but no date has yet been given on when trials might commence.

Eel Regulations – an update seminar was held on the 19th August 2021 where progress on eel research both past and ongoing was presented. This proved extremely insightful and the importance of the research undertaken was made apparent in that there were a number of surprising observations on eel behaviour that will be sure to set the framework for solutions that are implemented in future, to ensure a positive effect on the movement of these complex animals.

Future Planning for the MLC and Associated Boards – Chairs' Meetings were held on 2nd November and 12th April an update will be given verbally to the Board on what was discussed and agreed.

Woodwalton Fen Potential to be Reclassified as a Reservoir – the Reservoirs Act Panel Engineer advised that an overspill was required and that a small amount of survey data remained to be collected (north east corner downstream of the Control Sluice). The outstanding survey work is complete and having looked at levels the most logical place to install the overspill was in the north west corner of the site. It is thought that this can be formed using earth reinforcement techniques



Example of reinforced grass spillway

rather than hard engineering (see diagram left). As the works will need to be carried out by autumn 2022 the Chief Engineer obtained a quotation from the company who supplied the Panel Engineer for production of an overspill design. Due to the compressed timeframes sanction was sought and gained from the Chairman to place an order without

delay and work is currently progressing on the design. NE has advised that it will need to see and review any proposals as they must be assessed under the Habitats Directive and this will be done once we are in receipt of them.

Environmental & Land Management Scheme ELMS – there is little to update on this at this time save as outlined below;

- **Piloting the Sustainable Farming Incentive**
The scheme has begun piloting and will launch this year.
- **Local Nature Recovery**
The scheme will begin piloting this year and launch in 2024.
- **Landscape Recovery**
The scheme will begin piloting with around 10 projects in 2022, and launch in 2024.

Proposal to hold an Open Day – the MLC were working in conjunction with the Middle Level Watermen's Club regarding holding a joint event/river users festival. This was however placed on hold due to the pandemic and then having suffered two years of delay the Watermen's Club have sadly decided to abandon the plans.

Tactical Plans for the Fens Agreement – the most recent piece of work completed has been the Carbon Baselineing. This sets out the carbon footprint of the Flood Risk Management (FRM) activities which can then be used as a guide and measure for future scheme impacts as we move towards a carbon neutral economy. It is noted that all MLC and IDB electric pumping stations are now on green tariffs, hence significantly reducing their impact upon the environment. This project has been rebadged as Future Fens and a manifesto outlining its aims was presented to COP26.

Tin Dump Upgrade Scheme – this scheme has been on hold due to delays with getting land ownership transferred to the MLC. A valuation by Grounds (£5K) has been passed to the County Council who are the current land owners but staff changes at that authority appear to be causing a position of inertia that emails and calls have not as yet successfully relieved.

Navigation Registration/Byelaws and Navigation Advisory Committee (NAC)

Under the Act the Commissioners must appoint people to represent various areas of interest. Below are changes that have occurred following the instructions of the Board at its November 2021 meeting:

Colin Ovendon removed following his resignation due to a change in personal circumstances.

Chris Middleton appointed on a permanent basis, area of representation to remain (d)

Mike Daines appointed to represent the Middle Level Watermen's Club.

No further changes are proposed at this time but members are asked to consider if they are content to continue to delegate member appointments to the Executive Committee (to allow changes to be made between meetings as necessary). This is helpful as the NAC settles into its role and it recognises that this Committee is still young and membership should be allowed to flex to meet the demands put upon it as the change in navigation focus continues to develop.

The most significant step forward in this period was the signing off of the new navigation byelaws. These came into force on the 28th May and provide the Commissioners with the powers they need to properly manage and police their waterways. This allowed a push for more vessels to become licenced and for plans to be put in place for enforcement action to be taken against vessel owners who failed to obtain licences. At the time of report 192 vessels had been issued with licences for the 2021/22 year and the predicted income from this, the issuing of visitor licences and the Anglian Pass referred to below, was around £120K. It should be remembered that 25% of this income currently

has to be ring fenced to allow for investment in improved facilities which are to be provided on the link route and which must eventually meet IWA recommendations. This is shown in the navigation accounts.

The Anglian Pass was introduced on 1st April 2021 and provides a mechanism for boaters to buy an add-on to their home licence at a cost of between £25 and £100 which extends the waters they can navigate to include EA Anglian, the Conservators of the River Cam and MLC waters. This has been generally well received and it has been resolved to continue with this arrangement for at least the next two years, after which time it will be reviewed. The charges for this year have been frozen at last year's prices.

As reported at the November meeting there was an accident at one of the new rural moorings and we were waiting to see if there was any further communication from the HSE on this matter. There has however been no further communication and it is therefore assumed that the HSE will not be investigating further.



Four further rural moorings are being, or have been, installed in 2022 and one change that has taken place in the design is that the timber posts will be placed at, or very close to, the water's edge in future as a number of boaters have advised that they consider this would be a better arrangement. The signs on the rural moorings are as shown left which should make their purpose clear.

In respect to the challenge that was made to the House of Commons stating that we were in breach of the undertakings given to the House of Lords a response was issued countering the claims and, as previously reported, following provision of backup information the claim was dismissed. As per the requirement we then reported back to the House in June 2021 providing an update on implementation of the undertakings to show that we were continuing to meet our obligations. We have heard nothing adverse since this submission.

A number of complaints have been received over the year but this was expected as we moved from free navigation to a fully licenced arrangement. The majority of complaints relate to either the lack of facilities or the perceived high cost of a licence.

The Assistant Clerk/Solicitor has produced a protocol for boat removal which has been published on our website as an appendix to the byelaws, as per the House of Lords undertaking.

A residential mooring strategy has been drafted and following consultation with the Residential Boat Owners Association was put before the NAC who have approved it. This strategy will need to be reviewed periodically to ensure that it remains current. This was another undertaking given to the House of Lords.

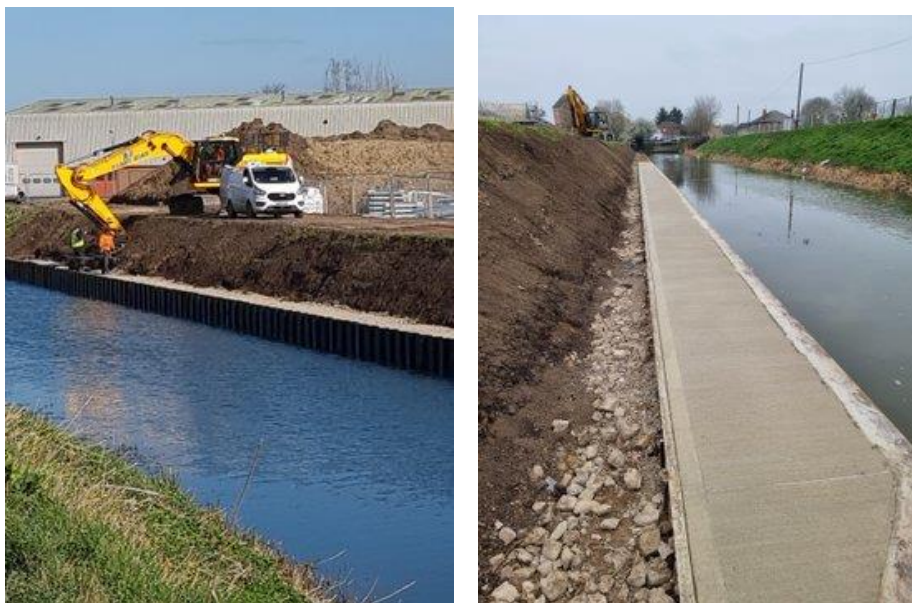
FDC was successful with its Market Town bid, however the exciting elements of the proposed scheme which were water facing appear to have been largely abandoned to save costs. Efforts are being made to encourage the Council to reconsider its position and the Chief Executive is being invited to attend meetings to discuss the finalisation of plans. In addition to this we are in discussion with the Council in regard to the failed mooring adjacent to the park. Quotations were obtained and it is hoped that these moorings can eventually be replaced. In a similar vein the Chief Executive has been lobbying for the opening up of the heavily over grown and dark river corridor which exists

between the bypass and the Town Bridge. If achieved this will make the navigators' experience of journeying to and passing through March a much more pleasant one.

Members are asked to approve making a contribution towards tree and shrub removal, compensatory planting elsewhere and the creation of a berm which will allow the public to walk down and along sections of the river frontage adjacent to the park.

On the High Lode close to Ramsey negotiations were successful in relation to the possible provision of 120m of piled moorings on the east bank which will facilitate development which in turn funded construction cost. With the Commissioners' approval an offer was made (and accepted) to take charge of the installation of these moorings and then once installed to adopt them. The photographs below show the moorings approaching completion. The Town Council will provide a water point and rubbish disposal facilities.

A meeting has been held with Chatteris Town Council representatives and it is clear that they are keen to see moorings installed which will provide a route to access the town from the navigation. They have however advised that there is no funding for them at present.



Publicity

During the reporting period the Conservation Officer has been involved in the following:

- July 2021 – BBC2 aired 'A Wild Year: The Fens' featuring Peter catching and releasing eels from the St Germans eel pass (this was filmed in July 2019).
- September 2021 – supervised Channel 4 filming opening sequence to an episode of 'Grand Designs' at St Germans Pumping Station.

Further media work is scheduled:

- October 2021 – interview on BBC Radio Cambridgeshire to discuss fenland wildlife and impact of lockdown.
- November 2021 – discussion on Fenland Community Radio (date tbc)

Visits – three visits to St Germans Pumping Station have been booked since the COVID-19 restrictions have been lifted.

- Wisbech District Agricultural Valuers' Association at 2.30pm on Thursday 30th September
- Downham Market Young Farmers at 7.30pm on Wednesday 13th October
- Oddfellows at 10.30am on Wednesday 6th April.

Media – the Commissioners' 'Twitter' presence now has 573 followers, up from 506 in April 2021. Twitter is currently only used for the navigation element of the Commissioners' activities. A Twitter page has been set up for other MLC activities but has yet to be fully utilised.

Web site – www.middlelevel.gov.uk is updated regularly to deliver information to those who may be interested or who require information.

ICT Report

Hardware – TSG continues to provide support for the Commissioners' physical and virtual servers.

Several workstations and other miscellaneous items have been purchased to service the new staffing arrangements. The workstations at the depot and Bevills Leam have also been replaced.

A quotation is being sought for a replacement server. At 6 years old this is considered close to end of life given its critical role as the hub of all data and key applications. HP who manufactured the unit will no longer support it from October this year and the software running on it (Sever 2012) will be withdrawn from support by Microsoft next year, further encouraging consideration of its replacement.

Software – additional licences have been required due to staffing changes, and upgrades to existing software have been implemented as required.

Engineering Executive Commentary

This section broadly summarises the key activities of each of the three engineering departments serving the MLC and client IDBs. It is intended to provide an overview of work carried out during the above period and that planned for the future.

A brief summary of progress on the Middle Level Strategic Improvement Scheme and progress on GiA applications is also included.

Technical Services Department

The work carried out by the Technical Services Department during the last twelve months can be briefly summarised as follows:

Middle Level Bank Raising Scheme – the Bank Raising Business Case was submitted to the EA, East Anglia (Gt Ouse) Area Partnership & Strategic Overview (PSO) team in May. This submission was for the EA's Local Area assurance process on the Business Case to obtain Area Flood Risk Manager support prior to a formal submission to the Large Projects Review Group. Following this Area Team review several comments were received which required further work to strengthen the Business Case submission. Work was progressed on these over the summer of 2021 and an updated report submitted to the PSO team in August. Following this submission confirmation of Area PSO agreement and Area Flood Risk Manager endorsement was received in September.

The Business Case was then submitted to LPRG for their October review period on the 22nd September. Formal comments on the submission were received along with responses which addressed comments provided for the review meeting on the 13th October. A presentation on the

Business Case to LPRG to address comments and responses was held on the 13th October. The Business Case was well received by LPRG with limited comments, mostly covering points of clarification. LPRG highlighted the quality of the submission and Business Case. The outcome of the review was recommendation for approval of the scheme with a single outstanding clarification relating to the costs of consultancy support for progression of the next phase to develop the main scheme proposals plus cost estimates relating to the Phase 1 (Dredging) work to be undertaken by the Commissioners. The action is to obtain a comparative cost estimate for these elements through the EA Capital Delivery Framework and the project team are currently liaising with the Agency's Commercial Team to progress this action. This additional work was undertaken and the scheme was finally signed off in late autumn 2021.

It was very pleasing that at the Future Fens FRM Technical Advisory Group meeting in the early autumn of 2021 the EA congratulated the project team and commented on the positive feedback received by LPRG who highlighted the quality of the Business Case submission and the strategic and economic cases with how the scheme is in line with the Future Fens FRM Strategy and Tactical Plans.

The Business Case was approved in the sum of £23.88M of Flood Defence Grant Aid funding to deliver the scheme over the next 5 years as part of the current Capital Delivery Programme (2020/21-2026/27 spending review). This cost comprises the £14.9M current estimate for scheme delivery (including contingency) plus £8.9M of Optimism Bias allowance. Following confirmation of the LPRG assurance the scheme is to be fully funded by GiA.

Since this time, and as reported in the Executive summary, the scheme has been progressed and it is planned that dredging to improve conveyance and to win material for bank raising will commence this summer. Orders have been placed to purchase piling to go into stock (£500K) and a remote-control survey boat (£28K) and consultancy spend in developing the scheme business case has been recovered. In total £650K of grant has been claimed for the 2021/22 financial year and it is expected that spend in the 2022/23 financial year will significantly exceed £1M. There are also plans to erect a temporary office to house both consultancy and contractor staff and a planning application for this is currently being drawn up. The temporary offices will be sited at the end of the car park (western side).

Work is also progressing on identification of suitable consultancy support arrangements for the next phase of detailed project planning and scheme design with the intention of advertising for consultancy contracts in the next few months to commence a tender exercise over the spring period.

On a consultancy basis:

Needham and Laddus Outfall – this scheme (in excess of £200K) is being almost entirely funded through GiA. The MLC produced the business case and secured the necessary funding in line with the target set by the Board. However, the issue which challenged scheme progression became the availability of the lowest tenderer who was fully committed and hence was unable to carry out key elements of the scheme during the 2021 summer months, when flood risk is lowest. It was therefore agreed that the half of the scheme with the lowest flood risk and shortest construction period would be implemented in 2021 year and the other half in the summer of 2022.

Cock Fen Electrification – the target for electrification is 2022. However, issues relating to proving land ownership have been delaying any progress. National Grid will not take any further steps until it can be certain that easements can be legally secured allowing it to install supply cables to the station. Although progress on land ownership has been made the window for meeting the target date is diminishing and National Grid are not yet in a position to provide a firm date for installation of power. The control cabinets associated with the scheme have been fabricated and are currently in storage.

Works Department

Water Resources and Control of Water Levels

Spring/Summer 2021

Early season pressure from water abstractors in the Commissioners' system remained negligible, as farmers and growers were generally able to establish spring cropping into moist soils. Inevitably there were some exceptions to this rule, with seedbed preparations – on some lower lying areas of land (which had remained wet following the February 2021 rains) proving to be challenging.

Twice weekly (Monday and Thursday morning) telecon meetings were held throughout the summer abstraction season. The meetings provided a useful link in terms of MLC decision-making regarding water availability and levels, and similarly to give EA officers an indication of abstractors' anticipated requirements for the week ahead. Colleagues from Anglian Water (AW) shared updates of their own water resource requirements and data, and this gave an opportunity to fine tune the timing for the 'give and take' arrangements, where AW agree to give a percentage of their daily intake for use by other Lower Nene abstractors (including those based within the Commissioners' catchment area).

As in previous seasons, an internal water resource communication comprising of a brief résumé of the twice weekly meetings, including the water requirements of the Commissioners, EA, other Lower Nene Parties and AW, has been sent out electronically to members of the Commissioners' Water Resource Committee following the Monday EA telecon. It is hoped this information was of benefit to MLC Water Resource Committee members.

It is pleasing to report the abstraction season passed without the requirement for a single 4-night irrigation restriction. The dry start to the season was soon rectified with steady isolated showers at a critical time in the growing season when the majority of irrigation is usually undertaken. No issues were experienced with water availability throughout the season and a respectable summer level was maintained within both MLC ponds.

The now well embedded text messaging system, which is sent out from the Commissioners' office continues to be well received. Six separate messages were sent to IDB and private slacker operators during the latest abstraction season. It is the generally good levels of compliance with this messaging system that contributes to the overall success of water management within the MLC system during the peak abstraction season.

Later in the season, as crop requirements for irrigation subsided and harvest commenced, water levels in the MLC system were gradually reduced to a point where, at the end of October 2021, we were holding winter retention levels within both St Germans and Bevills Leam ponds.

An end of season de-brief meeting, hosted remotely by the EA, was held in early October 2021.

Autumn/Winter 2021-22

Water levels during the autumn and winter months have been controlled with automated pumping to pre-set parameters at both St Germans and Bevills Leam pumping stations.

As generally dry weather prevailed during January, levels were raised slightly in both ponds, reducing pumping requirements and hence additional power usage. Manual control of water levels was engaged during the three notable storms Dudley, Eunice and Franklin during mid-February, as the storm force wind associated with them created an artificial gradient throughout the system which would have triggered additional pumps to be called to run. Fortunately, the most severe of the conditions were relatively short lived and fully automated control at both stations was resumed as the storms passed over. At the time of reporting, (mid-March), water levels in both ponds have been raised from the winter retention level towards an intermediate spring/summer level. Water resource requirements remain negligible for navigational requirements and nil from the agricultural sector. An

early season Lower Nene abstractors meeting, hosted by the Environment Agency, has been held prior to the main abstraction season commencing. With some minor changes in key role staffing at the EA and AW this season, prospects for water availability seem encouraging at this time.

Banks and Channel Maintenance Dredging and Bank Raising

Well Creek - Bank Subsidence – the affected bank from Church Bridge, Upwell to the British Legion Footbridge remains in an unsatisfactory condition and reports of more recent bank subsidence along the same reach have been received. A site inspection revealed that the bank condition is in a deteriorating state. However, a representative from Highways, who attended a recent meeting with the Parish Council and Well Creek Trust to discuss other improvements within the village, advised that he is also working on proposals for the affected site. Although there has been no final proposal to date, it may be taken as a positive move towards the recognition of the problem.

Bank Seepage – with a general reduced demand from abstractors last season, the Bevills Leam pond was maintained at a level slightly below maximum summer retention level, and no further bank seepage has been reported.

Herbicide Trials – no further information has been received. Glyphosate remains the only herbicide currently licenced and approved for use in aquatic situations at this time.

Navigation – navigation movements within the MLC system last year appeared to continue to be affected by the COVID-19 pandemic, however it was promising to see numbers improve as compared to the previous year when restrictions were at their highest. It is now expected that numbers of boat movements will quickly return to pre-pandemic levels.

Early season weed growth last season throughout the system was minimal. As warmer weather and hence water temperatures prevailed through the second half of June and into July, the Commissioners' weed boats were kept busy clearing the weed mass from channels on a "worst-affected" priority basis to keep navigation clear.

Fly-tipping – continues to affect the MLC and the constituent IDBs with several cases of household waste, building materials and waste from the manufacturing of illegal drugs, being dumped in drains. Good working relations continue with FDC removing and clearing fly tipped rubbish as soon as possible.

Ralstonia solanacearum in watercourses - no further official updates have been received from defra/APHA during the reporting period. It now seems likely that the current restrictions on designated watercourses within the Commissioners' and one IDB system will remain in place for the foreseeable future. It is understood the APHA national survey of watercourses continued locally, albeit outside of the Commissioners' catchment area.

Mechanical & Electrical Engineering Department

Along with MLC work, plant repairs and maintenance of IDB pumping plant have been completed during the period.

Middle Level Strategic Improvement Scheme

This is covered earlier in the report.

Water Resources and Control of Water Levels

Rainfall – mean rainfall over the area for the twelve-month reporting period was 470.6mm which is 114.6mm less than the standard average. The first six-month reporting period recorded 253.7mm which was 46.7mm less than the standard average.

Following an exceptionally dry April, May was wetter than normal, with an average of 80mm, 171% of the LTA (Long Term Average) across East Anglia as a whole. June followed with an average 62mm of rain, normal for this time of year and well received during the irrigation season. Moving into July, storms in the first and last weeks of the month produced an average 59mm of rainfall, typical for July weather, equating to 117% of the LTA. August had below normal rainfall with 33mm across East Anglia and any showers remained very isolated. The dry weather from August, continued into the beginning of September, however rainfall events at the end of the month resulted in an average of 48mm of rainfall, classified as normal for the time of year and 95% of the LTA.

October was generally wetter than average with 67mm of rainfall recorded in the Fenland area (145% LTA). Conversely, November proved to be a notably dry month, very little rain fell in the first three weeks and the majority of the 28mm fell during the last week of the month. An average of 68mm of rain fell during December. This equates to a slightly above average rainfall total of 123%. January 2022 was an exceptionally dry month with an average of just 17mm of rain (34%LTA) and was recorded as the fifth driest January on record for East Anglia. In contrast February was wetter than average, receiving 65mm of rainfall (177% LTA), February 2022 has been recorded as the fourteenth wettest in East Anglia. March rainfall was slightly below average with 80% LTA in the Fenland catchment area.

Soil Moisture Deficit (SMD) – with exceptionally dry weather in April 2021 the SMD increased over the month to a notably high 56mm. This was followed by unsettled weather in May, decreasing the SMD to begin with, but ending the month back up at 55mm. The first two weeks of June were warm and dry, lifting the SMD to 90mm. This then reduced down to 76mm by the end of the month, with isolated showers and lower temperatures. The isolated storms and showers continued into July, decreasing the SMD further in localised areas but then rapidly increasing to reach a value of 95mm by the end of the month. The SMD continued to increase throughout the month of August, albeit with a slight decrease in the second week in response to the rainfall. By the end of the month the SMD value had reached 106mm, which is classified as normal for this time of year. The SMD varied slightly across September and began to decrease towards the end of the month in response to the isolated showers experienced across East Anglia, dropping to an average of 96mm.

SMD values decreased during October as expected, with the above average rainfall totals. A month end value of 80mm was recorded in the Fenland area. Despite low levels of rainfall during November a continued decrease in values was observed, with a month end total of 61mm. This trend continued through December when the month end value of 22mm was recorded. Although January was considered a ‘very dry’ month in rainfall terms, a combination of low temperatures and low evapotranspiration led to a slight SMD reduction to 14mm by the month end. February’s notable rainfall and storm events saw SMD totals drop to 7mm by the end of the month. SMD values rose steadily throughout March ending the month at a value of 25mm.

Water Levels (Main System)

Spring/Summer 2021

Water levels within the MLC system during the early season were maintained by automated pumping to pre-set parameters in both the Bevills Leam and St Germans ponds, whilst water abstraction requirements remained negligible. Water intake through Stanground Lock was gradually increased during May 2021 to meet a steady water resource demand. Text messages, advising IDBs to ensure they considered their water resource requirements, were sent out to make use of the available water. With healthy flows within the EA lower Nene throughout the irrigation season rationing back was not required, and the EA managed to maintain a flow to tide at all times, allowing MLC to abstract as much as desired. Despite a dry start to the season the demand within the MLC catchment was insignificant due to the regular isolated showers halting the need for irrigation across the majority of the district.

Although the rainfall provided a welcome respite for water abstractors, it required reactive pumping at St Germans and Bevills Leam Pumping Stations to maintain summer retention levels.

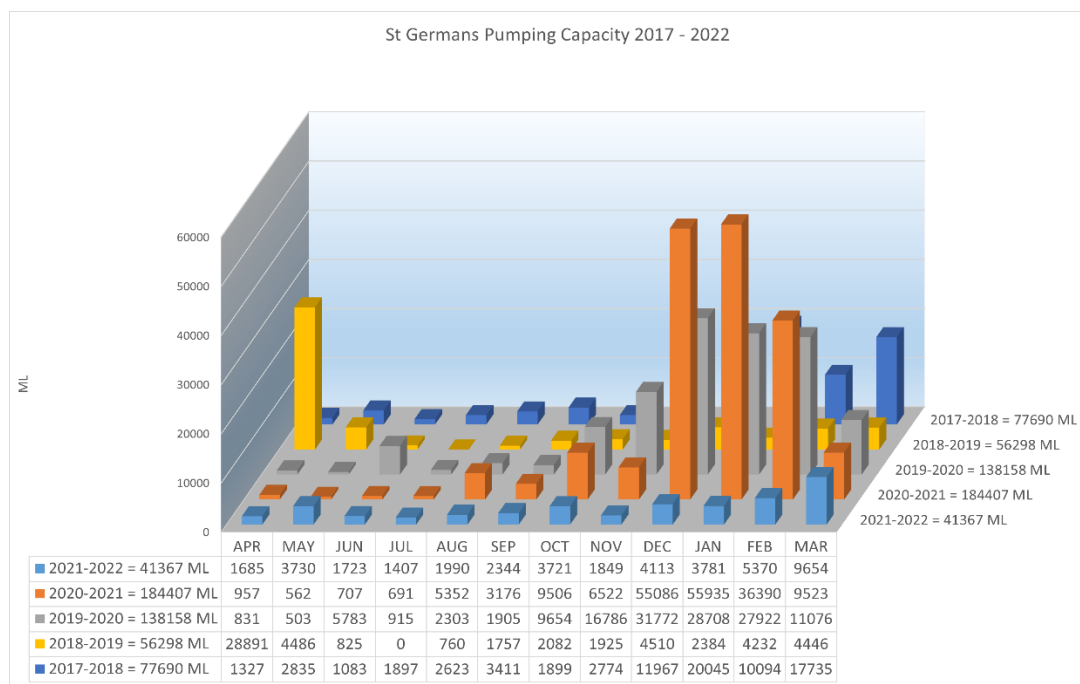
Autumn/Winter 2021/22

Reactive pumping then continued throughout the autumn and winter months as might be anticipated for this time of the season. In general terms the autumn and winter pumping season has been unexceptional in contrast to the previous winter's numerous significant rainfall events. The exception to this was during the well-publicised February storms, that required manual intervention of water level control within the Middle Level system to prevent over-pumping occurring as levels were held artificially high at both Bevills Leam and St Germans pumping stations by the prevailing south westerly storm force winds during the peak of the storms. Automated control of both pumping stations was resumed as soon as the worst of the weather had passed over. Water levels within the Middle Level system have been incrementally raised during March as settled and generally dry conditions prevailed.

Water Levels (Well Creek) – water levels were maintained in Well Creek by pumping water into it from the Main Drain at the Aqueduct to pre-set parameters. The electric pump has operated without fault during the reporting period. Xylem telemetry was fitted and commissioned in December which gives quick access to levels, rain fall, setpoints and pump data.

Pumping – During the twelve-month period 41,368 and 8,106 megalitres of water were pumped at St Germans and Bevills Leam respectively. During the six-month period April to September 12,880 and 3,333 megalitres of water were pumped at St Germans and Bevills Leam respectively; during October to March 28,488 and 4859 megalitres of water were pumped at St Germans and Bevills Leam respectively.

Pumping during April to September was very even each month and considered average when compared to other years. Pumping from October to March was very low and the annual pumping at St Germans was the lowest in the last five years.



Maintenance Work

St Germans Pumping Station – as previously highlighted faults are becoming more regular as the Station ages. The following is an overview of the significant issues and the actions taken to resolve them during the period.

Pump 6 inverter still trips intermittently on start-up and it is strongly believed the problem is the same as previously identified on No 5 inverter.

We have been working with Sentridge Controls, to identify and eliminate this problem and review spares stocked, to aid fault finding and repair of these inverters.

On the 17th & 18th August both SCADA PCs were replaced and the latest operating software installed. Since this time the new hardware and software have operated without issue and there is no reason to suggest they will not continue to do so for at least another 10 years.

During the summer of 2021 the elver pass pipework became increasingly blocked with zebra mussels and together with a pump failure it was necessary to shut the system down in August. The downtime that followed has resulted in the mussels expiring, allowing the pipework to be flushed before re-commissioning of the system in time for the main immigration of elvers in October.

The number of issues relating to the CCTV system at St Germans had become increasingly significant and in this period a new digital recorder had to be fitted after a complete failure. The system would possibly benefit from a more extensive upgrade this year.

Members are asked to approve the upgrade/replacement of the CCTV system.

The plans to inspect the pump impellers and wear rings had to be postponed again last summer as an initial survey showed around 600mm of silt build up in each of the intakes and over the stop log grooves, making it difficult to dewater the intakes. An assessment of the type of silt will be made to determine if it can be disturbed and fed through the pumps. If this is deemed too much of a risk, specialist contractors (suction dredging pumps) will have to be sought to remove the silt to enable the stop logs to be installed. It is planned to inspect at least one pump this summer.

It should be noted that over the years the vibration recorded by the pumps' bottom bearings sensors has increased significantly when pumps are operating with a low suction level (below 99.00). It is believed that this is a direct consequence of the silt build up in the intakes referred to above and not a sign of bearing wear. In order to ensure pumps do not shut down, the warning and shut down vibration levels have been raised, but further increasing of the allowable vibration levels should only be done with extreme caution.

At times of high rainfall the Station relies heavily on level information from Bodsey Bridge and increasingly over the last 6 months the communication between St Germans and Bodsey has become less reliable. This happened before, in 2018, and at that time the software on the routers at St Germans and Bodsey was updated to overcome what was believed to be issues with ever changing broadband protocols used by British Telecom. These industrial routers were obsolete and in order to resolve the ongoing issues they were replaced with new units in November 2021. The broadband line at Bodsey was also causing problems with signal drop outs which was rectified by BT on 17th November 2021. Xylem Telemetry was additionally installed at Bodsey during November which gives quick access to view levels.

Bevills Leam Pumping Station - as is the norm for summer periods, the Station did minimal pumping over the period.

An investigation into why gearbox 4 exhibited low pressure over Christmas 2020/21 was undertaken in the summer. A close examination showed the gears in an excellent condition and that the oil pump had little wear. The gearbox does not have any pressure fed bearings and relies on a spray jet to lubricate the bulk of the gearbox internals. The low pressure was, in the end, found to be a weak pressure relief valve which has now been corrected. The gearbox is now back in service with no apparent damage.

The re-engineered weed screen cleaner drive wheels were fitted in August 2021 and, so far, appear to be a big improvement. In an attempt to limit the wear on the cleaner further plans are being made to modify the weed screen cleaner programme to clean only the bays which are being used, as opposed to the current regime where the whole screen is cleaned regardless of how many pumps are running. Notwithstanding these improvements the Board may still wish to consider having a duel raker arrangement in the long-term, as is the case at St Germans. The controller for the weed screen is old and may need to be upgraded to allow for the program to be changed to allow for single bay cleaning.

A new maintenance and inspection regime was introduced at the Station from April 2021 and the benefits have already become apparent. In addition to this, a thorough review of technical drawings was undertaken and a properly bound full set of current drawings now resides at the Station.

As part of the new arrangements the Station's domestic electrical system was reviewed (plug sockets etc) and this was then significantly upgraded removing the need for extension leads which were being used to power most minor pieces of equipment.

The old Oriel telemetry system was removed from the Station on the 15th September 2021. The Station became operational again on local level control on the 18th September. An attempt to commission the Station on the new Xylem telemetry was made on the 25th September however there were a number of significant issues with multiple pumps trying to start at the same time and the GSM signal continually dropping out that precluded this. Xylem then returned and made modifications which addressed the issues.

The controls for the diesel pumps have been reviewed and modified to remove old redundant components and ensure drawings are accurate. Timers have been installed to stagger the block heaters during a power cut to allow the auxiliary generator to start with a lower load.

Control Sluice: On the 19th April 2021 the old Oriel telemetry was removed from site and the new Xylem telemetry installed and commissioned. The new telemetry has the same functionality as the old, ie it displays and records historical trends of rainfall and water levels up and down stream of the gate as well as providing remote control of the sluice gates. There were some initial issues with remote control and limit switches being unreliable which will be rectified this summer.

Main Drain/Station Intake and Surrounds:

Bed Level – no dredging or re-profiling has been required and none other than referred to in section 10.1 is planned for at least the next few years.

Grass Cutting - Kew Grass Care continued to provide grass mowing services at St Germans Pumping Station surrounds, within an extended return period as previously reported. The contract service level and cost benefits were appraised again at the end of the 2020 mowing season, and the contract was renewed for the 2021 season on favourable terms. As Kew have proved their reliability and good service levels in previous seasons, they have been invited to provide a quotation to undertake the grass mowing contract again in the 2022 season.

Tree Planting Scheme – the tree planted areas continued to proliferate last season.

The EA remit of planting new trees and hedges when mature trees and bushes have to be removed or cut from EA watercourses looks set to continue, and we have indicated that we are happy to assist by taking and planting tree whips.

Approximately 4500 whips were supplied by the EA and have been planted at St Germans Pumping Station surrounds and at the Commissioner's Office and Depot site at Whittlesey Road, March. The planting stock was provided free of charge by the EA.

Mullicourt Bridge - a Norfolk County Highway inspection has recently been undertaken, and a conditional report has been received by the Commissioners. It is envisaged further consultation with

the County Highways Bridge Engineers will be required to ascertain the extent of remedial repair works and anticipated time frame.

Tin Dump Culvert – to address the long-standing issues at this site it has been agreed that an automated weed screen cleaner should be installed. However, due to ongoing issues with material availability and a reduced number of manufacturers of weed screen cleaners, the most up to date estimates far exceed the original approved budget of around £160-170K. It was proposed that the land is purchased, electricity supply connection and all civil works were to be carried out last year, with manual cleaning of the screen being carried out until an automated cleaner is installed (approximate cost for a cleaner is now in excess of £150K). Delays to land purchase have set project commencement back a year, hence funds set aside for the first phase have been rolled over into the 2022/23 year.

Navigation Structures & Abandoned Craft

Salter's Lode Lock – a pre-planned navigation closure of the Lock was arranged for mid-January to allow for remedial repairs to the guillotine door guides and seals. The works required a dive team and underwater working to affect the necessary repairs. The works were completed successfully although they did over run the original timescale as the divers had problems removing and refitting the seal bolts below the waterline. Plans are in place to install buffers either side of the seals so that boats are not at risk of tearing the seals when moving through the Lock.

Stanground Lock – the downstream lock gates will require refurbishment soon. Works will be programmed into a strategic programme of lock gate refurbishment/replacement at this and other MLC maintained locks.

Horsey Toll Sluice – in view of the proximity of the gas main to the existing gate a decision has been taken to re-site the structure further downstream, with works now planned to take place in 2023/24, subject to the budget for this work being approved at that time.

Marmont Priory Lock – following the repair works to the damaged hydraulic paddle actuators, several other issues were identified on the hydraulic slackers attached to the timber V doors. A navigation closure was planned and implemented at the end of January 2022. This allowed for the Lock to be dewatered and remedial works carried out to the problematic slackers on both the up and downstream gates. It was noted during closer inspection of the timber downstream gates that their condition is poor and it is suggested their replacement should be programmed for the next financial year to ensure the Lock remains operable. The opportunity was taken to board over the existing timbers of the upstream gates to prevent the excessive water leakage which had been occurring. Quotations have been sought for replacement of the downstream timber doors by two local firms, Martin Childs Ltd and Cobra Engineering. The latter firm has been asked to provide a comparable quote for replacement doors fabricated in steel.

Ashline Lock – remedial lock gate repair works have been undertaken during January in an attempt to prevent water leakage through the downstream end wooden gates. Marine plywood has been fixed to the door, effectively 'sandwiching' the existing timber frame and covering the timber carcassing to reduce water losses. The works have hopefully bought some time for pre-planning and budgeting for a strategic programme of lock gate replacements, which will be required in the near future. The opportunity was taken while the Lock was dewatered to undertake servicing and repair works to the upstream gate hydraulic actuators which had recently caused several issues for navigators using the Lock.

Cardea Site SuDS adoption – this is covered earlier in the report.

Weed and Grass Control on Banks & Channels

Rigid Hornwort – infestations of this weed were evident throughout the system again last season. The Commissioners' weed lifting boats were kept busy removing the weed from channels as part of the annual cutting programme. As Rigid Hornwort starts to die back it detaches from the channel bed and the consequential rafts of semi-buoyant vegetation were evident within the MLC system. As pumping operations at St Germans and Bevills Leam started to increase in frequency during the autumn this drew the weed rafts to the weed screen cleaners, where they were removed from the associated watercourses and dealt with accordingly.

Azolla – no significant infestations of the weed were noted during the summer months last year.

Reed/Lily/Drain Bed Spraying – emergent weed treatment programmes resumed last year following the government's gradual relaxation of COVID-19 restrictions. Ideal growing conditions and the previous postponement of herbicide applications in the previous year led to dense stands of reeds evident along the majority of MLC banks. Channels treated at the beginning of the spray season showed visual signs of herbicide induced senescence, with a definitive notable difference between treated and untreated sections.

Weed-cutting (boats) – following a late start last season, due to cold water temperatures, aquatic vegetation soon caught up keeping the cutting team busy with the emphasis on maintaining the navigation link route. Despite an exceptional year for weed growth the move towards the drag knife type cutters in 2019 has definitely proven to be beneficial within the deeper channels where the density of the weed growth appeared to have reduced last season. Channel cutting was completed by mid-October, with attention being turned to the marginal reed cutting, which was completed during February.

Flail Mowing – the dense lower bank grass sward resulted in the mowing team making steady progress throughout the autumn months. The Spearhead SPV2 operated faultlessly last season with only routine maintenance required. The 2017 Massey/Herder suffered from minor electrical and over-heating issues throughout the season and the MLC fitter worked with Herder to resolve these problems. The previously reported intermittent 'rattling' noise on the 2010 Massey engine deteriorated further, to a point where it became constant. The decision was made to stand the machine down to prevent possible unrepairable damage to the engine which would greatly reduce its resale value.

Trees, Bushes and Hedge planting - reactive tree works have been undertaken during the reporting period as required. A large wind-blown willow blocking navigation on the Old River Nene, west of March Town Centre was removed. A small wind-blown elder bush was also removed from Benwick village to allow navigation to continue. Following recent discussions with the EA, a significant number of trees and hedge planting material was secured free of charge. The opportunity was taken to extend the hedge planting programme at both St Germans Pumping Station surrounds with the remaining stock being planted at the Commissioners' March office and depot surrounds.

Maintenance Works and Machine Cleansing - Banks and Channels

Spring/Summer 2021

Catchwater Drain – this season's phased programme of machine cleansing works commenced in July, extending from Manor Farm Bridge to the South Drain junction with Great Raveley, on the south east corner of the Woodwalton Nature reserve. The works were completed using a contractor's 18 metre, long reach excavator.

Pig Water Drain – a contractor's long reach machine was deployed on two separate occasions during the summer last year to clear submerged weed and aquatic vegetation from the Pig Water Drain between Farcet Overspill and Yaxley Overspill. The weed clearance works were required to ensure adequate water conveyance was maintained along the watercourse - the Pig Water Drain being the

transfer link between Stanground Lock intake and Bevills Leam pond during the summer abstraction season.

Autumn /Winter 2021 - 22

Pigwater Drain - it was necessary to engage a contractor's long reach excavator for a third round, to remove a late season growth of Rigid Hornwort, combined with dense infestation of filamentous algae (Cott) between Farcet Overspill and Yaxley Overspill.

Proposed Phase VII Well Creek Dredging - the Board previously advised that due to other pressing works it wished to delay the undertaking of a further reach of dredging of Well Creek from Walsingham Fen Bridge towards Nordelph, (approximately 3km), during the 2021/22 financial year. However, as the seventh phase of Well Creek dredging remained 'shovel ready' and cost effective, and with a budget underspend the most likely scenario, the Board made the decision at its November meeting to proceed with the works, which commenced in early March. Whilst the majority of the reach is afforded bankside spoil disposal, there is an element of transporting material away from site involved. At the time of reporting, the dredging works are progressing well and the seventh phase of Well Creek dredging is almost complete. The combined total length of dredging completed within the seven phases is 8475m, which equates to approximately 70% of the total length of Well Creek where dredging was required.



Well Creek Phase VII Dredging Works – Nordelph Village to Mullicourt Aqueduct

Future Dredging Works, Old River Nene, (March Town Centre) – these works will cost well in excess of £200K and whilst desirable have yet to be planned or budgeted for. Royal Smals, the Dutch contractor who provided the initial estimate for the works, continues to stay in contact and would be interested to provide a further quotation in the future.

Bank Slips and Seepage

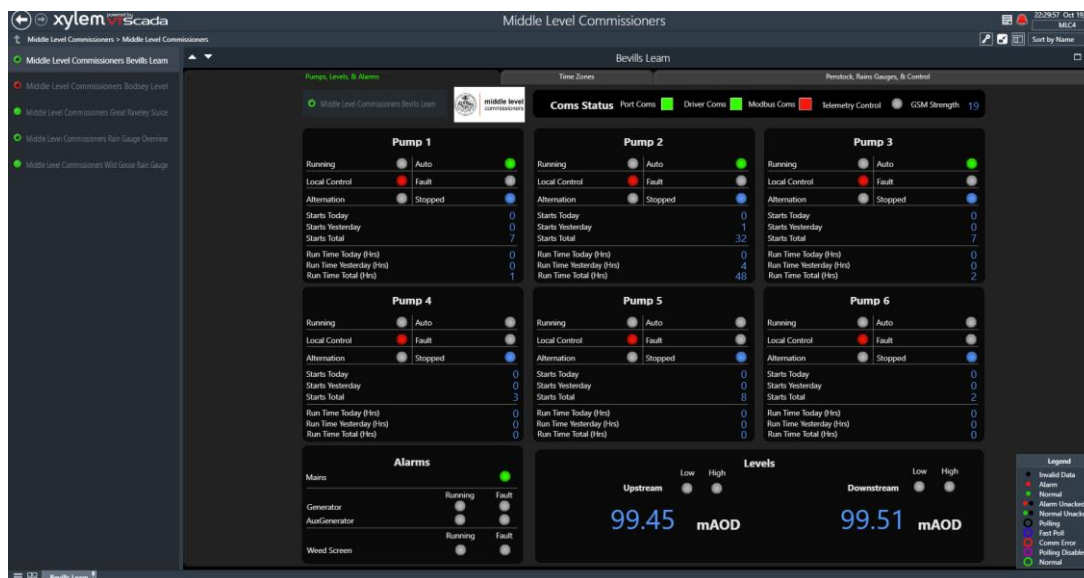
Catchwater Drain, A1 Culvert to Cooks Lane - following the Board's approval to implement the second phase of revetment works along the Catchwater Drain at the April meeting, Notices of Entry were posted to affected landowners and materials ordered to undertake the second phase of the project. As with the previous year's revetment works a contractor was utilised to undertake provision of both plant/machinery and labour to provide the most cost-efficient option to deliver the bank repair works.

The third phase of Catchwater Drain bank revetment and berm formation works is currently at the planning stage. It is envisaged land purchasing agreements will be secured allowing arrangements for this phase to commence post-harvest this year.

Telemetry

Significant progress has been made with the move from Oriel to Xylem, with five sites operational and over 40 (including IDB stations linked with the grant bid) in the planning phase. The next phase

of 10 outstations is currently being programmed and they will be installed very soon. The old Oriel system has now been stood down. A screen grab of the Bevills Leam telemetry screen follows. As the system is web based all that is required to view the latest position is a computer, a username and a password. This is a vast improvement upon the previous arrangements.



Property

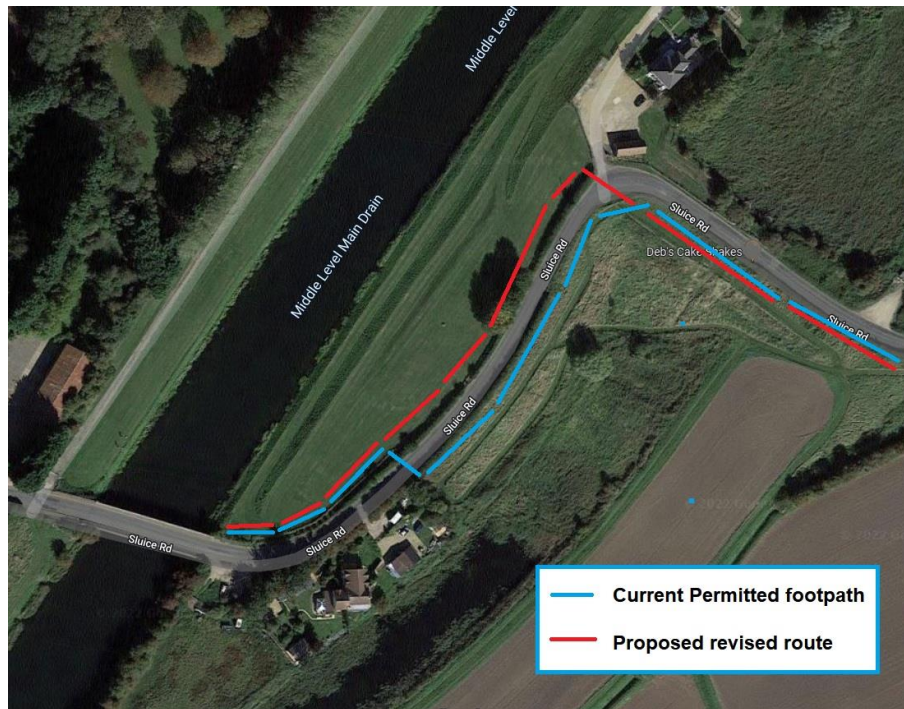
Offices – the offices operated in as COVID safe a manner as possible whilst retaining operational effectiveness throughout the period. Most constraints have now been removed in accordance with government guidelines.

Electrical Testing – the delayed Portable Appliance Testing at the Depot, Office, St Germans, Bevills Leam and Control Sluice sites was completed on 19th/20th October.



Three Holes – with the approval of the Executive Committee an outline planning application was prepared for land owned by the MLC at Three Holes. **The Commissioners are asked if successful if they would support the sale of this land?**

St Germans Permissive Footpath – the Wiggenhall St Germans Parish Council have asked if it would be possible to re-route the permissive footpath for safety reasons (see following aerial view). The view is that with the current crossing point it is difficult to see oncoming traffic rounding the bend which is a particular problem for mothers with small children. The proposed route has received no objections from the Operations Department and the Parish Council have offered to provide any materials needed to form the base of the path. This new path would remain permissive and the Commissioners could rescind permission to use it at any time in the future should they wish to do so.



Plant & Vehicles

General – the SPV2 continues to operate with little fault, confirming the correct decision was made to replace the SPV3 earlier than its anticipated 10-year working life.



2022 New Holland T7.230 Tractor Fitted with Herder Cavalier Flail and Votex Top Mower

The replacement tractor and herder mower have now been delivered (see photograph left), and put to work on the first round Health & Safety cut. The 2010 Massey Ferguson 6495 with Herder Grenadier mower it replaces have been sold on eBay.

The 2017 Massey Ferguson 7720 tractor and Herder Cavalier mid-mounted mower have completed their fifth working season. Other than intermittent niggling issues with the mower's electronic controls, and overheating issues with the tractor during the warmest summer conditions, the combined unit continues to perform generally satisfactorily.

Vehicles – a small Peugeot van was purchased to replace the Ford Transit Connect within the workforce. The old Connect van is being retained for use by the Electrical Engineer until a vehicle review has been carried out in the second quarter of 2022.

Weed Boats – continue to operate effectively and improvements are evident following the introduction of the trailing blade type Conver boats back in 2019. A wider weed collecting rake has been fabricated in-house by the Commissioners' Fitter during the reporting period, and this will be

fitted on the older of the two Conver boats when the bespoke front mounted weed cutting basket is not required. This should assist the productivity of the weed boat cutting and clearing team.

Asset Records

The Commissioners' planned systematic closure of historic non-operational penetrations through their maintained banks, which in some cases are in poor condition, continues; but as previously reported take up is slower paced than desired.

Improvements & Surveys

River Works – the extent of bank raising works is described elsewhere in this report.

Bevills Leam Pumping Station – the priority for this Station is to develop a business case to support comprehensive refurbishment of this 40-year-old Pumping Station.

Environment Agency (EA) Studies/Works/Plans

Ouse Washes Reservoir Works – an update is included in Appendix 8.

Cranbrook Drain/Counter Drain (Welches Dam Pumping Station) Strategy Study – a project board and steering group have been set up. The MLC have representation on both.

Stakeholder Representation and/or Consultation - is maintained in respect of the following:

- i. Cambridgeshire and Peterborough Local Flood Warning Planning Group – Chief Executive
- ii. Great Fen Steering Committee – Chief Executive
- iii. British Standards Institute CB501 – Chief Executive representing ADA
- iv. EA National Asset Management Technical Advisory Group (AMTAG) – Chief Executive representing ADA
- v. CIWEM (Chartered Institute for Water and Environmental Management) – FCERM Group – Chief Executive
- vi. Huntingdonshire Local Plan – Planning Engineer
- vii. Fenland Local Plan SFRA & WCS – Planning Engineer
- viii. Cambridgeshire & Peterborough Flood & Water Management Partnership – Planning Engineer
- ix. KL&WN Local Plan – Planning Engineer
- x. Peterborough Local Plan, SFRA & WCS – Planning Engineer
- xi. South Cambs Local Plan & Integrated Water Management Study (IWMS) – Planning Engineer
- xii. Fenland Developers Forum – Planning Engineer and Chief Executive
- xiii. Fenland Flooding Issues & March Flood Investigation Group – Planning Engineer
- xiv. EA/IDB Eel Liaison Group – Chief Executive
- xv. Cambs ACRE, New Life on the Old West – Conservation Officer
- xvi. Well Creek Trust – Operations Engineer
- xvii. Anglian Waterways Group – Chief Executive
- xviii. NFU Water for Food Group – Chief Executive and Operations Engineer
- xix. Great Fen Hydrology Working Group – Chief Executive [Chair]
- xx. ADA Technical & Environmental Committee – Chief Executive and Conservation Officer
- xxi. ADA Great Ouse Branch – now administered by the MLC – Chief Executive (Secretariat)
- xxii. Lower Nene Water Resources Planning Group WRE – Chief Executive and Operations Engineer

- xxiii. WRE – Chief Executive (non-exec Director)
- xxiv. EA Lower Nene Water Abstractors Group – Operations Engineer
- xxv. NFU – 2020 Irrigation Prospects Meeting – Operations Engineer
- xxvi. Fens Biosphere Bid Steering Group – Chief Executive [Vice Chair]
- xxvii. NFU National Drought Agriculture & Environment Sub Group – Operations Engineer
- xxviii. Great Fen Access Working Group – Operations Engineer
- xxix. FRM for the Fens TAG – Planning Engineer
- xxx. Cranbrook/Counter Drain FRM Strategy – Project Board – Chief Executive
- xxxi. Cranbrook/Counter Drain FRM Strategy – Steering Group – Planning Engineer and Conservation Officer
- xxxii. Cambridgeshire Fens Flood Innovation Board – Planning Engineer
- xxxiii. AINA – Chief Executive (Vice Chairman of this organisation)

Planning

Planning Applications – monitoring of response times for enquiries and issuing of consents continues to be identified as a problem that needs addressing. It is hoped that the proposed changes to the Technical Services department will reduce response times whilst maintaining the required level of checks and balances.

The Right to Connect - during the passage of the Environment Act through the House of Lords an amendment was sought which aimed to minimise the impact of new housing development on levels of local flood risk and the likelihood of storm discharges of untreated sewerage effluent into rivers and coastal waters. It aimed to ensure housing developers design systems according to a hierarchy of drainage options that seek to reduce to a minimum the volume of rainwater entering combined sewerage systems removing the current “right to connect” to public sewers.

As members of the Cambridgeshire and Peterborough Flood and Water Management (FloW) Partnership the Middle Level Commissioners and their associated Boards/Commissioners have been asked to consider taking the opportunity to write to government and voice concerns over the right to connect for new developments and how this is expected to increase risk in the future. The County Council in its role as the LLFA was going to prepare a letter requesting that the right to connect be stopped, or at the very least that a change be considered, but at this time nothing has yet been received for comment.

Members considered this at their November meeting.

Recreation

Navigation – MLC specific navigation matters are covered elsewhere in this report.

Anglian Waterways Group – the Chief Executive attended virtual meetings of this group as and when they occurred.

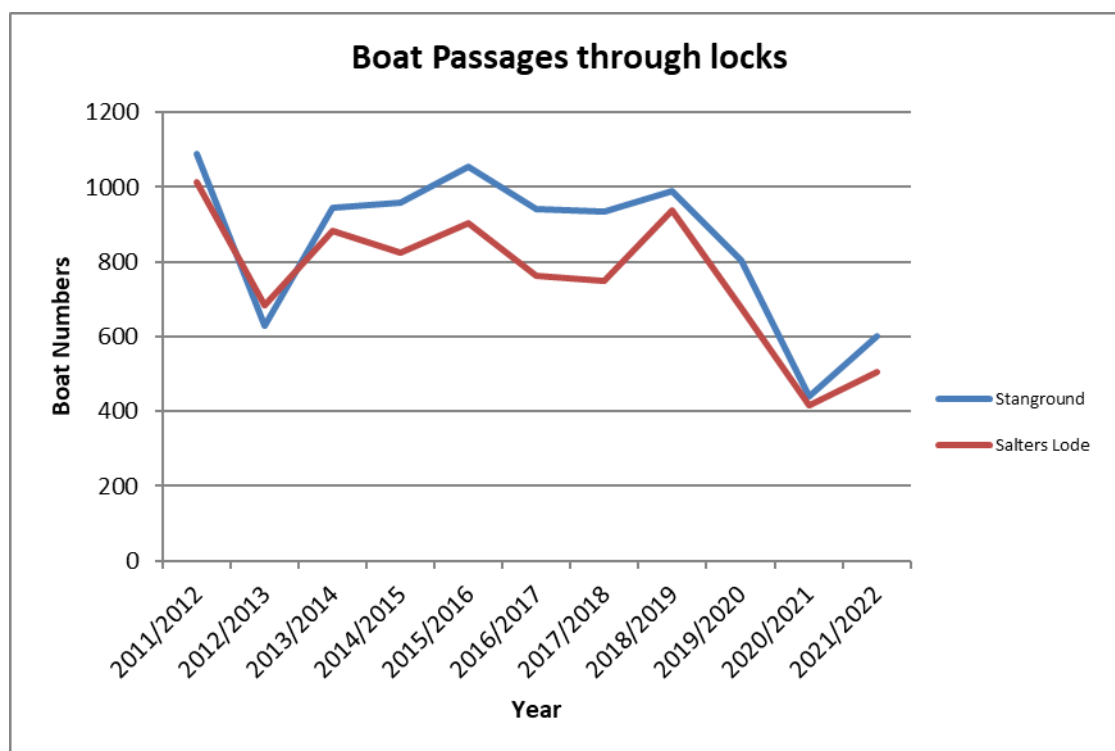
Well Creek Trust Moorings at Salter's Lode – following the Board's approval, the replacement moorings at Salter's Lode, Well Creek, were installed, utilising a steel framework with a fibreglass non slip deck.

Inland Waterways Association (IWA) Volunteering - no further progress has been made with the IWA programme of volunteering during the reporting period, due to COVID-19 restrictions through the period. It is the Commissioners' long-term intention and aspiration to engage and develop ties with volunteer groups as opportunities become available.

Boat Passages - boat movements through Stanground and Salter's Lode Locks were as shown below (figures for the previous year are shown in brackets):

Boat Passages 2021/2022				
Month	Salter's Lode Lock		Stanground Lock	
	In	Out	In	Out
April	22 (0)	18 (0)	22 (0)	31 (0)
May	26 (10)	32 (1)	30 (2)	34 (8)
June	10 (20)	55 (22)	43 (18)	50 (23)
July	29 (50)	62 (55)	50 (52)	55 (56)
August	51 (61)	49 (63)	64 (67)	61 (76)
September	53 (53)	41 (51)	57 (49)	47 (52)
October	16 (11)	15 (10)	21 (16)	15 (15)
November	4 (2)	6 (2)	4 (0)	4 (2)
December	0 (3)	1 (1)	0 (1)	0 (1)
January	0 (0)	0 (0)	0 (0)	1 (1)
February	2 (0)	1 (0)	1 (0)	2 (0)
March	4 (0)	7 (0)	1 (0)	10 (0)
TOTAL	217 (210)	287 (205)	293 (205)	310 (234)

The COVID Pandemic is still having an impact on boating figures, but as can be seen above and below there is a significant upturn from last year.



Angling

National Fishing Matches – the 2021 National Pike Championship was held on Saturday 6th November on Bevills Leam and the Twenty Foot drain, following the previous year's rescheduling due to COVID-19 restrictions.

Club Reports – no club or match reports have been received during the reporting period.

Middle Level Waterways Users Committee – the Committee met on 15th April 2021 and 21st October 2021. They are due to meet again on 21st April 2022.

Conservation – this is covered in detail in the Conservation Officer's Report.

Environmental & Land Management Scheme (ELMS) Trials – registering the Commissioners' interest in the vacant Bank Lots remains in hand but has been delayed due to a backlog within the land registry office. To apply for ELS or ELMs without the land being registered would be challenging and is not considered worthwhile.

The Commissioners' and local Drainage Boards' Biodiversity Action Plans – the latest wave of guidance from ADA was issued at the end of 2020 and the Conservation Officer has updated plans accordingly.

Conservation Committee – the Committee met on 16th September 2021 and 17th March 2022.

Woodwalton Fen Alternative Storage – following the winter flooding of 2020/21 and the use of Woodwalton Fen for flood storage, Natural England continue to push for a scheme to find alternative flood storage. To assist with this the Chief Engineer has produced a draft letter of invitation to tender for development of a business case to help with the seeking and supporting of a GiA bid. He has also provided a list of who he considers to be the most obvious candidates to obtain quotations from. To progress this a source of funding needed to be found for the consultancy work and this had been left with NE to investigate and report back on. However, most recently following advice from the EA a decision has been made to seek funding for a GiA study which will underpin and significantly reduce the amount of work required to produce a business case. The EA has indicated that £100K of in year funding can be made available and the Chief Engineer will now provide the wording of the invitation to quote for this with a view to going out to tender late spring.

Great Fen General – steering committee meetings are normally held quarterly which the Chief Executive attends. The meetings have been disrupted and less frequent and are currently being held virtually. The main project focus at this time is centred around additional land purchases and wet farming trials which are drawing national attention. However, a return to face-to-face meeting is expected shortly.

Internal Drainage Board Works

Weed Control & Channel Maintenance

Inspections/advice/assistance – Middle Level operatives undertook herbicide applications, on a rechargeable contract basis, to thirteen IDB/DDCs last season.

Maintenance Dredging and Associated Channel Works – work has been organised and co-ordinated in thirteen Board's areas since the April 2021 meeting.

Public Sector Co-operation Agreement (PSCA) Works – following the successful completion of works to EA controlled watercourses in the Swavesey area in the 2020 season, the EA engaged Swavesey IDB and the Commissioners, in joint partnership, to undertake similar works again in 2021. All elements of the pre-programmed schedule of maintenance works within the annual programme, including channel herbicide applications and flail mowing have been completed successfully to EA protocols. In addition to the specified works approximately 60m of timber toe board revetment was installed at two separate sites along the EA controlled Swavesey Drain. This involved an integrated working approach with the EA ecology department, to ensure the safeguarding of the local water vole population. Water vole displacement measures were employed to ensure all works complied with the current wildlife legislation, along with the installation of pre-planted coir rolls to the front of the timber revetment works further enhancing the area as a mitigation for the disturbance created. All works contracted under this PSCA are undertaken on a fully rechargeable basis to the EA. The

EA has invited Swavesey IDB/MLC to provide costings for the 2022 season works. Estimates are in the process of being prepared.

Pumping Station Maintenance

Service Visits – the Commissioners' engineers made 303 visits to IDB pumping installations to carry out routine inspections/maintenance and/or rectify breakdowns.

Other Maintenance Works:

Broadalls Pumping Station (Benwick IDB)	• Pump awaiting installation, works delayed by late harvest and then by high winds, due to be fitted in May.
Burrowmoor Pumping Station (March 3 rd DDC)	• Weed screen cleaner overhauled by Fenflow Ltd.
Cock Fen Pumping Station (Upwell IDB)	• Works started, main contracts placed. Awaiting land ownership to be resolved.
Conington Pumping Station (Conington & Holme IDB)	• Pump construction bolts inspected – badly corroded, replacement delayed due to COVID-19. Awaiting instruction from Chairman. Bolts due to be replaced spring 2022. No prospect of using old station to install new pumps and cost to build new station in the medium term too high for Board to fund.
Finchams Farm (Curf & Wimblington Combined IDB)	• Pump lifted and new bolts fitted.
Glenhouse Pumping Station (Manea & Welney DDC)	• Weed screen cleaner overhauled by Fenflow Ltd.
Latches Fen Pumping Station (March East IDB)	• New diesel engine adaptor plate and drive shaft engineered and fitted.
Middlemoor Pumping Station (Ramsey Fourth IDB)	• New screen installed and new pump commissioned.
New Fen Pumping Station (Ramsey Upwood & Great Raveley IDB)	• Surge chamber subsidence being monitored. The Board's insurance company has declined to cover the subsidence. Investigations completed. Pump refurbished by Avonmouth Engineering Services.
Nordelph Pumping Station (Upwell IDB)	• Metering issues with electricity supplier/UKPN – issue now re-occurred – still ongoing. CT Metering is needed.
Puddock Pumping Station (Warboys Somersham & Pidley IDB)	• Outfall flap valves overhauled.
Sawtry Roughs Pumping Station (Sawtry IDB)	• New control panel installed and commissioned.
South Brink Pumping Station (Waldersey IDB)	• Replacement soft starts completed for pumps 2 & 3. All 3 soft starts now replaced and issue with weed screen cleaner tripping resolved.

Washways Pumping Station (Warboys Somersham & Pidley IDB)	• New gearbox drive shaft and wheels fitted to weed screen cleaner.
White Fen Pumping Station (March West & White Fen IDB)	• Modifications to control panel to alleviate nuisance tripping.
Various IDBs	• Multiple automatic weed screen cleaner repairs - completed • Pumping Station insurance revaluations and asset surveys carried out

Electrical Condition Reporting – re-testing of fixed equipment and remedial works at IDB pumping stations continue as and when required.

Improvement Works

IDB Projects - progress is as follows:

Catchment Improvement Works at A47 (Hundred of Wisbech IDB)	• The Board has employed Iain Downey (the ex MLC Chief Executive) to see if he is able to get some movement on the replacement of a culvert under the A47.
Green Dyke Pumping Station replacement (Ramsey, Upwood and Great Raveley IDB)	• Business case development instructed but EA has advised that scheme cannot be accelerated in GiA terms so further work is currently on hold.
Holly Bank Culvert (Hundred of Wisbech IDB)	• Completed.
Inlet Structures – modifications to inlet structures and access platforms. (Hundred Foot Washes IDB)	• Further phases are expected in future years.
New Fen Pumping Station replacement (Ramsey, Upwood and Great Raveley IDB)	• Scheme under development to address subsidence at the station.
Needham and Laddus culvert replacements	• Scheme designed and tendered, GiA obtained works part completed.
Glen House Electrification	• Scheme designed in the planning stage.
Upwell Structures	• Structures (Bridges and Culverts) requiring refurbishment are being looked at and plans and costings drawn up.

Work organised by the Works Department and carried out by Middle Level Labour - assistance and advice has been given with the following:

Benwick IDB	• Herbicide application to Board's drains • Undertake remedial H&S improvements following Cope inspection • Arrange and oversee machine cleansing works to Board's drains • Clear fly tipped material from Board's Drains • Undertake bank repair/revetment works • Install replacement inlet at Pumping Station • Organise the dewatering of Broadalls pump well to facilitate cleaning
Curf & Wimblington Combined IDB	• Herbicide application to Board's Drains • Arrange and oversee machine cleansing works to Board's drains
March East IDB	• Herbicide application to Board's drains • Arrange and oversee machine cleansing works to Board's drains • Undertake remedial H&S improvements following Cope inspection • Clear fly tipped material from Board's drains
March Fifth DDC	• Herbicide application to Commissioners' drains • Arrange and oversee machine cleansing works to Commissioners' drains
March Sixth DDC	• Herbicide application to Commissioners' drains • Arrange and oversee machine cleansing works to Commissioners' drains
MarchThird DDC	• Herbicide application to Commissioners' drains • Arrange and oversee machine cleansing and bank trimming works to Commissioners' drains • Undertake bank repair/revetment works
March West & White Fen IDB	• Herbicide application to Board's drains • Arrange and oversee machine cleansing works to Board's drains • Undertake remedial H&S improvements following Cope inspection • Undertake bank repair/revetment works • Provide assistance and labour for works to inaccessible drain at Point 106, Turves
Needham & Laddus IDB	• Arrange and oversee machine cleansing
Nightlayers IDB	• Arrange and oversee machine cleansing works to Board's drains • Undertake bank repair/revetment works

Nordelph IDB	• Assist with new weed screen installation
Ransonmoor IDB	• Herbicide application to Board's drains. • Arrange and oversee machine cleansing works to Board's drains. • Remove fly tipped materials from Board's drains • Install protection around AW asset in the Board's drain to prevent damage to pipe work.
Ramsey First (Hollow) IDB	• Herbicide application to Board's drains • Arrange and oversee machine cleansing works to Board's drains
Ramsey, Upwood & Great Raveley IDB	• Undertake remedial H&S improvements following Cope inspection
Sawtry IDB	• Undertake remedial H&S improvements following Cope inspection
Swavesey IDB	• Herbicide application to Board's drains • Arrange and oversee machine cleansing works to Board's Drain • Arrange and oversee PSCA works on EA watercourse in Swavesey on Board's behalf
Waldersey IDB	• Herbicide application to Board's drains • Arrange and oversee machine cleansing works to Board's drains • Remedial works to collapsed arco culvert • Bush cutting and clearance works

Engineering Fees

Fees – the fee outlook for this and the next financial year continues to look to be good with schemes coming forward linked to the new six year spending cycle.

ADA

Meetings - the Chief Executive continues to attend the ADA Technical and Environmental Committee meetings and the Assistant Clerk attends the Policy and Finance meetings. The Chief Executive also continues to represent ADA on the BSi panel and EA/defra – national AMTAG (Asset Management Theme Advisory Group), the NFU Water for Food Group and the board of WRE.

The Annual ADA Conference – the 85th conference will be on the 9th November, venue to be confirmed.

Great Ouse ADA Branch – The AGM was held on 1st March 2022.

EA Sanctioned Project List

A list of the EA Sanctioned Projects 2021/22 –

For the MLC this was revised for the 2021/22 year to £650K for bank raising and £125K to support IDB telemetry installations.

Renewable Power

The MLC pumping stations are now running on green tariffs. The Conservation and Climate Committee asked that the Board consider instigating a Carbon Footprint Audit, prior to developing proposals for measures to reduce or mitigate these impacts. This was approved at the November 2021 meeting and work on this is currently in hand.

J Brown
Jonathan Brown
Chairman

3 October 2022