

Warboys, Somersham & Pidley I.D.B.

Consulting Engineers Report November 21

Pumping Stations

Other than the matters described below, only routine maintenance has been carried out since the last meeting and the pumping plant at each of the stations appears to be in a mechanically and electrically satisfactory condition.

High Fen

Automatic Weedscreen Cleaner, Replacement Weedscreen & Control Equipment (MCC)

The issue with the ultrasonic controller has now been resolved and the cleaner was put into automatic mode in August 2021 with no reported issues to date.

Pumps

The new pump replacing pump 1 was installed as scheduled on Wednesday 12th May and commissioned on Friday 14th May. At the last inspection the new pump (pump 1) was in excellent health and pump 2 was satisfactory with no immediate cause for concern.

Washways

The weed screen cleaner was fitted with a new gearbox drive shaft and wheels in July 2021 and is now working normally.

Puddock

Pump 2 continues to operate with the Moisture Ingress Sensor (MSI) unit defeated and a recent test of the motor windings showed no further deterioration in its insulation resistance.

Both outfall flap valves were repaired on the 15th June 2021 and found to be in a generally good condition, they are expected to last a further 15 years before a major overhaul is required.

Diversion of Fenton Lode/Fillenhams Drain, Chatteris (Dents Diversion)

Unless any items have been identified which require remedial works at this time, the Board is advised that it would be appropriate that a thorough and detailed inspection of the diversion is undertaken in early 2022 to ensure that any slippage in the banks, slip stability or other issues are raised and dealt with whilst there are sufficient funds available before the Agreement and Performance Deed terminates in 2023.

Contact has been re-established with Howes Percival LLP, the solicitors who are dealing with this matter, and discussion concerning the drafting of the notice, to ensure that when it is needed it complies with the requirements of the Agreement and Performance Deed Guidance, has commenced.

Future Fens: Flood Risk Management [previously reported as the Future Fenland Project and Flood Risk Management (FRM) for the Fens]

The Middle Level Commissioners' Planning Engineer has dealt with relevant issues and represented both the Middle Level Commissioners and their associated Boards/Commissioners in respect of this project since the last Board Meeting. He also chaired the virtual meeting of the Future Fens Great Ouse Technical Group held at the end of April.

A. Virtual Meeting

Tactical Plans

There are currently 70 projects that sit within the tactical plans. As the refresh period for the next 6 year programme is imminent it will be necessary to check the tactical plans against the submissions that are received.

Discussion with a main supplier has commenced in respect of a mapper tool that partners can all access and use but it was found that the level of detail at this stage was too great. The Great Ouse PSO team therefore developed a tool in-house and it is planned that this online tool is updated every year in line with every refresh process and changes to the tactical plans.

Work on the tactical plans for the Lincs and Northants area has commenced. There are five Fenland catchments: Ancholme Humber Fenland Area, East Coast Fenland Area, Witham and South Forty Foot Drain catchment, Welland Fenland Area and Nene Fenland Area which sit within three different PSO teams each with varying degrees of strategy. Catchments closest to the Great Ouse are now working along very similar lines to the Great Ouse approach. The Nene area has a number of strategies in development: Tidal River Nene Strategy Review, Nene Washes Water Level Management Plan, Structures of the Navigable Nene Strategy. The Welland is not as well developed and uses more of an individual approach for specific assets.

Economic data from the Tidal River Nene Strategy refresh is currently awaited. Work is being progressed by consultant Arup and is almost complete.

The Steeping Area where the breach on the Wainfleet Relief channel occurred in 2019 was discussed. There is an action plan in place and some capital projects which will be progressed but on a more strategic approach.

Carbon Baseline Report

The carbon baseline report is being undertaken to provide an understanding of the carbon emissions in operating and maintaining all of the FCRM assets across the Great Ouse Fens.

A carbon figure has been allocated to each asset and maintaining the standard of service will generate about 3000 tonnes of carbon a year.

An evaluation of the carbon sequestration of peat and other soil types across the Fens has been completed.

Modelling Inception

Consultant AECOM has been commissioned to undertake the inception stage work. All the data has been packaged and is now being analysed. To help with the main stage and the options in phase 2 a gap analysis will be undertaken to determine if the models need to be updated or a new model developed.

The gauging and survey review highlighted areas that need further survey and other gauging information before the main stage of the modelling inception is undertaken.

Future Fens Adaptation Agenda

The water resource agenda is advancing with the EA, Water Resources East (WRE) and Anglian Water Services Ltd (AWSL) discussing efficiencies to be exploited.

Baseline Report Engagement

ADA

ADA are hosting a webpage for the Baseline Report and an article was included in the summer edition of the ADA Gazette. The webpage and Gazette article can be viewed at [Future Fens - Flood Risk Management - Association of Drainage Authorities \(ada.org.uk\)](#) and [ADA Gazette Summer 2021 \(flickread.com\)](#) respectively

Social Media

A Future Fens twitter account has been created (@FutureFens) [Future Fens \(@FutureFens\) / Twitter](#). All partners are encouraged to use this account which is to be used by collaborative RMAs and across the Fens and not just within the Great Ouse.

Additional Engagement/Products for the Launch

Partners were requested to consider their own engagement around the Baseline Report either internally within their organisation or within close networks. It is hoped that the Middle Level Commissioners will be organising some engagement events in the near future.

A webinar with a Q&A session held monthly/bi-monthly, which members of the public people could attend, was proposed as this may be a better way to manage time and attendance at multiple meetings across the catchment. A recorded Q&A would be beneficial to enable the public to access a podcast later on.

NB: A request from the group for some training on partnership funding and economics training is on hold but has not been forgotten.

The next virtual meeting of the Technical Group has been arranged for the end of October.

B. Baseline Report

Just prior to the publication of the Baseline Report letters were sent to all MPs that cover the Great Ouse Fens area together with the Mayor of the Cambridgeshire and Peterborough Combined Authority, when elected; and the Chairpersons of the Boards administered by the Commissioners were sent a letter from Paul Burrows, the Environment Agency's Flood & Coastal Risk Manager for East Anglia Area (Great Ouse catchment including North West Norfolk coast), advising them of the position and thanking them for their help and support during its production.

The Baseline Report and Summary Document have been published.

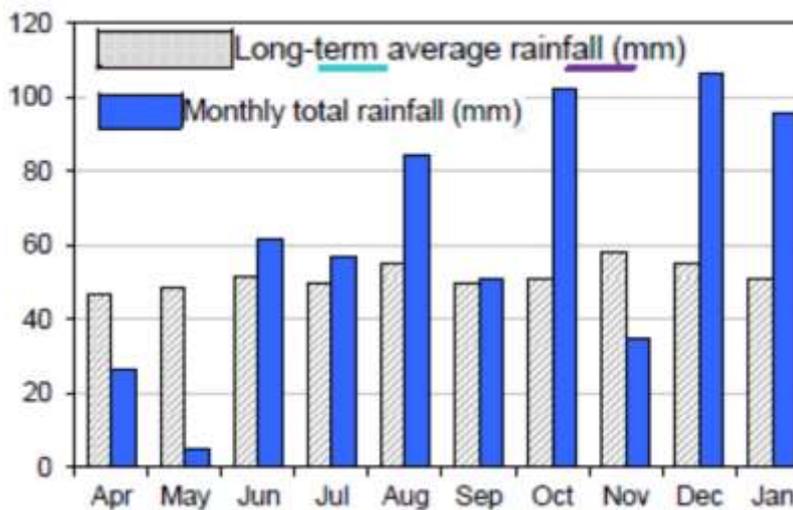
More recently Cambridgeshire ACRE has facilitated a series of three online public seminars to help raise awareness and understanding of the Baseline Report. It is understood that the events have been well attended with a mix of parish councils, businesses, consultancies, statutory organisations, other local authorities and IDBs in attendance.

High Rainfall Event and Flooding Incident December 2020

Note. The Soil Moisture Deficit (SMD), the difference between the amount of water actually in the soil and the amount of water the soil can hold, expressed in depth of water (mm), provides an indication of how saturated the ground is. A low SMD means heavy rainfall is less likely to infiltrate the ground and more likely to run off into watercourses.

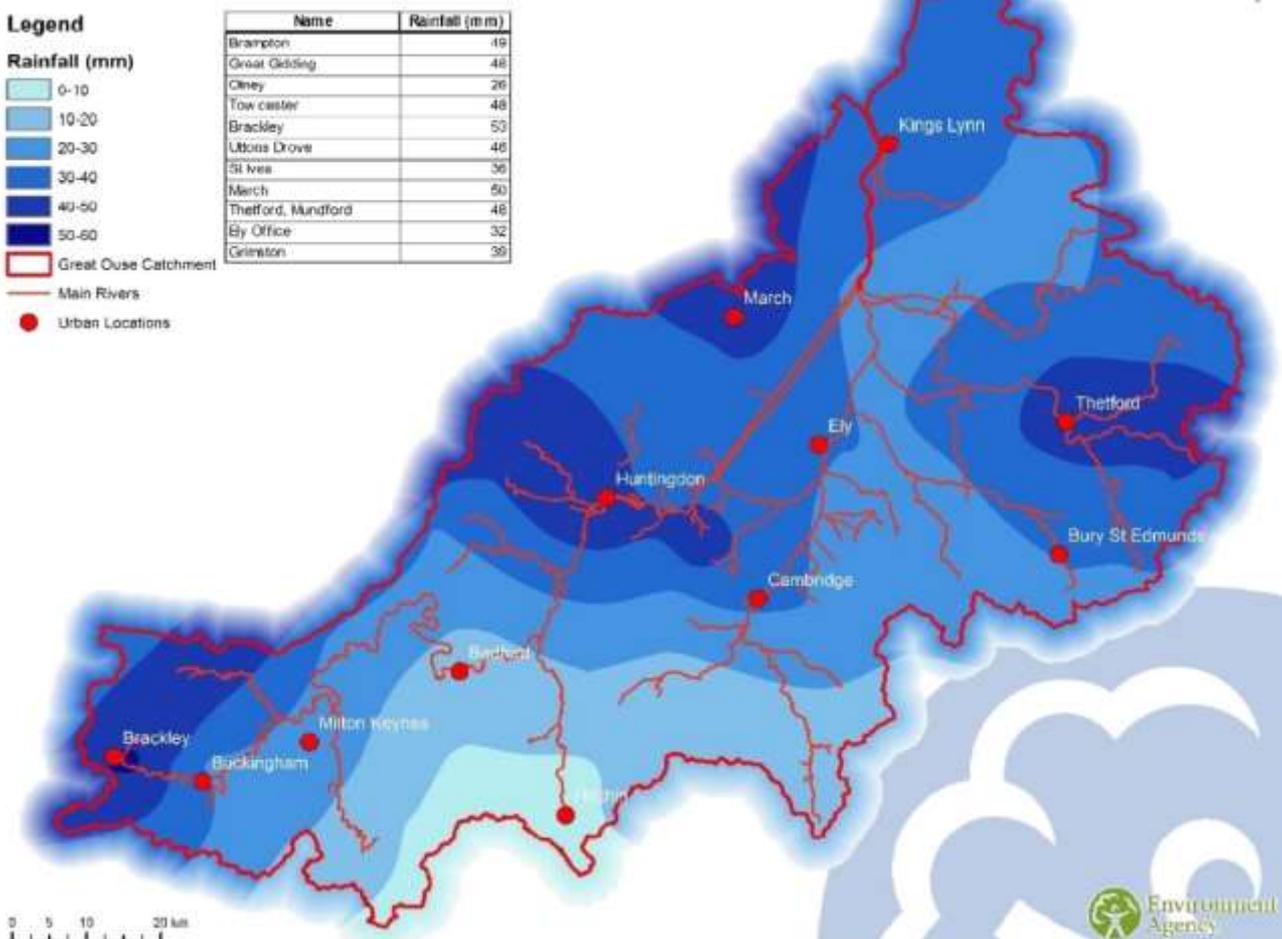
During 2020 the rainfall across the area was 115% of the Long Term Average (LTA) rainfall. The LTA is the arithmetic mean calculated from historic records.

December 2020 was the second wettest December in this area since records started with a total average rainfall of 108mm (195% of the LTA) across East Anglia.



The consistently above average rainfall in the months ahead of the main flood contributed to the catchment response on the 23rd December 2020. The impact of the excess rainfall was an average SMD across the east of 3mm at the end of December which is 'below normal' and an indication of how wet the catchment was.

Great Ouse Catchment Rainfall 23rd December 2020



Up to 17mm fell across the catchment in the 3 days prior to the flood event, this filled the majority of remaining storage space, effectively saturating the catchment ahead of Storm Bella arriving. The

intensity of rainfall culminated in a very high run-off rate and contributed to the fast reaction of watercourses. The December LTA of 55mm shows that almost a month's rainfall was seen in certain locations on the 23rd December with much of the rain falling in the afternoon.

The high degree of saturation within the catchment contributed to higher in channel levels taking up any spare storage within the system, resulting in significant flooding from fluvial, surface water and groundwater sources.

Several river gauges recorded the highest level on record exceeding those of 1998 which, for the Great Ouse, is often the benchmark by which other floods are measured and compared. The most significant river levels were seen on the River Great Ouse, the Tove, Kym, Alconbury Brook and Bury Brook.

The network of many partners dealt with greater flows than they were originally designed for. There is no resource to increase system capacity across the network and this would not be the most cost-effective approach, it would be more productive to reduce inflows.

Cambridgeshire and Peterborough Flood and Water Management (FloW) Partnership – Extraordinary meeting held on 3rd February

There was considerable interest from both members of the public and local press concerning the high rainfall and flooding incident and subsequent outcomes/recovery. As a result, the Discussion Notes of the Extraordinary Meeting of the Partnership held in early February under Chatham House Rules were placed on the County Council's website.

NB: "When a meeting, or part thereof, is held under the Chatham House Rule, participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed."

These notes can be viewed at [CP FloW - Meeting notes - 3 February 2021 \(cambridgeshire.gov.uk\)](https://www.cambridgeshire.gov.uk/cp-floW-Meeting-notes-3-February-2021).

The following is a brief summary of the Notes identifying some of the relevant issues:

Mentions

- Sympathies were offered to all residents affected.
- Appreciation to those in the Internal Drainage Boards (IDBs) who worked continuously to ensure their assets were functioning as needed.
- Highways were thanked for their quick response in sending their tankers to affected locations, and awareness of resource and tanker limitations noted.

- Huntingdonshire District Council had been quick to hold multi-agency meetings. Other authorities are doing the same.
- Thanks were given to those attending and sharing notes/images prior to the meeting.

Introduction

Across all partners Cambridgeshire ordinarily anticipates between 30-50 flood reports and associated investigations in a given year; so far in 2021 the number of reports is in excess of 500. Much of the attention has been on gathering data, community meetings and mapping incidents.

Exchanges were invited on six broad themes:

1. Emergency Response and Communications

- The chart of responsibility shared prior to the meeting needs extending/clarifying with emergency contact information added.
- In the absence of a lead or single point of reference to coordinate, communications were generally described as poor.
- Concerns raised regarding the time of, or absence of, a response from a number of authorities after contact was made. Most authorities were significantly under-resourced and stretched during the events, having to prioritise the calls on the basis of the risk to internal property flooding and those more vulnerable members of society. It was highlighted that during an incident it may not be possible to adhere to traditional expectations in service response.
- The impact of Covid on staff not taking as much leave in 2020 meant partnership organisations had been encouraging staff to have time off at Christmas to avoid the carryover of holiday.
- Phone lines/points of contact should be staffed with individuals familiar with the respective systems and processes involved with those individuals taking ownership of any contact. It was highlighted that even those with significant resource were unable to cope, highlighting the scale of the issue and practicalities around providing such a service. Potential need to consider trigger points for a single lead on communications/contact arrangements.
- In the North West Regional Flood and Coastal Committee area [The Flood Hub](#) website has been created as a means of providing the public with a “one stop” information point.

2. Highways

- Concerns were raised around the inability to contact highways officers. It may be useful to share contact details for duty officers during holiday periods.

- County Councillors had been provided with three direct numbers to call in out-of-hours emergencies during forecast extreme weather events.
- Highways were responsive but short on resource. Contractors have to work within budgets.
- Peterborough City Council use Fix my Street to report highways issues ([Peterborough City Council - Summary reports :: FixMyStreet](#)).
- Need to be aware of interconnectivity of assets, even if one part is fixed there may be other points of failure.

3. Engagement between IDBs and the Environment Agency

- Covid restrictions meant a number of the responders did not have their typical tools to hand and this impacted communication between partners.
- IDBs had staff working throughout the festive period keeping their systems operational but there was very little contact from external partners during that time.
- Some of the infrastructure requires replacing but there is limited funding available to make this more resilient.
- Catchwater drains are largely at capacity and potentially need improvement or consideration of increased flows due to climate change and new development.
- Within IDBs the use of new technology increased the efficiency of response.
- In order to reduce the downstream flood impacts some IDB areas were requested to stop pumping on Christmas Eve and Christmas Day, unless residential properties were at risk of flooding.

4. Interaction with Anglian Water Foul Water Sewerage Systems

- Anglian Water received 11,000 calls over this period, which they were prioritising. Most of these were within the Great Ouse catchment.
- Anglian Water currently has every resource it can acquire dealing with the situation but it was clear more resource and money was required in the area as all partners were clearly overwhelmed.
- Concerns were raised regarding the failure of pumping stations.
- There was a call to better understand the interconnectivity of assets.

5. Watercourse Maintenance

- Concerns were raised regarding long-term maintenance for rivers, highway gullies and watercourses.
- Riparian owners are not aware of their responsibilities. Discussion took place on the need for clarity over responsibilities for riparian assets understanding and mapping or better sharing details of asset ownership, the need to raise

awareness of riparian responsibilities, whether a standard of maintenance is required or even possible and who could manage this. The potential for a mapping/reporting app was raised here.

- RMAs can carry out engagement and enforcement work as appropriate, but are only able to do this when they are aware that there is an issue.

NB: Enforcement is extremely resource intensive and given the number of riparian owners in Cambridgeshire is not always realistic.

6. Recovery, Ongoing Monitoring, Investigations and Preparation for the Future.

- The obvious importance of listening to those with local knowledge.
- Exceptional events are forecast to become more and more frequent.
- Is there due to be an assessment of the specific risks posed by climate change? If so, where will the funding come from?

Actions and Areas to Investigate

- Update existing partnership flow chart to include contact details for emergencies such as housing needs.
- There should ideally be a single point of contact in an emergency preferably with a single lead on disseminating of messages and provision for a web page or reporting tool, such as Fix my Street. Investigate if/how this has been achieved in areas that have had major scale flooding.
- Investigate the creation of a central webpage and an app or similar as a reporting tool for all RMAs.
- Persist in the Partnership's desire for something similar to The Flood Hub or Northamptonshire Flood Toolkit - Northamptonshire County Council - Flood Resilience Pathfinder Project Toolkit for Cambridgeshire and Peterborough.
- Investigate alternative feedback through the planning process (such as further committee training events) so that the concerns of RMAs are shared with planning officers.

Further updates are included in the Cambridgeshire & Peterborough Flood and Water Management (FloW) Partnership section later in this report.

Long-term Ownership, Funding and Maintenance of Sustainable Drainage Systems (SuDS)

Members will be aware that current national and local guidance is that the use of Sustainable Drainage Systems (SuDS) is preferred for surface water disposal from developments. The Middle Level Commissioners and associated Boards/Commissioners acknowledge this but they are not always considered to be the best answer to the problem or the most suitable option and careful

consideration needs to be given to what is trying to be achieved and the nature of water level and flood risk management in the area.

There are a multitude of different SuDS and when possible, it is encouraged that these are adopted by a responsible authority, for example, AWSL, highway authorities, councils etc. However, some systems are not considered to be adoptable and as a result, the systems serving the site could end up being the responsibility of multiple parties who each have their own funding and maintenance regimes, for example, the landowner, a management company, AWSL, the Highway Authority and potentially the Middle Level Commissioners and associated Boards/Commissioners.

The Lead Local Flood Authority (LLFA) (Cambridgeshire County Council, Norfolk County Council and Peterborough City Council) are statutory consultees on “major” developments, primarily 10 or more homes, a residential site with an area of 0.5 hectares or more, additional non-residential floorspace of 1,000m² or more; a non-residential site of 1 hectare or more, the winning and working of minerals, or the use of land for mineral-working deposits; and waste development.

Often surface water management issues are dealt with by requesting the imposition of planning conditions on a Decision Notice.

Often the information supplied to discharge these conditions consists of “standard” text and does not normally fully consider specific maintenance related issues, such as the size of machinery required; providing a “laydown area”, for receipt; temporary storage; the assembly of construction equipment; materials and other supplies; adequate space for the machinery and/or spoil disposal areas; any associated costs etc. Concerns have been raised about the parties recommending the discharge of these conditions not being familiar with or having experience of these matters.

In response to a general enquiry made by David Thomas (then the Middle Level Commissioners’ Chief Engineer), in March 2017, Andrea Leadsom MP (then Secretary for the Environment, Food & Rural Affairs), advised that it was expected that future maintenance arrangements would be secured through the use of planning conditions or obligations as part of the determination process undertaken by the Local Planning Authority (LPA). When a breach of planning conditions or obligations is reported the LPA can investigate the breach and where it considers appropriate can carry out enforcement action. However, many councils do not have either the expertise or the funds to resolve any issues that may arise and could ask the Middle Level Commissioners and associated Boards/Commissioners to do this on its behalf even though they are not statutory consultees in the determination of planning applications.

Acknowledging the above when dealing with surface water discharge from a residential development within its catchment, March Fifth DDC required that extra measures were undertaken to protect its interests.

In order to alleviate any adverse impact upon the respective systems; the Commissioners/Board; the Councils' ratepayers and the natural, built and waterborne environment; it is considered appropriate that the Commissioners/Boards ensure that adequate arrangements are made for the long-term ownership funding, management and maintenance arrangements for the upkeep of any water level and flood risk management system, whether on or off site, in perpetuity. These requirements may be in addition to those imposed by planning conditions or required by the LLFA and that details of the works to be carried out by the occupier/land owner, adopting authority, the Management Company or other responsible person/authority, together with the costs attached, are included in the "Homeowners Pack" and the Deed of Sale.

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 need to consider that there could be many currently unassessed beneficial or detrimental impacts on the Commissioners'/Boards' systems; the viability of developments, particularly the re-development of sites within older parts of town centres, as the more sustainable discharge points (ie where the system has capacity for extra rainwater discharge) for site drainage could be more costly requiring the provision of significant infrastructure, for example, new surface water sewers, pumping station, outfall structures etc.

In order to assist further discussion, the Board is asked to consider if they would support removal of the right to connect to public sewers or not.

Planning Matters

In addition to matters concerning previous planning matters, the following 33 new development related matters shown below have been received and, where appropriate, dealt with since the last meeting:

MLC Ref.	Council Ref.	Applicant	Type of Development	Location
1140	H/20/02460/FUL	Mr R Walker	Residence (Change of Use)	Puddock Road, Warboys
1141	F/YR21/0330/O	Mr Hardy	Residential (2 plots)	West Street, Chatteris
1142	F/YR21/0362/F	Mr Taylor	Formation of a car park (Garden Centre)	London Road, Chatteris*
1143	F/YR21/0423/F	Mr B White	Residence (Extension)	West Street, Chatteris
1144	F/YR21/3033/COND	Mr Beaney	Residential (Up to 3 plots)	London Road, Chatteris*
1145	F/YR21/0463/F	Mr M Kerridge	Agricultural (Replacement building)	London Road, Chatteris
1146	F/YR21/0495/F	Mrs K Hodgson	Residence	George Way, Chatteris*
1147	H/21/00747/FUL	TEA & RL Noble	Agricultural (Extension)	Puddock Road, Warboys*
1148	H/21/01154/CLPD	Mr Yardy	Residence (Extension)	Heath Road Warboys
1149	H/21/01178/FUL	Mr K Henson	Residence	Station Road, Warboys
1150	H/21/01325/PPI	Mrs L Daniel	Residence (Extension)	Fen Road, Pidley
1151	H/21/00913/FUL	DRA Fabb	Agricultural (Manure Store)	Fenside Road, Warboys
1152	H/21/00914/FUL	DRA Fabb	Agricultural (Livestock Building)	Fenside Road, Warboys
1153	F/YR21/0644/RM	Bassmore Developments Ltd	Residence	Station Street, Chatteris
1154	Enquiry	Client of RSK Group Limited	Electrical Infrastructure	Honeysome Road, Chatteris
1155	H/21/01017/FUL	Mr & Mrs S Wilcox	Agricultural (Livestock building)	Puddock Road, Warboys
1156	H/21/01543/AGDET	David Hopkins Partners	Agricultural (Storage Barn)	Fen Road, Pidley
1157	H/21/01491/FUL	Mr K L Knowles	Gypsy/traveller site (3 pitches)	Parkhall Road, Somersham*
1158	H/21/01569/AGDET	Mr J German	Agricultural (Barn)	Heath Road, Warboys
1159	F/YR21/0833/O	Mr V Salisbury	Residential (6 plots)	Blackmill Road Chatteris
1160	H/21/01655/FUL	Mr & Mrs Robinson	Residence (Change of Use)	Puddock Road, Warboys
1161	F/YR21/3077/COND	Stainless Metalcraft (Chatteris)	Industrial	Honeysome Road, Chatteris*
1162	H/21/01446/HHFUL	Mr A Spencer	Residence (Extension)	Parkhall Road, Somersham
1163	H/21/01760/HHFUL	Mrs L Daniel	Residence (Extension)	Fen Road, Pidley
1164	H/21/01730/HHFUL	Kerry Yarrow	Residence (Extension)	Heath Road, Warboys

1165	H/21/01287/REM	Qualitect Construction	Residential (6 plots)	Warboys Road, Pidley
1166	H/21/01708/HHFUL	MBC Designs Ltd	Residence (Extension)	Parkhall Road, Somersham
1167	H/21/116/FUL	Mr C Loizos	Residence (Change of use)	Heath Road, Warboys*
1168	F/YR21/0942/F	Mr L Bailey	Residence (Extension)	Millfield Close, Chatteris
1169	F/YR21/1015/F	GKL Residential Developments Ltd.	Residence (Extension)	London Road, Chatteris*
1170	H/21/01979/AGDET	David Hopkins Partners	Agricultural (Storage)	Fen Road, Pidley
1171	F/YR21/3086/COND	GKL Residential Developments Ltd.	Residential (6 plots)	London Road, Chatteris*
1172	F/YR21/1051/F	Mr & Mrs James	Residence (Extension)	West Street, Chatteris

Planning applications ending 'COND' or 'DISC' relate to the discharge of relevant planning conditions

Planning applications ending 'CLPD' relate to the Certificate of Lawfulness proposed

Planning applications ending 'PP1' relate to prior approval for development within curtilage of a dwellinghouse

Planning applications ending 'RM', 'REM' or 'RMM' relate to reserved matters

Planning applications ending 'AGDET' relate to Agricultural Determination

Planning applications ending 'HHFUL' relate to Householder applications for Full Planning Permission

Developments that propose direct discharge to the Board's system are indicated with an asterisk. The remainder propose, where applicable and where known, surface water disposal to soakaways/infiltration devices or other sustainable drainage systems. All the applicants have been notified of the Board's requirements.

The following applicants have chosen to use the infiltration device self-certification process and, in doing so, agreed that if the device was to fail in the future, the landowner would be liable for any remedial works to rectify the situation.

- Mr G Bierton – extension and erection of garage at Orchard House, Honeysome Road, Chatteris (MLC Ref No 1053)
- Mr J Yardy – extension at 8 Heath Road, Warboys (MLC Ref No 1148)

No further correspondence has been received from the applicants or the applicants' agents concerning the following developments and no further action has been taken in respect of the Board's interests.

- *Developments at Lower End Farm, Puddock Road, Warboys – P. K. Raynham (MLC Ref No 377) and C A Agriculture Ltd (MLC Ref Nos 908 & 1085)*
- *Industrial/Haulage Yard at Fenton Way, Chatteris (MLC Ref No 529); Erection of a vegetable processing building and formation of balancing pond – Client of Grounds & Co (MLC Ref No 627); Allpress Farms Ltd (MLC Ref No 638); Erection of warehouse with offices and business units on land west of Fenton Way, Chatteris - R W Simpson Ltd (MLC Ref No 644) & Produce World Ltd (MLC Ref Nos 770, 776, 777, 1097 & 1098)*
- *Haulage yard; aggregates storage area & sales use; inert waste & soil recycling operations; and a lean-to extension to existing buildings accommodating an ancillary*

office, welfare facilities & storage uses at Furlong Farm, First Furlong Drove, Chatteris – Mandley Brothers (MLC Ref Nos 718, 944 & 981)

- *Developments at Manchetts Transport, Heath Road, Warboys – Manchetts Transport (MLC Ref Nos 519, 540, 569, 684 & 1000)*
- *Residential Development involving demolition of existing storage building on land west and south of 74 West Street, Chatteris – Client of LK Consult Ltd (MLC Ref No 742), Land Planning Partnership Ltd (MLC Ref No 826), WS Sandbach Ltd (MLC Ref No 928) & 4 Real Developments Ltd (MLC Ref No 1075)*
- *Erection of a garden centre (with restaurant area) with 2.2M (max height) fence and gates involving the demolition of existing sheds, greenhouses, and single-storey elements to 134 London Road, Chatteris – Miltons (Wallpapers) Ltd (MLC Ref Nos 888 & 969)*
- *Residential development on land south of 8 - 59 Fairbairn Way, Chatteris – Alan Bartlett & Sons Ltd (Chatteris) (MLC Ref Nos 890 & 1020)*
- *General purpose agricultural store on land to the south west of Hazeldene, Puddock Road, Warboys - Mr S Wilcox (MLC Ref Nos 956 & 1099)*
- *Proposed pig rearing units and associated anaerobic digestion plant at 1 Colne Fen Farm, Chatteris Road, Somersham – Client of RM ASSOCIATES (MLC Ref No 961) and A & E G Heading Ltd (MLC Ref No 993)*
- *Environmental Permit Application EPR/KB3199AV/A001 for treated effluent discharge at Hayden House, High Street, Pidley - Mr D Bird (MLC Ref No 966)*
- *A pair of dwellings on land adjacent to Copper Beeches, Warboys Road, Pidley - Mr J Simons (MLC Ref Nos 1008, 1050 & 1089)*

Chatteris

Mixed Use Development on land at Tithe Barn Farm and south east of London Road, Chatteris - Hallam Land Management Ltd (MLC Ref Nos 160, 184, 606 & 630)

A meeting with Brookbanks Consulting Limited, the developer's consultant, is being arranged for the end of November to discuss the issues associated with the first phase of this larger development.

As can be seen from the plan on the following page, any impact on the Board's system is likely to be minimal.



*Plan showing the proposed Phasing Plan superimposed on the Board's District Plan
The brown area to the left is the extent of the Board's Highland catchment*

Residential development on land east of Llanca, Huntingdon Road, Chatteris – Mr B Biggs & Mr J Biggs (MLC Ref No 468), Bexwell Tractors (MLC Ref Nos 607 & 739) and HB Villages Developments Ltd (MLC Ref Nos 943, 973 & 977)

It is understood that this site has been re-developed.

The current position is being ascertained.

In view of the above, the Board may want to consider how it wishes to regularise the situation and in order to guide further discussions it would be beneficial to receive the Board's opinion and further instruction on the following:

- a) The issuing of an Advisory Notice to the relevant parties to remind them of their duties under the Board's Byelaws and the Land Drainage Act.**
- b) That a request is made for a note to be added on to the Local Land Charges Register (LLCR) for these sites.**
- c) That, where possible, any action should be at the land owner's expense.**

Development at Womb Farm to the south west of Doddington Road, Chatteris - Colliers CRE (MLC Ref No 524), Triman Developments (UK) Ltd (MLC Ref No 528), Client of HaskoningDHV UK Ltd (MLC Ref No 1036), Barmach Ltd (MLC Ref No 1040), Triman Developments (UK) Ltd & Robertson Strategic Asset Management Ltd (MLC Ref No 1066)

It is understood that a Reserved Matters planning application has recently been submitted to Fenland District Council (FDC) by Persimmon Homes (East Midlands) Limited.

At the time of writing no contact has been made with the Board.

Haulage yard; aggregates storage area & sales use; inert waste & soil recycling operations; and a lean-to extension to existing buildings accommodating an ancillary office, welfare facilities & storage uses at Furlong Farm, First Furlong Drove, Chatteris – Mandley Brothers (MLC Ref Nos 718, 944 & 981)

It is understood that this site has been re-developed and is now occupied by a haulage company.

The current position concerning the discharge from an attenuation pond and the laying of concrete at the site is being ascertained.

In view of the above, the Board may want to consider how it wishes to regularise the situation and in order to guide further discussions, if required, it would be beneficial to receive the Board's opinion and further instruction on the following:

- a) The issuing of an Advisory Notice to the relevant parties to remind them of their duties under the Board's Byelaws and the Land Drainage Act.**
- b) That a request is made for a note to be added on to the Local Land Charges Register (LLCR) for these sites.**
- c) That, where possible, any action should be at the land owner's expense.**

Development on land to the south of 19 Blackmill Road, Chatteris - Mr B White/DBM Landscapes (MLC Ref Nos 874 & 893) & Mr V Salisbury (MLC Ref No 1159)

Further to previous Board Meeting Reports, a planning application has been submitted to FDC for the erection of up to six dwellings which, according to the planning application form will discharge via soakaways.

In the absence of any infiltration testing, it is difficult to be positive but it is considered that it is unlikely that these, on their own, will provide an efficient means of disposal particularly during high rainfall events and/or in the long term.

According to the District Council's Public Access webpage the status of this application is "Pending Consideration".



Extract from Peter Humphrey Associates' Drawing No. 6196/PL01 Rev. E

In view of the above, the Board may want to consider how it wishes to regularise the situation and in order to guide further discussions, if required, it would be beneficial to receive the Board's opinion and further instruction on the following:

- a) The issuing of an Advisory Notice to the relevant parties to remind them of their duties under the Board's Byelaws and the Land Drainage Act.

b) That a request is made for a note to be added on to the Local Land Charges Register (LLCR) for these sites.

c) That, where possible, any action should be at the land owner's expense.

Erection of 6no single storey dwellings comprising of 2 x 2-bed and 4 x 3-bed; change of use of office building (LB) to 2-storey 5-bed dwelling involving part demolition of Listed Building and demolition of warehouse and buildings at 22 London Road, Chatteris – GKL Residential Developments Ltd (MLC Ref Nos 1037, 1169 & 1171)

Further to the Board's Supplementary Report in November 2019 subsequent planning applications have been submitted to FDC for:

- a) The conversion and extension of the Former Coach House (Storage Building), between Nos 22-24, to form a single dwelling - FDC Ref No F/YR21/1015/F (MLC Ref No 1169)
- b) Discharge of Conditions of planning permission F/YR19/0355/F - FDC Ref No F/YR21/3086/COND (MLC Ref No 1171)

The discharge of conditions includes Condition 14 (Drainage) relating to the re-development of the former Travis Perkins' site with six dwellings.

It is understood that surface water disposal will be via an infiltration-based system but this is a cause for concern on the same basis as discussed elsewhere in this report.

At the time of writing no contact has been made with the Board.

In view of the above, the Board may want to consider how it wishes to regularise the situation and in order to guide further discussions, if required, it would be beneficial to receive the Board's opinion and further instruction on the following:

- a) The issuing of an Advisory Notice to the relevant parties to remind them of their duties under the Board's Byelaws and the Land Drainage Act.**
- b) That a request is made for a note to be added on to the Local Land Charges Register (LLCR) for these sites.**

c) That, where possible, any action should be at the land owner's expense.

New Advanced Engineering Training Centre at Chatteris Engineering Works off Honeysome Road, Chatteris – Stainless Metalcraft (Chatteris) Ltd (MLC Ref Nos 1117 1123 & 1161)

Following concerns raised by a Board Member about the installation of steel sheet piling in close proximity to the brink of Fenton Lode, immediately downstream of Washaway Bridge, an “Advisory Notice” was issued to both the applicant and its agent, Devonshire Architects Limited.

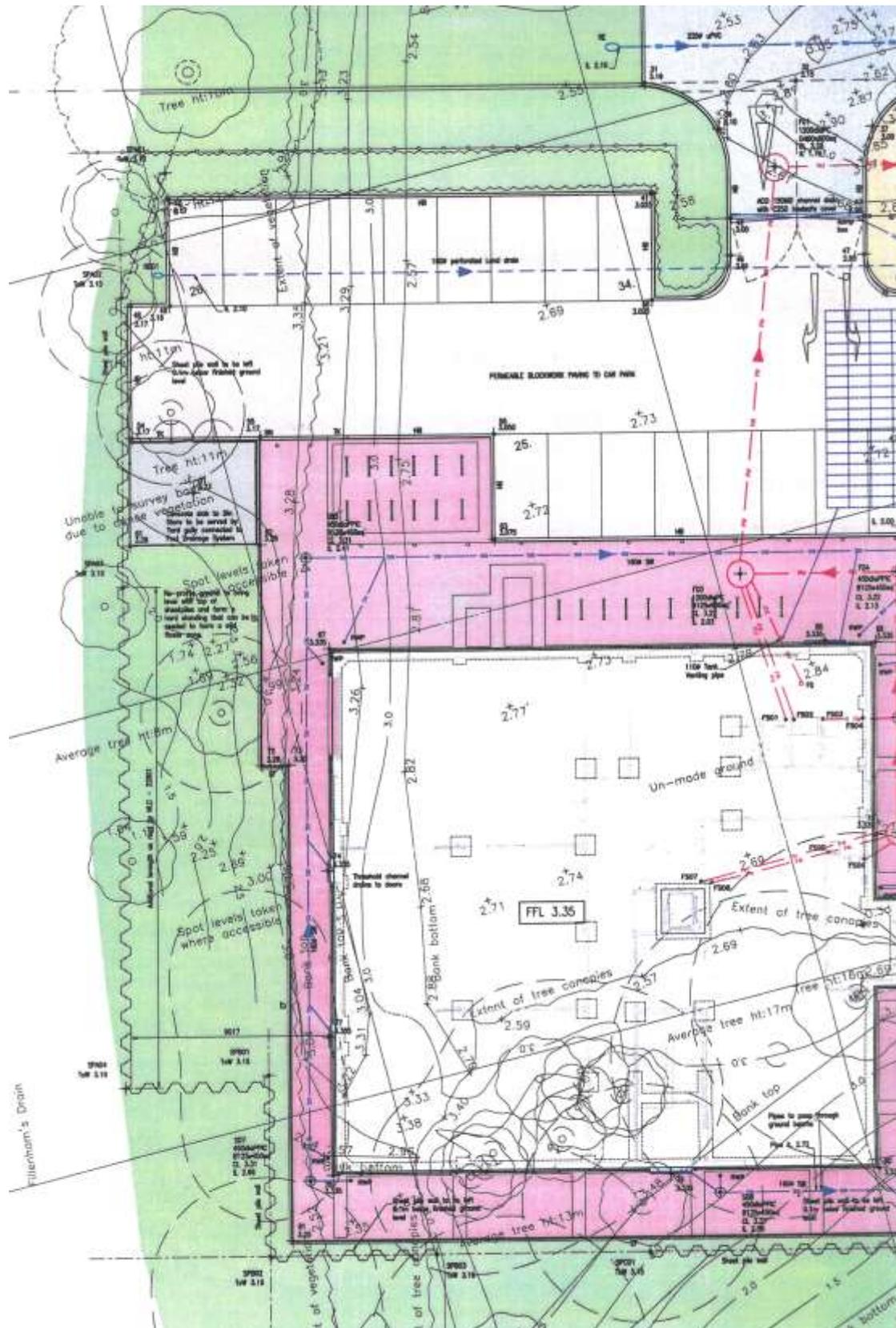
A site inspection attended by SOLUTION Consulting Engineers Ltd; a representative from Warwick Burt Construction Limited, the contractor; the Board's Chairman and the Commissioners' Planning Engineer was subsequently organised.

The inspection did reveal that the installation of unconsented steel sheet piling within the Board's maintenance access strip was at an advanced stage and in contravention of the Board's Byelaws. However, the presence of the sheet piled wall, which extends well below the bed of the Lode, will greatly reduce the risk of slips occurring, ultimately protecting the eastern bank of the channel along this frontage and reducing the need for the Board to enter the site to undertake “significant” works thus alleviating potential future risk for the Board. The provision of the piling mat, upon which the 45 ton piling rig sat to facilitate the installation of the piles, will provide a solid base from which the Board can work when undertaking works from this side of the Lode.

It has been suggested that the strip is seeded with wild flowers that like rough infertile conditions and which can be strimmed every season.

SOLUTION Consulting Engineers Ltd, the applicant's consultant, were reminded that access will still be required to undertake works to maintain the existing trees/shrubs and channel profile and that it would be beneficial if the bin store was re-positioned and were advised that, in view of previous problems working adjacent to electrical facilities, the sub-station compound must be re-located such that it does not restrict access to undertake the Board's maintenance works.

Despite this the above issues remain outstanding on this project, which is funded by the Combined Authority. Efforts are currently being made to resolve these as soon as possible.



Extract from SOLUTION Consulting Engineers Ltd Drawing No. 1130 100 Rev. P showing the proximity of the Advanced Engineering Training Centre to the approximate brink of Fenton Lode

In accordance with best practice, it is suggested that an email is issued to the relevant “partners” to remind the parties concerned of the need to consult with the relevant RMAs, in respect of their assets, and seek any consent in advance of the works to ensure that any resultant adverse impacts are considered at the earliest possible

stage. Thereby increasing the likelihood of meeting the requirements of the relevant RMA, alleviating the need to oppose applications and discharge conditions and, ultimately, speeding up the associated processes and reducing costs.

In view of the above, the Board may want to consider how it wishes to regularise the situation and in order to guide further discussions it would be beneficial to receive the Board's opinion and further instruction on the following:

- a) The issuing of a Stop Notice to the relevant parties, if required, to remind them of their duties under the Board's Byelaws and the Land Drainage Act to ensure that the Board's requirements are met.**
- b) That an email is sent to "partners", including the Combined Authority, to remind them of the need to consult with the relevant RMAs in respect of their assets and seek any consent in advance of the works to ensure that any resultant adverse impacts are considered at the earliest possible stage.**
- c) That, where possible, any action should be at the land owner's expense.**

Warboys

Developments at Wilsons Orchard, Fenside Road, Warboys - DRA Fabb (MLC Ref Nos 504, 533, 951, 1079, 1151 & 1152)

Further to previous Board Meeting Reports, two planning applications have been submitted to Huntingdonshire District Council (HDC) for consideration.

- a) The erection of a livestock building with a floor area of 361m² – Phase 2. HDC Ref No 21/00913/FUL (MLC Ref No 1151).
- b) The erection of an agricultural building for the storage of manure with a floor area of 510m². HDC Ref No 21/00914/FUL (MLC Ref No 1152).

According to the respective planning application forms, surface water disposal would be to infiltration devices but this is a cause for concern on the same basis as discussed elsewhere in this report.

Planning permission for both planning applications was granted by HDC during August. Rather disappointingly none of the imposed planning conditions related to surface

water disposal and neither a Drainage Advisory Note nor an appropriate informative advising the applicant of its duties or the need to meet the Board's requirements and advising that contact should be made at the earliest opportunity to discuss any such requirements was included on the Decision Notice. The Officer's Report advises that "It is deemed that there should be no additional surface water run-off impacts."

In addition, a brief review of the historic developments on this site infers that none of the appropriate documentation required by the Board concerning surface water disposal has been received.

In view of the above, the Board may want to consider how it wishes to regularise the situation and in order to guide further discussions it would be beneficial to receive the Board's opinion and further instruction on the following:

- a) The issuing of an Advisory Notice to the relevant parties to remind them of their duties under the Board's Byelaws and the Land Drainage Act.**
- b) That a request is made for a note to be added on to the Local Land Charges Register (LLCR) for these sites.**
- c) That, where possible, any action should be at the land owner's expense.**

Erection of 2 No. Buildings to form 4 No. Industrial Units and single storey extension to existing buildings at Cromwell House, Heath Road, Warboys – Mr T Struggles (MLC Ref No 1103)

According to HDC's Public Access webpage this application is still "In progress".

Fenton

Erection of 9 dwellings with garaging and parking following the demolition of the existing industrial buildings at land north east of The Laurels, Fenton Road, Fenton – Mr Augstein (MLC Ref No 1052)

According to HDC's Public Access webpage this application is still "In progress".

Pidley

Residential development on land at Vernon Motors, Warboys Road, Pidley - Vernon Motors Ltd (MLC Ref No 436), Mr & Mrs V Van Der Gaag (MLC Ref No 1059) & Qualitect Construction (MLC Ref No 1165)

A Reserved Matters Planning Application (Access, Appearance, Landscaping, Layout, Scale) was submitted to HDC for consideration in June and according to HDC's Public Access webpage the application is "In progress".

The proposal is for the re-development of the former Vernon Motors site with six dwellings which, it is proposed, will discharge surface water to infiltration devices.



Extract from Rider Sale Chartered Architects Drawing No. 753-L-6 Rev. E showing the proposed site layout

Residential development on land to the west of Richmond Lodge, Fen Road, Pidley - Mr Hopkins (MLC Ref Nos 907, 936, 980 & 1104) & Mrs Bradshaw (MLC Ref No 1060)

In the absence of any details or information the applicant's agent, Partners in Planning & Architecture Ltd, has been asked to provide information to ensure that the balancing pond has sufficient capacity to receive the flows from the dwelling.

Further to the last Board Meeting Report, the requested information has not been received from Partners in Planning & Architecture Ltd, Mrs Bradshaw's agent, concerning the capacity of the balancing pond and this matter is being pursued.

In view of the above, the Board may want to consider how it wishes to regularise the situation and in order to guide further discussions, if required, it would be beneficial to receive the Board's opinion and further instruction on the following:

- a) **The issuing of an Advisory Notice to the relevant parties to remind them of their duties under the Board's Byelaws and the Land Drainage Act.**
- b) **That a request is made for a note to be added on to the Local Land Charges Register (LLCR) for these sites.**
- c) **That, where possible, any action should be at the land owner's expense.**

Somersham

Application for outline planning permission for up to 145 dwellings and associated access, all other matters reserved on land north of the bank at land north of 16 the Bank, Somersham – Client of Waldeck Consulting (MLC Ref No 1045) and Larkfleet Homes (MLC Ref Nos 1058 & 1084)

According to HDC's Public Access webpage the application is pending consideration.

Development Contributions

Contributions received in respect of discharge consent will be reported under the Agenda Item – 'Contributions from Developers.'

Local Plan Update and Associated Consultations

Huntingdonshire District Council (HDC)

No further correspondence has been received concerning Policy Planning issues and no further action has been taken in respect of the Board's interests.

Fenland District Council (FDC)

A draft revised Level 1 Fenland SFRA and Outline Water Cycle Study have been produced to support the emerging Fenland Local Plan a copy has been received and is currently being reviewed.

Cambridgeshire and Peterborough (C&P) Minerals and Waste Local Plan (MWLP)

The Cambridgeshire and Peterborough Minerals and Waste Local Plan has now been adopted by Cambridgeshire County Council and Peterborough City Council.

The Local Plan is available to view online at:

www.peterborough.gov.uk/localplan and

<https://www.cambridgeshire.gov.uk/business/planning-and-development/planning-policy/adopted-minerals-and-waste-plan>

Cambridgeshire and Peterborough Flood and Water Management (FloW) Partnership

The Middle Level Commissioners' Planning Engineer has represented both the Middle Level Commissioners and their associated Boards/Commissioners since the last Board Meeting and dealt with relevant issues and attended virtual meetings held in March and July.

Staffing Updates

Whilst not directly reported at the meetings there have been some changes on the partnership.

Cllr Tim Wotherspoon, the Partnership's Chairman, did not get re-elected to the County Council at the recent elections and has been replaced by Cllr Lorna Dupree; Julia Beeden, the County Council's Flood Risk and Biodiversity Business Manager has moved to Water Resources East (WRE) and has been replaced by Hilary Ellis in the interim; Paul Burrows, the Environment Agency's (EA) Flood Strategy Manager – East of England Fens, has secured a role nationally within the EA's Major Projects & Programmes department and has been replaced by Philippa Hulme and Emily Clarke; Anglian Water Services Ltd's (AWSL) Flood Partnerships Manager accepted a new role at Water UK as their new Climate Change Policy Manager.

The main matters up to July 2021 that may be of interest to the Commissioners are as follows:

Local FRM Strategy

Work has commenced on the review of the LFRMS for Cambridgeshire and will be issued to RMAs for comment later in the year.

The Oxford–Cambridge (OX-Cam) Arc Property Flood Resilience (PFR)

The detailed route options for the OxCam railway are expected to be published soon. There are also new projects looking at Net Gain opportunities and Integrated Water Management.

Public Sector Co-operation Agreements (PSCA)

The North Level District IDB confirmed that the PSCA is now in place with Peterborough City Council and has already been used to commission repairs to culverts at Drain Road and Soke Road. Works have also been completed with Cambridgeshire County Council (CCC) at Mile Tree Lane outside of this agreement. Conversations are being held with CCC to duplicate the PSCA.

Major Flood Response and Recovery document

This has not been discussed but the current position is being ascertained.

Lessons Learnt from Recent Flood Events Elsewhere

(a) Environment Agency (EA)

A debrief exercise to learn from flooding in Lincolnshire experienced during the winter of 2019/20, originally planned for April 2020, was postponed.

(b) Cambridgeshire County Council - Flood Risk and Biodiversity

Flood Investigation Reports (FIR) have been finalised for the flooding experienced at St Ives and St Neots in August 2020.

(c) Peterborough City Council

A quite significant flooding event occurred in July 2021, with approximately 70 internal property flooding reports, and a major incident was declared. An investigation is being undertaken but resources are currently limited.

Partner Updates

(a) Anglian Water Services Limited (AWSL)

(i) *Price Review 2019 (PR19)*

Anglian Water is still awaiting a final determination from the Competition Market Authority (CMA) which is hindering partnership work. It is expected that Ofwat may appeal the decision which will add further delays.

(ii) *Flooding Partnership Funding Programme*

No further update.

(iii) *Drainage & Wastewater Management Plans (DWMPs)*

See separate report.

(iv) *The Right to Connect*

See separate report.

(b) Cambridgeshire County Council - Flood Risk and Biodiversity

(i) *Rain Gauges Project*

This project has not been discussed at C&P FLoW meetings but an external meeting between the County Council and the Middle Level Commissioners took place in May.

(ii) *Winter 20/21 flooding update*

a. Section 19 Investigations

The Flood & Water team is in the process of producing sixteen S19 Flood Investigation Reports (FIR) of which 4 have been issued to partners for review.

It is unlikely that CCC will be able to carry out/undertake investigations, modelling or deliver extensive resilience actions to these locations until the S19 FIR are complete. Reports for investigations are ordinarily delivered with a higher priority to locations with the most significant flooding. However, there may be locations where information is more readily available and reports can be completed sooner. Reports will be delivered in partnership where resources allow.

As part of the investigations in identifying the causes, engagement is occurring with owners of riparian watercourses. The flood events triggered significant local interest which it is hoped will establish local flood groups.

b. Timetable for Future Reporting

There has been no progress on creating a single point of contact for flooding. The differing legislation, links to multiple IT systems, depth of cross-organisational access and knowledge required, and resources needed to sustain this means there is not a “quick fix”. The group was not aware that it had been done elsewhere in the country. However, CCC is looking to centralise some details online to ease information gathering for communities. This has been delivered in some other parts of the country.

(iii) *Cambridgeshire Community Flood Action Programme (CFAP)*

In March 2021 funding was approved by CCC for a programme of works across Cambridgeshire aimed at increasing community resilience to flooding. The aim of the Community Flood Action programme is to:

- Increase the county’s resilience and ability to adapt to flooding through improving access to flood risk management information
- Improve flood risk data quality
- Provide guidance on asset management and
- Support local groups in establishing community flood plans.

A key aim of this initiative by CCC is to encourage communities to form Community Flood Groups.

Community Flood Groups are being encouraged to apply for a new watercourse grant, to help protect vulnerable properties from flooding.

The riparian watercourse grant aims to provide funding to communities in Cambridgeshire where riparian owners cannot be identified (either by communities or the County Council) or where riparian owners are unable to undertake riparian maintenance themselves.

Whilst applications from Community Flood Groups are preferred, in order not to exclude smaller, more rural, and more isolated communities or residents, certain applications from individuals or parish councils will be given special consideration.

Applications for funding will be assessed on a number of criteria, these include:

- Addressing recognised flooding issues
- Engaging with the local community
- Ecological benefits, amongst others

Details of these criteria, and their weighting in relation to the overall score can be found in the Project Evaluation Scorecard in the application pack section.

Further details can be found at [Riparian watercourse grant - Cambridgeshire County Council](#)

Several comments were raised in response to presentation on the CFAP. These include:

- a. Whittlesey has been running a successful flood warden group since 2013 with Fenland District Council (FDC) and the EA. It would be good to communicate with the Community Flood Action Programme to share knowledge.
- b. It would also be good to have a central list of all flood groups in the area including actions and plans so appropriate and targeted action can be taken by LRF during severe weather.

- c. Concern was raised at the level of training that will be provided to flood groups and liabilities if they have an accident during a flood. It was explained the training covers what should and should not be done by flood groups.

(c) Cambridgeshire County Council – Highways

Gully Cleansing

The budgets for future gully cleansing have increased with cleansing frequency increasing to every other year. Work is being undertaken to improve access to maintenance information through the development of a 'one stop shop' website.

The potential for service improvements through a joined-up approach for street sweeping and gully cleansing has been highlighted.

(d) East Cambridgeshire District Council

Local maintenance regimes have been reviewed, with long term maintenance discussions underway with the EA and IDBs. Reports have been provided to CCC.

(e) Ely Group of IDBs

(i) A Project is being planned to investigate the Catchwater Drains in the South Level using Local Levy and Precept Funding.

(ii) A balancing pond operated by AWSL in Littleport overflowed on 23rd December into a Catchwater Drain and overwhelmed the downstream system. It was disappointing as the matter was previously raised with AWSL but no response was received despite several chase ups.

(f) Environment Agency (EA)

(i) *Future Fens: Flood Risk Management [previously reported as the Future Fenland Project and Flood Risk Management (FRM) for the Fens]*

See separate report.

(ii) *Great Ouse catchment*

Winter 20/21 Flooding Update

Focussing on recovery works and supporting partners. A full time Flood Recovery Manager has been appointed for 6 months. The PSO team is currently understaffed and it is unlikely to be fully staffed before October.

It was confirmed that maintenance and asset operation is also being reviewed as a part of the response and recovery which has 8 separate workstreams. EA colleagues have

inspected approximately 40% of the 4,500 assets, making use of technology such as drones to provide efficiency. Thirty failures have been identified to date.

(iii) *Welland & Nene catchment*

Winter 20/21 Flooding Update

Flows within the River Welland were at the highest since 1998.

South Bridge in Northants, on the River Nene, recorded its highest ever level. No record of any property flooding from the Nene.

Water was present in Whittlesey Washes and influenced road closures for the B1040 between 23rd December and 21st February.

Stanground Sluice is performing better than previous years but still requires further work.

Cllr Laws highlighted how disruptive road closures can be and queried whether it is possible to drain the washlands quicker and also queried whether a more robust planning response from the EA/AWSL would be possible to better help planning authorities with their decisions.

(g) Highways England (HE)

A number of issues were experienced across the HE networks through the winter flooding, notably involving the A1, A14 and A47. Much of this was caused by overland flows running onto the Highway network.

The HE processes for managing flood events, following the receipt of weather warnings, including the 54321 rule which sets out actions being taken, such as ensuring outfalls and drainage assets, are clear were discussed.

(h) Middle Level Commissioners

Data is being collated to prepare a list of flooding incidents and will be shared with partners.

Two Boards are considering flood alleviation schemes.

The Commissioners' Planning Engineer emphasised the need for all RMAs to work together better. Cllr French suggested the potential for Boards to join forces in future and Cllr Laws mentioned concern across all parties of a drop in interest of flooding once water had receded in prior flood events.

(i) South Cambridgeshire District Council

Efforts are concentrated on assets within riparian ownership and assisting parishes in developing flood plans.

Anglian Water Services Limited (AWSL)

Drainage & Wastewater Management Plans (DWMP)

A. Baseline Risk and Vulnerability Assessment (BRAVA)

The planning objectives below are the measures outlined in the strategic context as agreed following the consultation last year. These focus the DWMP to identify risk, and the corresponding mitigation required up to 2050.

Theme What group does this fit in?	Planning Objective What are we measuring?	Business Plan Outcome How does it track back to AWS business plan?	Goals What are we ultimately trying to achieve across the region?
Escape from sewers	Risk of sewer flooding in a 1 in 50 storm	Resilient business	Resilient to the risks of flooding
	Storm overflow performance	Flourishing environment	
	External sewer flooding risk	Investing for tomorrow	Enable sustainable economic and housing growth
	Internal sewer flooding risk	Delighted customers	
	Pollutions risk	Flourishing environment	Be a carbon neutral business by 2050
	Sewer collapses	Investing for tomorrow	
WRC compliance	DWF compliance	Investing for tomorrow	Work with others to achieve significant improvement in ecological quality
	Quality compliance	Investing for tomorrow	
Environment and Wellbeing	Access to amenity areas	Delighted customers	
	Green infrastructure	Flourishing environment	

Planning objective definitions:

Risk of Sewer Flooding in a 1 in 50 Storm
1 in 50 design storm event, which equates to a 2% probability of the rainfall event occurring in any given year.

Storm Overflow Performance
The number of spills from Storm Overflows (SOs).

External Sewer Flooding Risk
The number of outside areas within a boundary curtilage flooded by water from our sewers.

Internal Sewer Flooding Risk
The number of properties flooded internally by water from our sewers.

Pollutions Risk
Number of pollution incidents classed as Category 1-3 by the Environment Agency.

Sewer Collapses
Number of sewer collapses.

Dry Weather Flow (DWF) Compliance
Percentage of measured DWF vs permitted DWF.

WRC Quality Compliance
Compliance with the environmental obligations outlined as the sanitary standards in the permit.

Access to Amenity Areas
Amenity score per catchment based on green space use.

Green Infrastructure
Amount of green infrastructure within a catchment

Alongside the Planning Objectives outlined above, the DWMP also asks us to review our assets in all catchments for their resilience against a range of measures.

An assessment, collated to a CaBA partnership level, only included catchments proceeding through the DWMP process (worst case) and demonstrate risk on a scale.

NB: The Catchment Based Approach (CaBA) is an inclusive, civil society-led initiative that works in partnership with government, local authorities, water companies, businesses and

more, to maximise the natural value of the environment. Further information can be found at [Home - CaBA \(catchmentbasedapproach.org\)](http://Home - CaBA (catchmentbasedapproach.org))

The risks are based on AWSL’s business performance commitments, or where this is not applicable an agreed standard through discussions and have been calculated at a water recycling catchment level.

The Middle Level Catchment and most of the associated Boards are in area 2 – Central. The risk for the planning objectives in this area are tabulated below.

	2020	2025	2035	2050
1. Risk of sewer flooding from a 1 in 50 year storm	yellow	yellow	yellow	yellow
2. Storm overflow performance	cyan	cyan	cyan	cyan
3. External sewer flooding risk	yellow	cyan	cyan	dark blue
4. Internal sewer flooding risk	yellow	yellow	yellow	cyan
5. Pollution risk	yellow	cyan	dark blue	dark blue
6. Sewer collapse (assessed at baseline only)	cyan			
7. DWF compliance	cyan	cyan	cyan	cyan
8. Quality compliance	cyan	cyan	cyan	cyan
9. Access to amenity areas	cyan	cyan	cyan	cyan
10. Green infrastructure (assessed at baseline only)	yellow			

Yellow = lower risk to Dark Blue = higher risk

The information gathered during the BRAVA phase informed the Problem Characterisation phase of the DWMP. This looked to understand how complex a catchment was and whether it was wider than a water company only issue. All of the information has helped AWSL to establish the risks in each catchment which is being used to understand the appropriate solutions.

B. Options Development Appraisal Workshops

Nine workshops were undertaken in June. These focused on different areas across the Anglian Water region.

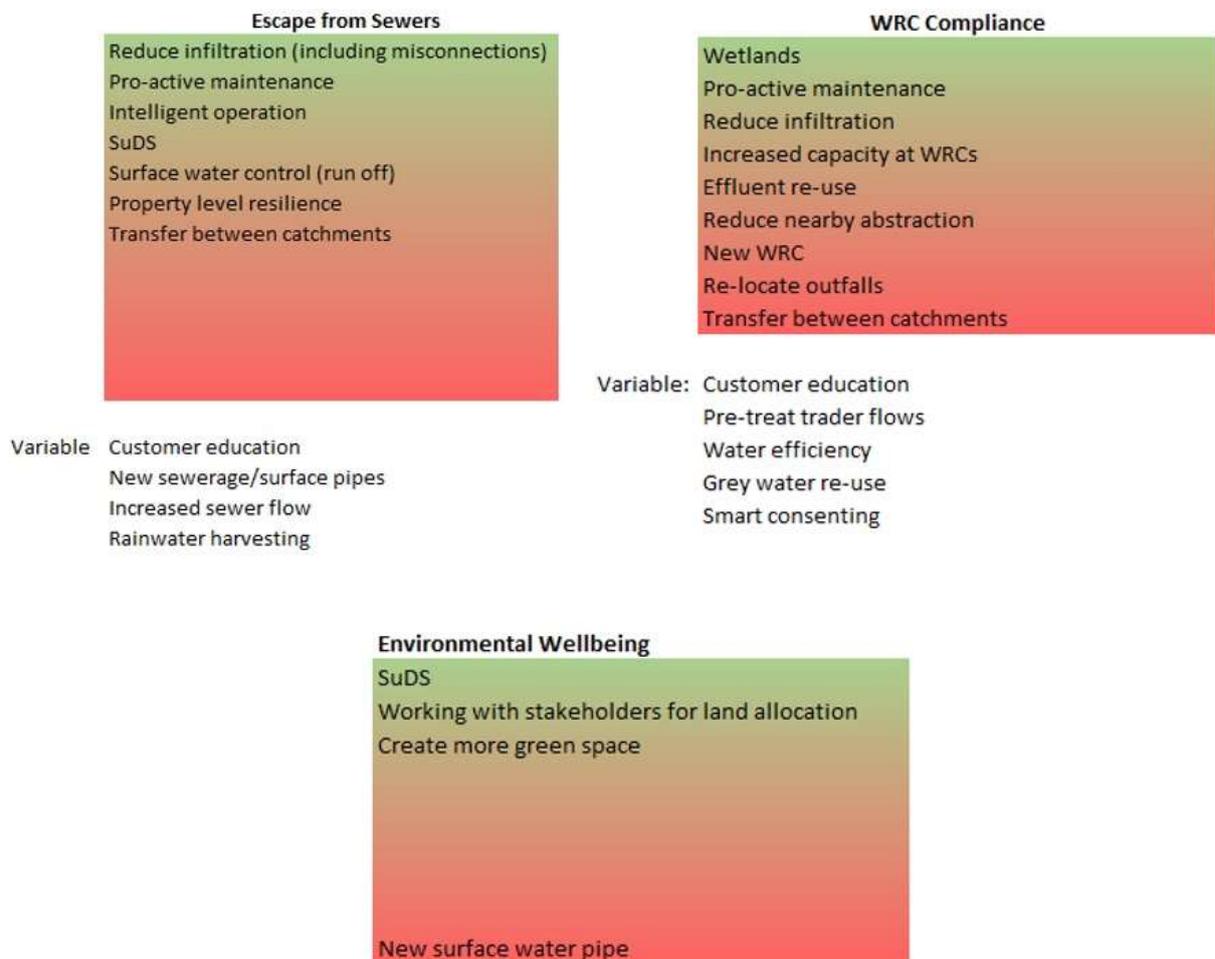
The workshops were well attended with a variety of both organisations and area of expertise which provided AWSL with the opportunity to discuss how it could think differently about solution development, by jointly optioneering solutions which will provide multiple benefits. The separate group sessions aimed to understand if there were differing priorities when creating a hierarchy of solution preferences.

The output of the hierarchy discussion was used to prioritise the solution chosen when addressing a risk. There were some general themes which came out of these discussions:

- The importance of identifying and removing the root cause rather than mitigating the impact.
- Natural based solutions are favoured.
- Often a number of solutions will be required to work together to eliminate risk.

Whilst there were some solution options that all groups placed in a similar area, there were also a number of regional specifics. Where regional specifics occurred, the optioneering of catchments in these areas will have an amended hierarchy to reflect the discussions.

A general overview, where solution options in green were preferred over those in the red area is provided below.



Attendees were asked whether they would be willing to support the development and implementation of options. Most responses provided support with time/resources/expertise, but there was a much wider spread of responses to the support of co-funding a solution for mutual benefits.

It was apparent that there is a huge amount of local knowledge and nearly all organisations offered data, and/or ideas of methods that AWSL could use. It is key to work with people with catchment specific information to fully realise what options are available.

Many attendees were happy that AWSL was taking a collaborative approach, engaging widely and using consultations and were pleased that the DWMP is looking locally, long-term and at the range of issues and benefits.

When asked where the DWMP could be improved attendees suggested funding mechanisms for partnership working, the wider benefits mapping and the adaptiveness of the DWMP. AWSL was advised that it needs to:

- Recognise that solutions identified in the DWMP may not be required in the same timeframe currently expected
- Be resilient to the future variances and
- Adapt to meet the overall long-term strategy to meet changing needs.

Each catchment has been scored using information from both the BRAVA and Problem Characterisation phase. The catchments which scored the highest, due to having the largest risks and complexities, will receive a greater level of optioneering discussion so issues can be discussed in greater detail. AWSL created a list of twenty-six catchments to have group optioneering workshops on, this included Huntingdon and March. This is the minimum list and a few more may be added following feedback.

The detailed catchment workshops are scheduled for autumn.

All catchments progressing through the DWMP will be receiving an optioneering assessment if a risk was identified during the BRAVA stage. Where a risk was identified in the short term (by 2035) then a solution will be identified and an indicative cost provided. Where a risk does not become apparent until 2050 then a strategy will be identified. The solution preference hierarchies from the workshops will support identifying the appropriate solution strategy.

Timeline:

December 2021 – Optioneering complete

Spring 2022 – Programme appraisal

June 2022 – Draft DWMP published

(date tbc) 2022 – Consultation

Spring 2023 – Final DWMP published

General Advice

Assistance has been given, on the Board's behalf, in respect of the following:

- (a) Mr David Harlock – An application for byelaw consent for 3 field underdrain outfalls in the Turf Fen area between Points 171 & 181 and Points 172 & 183 was recommended for approval.

Consulting Engineer

11 November 2021

Warboys, Somersham & Pidley (333)\Reports\November 21

