Agenda Item No: 5

APPLICATION FOR CONSTRUCTION OF IRRIGATION RESERVOIRS BY THE EXTRACTION, PROCESSING AND EXPORT OF SAND AND GRAVEL; WIDENING VEHICULAR ACCESS ONTO THE A1123 (HILLROW CAUSEWAY) AT DOLES DROVE; MINERAL PROCESSING PLANT, WEIGHBRIDGE AND THREE 6 METRE X 3 METRE TEMPORARY OFFICE BUILDINGS

AT: Willow Hall Farm, Hillrow Causeway, Haddenham, Ely, CB6 3PA

APPLICANT: Mr W Dennis, Dennis (Haddenham) Ltd

APPLICATION NO: E/3003/18/CM

To:	Planning Committee
Date:	29 July 2021
From:	Assistant Director, Planning Growth & Environment
Electoral division(s):	Soham South & Haddenham
Purpose:	To consider the above planning application
Recommendation:	That planning permission be granted subject to the conditions set out in paragraph 9.1

Officer contact
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Agenda plans

1. Location Plan (01-18-WHF)
2. Working Proposals (04-18-B-WHF)
3. Reservoir Design (03-18-B-WHF)
4. HGV route options (HGV Route Review Document 15 Fig 01)

1. Background and introduction (including process and publicity)

1.1 The application was submitted on 20 April 2018 with an environmental statement (ES). The applicant had not sought pre-application advice or an environmental impact assessment (EIA) scoping opinion. The mineral planning authority (MPA) considered that the ES did not meet the requirements of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the 2017 Regulations). An amended ES was submitted on 2 July 2018.

1.2 The application was advertised in accordance with Article 15 of the Town and Country Planning (Development Management Procedure) (England) Order. A notice was placed in the Ely Standard on 12 July 2018 and notices erected on Hillrow Causeway at each end of the proposed development area. The occupiers of properties within 500 metres of the proposed development site were notified. The consultation period was 30 days.

1.3 The MPA engaged the following specialists to provide independent advice:

i) Reading Agricultural Consultants – agricultural need
ii) Air Quality Consultants – impact of traffic on air quality
iii) Acoustic Associates – noise

1.4 Having taken into account the responses received from the independent advisers, statutory consultees and other interested parties, on 25 April 2019 the MPA formally asked to applicant under Regulation 25 of the 2017 Regulations to provide further information. Following discussions with statutory consultees and the independent advisers the applicant submitted an amended application and ES on 23 August 2019.

1.5 The amended application and further information was advertised in accordance with Article 15 of the Town and Country Planning (Development Management Procedure) (England) Order and Regulation 25 of the 2017 Regulations. A notice was placed in the Ely Standard on 12 September 2019 and notices erected on Hillrow Causeway at each end of the proposed development area. All consultees and organisations and individuals who had commented on the original application were notified. Individual respondents were advised that if the new information did not change their views their original comments would be taken into account and only to write again if they wanted to change their response. The consultation period was 30 days.

1.6 In March 2020 the applicant submitted amendments to the application to reflect the smaller area of land that the reservoirs would irrigate (the “command area”), following a number of third party landowners having withdrawn from the scheme. Individuals and organisations who had commented on the application were notified. Individual respondents were advised that if the new information did not change their views their original comments would be

taken into account and only to write again if they wanted to change their response. The consultation period was 30 days.

1.7 A second request for additional environmental information was made on 8 October 2020 following a meeting with the applicant, Environment Agency, Haddenham Level Drainage Commissioners (HLDC) (the Internal Drainage Board - IDB) and adjoining landowner and his technical adviser. The information was received on 14 January 2021 and included an amendment to the method of working. The amended application and further information were advertised in accordance with Article 15 of the Town and Country Planning (Development Management Procedure) (England) Order and Regulation 25 of the 2017 Regulations. A notice was placed in the Ely Standard on 21 January 2021. The consultation period was 30 days.

1.8 The application site is at the western end of the parish of Haddenham in East Cambridgeshire (see Agenda Plan 1). It is proposed that the traffic would be routed west through Earith and Bluntisham in Huntingdonshire and the majority of objections to the application have been made by or on behalf of the residents of those villages. For this reason, the advice of the environmental health officers of both local authorities was sought.

2. The proposed development

2.1 The applicant considers that there is a need to secure a long term economic and sustainable source of water for irrigating high value vegetable crops (potatoes and onions) to ensure continuity of production, economic yield and meet buyers' quality expectations.

2.2 The proposal as originally submitted in 2018 was to create four winter-fed crop irrigation reservoirs with a total surface area of 25.2 hectares and a capacity of 694,000 cubic metres by removing approximately 1.1 million tonnes of sand and gravel in six phases from within a site of 38.87 hectares over a period of 7 – 8 years. The scheme had been designed to provide irrigation water for 368 hectares of land owned and farmed by the applicant around and south of the reservoirs and rented land in 5 broad locations in the Sutton/Haddenham/Aldreth area. The final design included the creation of a small (approximately 1.8 hectares) of wetland habitat at the southeast corner of the site adjacent to the A1123 and Doles Drove.

2.3 As noted in paragraph 1.4 the proposal was amended in August 2019 to address comments raised by consultees the MPA's advisers and interested parties. The proposed development would now be a group of three reservoirs with a surface area some 8.33 hectares less than the original proposal. The reservoirs would be deeper than originally proposed and their storage capacity would be the same. This would allow a larger area of land to be restored to agricultural use, conservation grassland and wetland (5.8 hectares at the northeastern corner of the site). The area of the applicant's holding that would be available for rotational cropping of potatoes was amended to 336 hectares. The location of the rented areas was provided and showed a total of 798 hectares of land belonging to 11 separate landowners. This was amended in December 2019 when the Environment Agency stated that its land close to the Hundred Foot Washes would not be available for growing potatoes and the command area was reduced by 61 hectares. The remaining landowners provided written confirmation that their land would be made available to the applicant to rent as required and

the land is in their opinion suitable for growing potatoes subject to sufficient winter stored crop irrigation water being made available.

2.4 HLDC and others raised concerns that the applicant had not demonstrated how the irrigation water would be transferred to the easternmost parcels of rented land. In January 2020 the applicant withdrew the land east of Church Fen Drove from the command area, reducing it by approximately 140 hectares. As noted in paragraph 1.6, the command area was further reduced in March 2020 after third parties had removed their land from the scheme leaving 333 hectares of the applicant's land and 283 hectares owned by two third parties. Allowing for crop rotation 167 hectares of land per year could be used for growing potatoes and onions.

2.5 The scheme that is being considered is to create three winter-fed crop irrigation reservoirs with a total surface area of 9.1 hectares and capacity of 432,000 cubic metres of water. This would create an annual crop usage volume of 347,000 cubic metres of water and allowing for a 10% water transfer loss and an 85,000 cubic metres allowance for water retained at the bottom of the reservoirs. 691,000 tonnes of sand and gravel would be removed in phases working anti-clockwise from the southeast corner adjacent to the road over a period of 5 - 6 years (see Agenda Plan 2). Approximately 11 hectares at the southwest corner of the original application area would remain undeveloped except for a temporary topsoil storage mound. Approximately 4 hectares of land at the northeast corner of the site would be restored to wetland and conservation grassland. The layout of the completed reservoirs is shown on Agenda Plan 3.

2.6 The change in the method of working referred to in paragraph 1.7 was to address concerns raised by the HLDC and individual landowners about the impact of dewatering on groundwater in adjacent land. The mineral would be worked "wet" i.e. without dewatering. Dewatering would only take place during the less sensitive winter period to enable overburden to be placed in the excavated area and the clay side wall liners of the reservoirs to be constructed.

2.7 During the construction of Reservoir A (see Agenda Plan 3) groundwater would be pumped out of the excavation into the adjacent IDB drainage system during October to December. During the spring and summer groundwater would be allowed to recover. During the construction of Reservoir B groundwater would be pumped out of the excavation into either Reservoir A or into the adjacent IDB drainage system during October to February. The Reservoir B void space would be topped up by pumping of clean water from Reservoir A. During the construction of Reservoir C groundwater would be pumped out of the excavation into either Reservoir A, Reservoir B or into the adjacent IDB drainage system during October to March. The Reservoir C void space would be topped up by pumping clean water from Reservoirs A or B. The groundwater dewatering and recharge would be undertaken under an environmental permit which would require monitoring, record keeping, reporting and notification to the Environment Agency.

2.8 The reservoirs would be filled in winter months with rainfall and water taken from the IDB system. It would be pumped from an IDB drain and transferred to the reservoir entry point via a new pipeline across the applicant's land. The water would be distributed in summer to the crops which need irrigating via the network of IDB watercourses.

2.9 Access to the site from the A1123 Hillrow Causeway would be from the existing farm access at the southeast corner of the site known as Doles Drove. The junction would be modified to provide the appropriate visibility splays onto the A1123. The internal access road would be surfaced for at least 50 metres from the public highway and would be a minimum width of 7 metres for the first 30 metres and at least 4 metres thereafter with passing bays. A wheel cleaning facility would be provided.

2.10 The mineral would be processed (washed and screened) on site using plant which would be approximately 6.33 metres at its highest point. There would be a car park, mineral stockpiles (maximum height 5 metres), silt settlement ponds, three temporary buildings and a weighbridge. The hours of operation (reservoir construction and mineral processing) would be 07:00 to 18:00 Mondays to Fridays and 07:00 to 13:00 on Saturdays. HGVs loaded the previous day may leave the site from 06:00 hours Mondays to Fridays. HGVs would not be loaded before 07:00. HGVs would be routed west along the A1123 through Earith, Bluntisham and A1096 St Ives bypass to the A1307 (formerly A14) at Galley Hill (see Agenda Plan 4 Route 1). There would be no activity on Sundays or on bank and public holidays.

2.11 Sand and gravel would be exported at a rate of up to 200,000 tonnes per year. This would be a maximum of 50 and an average of 45 loads per day which would amount to 4 or 5 loads (8 – 10 HGV movements) per hour.

2.12 It is proposed that the first Reservoir A would be fully functional within 2 years of the commencement of development and the second, Reservoir B within 4 years. Drawing 03-18-B-WHF shows the final reservoir layout and the restored land (Agenda Plan 3). The land to the south of Reservoir A would be returned to arable land using overburden, subsoil and topsoil to restore the pre-development land level. The mineral processing area would be returned to arable land by replacing the stripped soils. The land at the northeast of the site would be restored to conservation and wet grassland using overburden and soils to restore the land to approximately the pre-development land level.

2.13 Topsoil and subsoil would be stripped and stored separately. The topsoil would be stored in a continuous mound 3 metres high along the southern (roadside) and part of the western boundaries of the site to create a visual and acoustic barrier during the construction period. The soils would be used to reinstate the land outside the footprint of the reservoirs. Surplus topsoil would be spread on adjacent land within the applicant's holding to increase soil depth. Surplus subsoil would be placed on the upper margins of the reservoirs and the remainder placed in the base of the reservoirs.

3. The site and surroundings

3.1 The proposed development site is in flat, open countryside lying between 0 and 5 metres AOD. It is within the parish of Haddenham approximately 2.2 kilometres from the western outskirts of the village and approximately 1.8 kilometres from the eastern edge of Earith. The closest residential properties to the proposed development site are Eight and Twenty Farm on the opposite side of the A1123; six properties within 170 metres to the southwest including Willow Farm Bungalow which is adjacent to the southwest corner; and three properties within the Willow Hall Farm complex 275- 360 metres to the east.

3.2 The proposed development site is currently agricultural land in arable use. 60% is classified as best and most versatile agricultural land (grades 2 and 3a) and 40% is grade 3b. It is within flood zone 3 and falls within the Haddenham Level Drainage Commissioners' area. The nearest scheduled monuments (SM) are barrows located south and east of Hermitage Farm 470 metres to 1100 metres from the proposed development site and barrows located between 800 metres and 1 kilometre to the northeast at Foulmire Fen and Small Fen. There are no listed buildings within 2 kilometres of the proposed development site.

3.3 The proposed development site is at its closest point approximately 290 metres to the southeast of the Ouse Washes. The Ouse Washes are designated as a Site of Special Scientific Interest (SSSI), Special Protection Area under the EU Birds Directive (SPA), Special Area of Conservation (SAC) and RAMSAR Site, being a wetland of international importance under the Ramsar Convention. This part of the Ouse Washes is managed by the RSPB as a public reserve. There is a public footpath along the Hundred Foot Bank which is close to the southeastern boundary of the Ouse Washes.

4. Consultation responses and representations

4.1 A summary of the most recent comments is provided below. Where previous comments are still relevant, they are included.

East Cambridgeshire District Council (Planning)

4.2 Of primary concern is the visual impact of the proposed works. Hillrow sits higher than the surrounding open farm land and the supporting visual plans show the extent of the site covering a wide area of undeveloped land. The 3m high soil screening and the 5m acoustic screening are likely to appear highly visible for users of Hillrow. The effect may be lessened by the topographical changes between the highway and the surrounding land. The reservoirs themselves appear to be dug in to the existing ground level as opposed to raised up, minimising the visual impact. Whilst the visual receptors for the site are likely to be limited to users of the road and the footpath along Hundred Foot Drain, consideration should be given to the perceived interruption of the uniform and unspoilt characteristics of the area.

4.3 The visual impact of the offices is likely to be more acceptable; the 2.5m high structures would not appear out of keeping with the sporadic agricultural development between Haddenham and Earith.

4.4 There are recognisable benefits of the proposal in terms of mineral extraction and providing the farm with a sustainable source of irrigation water to provide the opportunity to grow a greater area of high quality, high value vegetable crops.

4.5 If the application is approved it is recommended that conditions are imposed placing a time limit on the temporary office units; the operating hours are restricted to a reasonable level; and those recommended by environmental health.

East Cambridgeshire District Council (Environmental Health)

4.6 There is a noise impact assessment (NIA) and the methodology is sound. The application is for a reservoir on farm land for crop irrigation. The outcome of the construction NIA has indicated that the sound levels produced by the construction of the scheme will not exceed the 70dB criterion in BS5228-1:2014 at the closest residential receptors to the site without mitigation in place. The mitigation put forward is a 5m screen immediately around the construction and a 3m bund running parallel with the boundary of the site nearly all the way from the construction works to Willow Hall Farm. The soil/acoustic mound construction criterion level of 70dB will not be breached and the worst case scenario for the reservoir construction works including the mineral extraction and processing operations will fall below the PPG criterion of background level + 10dBA. The NIA predicts, using noise modelling software, that the operational phase of the scheme will fall below the criterion presented in the PPG during all proposed operating periods. Overall, the noise would be noticeable but not intrusive and based on this there is no objection to the development.

4.7 The noise report is based around noise from typical mineral extraction but how long will the mineral extraction take? One process to form the reservoir or dependent on the sale of the mineral. A Construction Environmental Management Plan (CEMP) covering dust and lighting is recommended along with the following standard construction phase conditions:

"The site demolition, preparation and construction works shall be carried out between the hours of 08:00 to 18:00 Mondays to Fridays and between the hours of 08:00 to 13:30 Saturdays and at no time on Sundays, Public or Bank Holidays without the prior written consent of the Local Planning Authority.
Reason: To protect the amenity of the area.

Any waste arising from the site preparation and construction works shall not be burnt on site but shall be kept securely in containers for removal to prevent escape into the environment.
Reason: To protect the amenity of the area.

No security lights or floodlights shall be erected on site without the submission of details to, and written approval from, the Local Planning Authority to ensure a lighting environment of low district brightness at residential properties.
Reason: To protect the amenity of the area."

Huntingdonshire District Council (Environmental Protection Officer)

4.8 The relevant documents and information supplied with regard to air quality have been reviewed and whilst the concerns of local residents are appreciated there is not sufficient evidence to object to the application on air quality grounds. It is considered that the proposals will not lead to a breach in national objectives or an unacceptable risk from air pollution, or a significant impact. The application form specifies the hours of operation as 06:00 – 18:00 Monday to Friday and 07:00 – 13:00 on Saturdays. This should be secured by condition.

4.9 The response is based upon relevant guidance including the 2017 'Land use Planning & Development control: Planning for Air Quality' guidance by Environmental Protection UK and the Institute of Air Quality Management, which indicates from the number of vehicle movements proposed, the impacts can be considered to have an insignificant effect and an

air quality report should not be required. Defra recognise that AQ monitoring cannot be undertaken at every location and provide advice with regard to this, along with modelled air quality data for the whole of England. This indicates that Air Quality Objectives are being met in the area therefore all the information provided indicates that the impact on air quality will not be significant and the proposals will not lead to a breach in national objectives or an unacceptable risk from air pollution.

Haddenham Parish Council

4.10 Traffic related issues remain the largest concern. The additional vehicle movements generated each day by this proposal would be significant especially upon the villages immediately surrounding the site. Hillrow Causeway, although part of the A1123, has an undulating surface which already requires regular maintenance by County Highways. More HCV movement will only cause this maintenance to be more frequently required. There was also considerable concern regarding the pollution and vibration effects of so many additional HCV movements.

4.11 There would be detrimental visual impact to the views across the fen landscape when approaching the Parish along the A1123. The Council, although not qualified to comment upon the technical aspects of the application, would expect the reservoir to be of a size consistent with the agricultural need and not to exceed that which is required. It is noted the area will be developed into a wildlife area eventually and the Parish Council would request consultation and input at this time, along with Haddenham Conservation Society.

Earith Parish Council

4.12 The application should be rejected due to the stability of the local road infrastructure; the lack of foundations on some of the houses on Earith High Street will mean excessive noise and vibration when traffic uses the road thus making them less stable. An increase in HGV movements of 90 per day will increase air and noise pollution in the village. Road safety will be compromised due to excessive HGV traffic. This application will also result in a permanent loss of agricultural land which is needed in this area for crop production.

4.13 The following are the results of a vehicle assessment that was carried out on Earith High Street A1123 on 10th July 2018:

07:00 – 23:00		23:00 – 07:00	
All traffic	10,212	All traffic	702
Lorries	682	Lorries	119
% of lorries	6.7	% of lorries	17.0
Gravel lorries	253	Gravel lorries	15
Gravel as % of all lorries	37.1	Gravel as % of all lorries	12.6

Earith High Street (30mph) and Bluntisham Rectory Road (30 mph) are not suitable for this amount of traffic, or size of traffic, as it stands and with a proposed further 90 movements per day the road infrastructure will only become more unstable.

4.14 Earith High Street has two pedestrian crossings (one to access the shop and one to access the old people's home) and an increase in vehicle movements will impact on the safety of

the residents who use the crossings. The pavements are also incredibly narrow in some parts of the High Street and prams and wheelchairs already need to venture onto the carriageway whilst traversing the High Street. Safety for these pedestrians will also be affected by the increased traffic as the pavements are not adequate due to the road infrastructure. Earith High Street is a very old route and does not have the width capacity to cope with any increase in traffic.

4.15 This application must be rejected as the road infrastructure is not adequate to support the amount of proposed extra traffic. The noise and environmental pollution that the increased traffic will bring will also harm residents' amenity. Earith Parish Council are supporting the Road Safety Group to carry out environmental testing in Earith as the levels of Nitrogen Dioxide (NO2) are incredibly high in Earith and will only get worse if traffic movements are increased.

4.16 The County Council have just installed a new cycle path from Earith, through Bluntisham and on to St Ives at considerable expense and the increased air pollution will discourage the use of the path as users will have to suffer the extra noise and pollution that these vehicle movements will bring to the village. The road safety of the users will also be affected as there are many crossing points along the path which will need to be navigated around the increased vehicle movements. Thus, the private enjoyment of outdoor cycle travel and the increased ability to partake in outdoor exercise will be denied to the residents of Earith and Bluntisham.

4.17 An alternative route could be used via Block Fen which will take the vehicles away from Earith and Bluntisham.

4.18 The Hill Row Causeway A1123 is part of the drought damaged road repair scheme which has highlighted unstable roads that have been damaged due to heavy loads. Work is due to commence on this stretch of road in September [2018]. If HGVs are allowed to use this road then they will cause damage to it immediately after the repairs have been carried out which will result in even more expense for CCC. HGV movements should be rerouted away from Earith and Bluntisham.

Bluntisham Parish Council

4.19 Feel strongly that the development be rejected based on the following grounds: Stability of the local road infrastructure; the lack of foundations on some of the houses along Earith High Street will mean excessive noise and vibration when traffic uses the road, thus making them less stable. An increase in HGV movements of 90 per day will increase air and noise pollution in the villages of Earith and Bluntisham. Road Safety will be compromised due to excessive HGV traffic. The A1123 in Earith and Bluntisham are now 30mph and not 40mph as stated in the application. Due to these factors an alternative route to St Ives must be found possibly going via Block Fen in Mepal or using the A10/A14. This application will also result in a permanent loss of agricultural land which is needed in this area for crop production.

Willingham Parish Council

4.20 Believe that 50% of the traffic from the site would go through Willingham and object to the application for this reason. The B1050 going through the village is already an extremely

overburdened road both with cars and an increasing number of HCVs. The section of the road next to the river frequently requires repair as it collapses under the weight of the vehicles using it. Suggesting that there are no safety issues is simply wrong. The road is both undulating and quite narrow along the river and once you enter the village the High Street can be congested with vehicles coming through and needing to navigate parked cars. The High Street also sees a lot of pedestrian movement needing to cross the road to gain access to bus stops and facilities etc. These ongoing and widely recognised issues with the B1050 through Willingham will only get worse as approved local developments and Northstowe add to the burden.

4.21 When the gravel extraction works were approved at Needingworth it was a requirement of that application that all HCVs were prohibited from travelling through Willingham as it was recognised that this was not a suitable route for accessing the A14. The route has not improved, in fact it has got worse over recent years and is still very unsuitable for the number of HCVs (potentially 90 per day from this site alone) that could be directed along it and through Willingham.

4.22 Should approval be given it must state clearly the prohibition on the use of the already overburdened B1050 through Willingham at any time. A weight limit should be applied to the B1050 between Earith Road and Northstowe to prevent HGV traffic going through Willingham. The application highlights again the long argued need for a bypass around the village.

Wilburton Parish Council

4.23 Has the following objections:
1.The roads are not suitable for this additional number of daily vehicle movements.
2. Although the report states that the roads are in a good condition they are not and that particular part of the A1123 is subject to a lot of sinkage and movement due to the type of soil it is built on.
3. There is no capacity for this amount of lorry movements on any of the surrounding roads.
4. Local knowledge is that there are more accidents than are recorded on this stretch of road - mainly due to the high camber.
5. There should be a County wide holistic approach to water conservation.

Hilton Parish Council

4.24 Oppose any application that has the potential to increase the already high level of heavy commercial traffic travelling through the village, mindful that the route uses a minor road of B classification. If this application is approved a condition should be applied that resultant traffic movements are restricted to the major routes, classified A. Therefore, the economic viability of the application can be considered on that basis at the outset.

Environment Agency

4.25 From a water resources perspective the Environment Agency supports the construction of a storage reservoir in this location. Due to the intensive demand for water during the summer season there is no water available during this period. Therefore, the only way to secure new water is to abstract during the winter months when resources are still available and store it until it is required. This proposed structure [the reservoirs] should not detrimentally affect

local water features (including streams, ponds, lakes, ditches or drains) which includes both licensed and unlicensed abstractions. The abstraction elements will still be subject to an Environment Agency assessment under the Water Resources Act. To date the applicant has not entered into pre-application discussions with the Environment Agency or made a formal abstraction application. Therefore there is still some uncertainty as to whether a license(s) for the construction and operation of the reservoirs will be granted.

Groundwater

4.26 The proposal has been reviewed relative to impacts which may be caused by the dewatering activities artificially lowering the groundwater levels during periods of active dewatering. The main area of concern regarding the revised Hydrogeological Impact Assessment (HIA) (Document 31A) is the risk of artificially lowering groundwater levels and the impact this may have on neighbouring abstractors.

4.27 The HIA identifies features of concern in section 3.9; the Ouse Washes from an environmental perspective and several surface water abstraction reaches. Section 3.10 does not consider there will be any significant impacts to surface water abstractions where the reaches are not in continuity with the groundwater, which is agreed.

4.28 However, for reaches which are in continuity there could be impacts and it is assumed these will be to the east although no survey information is presented to assess this. One concern is the potential impact on the abstraction reach immediately to the south. Whilst there is no survey data assessing the reach's continuity with the sand and gravel aquifer, the mitigation proposed (only dewatering outside of the irrigation season and phasing the reservoir construction) should be sufficient to address adverse impacts. However further information regarding this or agreements between landowners may be required before any dewatering abstraction licence is granted. The applicant has continually been recommended to seek pre-application advice from the Environment Agency on the abstraction proposals both temporary and permanent. The applicant is also advised that additional information that may be required for the licence to be granted includes:
- Update plan 09-18-WHF to show off site borehole locations;
- Quarterly groundwater level contours derived from groundwater monitoring; and
- Elevation data of the licenced surface water abstraction reaches within the zone of influence relative to the elevation of the saturated sand and gravel aquifer and interpretation of potential impacts and monitoring proposals if considered necessary.

Further consents may be required with the local Internal Drainage Board regarding the discharges to local surface waters resulting from this proposal.

4.29 A key piece of information which could enhance the confidence of this proposal and future licence application would be further investigation between the hydraulic connectivity of the surface water abstractions and the underlying partially confined sand and gravel aquifer. This could be achieved in part through topographic survey of the surface water ditch relative to geological information obtained through the offsite boreholes 13-15 as well as through hydraulic monitoring of the offsite boreholes and (particularly those adjacent to the abstraction reaches) surface water abstraction reaches. This information could then be interpreted against current uncertainties and assumptions of the HIA Document 31A.

4.30 On the balance of the information provided, the proposed mitigation in section 3.11 of Document 31A and temporary nature of the dewatering, is considered satisfactory. It should be noted that this mitigation cannot eliminate the risk of reduced groundwater levels, although any impacts should be temporary following successful completion of the development as proposed. Further protection is considered should the assumptions of the HIA not hold true following annual monitoring and reassessment of the mitigation as per section 3.15.1 if required.

4.31 Following review of the HIA no objection to the proposed development is raised. However, there are some outstanding concerns/safeguards that could be controlled through appropriate conditioning of the development and collection of further information:

Condition 1 - On completion of each reservoir and prior to the filling of each reservoir a report or CQA validation completed by a competent engineer must be provided and approved by the local planning authority providing details of the lining and side wall construction of the reservoirs to demonstrate the reservoir is appropriately lined and sealed from the sand and gravel aquifer by an impermeable boundary of adequate construction as per chapter 3.3 of document 30.

Reason 1 - The development's feasibility and sustainability relies on the ability to ensure the reservoirs are a discrete waterbody disconnected from the surround water environment in this case the sand and gravel aquifer. The current proposed reservoirs are below ground and sub water table.

Advice to LPA - Should the reservoirs be incorrectly constructed and the reservoirs be in continuity with the groundwater the applicant will not be able to abstract from them during the summer irrigation season. If abstraction did occur the EA could take regulatory action, however any incorrect construction related to the feasibility of the development would have to be enforced by the planning authority.

Condition 2 - During and prior to the construction phase an annual monitoring report showing the groundwater levels relative to the agreed trigger levels in the HIA should be produced and submitted to the planning authority. If trigger levels are not met the HIA and mitigation measures should be reassessed and agreed by the local planning authority prior to additional mineral extraction or dewatering. As described in the Hydrogeological Risk Assessment Document 31A dated April 2021 and associated appendix 2.

Reason 2 - This is required to be confident the assumptions in the HIA are holding true and any impacts which have not been identified or are greater than envisaged are assessed and enhanced mitigation put in place if required. This need is identified in the HIA document 31A section 3.15.1.

4.32 The EA has not reviewed any technical appraisal as to whether local groundwater levels may rise as a result of the development leading to the removal of the permeable aquifer and replacement with impermeable reservoirs and whether this would cause any local groundwater flooding concerns. Document 31, section 3.3.20 demonstrates the hydraulic gradient is to the east which is perpendicular to the proposed reservoir development and mineral extraction to the southern boundary of the development site being backfilled with soil overburden. Following construction of the reservoirs flow in this direction is likely to be restricted and will have to flow through a smaller cross sectional area of mineral deposits. In

order to maintain normal flow volumes through the aquifer the hydraulic gradient and groundwater levels must increase up gradient unless this additional flow volume is intercepted and stored in the reservoirs or local surface water reaches which from a water balance perspective has been assessed. However, the HIA indicates water will find its level quickly although no assessment of what this new level will be and no quantitative assessment of whether the new level will be of a concern to neighbouring land owners has been made. The only assertion is levels post construction will not be a concern (see sections 3.11.11, 3.11.13 and 3.12.7 in document 31). Furthermore, the area of greatest thickness of sands and gravels has been selected for excavation and no conceptual model has been considered for the remaining aquifer cross section as to the changes in hydraulic gradient and groundwater level needed to transmit the amount of flow previously through the proposed excavated aquifer. Any rises in groundwater level are likely to be hard to theoretically predict with confidence.

4.33 Further Advice to LPA: Mitigation has been built into the method of construction with abstraction occurring between November and March which is outside of the irrigation season. Further mitigation is considered in the form of ceasing dewatering activities in February to allow groundwater levels to recover prior to the irrigation season. The greatest risk will occur during the first season of dewatering which is taking place within the closest proximity of the neighbouring abstraction reach. At the end of this first phase the void is being filled with lower permeability site won material which should further mitigate and artificial lowering of the water table to the south. While the neighbouring landowner to the south does not abstract directly from groundwater the HIA has identified the possible link between the underlying groundwater and surface ditches. There are boreholes on the neighbouring land which have not been included in the monitoring plan. Neither has any assessment been made between the levels of the neighbouring groundwater nor the topographic base of the surface water abstraction reaches. This information may be required as part of any dewatering licence application.

4.34 It is not possible to eliminate the risk associated with this proposal and potential lowering of groundwater levels on the neighbouring land for a temporary time period. The groundwater levels in the area are vulnerable to the climatic conditions and management of the local water levels, which locally could be temporally and possibly permanently altered by the development. From the information provided the applicant has identified suitable mitigation measures to ensure any impacts of reduced groundwater levels are temporary and kept to a minimum during the most sensitive part of the construction. The EA would recommend the monitoring and mitigation schedule is agreed between neighbouring landowners to avoid any potential enforcement difficulties arising in the future. The EA has a regulatory role with regard to the development's proposed abstractions. The two main elements of the development affecting groundwater levels can be considered on a short term and long term basis. In the short term dewatering for construction could artificially lower the groundwater levels in the locality including area outside the redline boundary. The risk of lowered groundwater levels will be temporary during the construction and dewatering phases of the development. The EA's regulatory role will be limited here too, as post development the dewatering groundwater abstraction will cease and the reservoirs filled from surface water sources, during the winter high flow season. In the long term a large portion of permeable material is being extracted and replaced with low permeability backfill or impermeable below ground reservoirs perpendicular to groundwater flow. The HIA has identified this restriction means flow would now have to flux around the reservoirs having a change in hydraulic gradient off site outside the redline boundary to the north and south (section

3.11.13 of Document 31). The long term groundwater level changes have not been quantifiably predicted, although the HIA considers this to be of very low concern. This could lead to locally higher groundwater levels as a result. The EA does not have a regulatory role regarding this possible change in long term in groundwater levels as no regulatory activity is taking place therefore any potential issues would need to be dealt with and enforced through the planning regime. Any rises in groundwater level are likely to be hard to theoretically predict with confidence.

Flood risk

4.35 In accordance with the National Planning Policy Framework (NPPF), development should not be permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower probability of flooding. It is for the Local Planning Authority to determine if the Sequential Test has to be applied and whether or not there are other sites available at lower flood risk as required by the Sequential Test in the NPPF. Although no objection has been raised on flood risk grounds this should not be taken to mean that the proposal has passed the Sequential Test. No objection on flood risk grounds but strongly recommend that the mitigation measures proposed in the submitted Flood Risk Assessment (FRA) (Amber Planning, April 2018, Version 1) are adhered to.

4.36 Temporary site offices are proposed and appear to be of a portacabin style. As the Tidal Hazard Mapping indicates that this site could flood to a depth of greater than 2 metres a condition should be imposed to ensure that the site offices are securely anchored such that they do not pose a hazard during a flood event.

4.37 No objection to this application on flood risk grounds as the proposed reservoirs will be below ground level.

Conservation

4.38 Ouse Washes - It should be ensured that as much existing habitat as possible is protected and enhanced. Further ecological enhancements and habitat creation opportunities should be considered. Extended Phase 1 Habitat Survey - April 2018. Although just slightly more than one kilometre away from the site of the proposed development several of the nearby drains have County Wildlife Site status for their important aquatic vegetation communities. Many of these important plant species may also be present on the site of the proposed development. Habitat enhancements should be included in the plans for the site to allow these species to become established at the site.

4.39 It should be ensured that any water voles and their habitat are protected during the proposed construction works. As part of the plans for the site habitat enhancements which would benefit water voles and link habitats to the wider ditch network should be included.

4.40 The reservoirs will be linked via existing ditches to the Internal Drainage Board Drain system and may be at least partially filled in the winter months (or when water levels are excessively high) by way of gravity feed using a control value mechanism. The Eel (England and Wales) Regulations 2009 may be applicable to either the filling or emptying of the reservoirs and an eel screen may be required. There may also be a need to protect other fish species.

4.41 The submitted Document 11, Ecological Management Plan Including Landscape and Habitat Creation would satisfy the previously requested condition for a landscape management plan.

Contaminated land

4.42 The site is located above a Secondary A Aquifer of River Terrace Deposits, consisting of highly permeable sands and gravels. The bedrock underlying these deposits is unproductive clay strata. The site is also located within 500m of the Ouse Washes and is surrounded by numerous land drains. Surface water quality on site must be ensured due to proximal surface water abstractors. The following conditions are recommended:

If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the Local Planning Authority) shall be carried out until the developer has submitted a remediation strategy detailing how this unsuspected contamination shall be dealt with and obtained written approval from the Local Planning Authority. The remediation strategy shall be implemented as approved.

Reason: To protect and prevent the pollution of controlled waters from potential pollutants associated with current and previous land uses in line with National Planning Policy Framework (NPPF), paragraphs 170, 178, 179 [now 174, 183, 184] and Environment Agency Groundwater Protection Position Statements.

Advice to LPA: Contamination can still be missed by an investigation and this condition gives the Local Planning Authority the ability to require a new, or amendments to an existing, remediation strategy to address any previously unexpected contamination.

The development hereby permitted may not commence until a monitoring and maintenance plan in respect of water quantity, including a timetable of monitoring and submission of reports to the Local Planning Authority, has been submitted to, and approved in writing by, the Local Planning Authority. Reports as specified in the approved plan, including details of any necessary contingency action arising from the monitoring, shall be submitted to, and approved in writing by, the Local Planning Authority.

Reason: To ensure that the site does not pose any further risk to the water environment by managing any ongoing issues and completing all necessary long-term remediation measures. This is in line with paragraph 170 [now 174] of the National Planning Policy Framework.

<u>Natural England</u>

4.43 (5 October 2018) The proposed development site is located within 500m of the Ouse Washes SSSI, SAC, SPA, Ramsar site and therefore has the potential to affect the interest features of this site. European sites are afforded protection under the Conservation of Habitats and Species Regulations 2010, as amended (the 'Habitats Regulations').

4.44 In considering the European site interest, Natural England advises that the mineral planning authority, as a competent authority under the provisions of the Conservation of Habitats and Species Regulations 2010 as amended (the 'Habitats Regulations'), should have regard for any potential impacts that a plan or project may have. The Conservation objectives for each

European site explain how the site should be restored and/or maintained and may be helpful in assessing what, if any, potential impacts a plan or project may have.

4.45 Natural England supports the views of the RSPB that the site should not be used for wildfowling due to the potential for attracting birds from the Ouse Washes SPA and Ramsar site. To ensure no adverse impact to the nearby internationally designated wetland site, and qualifying bird species, any planning permission should prevent the future use of the site for wildfowling or angling.

4.46 Natural England notes and supports the concerns raised by the RSPB that this, and similar mineral excavation proposals, could affect the progression of allocated sites such as Block Fen and Needingworth Quarry (Ouse Fen). In particular, this may have the potential to stall the delivery of landscape scale net biodiversity gain and Ouse Washes supporting habitat through the agreed restoration schemes. Given this potential risk the MPA is urged to ensure that this scheme, if permitted, delivers significant benefits for the natural environment, including the Ouse Washes.

4.47 (1 May 2020) It is noted from the applicant's Statement of Revised Information (March 2020) that the project design has been reconfigured following reappraisal of the irrigation water need, and subsequent to a meeting with the EA and IDB in February 2020. The scheme has been reduced in overall scale hence potential impacts are considered likely to be less; other than Section 3 (Proposed Development detail), the conclusions of the original Environmental Statement are broadly unchanged. Central to the amended scheme is a revised layout of the proposed reservoirs and reduced volume of mineral to be extracted.

4.48 It is noted that the conservation grassland and wetland area, detailed in the revised Ecological Management Plan (EMP) (March 2020) has been reduced accordingly to c.4ha. Given this the applicant should set out details of a scheme for habitat creation, monitoring and management in-perpetuity that will deliver maximum benefits for biodiversity. The EMP should be amended to include all updates to species survey and mitigation proposals and details of construction and operational mitigation measures including methods, timing of works, lighting, dust control etc. Delivery should be secured through appropriate planning condition/s.

4.49 (19 May 2021) Natural England provided a response to the applicant's Statement of Revised Information and revised EMP on 1 May 2021. It was advised that the applicant be requested to review the HIA in the light of emerging evidence regarding the potential for dewatering activities to adversely impact the Ouse Washes SPA and Ramar site through summer flooding. Abstraction in this location, particularly in-combination with other abstractions, could have an adverse impact on the Ouse Washes by affecting river flows along the Ely Ouse. Reduced flows are believed to be affecting bed levels at Denver and therefore the speed of drainage of the Ouse Washes and/or potential for smaller, damaging floods in the early bird breeding season. The EA is understood to be undertaking modelling to investigate this issue and that this has been taken into consideration in their updated response to the applicant's revised HIA (14 May 2021).

4.50 The revised HIA acknowledges that, without mitigation, dewatering at the north end of the site could potentially impact on the Ouse Washes; however, the report concludes that implementation of mitigation measures detailed in section 3.11 will ensure that any impact to the Ouse Washes can be considered "insignificantly small". Whilst this may hold true for

the proposed scheme in isolation, the effects of the scheme “in-combination” with other existing (and proposed) abstractions has not been addressed through the Revised HIA. The EA is carrying out modelling to investigate the effects of multiple existing / proposed abstractions on river flows and the impact this may have on the Ouse Washes. The findings and recommendations of this work are urgently required to inform clear mandate and / or guidance with regard to future abstraction applications. An update and timescale for progressing this work would be welcome from the EA. In the meantime, their specialist hydrogeological expertise is looked to for assessing individual applications such as this, and mitigation and monitoring measures to ensure no adverse effect on site integrity.

4.51 The EA’s response indicates that proposed surface water abstraction, from reaches that are in continuity with groundwater, could have an adverse impact on groundwater levels, noting that the HIA has not presented survey information to assess this. Whilst the EA considers that the proposed mitigation set out in 3.31 of the Revised HIA is satisfactory, bearing in mind the temporary nature of dewatering, they advise that outstanding concerns / safeguards should be addressed through planning conditions. [see paragraph 4.31 above]

4.52 Natural England is supportive of the EA’s advice and recommendations for further information to be secured through planning conditions and are satisfied that fulfilment of these requirements will provide sufficient safeguard to the Ouse Washes from the effects of abstraction through this application, alone and in combination. Subject to delivery of mitigation measures set out in the Revised HIA, being secured through planning conditions, Natural England is satisfied that the proposed scheme will not have adverse effect on integrity of the Ouse Washes SPA and Ramsar site. Therefore no objection is raised to the application.

4.53 Natural England welcomes that the Environment Agency has suggested additional pre-commencement planning conditions requiring 1) the restricting of operations until a water quality monitoring and maintenance plan is submitted and agreed; and 2) that no-dewatering is to take place until a Hydrological Monitoring Scheme is submitted and approved. Natural England is satisfied that securing these requirements through planning conditions will be sufficient to demonstrate that the proposed scheme will not have an adverse impact to the Ouse Washes SPA and Ramsar site.

Lead Local Flood Authority (LLFA) (CCC Flood & Water Team)

4.54 No objection to the proposed development. The applicant has demonstrated that surface water from the proposed development will be captured within the reservoirs. During construction surface water will be pumped from the reservoirs and processed in a lagoon before either being reused or discharged from site at greenfield runoff rate. Once the reservoirs have been constructed, they will store water for the use of irrigation of the surrounding farmland. In the event that the reservoirs fill there will be an overflow weir discharging water into the neighbouring watercourses at greenfield rates. The submission of a surface water drainage scheme should be secured by condition.

Haddenham Level Drainage Commissioners (Internal Drainage Board (IDB))

4.55 The effective operation of water control when filling and emptying the proposed reservoirs is of paramount importance in terms of reviewing the impact of this proposal on the local area. Water is managed in the area under the control of the IDB by lowering water levels between

September and March then letting the levels build up for the summer period. This is possible because when the fen was drained, inlets were installed to allow water to flow back into the drainage district from the Old West River and the Hundred Foot River in order to raise the water levels in the dykes and keep the growing medium moist enough to grow crops.

4.56 As yields have increased and the demand for summer irrigation has become more prominent so has the need for water availability. By carefully managing the inlets the IDB has been able to provide for the needs of all the farmers who have summer licences, notably during the dry summers of 2018 and 2019. At no time were the farmers in the district put under any Environment Agency restrictions as was the case for other IDBs in the South Level. Maintenance of summer water levels is dependent on the EA being able to maintain the water level in the Old West River and allowing water through the inlets. It is understood that the EA is highly unlikely to sanction increased quantities being taken from the river, so any further water supply must come from winter storage.

4.57 The IDB has agreed with the applicant in principle that winter fill water would be taken from the Division Drain via a dyke owned by the applicant which will need to be improved. Water would be let out of the reservoirs into another applicant-owned dyke, also to be improved, and then on into the Haddenham system. The IDB wish to have full control of discharge from the reservoirs and this would be the subject of a written agreement between them and the applicant. This high degree of control is needed as the IDB currently operates six inlets from the Old West River and two from the Hundred Foot River. The amount of water let into the system has to be controlled on a daily basis to ensure that the lower areas do not flood, but that sufficient water is available for irrigation on the higher areas. Differing levels are maintained by dams throughout the district.

4.58 An agreement between Dennis (Haddenham) Ltd and The Haddenham Level Drainage Commissioners has been signed; its purpose is to regulate the operation of the reservoirs post-construction.

4.59 The initial concern about the impact on summer ground water levels has been partly addressed by the change to removing the gravel without dewatering. However, the Commissioners still need to be assured that ground water levels from April until September will not be affected. To ensure this does not happen, dewatering must only be only permitted from October to December and not extended to include January, February and March.

4.60 The Commissioners resolved that dewatering from October to December would be acceptable but that the planning committee should be asked to reject the application if the dewatering period is to be extended to February/March. They therefore object to the application as it stands. If the Commissioners could have the confidence that this important point is addressed, then they would be able to remove their objection.

<u>Ecology Officer</u>

4.61 The reduction in the quarrying activities, outside of Minerals and Waste [Plan] allocation sites, associated with the revised layout of the reservoirs is welcomed. The area of conservation grasslands has been reduced to 4 hectares and will be created using excess overburden and subsoils (after minerals have been extracted from the area). The proposed

relocation of the conservation grasslands away from the road and towards the Ouse Washes SSSI is supported.

4.62 The Environment Agency and Natural England's advice on the potential impact on the Ouse Washes SSSI should be taken. It is disappointing that features for wildlife have not been incorporated into the design (as previously recommended by the RSPB).

4.63 A dust management plan must be implemented to minimise any potential adverse impacts; the implementation of the Document 12 - Dust Management Scheme (submitted in July 2018) should be secured by condition.

4.64 The updated Ecological Management Plan (EMP) Document 11 (B) reflecting the changes to the reservoir layout is welcomed but it does not provide any specific detail about ecological constraints at the site. Its purpose is to provide information on the ecological interest of the site and how it will be managed throughout the development. This should be based on 'Construction Environment management Plan for Biodiversity' as set out at British Standard BS2020:2013. The following further information is required:

1. Where nesting birds have been found, what protection measures will be implemented, for example:
a. What minimum size of the exclusion zone?
b. Will the nest be monitored / how long will the works be excluded?
c. What specification of protection fencing will be used?
2. What process will be used to locate the amphibians (e.g. strimming and finger-tip search). Details of the receptor site should be provided.
3. Consideration should also be given to reptiles, particularly during vegetation clearance and removal of ditches. Methodology for this should be provided.
4. A map should be provided to identify the ecological constraints and the protection features (e.g. protection fencing) for the site.

4.65 The Water Vole survey undertaken in 2017 has become out-off-date with both wet ditches scheduled to be removed (WD1 and WD2) likely to have become suitable habitat for Water Voles. If Water Voles are present a mitigation strategy should be produced and secured through by condition requiring all survey work and mitigation strategy to be completed prior to the commencement of any ground clearance works on the site (given that ditch clearance will begin in Stage A).

4.66 The revised location of the cohesive block of conservation grassland (drawing 06-18-B-WHF), which is far more suitable to achieve its conservation objectives is welcomed. The information provided within the Ecological Management Plan (Document 11B) with regards the proposed landscape scheme and habitat management is welcomed, but further details of the restoration scheme should be secured through a suitably worded condition to ensure long-term success of the biodiversity features. Including (but not limited to):
- Soil / landscape specification demonstrating how a low-nutrient soil profile will be created from on-site subsoils and top-soil, to enable wildflower grassland to establish, including:
o soil testing to create acceptable pH / nutrient-levels for the soil
o measures to reduce residual fertility (e.g. growing a crop prior to sowing)
o treatment of high weed burden associated with arable reversions to meadow - Landscape specification for the hedgerow
- Details of the scrapes, including:

o size and profile
o expected water-levels (taking into consideration climate change projections)
- Final levels of restored land
- Take into account water vole mitigation strategy (if required, see above).

4.67 The proposed natural regeneration is supported but would urge caution about transporting plants from nearby ditches. It would be useful to translocate some key plants but this must be undertaken sensitively to avoid impact on the ditch and its associated species (e.g. Water Voles) and avoid transplanting species that can quickly become invasive and swamp the scrapes (e.g. bulrush, reeds and Crassula Helmsii).

4.68 Monitoring - Disappointingly, the proposed habitat monitoring contained within the EMP has not taken on board previous recommendations by PCC's Wildlife Officer James Fisher. All habitats (grassland, open water / scrapes and hedgerows) should receive annual habitat assessments to determine whether establishment is taking place or whether any remedial action is required, such as re-seeding, replanting or weed control. The EMS should be updated to reflect this. Alternatively, this more detailed information could be secured through a suitably worded condition for a Landscape and Ecological Management Plan. In addition, the habitats should be assessed against specific target conditions, so that it possible to ascertain whether they have reached their goals or whether remedial action is required. For example: - Percentage of open water retained / percentage coverage by macrophytes or emergent vegetation - Target NVC grassland / maximum percentage of weed species or shrub etc. - Percentage of hedgerow whips to be replaced (if dead / dying or diseased) during beat-up / when begin formative pruning

4.69 Conclusion - Further detail is needed in the Ecological Management Plan to address the concerns set out above. If planning permission is granted the following should be secured through suitably worded conditions:

1. No ground works undertaken prior to the completion of Water Vole surveys and the survey report and Water Vole mitigation strategy submitted to and approved in writing by the LPA.
2. Implementation of the Dust Management Plan
3. Landscape and Ecological Management Plan (to provide further details of the submitted Ecological Management Plan) should be submitted to and approved by the LPA*. This should be implemented in full for a minimum of 5 years
4. Detailed restoration scheme, including final restoration levels, creation of soil profile for conservation area and details of scrapes.

4.70 In September 2020 East Cambridgeshire District Council adopted a Natural Environment – Supplementary Planning Document which is a material planning consideration. Policy SPD.NE6 Biodiversity Net Gain states that all developments should be "providing measurable net gains for biodiversity" and "where insufficient, incomplete or inaccurate information is submitted, meaning the Council is not able to determine whether a proposal is likely to lead to a net gain in biodiversity, a proposal will be deemed to fail the policy requirements".

4.71 No Biodiversity Impact Assessment has been submitted as part of the planning application and therefore, the proposed development does not clearly / robustly evidence how the scheme will deliver net gain and as such does not accord with Policy SPD.NE6. Therefore,

an objection is raised until clear and robust evidence setting out the delivery of net gain in biodiversity (as set out in paragraph 3 of policy SPD.BE6) is submitted. This this evidence should be supported by a suitable biodiversity net gain calculator based on the latest Defra metric.

Royal Society for the Protection of Birds (RSPB)

4.72 Having read the further information submitted by the applicant, withdraws earlier objection to this application subject to the provision of conditions:

- Mandating further baseline monitoring and instigation of a hydrological monitoring scheme as suggested by the Environment Agency
- Restricting future use of the reservoirs and habitat creation to preclude angling and wildfowling, as suggested by Natural England.
- Providing a monitoring scheme to ensure the successful establishment and management of the habitat creation on-site, as suggested by the County Ecologist.

4.73 Despite the reduction in the scale of the proposed extraction, the RSPB retains strong concerns with regards to the impacts this un-allocated site proposal may have on the timely completion of the Block Fen masterplan and the significant habitat creation opportunities this allocation will deliver. As such, we do not believe that the application is in line with County Minerals Plan policy.

4.74 Water Management - support the provision of a condition on consent mandating further baseline monitoring and an ongoing hydrological monitoring scheme, as re-iterated in the Environment Agency's representation of the 10/01/20. This is to ensure that the hydrological effects of the development are as modelled, with provision to take further mitigation action should this not be the case. This would ensure compliance with minerals plan policies CS1 and CS3.

4.75 After-use and of Reservoirs and Habitat Creation / Monitoring - support the provision of a condition restricting after-use of the reservoirs and habitat creation to preclude angling and wildfowling as set out in the representation from Natural England 25/09/19. This is to ensure no impacts on the conservation objectives of the Ouse Washes SPA/SAC. In addition, a condition is required to mandate regular monitoring of the habitat creation to ensure that the planned habitats are established successfully and managed appropriately, extending to 25 years after their creation.

4.76 Impacts on County Minerals Plan Allocations - Despite the reduction in the size of the proposed minerals extraction by almost a third, still hold strong concerns regarding the impacts this non-allocated site may have on the timely implementation of the Block Fen masterplan, and the significant wet grassland habitat creation opportunities arising from this, by significantly increasing the supply of sand and gravel in the area. As per previous representations, believe this means that the proposal does not comply with policies CS1, CS4 and CS13 of the adopted County Minerals Plan.

CCC Transport Assessment Officer

4.77 Transport Statement Review - Automatic traffic count was undertaken on Station Road from 12/10/2017 to 18/10/2017. The latest 60 months accident data has been provided and no cluster sites have been identified. The proposal will involve the exportation of up to 200,000

tonnes of sand and gravel per annum. The temporary construction works are estimated to last a temporary period of 7-8 [now 5-6] years. Access to the site for the proposals will be a new junction onto Hill Row Causeway, from Doles Drove. A formal bell-mouth junction will be provided with a 7.3m road width with 15m radii. The junction has been designed to prevent HGV access to the east. The site access junction has been tracked with a maximum legal articulated vehicle which shows two vehicles can both enter and leave the site in forward gear without conflict.

4.78 It is proposed the site will generate 900 tonnes a day, transported in 20 tonne loads. The site will therefore generate on average 45 HGV loads per day. It is assumed 10% is generated during peak periods, this equates to 9/10 two way movements. This equals one HGV every 6 minutes. In terms of vehicle routeing it is likely that traffic associated with the proposals will route to the west towards St Ives and hence through Earith and Bluntisham.

4.79 The site access design has been reviewed in the context of Design Manual for Roads and bridges TD 42/95. Figure 2/2 indicates that a simple priority junction is appropriate where major road 2-way flows do not exceed 13,000 vehicles/day and where minor roads do not exceed 300 vehicles/day. The ATC shows Hill Row Causeway carries 3,600 vehicles/day. The proposed traffic generation for the site is 90 HGVs and 6 staff movements, equating to 96 movements per day. On this basis, the site access design is wholly appropriate to serve the site.

4.80 Conclusion**:** The proposal would not result in a severe impact on the highway network therefore no objection to the application as submitted.

CCC Highway Development Engineer

4.81 The original junction design would have prevented right turn in by HGVs but in doing so may compromise legitimate right turn in by other smaller commercial vehicles which are not constrained by the routing agreement. There is nowhere convenient location for vehicles to U-turn to the west of the site and come back to use the left-in arrangement. They may therefore try to make the turn, and potentially compromise the use of the through road in doing so. The constrained junction geometry on the east side may also push larger vehicles legitimately turning left out of the site into the opposing traffic flow. As noted above, HGV traffic delivering locally could also potentially turn left, and the layout would not allow them to do so safely. The development would be better served by a conventional junction with a routing agreement, provided that the planning authority are confident that this could be enforced. The revised junction design (Proposed Site Access 19413-02-1 Rev D July21) is acceptable.

CCC Historic Environment Team

4.82 The archaeological evaluation report describes work undertaken between September and November 2018 in which the ground water heights hindered close scrutiny of the lowest deposits across the site. However, very useful evidence was found that indicated the presence of a newly mapped east-west tributary of the prehistoric Gt Ouse river crossing the southern part of the site. Figures 5-8 of the report produced by Pre-Construct Archaeology Services (dated May 2019) demonstrate the c. 150m wide channel and its relative depth (at least 3m below ground surface), though the deepest part of the channel could not be established in the evaluation. Associated with the channel were former dry

land surfaces preserved beneath a series of later fen deposits of peats and alluvial layers. Human occupation evidence was seen in the discovery of 101 struck flints and 21 sherds of pottery – all found on the north bank of the river channel. No cut features (pits, ditches, postholes) were found, though these should be anticipated as being present given the relatively high levels of material culture recovered from the work. Animal bone was also present, though whether from natural deaths or human agency cannot be established.

4.83 Across the site, the trenches revealed large waterlogged trunks and boughs of oak, ash, willow/poplar and alder were found with distinctive deposits of 'bear's muck', a detrital woody peat, indicative of the drowning of deciduous prehistoric woodland that had been present in a former dry land area adjacent to riparian belts that flourished along the river channel. Two dendrochronology dates were obtained from stressed oak trees, indicating that the environment was changing from intermittently wet to permanent high ground water conditions and the development of the marsh around the end of the 3rd millennium BC. Dates of 2058 - 2014BC show that by the end of the Neolithic /start of the Early Bronze Age period dry land conditions had been replaced by fen and marsh conditions. It is likely that the spring-fed lake recorded as being present within the development area emerged at this time, though may have only been short lived, as both it and the river channel became gradually choked with reed growth and peat development. No further human occupation is evident until the earliest land drains were inserted, a considerably long time after the adjacent 17thC drainage scheme of the Hundred Foot Washes was installed. While the large timbers are sought after by wood carvers and sculptors, there is no archaeological interest in this wood as none of the examined evidence exhibited felling, structural use or any indication of human agency.

4.84 The development area is located in an important archaeological location, surrounded as it is by numerous scheduled monuments of Neolithic long barrows (burial mounds: the excavation of one at Foulmire Fen revealing a large preserved wooden mortuary structure and internal inhumations: HER ref SM1019983) and cemeteries of Bronze Age round barrows. Additionally, a large Neolithic causewayed enclosure (ceremonial monument) is located close by in the Lower Delphs. Furthermore, these sites are contemporary with a wider range of prehistoric settlement and funerary activity that has been investigated over many years in Needingworth Quarry to the southwest of the proposed development area, where recent evaluation has revealed the presence of preserved prehistoric fish weirs constructed in one of the smaller tributary channels of the large main ancient Gt Ouse channel.

4.85 However, the archaeological interest of the proposed development area has been mapped as occurring solely along the northern margin of the river, where a spit or area of occupied, former dry land surfaces displayed significant evidence of human activity. As the mineral extraction pits to form reservoirs will have a total impact on the remains, the river and its north bank should form the focus of an archaeological mitigation strategy that can be secured by a suitable planning condition should the scheme obtain planning consent.

4.86 HLDC are concerned about the rate and extent of potential de-watering in the district and land holdings around the development area, while Enzygo and Stantec have both indicated that hydrogeological modelling suggests that this will be limited to a radius of 144m, that will be controlled via various mitigation measures established by monitoring. Additionally, the Environment Agency, RSPB and Natural England have raised concerns about the draw-down effects on summer water levels in the nationally and internationally designated Ouse

Washes: an important wetland habitat and ecological zone. Using the details soils, pollen and geoarchaeological and geophysical evidence contained in Document 24 report, it is believed that the results of the HIA regarding dewatering and draw down effects can be challenged.

4.87 Attention is drawn to hydrological monitoring research that was undertaken by Professor Charles French of the University of Cambridge that expressly focussed on the effects of water draw down through quarrying activity on waterlogged archaeological remains in various locales of the Cambridgeshire fens - an area in which some of the best British prehistoric sites are preserved. One of the Case Studies contained in a paper commissioned by the journal WIREs Water is based in Over parish within the Needingworth Quarry 3km to the south west of the application site. This study used a multi-parameter monitoring programme that is described in the report. The results showed: "…groundwater levels fell by up to a three-fold factor (to more than 5m below the modern ground surface) with a draw-down 'halo' extending up to 500-600m beyond the quarry face, and up to 1,500m downstream. During quarrying, there was increased fluctuation in most parameters: especially higher levels of dissolved oxygen and positive redox values (Figs. 5-7), and a lowering of soil moisture levels throughout the floodplain and archaeological sequences. Moreover, the moisture regime reacted differently depending upon whether it was within the peat or the more moisture retentive silty clay alluvial overburden or well drained sandy loam palaeosols and feature fills, or the free-draining sand/gravel substrate."

4.88 The Lessons Learnt and Outstanding Issues section remind local authority historic environment curators and advisors that development impact can be unseen and far reaching, requiring appropriate mitigation strategies where impacts cannot be avoided through preservation in situ schemes and also to protect off-site heritage assets. Baseline monitoring for a period of two years before and subsequent to quarrying/dewatering is advised to be able to devise and apply suitable hydrological mitigation measures. Earlier advice recommends archaeological mitigation via a planning condition, the nature of which is yet to be defined, so this is not an issue here. It is important to note, though, that known off-site archaeological sites and monuments - including nine prehistoric scheduled barrows (burial mounds) and ceremonial sites, as well as the Civil War fort at the south end of the Old and New Bedford Rivers of the former Hundred Foot or Ouse Washes - occur just beyond the 500m halo draw down effect (all within a 1.5km radius), while as yet unknown assets within the radius may well suffer. It is unjustifiable, however, to request that a broader evaluation is undertaken to define what may be lost as evaluation is likely to destroy more than can be protected via this development.

Air Quality Consultants

4.89 The applicant's Document 20 – Air Quality Assessment (AQA), dated 14th May 2019 has been reviewed. The AQA addresses previous concerns regarding the lack of information about the air quality impacts of additional HGV movements generated by the proposed development. The AQA has presented the results of dispersion modelling based on an additional 76 HGVs per day* travelling through the village of Earith. The model follows an appropriate methodology, including the inclusion of 'canyons' within the model and results have been verified against local monitoring data from the "Woodlands Lampost Earith High Street" monitoring location.

[*Annualised therefore spreads the traffic over 365 days rather than operating days.]

4.90 The model results indicate that, whilst concentrations are elevated within the 'canyon' sections of the village, the relevant air quality objectives are not being exceeded. The maximum predicted changes in annual mean nitrogen dioxide and PM10 concentrations as a result of the increase in HGV would be 0.37 ug/m3 and 0.06 ug/m3 respectively. These changes are considered 'negligible' (as classified by IAQM guidance) and would not affect compliance with the objectives. On this basis, the impacts are described as 'not significant'.

4.91 The approach to the air quality assessment and its conclusions are appropriate. Therefore, additional traffic generated by the development would not lead to significant air quality impacts.

CCC Public Health

4.92 Nothing further to the technical comments from Air Quality Consultants. The predicted increases to NO2 and PM10 are considered negligible and therefore any adverse health effects to the general population are likely to be negligible.

Acoustic Associates

4.93 (April 2019) The initial noise impact assessment carried out by REC Ltd for the applicant assesses the noise impact from the construction of top soil and subsoil mounds and subsequent operation of the reservoirs including the haul road but not the impact of increased traffic.

Site operations

4.94 REC Ltd's noise survey shows LAeq,T ranging from 63.3 dB(A) to 69.8 dB(A) and LA90,T (background noise levels) ranging from 35.7 dB(A) to 50.6 dB(A) during the proposed operating hours. They then use 44.5 dB(A) as an 'average' background noise level. This level is considered to be too high. Statistical levels should not be averaged arithmetically. It is more appropriate to carry out a statistical analysis of the 'most likely' or 'typical' LA90. Such an analysis of the LA90 levels measured by REC Ltd. reveals a 'typical' level of 43 dB(A). Backgound noise levels near the proposed site (Location 3, see Figure 1) were measured over a 30 minute period from 11:08 to 11:38 hours on 20th March 2019. The measured LA90 was around 39 dB(A). It is considered that REC Ltd. used a background noise level that is too high by at least 2 dB to assess the noise impact of the operational phase of the site against it, therefore the assessment is not robust enough.

4.95 The noise sources assessed and their sound power levels used in the assessment have been compared with similar equipment listed in the BS5228-1 tables and there were no large discrepancies found. It is considered that the noise data and estimated on times used are robust.

4.96 In their assessment REC Ltd point out that it is inevitable that there will be some disturbance caused to those nearby during the clearance and construction phases of the site. A noise limit of 70 dB(A) LAeq,T over the working day (08:00 to 18:00 hours Mon-Fri and 08:00 to 13:00 Saturdays) from BS5228-1 is adopted. The PPG for minerals also allows for a temporary fixed noise limit, albeit a one-hour average limit (70 dB(A) LAeq,1 hour).

4.97 The noise impact is assessed at three residential locations to the southwest (Willow Farm Bungalow), to the south (Third Bridge Holiday Home) and to the southeast (Willow Hall Farm). A worst case assessment has been carried out assuming all noise sources are at the closest distances to the receptors. The highest calculated LAeq,10hr is 70 dB(A) at Third Bridge Holiday Home, exactly at the noise limit, without any allowance for a margin of error. Reviewing the calculations using standard propagation formula we have calculated levels 3 dB higher than REC Ltd, thus exceeding the criterion at Third Bridge Holiday Home by 3 dB. It is, however, unlikely that all machines will be working at the same location closest to that receptor (45 m north of Third Bridge Holiday Home). It would be more appropriate to model the noise propagation from the machines as line sources along the southern boundary of the site. This has been done by Acoustic Associates using the sound power levels quoted in the REC report. The noise contours show that the noise level at the southern receptor (Third Bridge Holiday Home) is between 60-65 dB(A), which would be within the limit.

4.98 It should, however, be noted that the 70 dB(A) limit can be used only for temporary works, the PPG suggest a period of up to 8 weeks. The applicant should confirm how long the construction and earth mound forming phase will last and should agree that period with the local authority.

4.99 The predicted noise levels from the operational phase are underestimated by REC Ltd. The same sound power levels, on-time assumptions and locations were used in our model carried out using IMMI 2016 software (also using calculation formulae from ISO 9613-1. The model includes the 3m bund at the southern border and 5m barriers around the processing area. The predicted noise levels are shown in the table below, compared with levels predicted levels by REC Ltd.

Receptor	Calculated LAeq,1hr, dB(A) (REC Ltd levels in brackets)	Criteria (LA90 + 10 dB)	Difference + / - (dB)
South West – Willow Farm Bungalow	53 (46)	54	-1 (-8)
South – Third Bridge Holiday Home	58 (52)	54	+4 (-2)
South East – Willow Hall Farm	48 (39)	54	-6 (-15)

There is a large discrepancy between the two models. In our predictions, the LA90 + 10 criterion as well as the absolute limit of 55 dB(A) is exceeded. The main noise sources are the Volvo loading shovel and Volvo dumpers. The contribution from the haul road is negligible in comparison.

4.100 The night time (6am – 7am) noise level calculation from the haul road were verified. Some REC Ltd calculations and assumptions are unclear, e.g. they quote a sound power level of a 32t HGV as 106 dB SWL @1m. Sound power level does not depend on the distance. Furthermore, they then use a value of 104 (rather than 106) for calculations. 106 dB SWL is considered robust for this type of HGV. Using this value, assumed speed, quantity and distances as in the REC Ltd report, the Acoustic Associates model calculated similar noise levels within + / - 3 dB of the levels calculated by REC Ltd. The night time levels are within the limit of 42 dB(A).

4.101 Conclusions for site operations - The noise data related to machinery, the assumed on-times and locations used by REC Ltd were found to be robust. The local authority should require clarification from the applicant on the planned duration of earth mound construction and should agree on a maximum construction period. There is a large discrepancy between calculation models of the site operation from REC Ltd and Acoustic Associates, despite using the same input data and assumptions. REC Ltd should submit calculation details and / or CadnaA metadata to show how their predicted levels were obtained. It is possible that further mitigation measures will be required to reduce the operation noise by at least 3 dB.

4.102 (28 May 2019 – response REC Ltd response to April 2019 report) If mound construction should last for more than 8 weeks, an additional assessment should be undertaken. This of course means, that additional mitigation should be undertaken as well. This is satisfactory.

4.103 The input information given by REC Ltd does not extend much above what they have already given in their initial report. For example, distances between source and receiver are not given. A barrier attenuation is given as 8 dB, which is a reasonable assumption. The ground absorption is clarified as 1.0 (previously 0.6 was stated), which is also a reasonable assumption for a rural area.

4.104 Distances have been estimated from available maps. Assuming the distance between the Willow Hall Bungalow and the nearest machinery is approximately 140m and the distance between Third Bridge Holiday Home and the nearest machinery is approximately 88m, the noise levels calculated using simple propagation formulae (Lp = Lw – 20log(d)-11-8) confirm REC calculations within +/- 2 dB. The predictions carried out by REC Ltd are satisfactory.

Road traffic noise

4.105 The impact of the increased traffic arising from the operation of the site was not addressed in the noise impact assessment carried out by REC Ltd. In a reply to the East Cambridgeshire Joint Villages HCV Group, REC Ltd argued that taking into account that the existing levels in Earith due to traffic are significantly above 60 dB(A), an additional 90 HGV movements daily would not be significant. Rupert Thornley-Taylor [on behalf of an objector] has stated that the significance of impact will depend on what the percentage of heavy goods vehicles will be with the added daily 90 movements associated with the site. He has concluded that “The information submitted in support of the application is not capable of correctly informing a valid planning decision”. He hasn’t, however, explicitly stated that the impact will be significant.

4.106 To assess the significance of the noise impact from the HGV movements, it has to be compared with the existing road traffic noise levels, taking into account the current traffic

flows and percentage of HGVs. Rupert Thornley-Taylor quotes WHO Environmental Noise Guidelines for the European Region (ENG) recommendation that traffic noise levels should be reduced to less than 53 dB LDEN and that above 59.3 dB LDEN, there is a 5% increase in Relative Risk of incidence of Ischaemic Heart Disease. Based on noise monitoring data presented in the Joint Villages HCV Group document (1st March 2019), the existing daytime levels range between 65.6-67.5 dB(A) LAeq in Earith and between 54.4-69.8 dB(A) LAeq in Haddenham. Acoustic Associates carried out noise monitoring in Earith where the average daytime noise level during possible operation and HGV transport hours (06:00 – 19:00 hours) was found to be 62 dB LAeq,T at a location approximately 10m from the road. Additional short term attended measurements were carried out at a second location 5 m from the road. The measured 30-minute average noise level was 68 dB(A) LAeq,T. The noise survey validates the noise levels presented by the Joint Villages HCV Group and confirms that the existing noise levels are significantly above the WHO guidance values. If the additional HGV movements contribute to a further increase of traffic noise levels, that would be considered significant.

4.107 The applicant's traffic statement shows automatic traffic count results in Haddenham which recorded an average of 306 HGV movements with an average total 3109 vehicle movements during 12 hour days. This gives approximately of 10% HGV movements. With the additional 90 HGV from the proposed development, the number of HGV would increase by 29% and the total HGV percentage increase to 13%, which would be equivalent to approximately a 1 dB noise increase.

4.108 A short term traffic count was carried out during attended measurements in Earith. A total of 24 HGVs were observed during a 30 minute period from 10:05 to 10:35 hours. Over a 12 hour period this could therefore mean up to 576 HGVs. With that count, the additional 90 HGV movements would cause a 16% HGV increase and<1 dB increase.

4.109 The above estimations are very broad due to lack of comprehensive traffic flow data along the A1223. However, they show that it is unlikely that the HGV movements related to the proposed development would have a significant impact.

4.110 The noise impact from the HGVs was also modelled in IMMI 2016. The sound power level of 106 dB of a single HGV was used. A 40 mph speed limit and 90 daily movements were assumed. The predicted noise levels compared with existing noise levels are shown in the table below.

Location	Predicted LAeq,12hour from HGV, dB(A)	Existing road traffic levels LAeq,12 hour, dB(A)	Combined noise level LAeq,12 hour, dB(A)	Contribution of HGV, dB
10 m from Earith High Street (A1223)	42.8	62	62.1	0.1
5 m from Earith	52.3	68	68.1	0.1

High Street (A1223)				

4.111 It has been shown that the road traffic noise is not likely to increase more than 1 dB due to the HGV movements related to the proposed site. The road traffic noise levels are already very high, significantly above recommended values by the WHO, however, the contribution of the additional HGVs will be insignificant.

4.112 As an independent expert Acoustic Associates have reviewed the applicants' noise assessment report as well as other documentation and have pointed out problems with the noise emission predictions from the proposed site itself (this was later addressed by the applicant). However, the issue of increased traffic on the A1123 is, in our professional opinion, insignificant from a noise point of view. This conclusion is supported by strong evidence in our report.

East Cambridgeshire Joint Villages HCV Group

[The HCV Group has made six representations on this application, including detailed reports and analyses which it is impractical to summarise in this report. The documents are on CCC website so are in the public domain but on 15 July 2021 were sent to members of the Planning Committee along with the Individual Representations pack for ease of reference and to ensure that full information has been supplied in advance of a decision being reached. Below is a summary of the Groups' main themes.]

4.113 (9 August 2018) The HCV Group is not opposed in principle to the creation of agricultural reservoirs to mitigate the effects of drought, but it is objecting to this application on the grounds that it will be detrimental to human health and the environment due to the increased HCV traffic generated which will have to pass through the centres of local villages during the construction phase. The evidence for damage caused to health by excessive noise and air pollution is now overwhelming and was addressed in terms of a national health crisis in the 2017 Annual Report from the UK Chief Medical Officer (CMO) which was entitled 'Health Impacts of all Pollution – what do we know?'

4.114 HCV Impacts on Villages - The application states that there will be an average of 90 additional HCV movements through Earith and Bluntisham for a period of 7 to 8 [now 5 to 6] years. A recent count undertaken on 9th May 2018 recorded just over 700 HCV movements through Earith of which around half were bulk transporters carrying aggregates. Should this application succeed there would be an increase in the number of daily HCVs of the order 13% for a 7 to 8 [now 5 to 6] year period. The stated operating hours in the application are 6am to 6pm Monday to Friday and 7am to 1pm on Saturdays. Because drivers arrive earlier than the site operating times in order to pick up their first load of the day and avoid traffic, there will be significant HCV movements though the villages from 5.30am onwards adding to the already severe health stresses on residents.

4.115 Environmental Testing Results - In 2012 the HCV Group undertook a programme of environmental testing in six local villages to measure levels of nitrogen dioxide, noise, particulates and vibration caused by road transport. The monitoring discovered worrying levels of all these types of pollution in places which were assumed to be and which should be relatively pollution free. Exposure to particulates, particularly those smaller than 2.5

microns in size, (PM2.5), has been implicated in a number of serious health conditions and it was considered to be one of the highest health risk factors by a Lancet report6 on Non-Communicable Disease (NCD) causality. The UK Air Quality Regulations (2010) state there is no safe limit for PM2.5, yet the worst measurement recorded on the A1123 was more than twice the current legal limit. More recent measurement of NO2 levels along the A1123 found high levels at all locations, and a level of 39.5ug/m3 on the approach to St Ives which is only a fraction below the legal limit of 40ug/m3. Noise measurements indicated levels at which previous planning guidance (PPG24) would have prevented the building of homes along some routes and in excess of current WHO guidance for daytime and night time noise.

4.116 The HCV Group maintains that the total of additional HCV movements generated by the proposed development over a 7/8 [now 5/6] year period would be somewhere between 150,000 and 180,000 and that this would significantly contribute to unacceptable levels of air and noise pollution in the villages affected. These movements would also generate at least 1,200 metric tons of CO2 to add to the growing problem of global warming. To ensure that the NPPF conditions are observed, a full environmental impact assessment in relation to air pollution and noise generated by HCV traffic in affected communities should be undertaken before any planning decision is made.

4.117 (30 September 2019) Make detailed points criticising Acoustic Associates' report dated 26 April 2019. Conclude by saying that many residents are much closer than 5 metres to the road, including some which are only 2 metres from the carriageway. Noise levels at these locations will be significantly higher than those recorded in the survey as has been shown by the several noise surveys carried out by the HCV Group. HCVs are most frequently the cause of the elevated noise levels.

4.118 Welcome Acoustic Associates acceptance that their results are consistent with and validate the results presented by the HCV Group which show that existing noise levels are already well above the recommended WHO limits in Earith High Street and have been consistently so for many years. In these circumstances it is difficult to understand how any increase in noise can be considered to be "insignificant."

4.119 (9 April 2019 and 18 May 2020) The decisions made by Cambridgeshire County Council in 1987 and by the Secretary of State in 1989 with respect to the planning application and appeal by Tarmac for gravel extraction at Bridge Farm Willingham show clearly that a similar increase in HGV numbers in local villages was considered unacceptable at that time due to the existing sub-standard environmental conditions. Since 1987 traffic volumes have almost doubled, the levels of noise and air pollution are significantly greater and the numerous, detrimental health effects have been scientifically proven. It is also difficult to understand how projects of this kind, which produce large amounts of greenhouse gases, are in any way compatible with the governments transport de-carbonisation objectives as laid out in the document "Setting the Challenge" recently published by the Department for Transport.

St Ives Area Joint Road Safety Committee

4.120 Object to the application on the grounds that it is detrimental to road safety along the A1123 and adjoining roads. At a meeting of the Cambridgeshire Highways and Infrastructure Committee on July 10th 2018 a new strategy for road safety was discussed. Deaths and

serious injuries from traffic accidents have been increasing in the county over the last five years. This is out of step with the national picture where casualty numbers have generally remained static over the same period. This increase has meant that one of the key Public Health Indicators in Cambridgeshire for the number of people killed or seriously injured per 100,000 residents is now flagged as red and specifically for East Cambs, Huntingdonshire and South Cambs districts. The committee also learned that 90% of personal injury collisions (PICs) occur on non-trunk roads in East Cambs, Cambridge and Fenland. The figure is 75% for Huntingdonshire and South Cambs.

4.121 The A1123 is a single carriageway non-trunk road which is the responsibility of the county council. According to the Transport Statement accompanying the application there will be a daily average of 90 additional HGV movements along the A1123 between Willow Hall Farm and St. Ives for a period of 7 to 8 [now 5 to 6] years. The statement asserts that the road is in good condition (clause 2.2.3) and that are no significant accident issues within the study area (clause 2.3.3). The Road Safety Committee would strongly disagree with both these assertions.

4.122 It is not clear why the study area has been restricted in the Transport Statement to the length of the A1123 between Haddenham and Earith since the lorries will obviously be travelling further. But it is clear to anyone who drives along this stretch of road that its condition is very poor indeed. Like many fen roads it lacks proper foundations and is prone to shrinkage which distorts the road surface. The general problem with HGVs in the area is acknowledged in the East Cambs Transport Strategy – Part 2 (page 42) which says "Particular issues arise when these large vehicles attempt to negotiate small roads through villages, which were not built or designed to withstand road freight, in order to have a shorter journey. This is a problem in several villages in East Cambridgeshire; most notably, the villages along and linking to A1123, such as Sutton, Wilburton and Haddenham." It is also a problem for similar villages outside East Cambs such as Earith and Willingham.

4.123 The Transport Statement quotes accident statistics for the study area from Cambridge County Council (CCC) for the period 2012 to January 2017. Clause 2.3.2 states that there were 24 PICs in that period but only 2 HGVs were involved. Based on this evidence alone the Transport Statement concluded that there was no road safety problem. This is far from the truth. The combination of a 60mph speed limit and a seriously compromised road surface has led to a spate of serious accidents in this location. If quarrying proceeds, fully laden HGVs will be pulling out on to a fast road with many sharp bends and which, in many places, stands high above the level of the fens.

4.124 Slightly more recent statistics from CCC (2012 to March 2018) show that there were 27 PICs in the study area and that 4 of these were classed as fatal and 7 as serious. In contrast, the remainder of the A1123 route from St. Ives to the A10 saw 96 PICs of which 2 were fatal and 20 serious. This means 41% of the accidents resulted in death or serious injury within the study area as opposed to 21% on the rest of the route.

4.125 In the opinion of the Road Safety Committee the addition of 90 HGV movements a day on this route is highly undesirable as it will contribute further to the degradation of the road surface and the likelihood of more serious and fatal accidents. The Transport Statement referred to a recent 5-day traffic survey which counted an average 306 HGVs using this route per day. If the application is successful, daily HGV movements will increase by almost 30%.

4.126 “Under Section 39 of the Road Traffic Act 1988 the Council has a statutory duty to “prepare and carry out a programme of measures designed to promote road safety… must carry out studies into accidents arising out of the use of vehicles on roads or parts of roads, other than trunk roads, within their area [and] in the light of those studies, **take such measures as appear to the authority to be appropriate to prevent such accidents**” (original emphasis).

4.127 The application should be rejected on the grounds that the additional HGV traffic on the proposed route is likely to result in an increase in serious and fatal accidents which will increase the burden on the health services and make the Priority Outcome (1.10) of reducing KSI casualties even harder to achieve.

4.128 But a further reason for rejection is the total inadequacy of the Transport Statement provided. The failings of the Statement include;
1. The Study Area is too restricted. HGV traffic is not going to stop in Earith but no data is provided about impacts in places such as St. Ives where daily congestion is a serious problem.
2. The accident data is narrow and incomplete.
3. There are factual errors. For example the speed limit through Bluntisham is 30mph not 40mph as stated.
4. There are several unsupported assertions. For example, that the road is in good condition along Hill Row. This is manifestly not the case.
5. There is no reference to wider road safety issues in Cambridgeshire such as the increase in road accident casualties and the dangers of non-trunk roads.

4.129 Clause 111 [now 113] of the revised National Planning Policy Framework says that applications should be supported by a Transport Statement “..so that the likely impact of the proposals can be assessed”. Such an assessment is not possible due to the shortcomings of the Transport Statement provided. Should this application succeed it will mean at least 150,000 extra HGV movements on the county’s non-trunk road network over a 7 to 8 [now 5 to 6] year period. Such an increase demands a proper assessment of the transport and road safety implications.

Hilton Action on Traffic

4.130 Object to the application for the following reasons. The volumes of HCVs traveling through the village has been steadily increasing and is now totally unacceptable for a B road through a small village. The proposed construction of a reservoir at Willow Hall Farm will almost certainly add significantly to this problem as the extraction location will have onsite processing facilities meaning that vehicles are likely to go directly to their client’s sites. As we already experience, a large percentage of HGVs heading south along the B1040 through Hilton are aggregate HCVs, as this will also be the most direct route from Haddenham to all locations south of St Ives (the shortest route vehicles from Willow Hall Farm can travel).

4.131 There is currently a Traffic Regulation Order (TRO) in place prohibiting vehicles over 7.5 tonnes between the hours of 11PM and 7AM from traveling along the B1040. This restriction is regularly infringed and as the application indicates the site will operate from 6.00AM, this has the danger of increasing this problem.

4.132 Recent measurement of NO2 levels along the B1040 within the village boundary found high levels at all locations, and at times in excess of the legal limit of 40ug/m3. This can only get worse with an increase of highly polluting diesel HCVs.

4.133 The evidence for damage caused to health by excessive noise and air pollution is now overwhelming and was summarised in the 2017 Annual Report from the UK Chief Medical Officer (CMO) which was entitled 'Health Impacts of all Pollution – what do we know?' The report implicated air pollution in a range of non-communicable diseases such as cardiovascular disease, cancer, asthma, and chronic obstructive pulmonary disease. One recommendation stated that in order to prevent ill-health, local authorities need to broaden their current environmental strategies to include all forms of pollution and consider risks arising from both consistent low-level exposure and intermittent high-level exposure.

4.134 Cambridgeshire County Council have already recognised the importance of this issue. In a document entitled 'Proposed Approach to Air Quality and Health across Cambridgeshire' dated November 16th, 2017, the Health Committee noted that; "Air quality can be a material consideration in planning decisions, normally relating to pollution from additional traffic but also point sources."

4.135 There many houses in Hilton that are located immediately adjacent to the B1040 and not only are they affected by the air pollution indicated above, but also be the noise and vibration generated by HGVs thundering by.

4.136 The European Heart Journal has published a study linking road noise with increases in hypertension which is considered to be the highest health risk factor of all. Road noise also causes stress, sleep disturbance and other health problems. This is consistent with earlier studies by the World Health Organisation and studies of the health costs of noise pollution carried out and published by DEFRA in 2014.

National Farmers' Union Ely & Soham Branch

4.137 Supports the application to construct on-farm winter [water] storage facilities. On leaving the EU, government seeks to promote increased domestic food production and ensure that consumers can be confident about where their food comes from.

4.138 A reservoir is now an essential part of the farmer's toolkit for securing water. Water is an essential input for the crops grown on fenland farms, not only for plant viability but to achieve best quality of vegetables as demanded by consumers. Many local catchments in the fens now have water available for abstraction only during times of high flow. Recent droughts and the longer term threat of climate change (hotter drier summers, reduced water availability, increasing demand) only heightens concerns about the reliability of future supplies for irrigated agriculture.

4.139 Construction of a farm reservoir here is a sustainable solution to a potential problem because it seeks to utilise abundant winter rainfall and store it for use in summer when flows might be low.

4.140 Latest national guidance published in 2017 [following the DCLG rural planning review] recognises the importance of on-farm reservoirs to allow sustainable water management for

farmers and growers, and addresses some of the planning issues that previously complicated and delayed the planning process for reservoirs.

4.141 intention to export sand and gravel from the site to part-fund the considerable cost involved in constructing on-farm water storage. Existing guidance sets out the Government's position that local authorities should give due consideration to why a farmer or grower is applying for permission for an on-farm reservoir. It states that local authorities should have regard to the increasing need for sustainability. This is further defined as through the careful management of water, the benefits of water storage can bring to a sustainable farm business and the contribution that water management through on-farm reservoirs can also make to flood alleviation. Effectively it is encouraging on-farm reservoirs to be seen as part of the wider management of water.

4.142 Guidance confirms that, while planning authorities should encourage excavated material to remain on site if possible, farmers and growers are able to make a case where this cannot be achieved. Since in this case the extraction of materials is clearly a by-product of an on-farm reservoir application, and the reservoir is needed to improve a farm business's sustainability and to protect water resources, then it is hoped that this planning application will be considered favourably.

Campaign to Protect Rural England

4.143 Objects to the application for the following reasons:

Landscape - The proposed irrigation reservoirs will be a prominent and intrusive feature on this rural landscape.

RAMSAR site - It is understood that the Environment Agency is proposing to create a second Ramsar site on Haddenham Fen, south of Sutton. The effect of the quarrying proposal on that site, and all other wildlife sites in the area, should be very carefully considered.

Loss of agricultural land - The application would result in the loss of 32.9ha of farmland (including 18 ha of the best and most versatile land).

Irrigation - Concerned that additional watering of this agricultural land will damage the underlying peat and therefore in the long term there will be no increase in crop production to justify the upheaval of creating the reservoirs.

Gravel extraction - The dominant feature of the application is the gravel extraction and its associated infrastructure for a period of seven or eight years [now 5 or 6] is too high a price to pay for irrigation reservoirs of questionable value.

Highways - The quarrying operation will throw an extra 105 lorries per day on to the A1123 and thence on to the A1123 to St Ives, B1050 to Willingham, B1381 to Sutton or B1050 to Somersham. These roads are already in a fragile condition and in need of constant maintenance. Should the application be approved, we hope that there will be a condition whereby the applicant pays the appropriate cost for the additional road maintenance.

Minerals - The site is not allocated in the County Minerals & Waste Plan. CPRE is strongly of the view that any changes to the Plan should only be considered when the Plan is being reviewed. This would be consistent with the NPPF 2018.

Effect of traffic on Earith - While it is noted that the intention is to remove aggregates from the quarry through Earith and thus avoid the villages to the east (e.g. Haddenham and Wilburton), an intolerable burden would be placed on Earith and there is no evidence that this intention would be complied with and other villages such as Haddenham, Willingham and Sutton would not also be affected.

Individual representations

4.144 Have been received from 77 individuals, all but one of whom object to the application. A copy of these has been provided to members of the Planning Committee. Their reasons are summarised below in order of frequency of being raised:

- Structural damage to housing from vibrations of construction traffic
- Additional congestion caused by construction traffic
- Increased noise levels from construction traffic
- Increased air pollution from construction traffic
- Damage to road foundations from weight/movement of construction traffic
- Road safety - construction traffic travelling through villages (exceeding speed limit)
- Road safety - construction traffic travelling through villages (non-specified)
- Road safety- construction traffic travelling through villages (narrow width of road)
- Direct health impact from increased pollution
- Lack of conformity with the local minerals and waste plan
- Loss of agricultural land
- Road safety - construction traffic travelling through villages (failing to stop for pedestrian crossings)
- Adverse effects on local ecology
- Concerns about alternative routes if e.g. flooding in Earith/accident on roads
- Significant cost of repairing damaged roads
- Construction traffic is unlikely to be monitored
- Excessive size/scale of the proposed reservoir
- Not in keeping with character/conservation area
- Damage to housing foundations from construction traffic distributing water collected in potholes
- Potential adverse effect on local property prices [not a material consideration]
- Lighting of the site causing visual pollution
- Site will have negative impact on demand and delay beneficial restoration other mineral sites
- Lack of information/detail given on application
- Effects caused by reverse seepage out of reservoir
- Visual impact of site
- Effect on groundwater levels having detrimental effect for neighbouring farmers
- Essential for farmers to secure water – droughts
- Plant and vegetable viability – irrigation
- Improves business

4.145 In addition, a petition signed by 170 individuals was received on 30 September 2019 the text of which is as follows: “We the undersigned, petition Cambridgeshire County Council to recognise our deep concern as residents, regarding the application to utilise local agricultural land to extract gravel and to transport it wherever required for a period of 7 – 8 years [now 5 - 6]. From the applicants’ own Transport Statement this would mean that an extra 150,000 HGV movements [less since capacity of reservoir reduced] would be added to the already overcrowded network of roads encompassing, Wilburton, Haddenham, Sutton, Earith, St Ives & Willingham. Our homes are and the roads are being damaged now, due to the vibration caused by the size and weight of HGV’s currently going through, without this large increase.

4.146 Hillrow Causeway is a dangerous road with an uneven ever moving surface with deep ditches either side, not dissimilar in makeup to the soil under the Ely Bypass. To site a quarry here on the main east west route from the A10 to Huntingdon and the A1 would be totally irresponsible and unacceptable to the surrounding communities.”

A G Wright & Sons Farms Limited (AGW)

[AGW own land immediately to the south of the A1123 opposite the proposed reservoirs site. They have commissioned specialist technical advice from TerraConsult about the potential impact on groundwater and on their farming business.]

4.147 (25 February 2021) TerraConsult do not believe that the applicant has provided an adequate response to elements of the MPA’s request for additional information dated 8 October 2020: a description of the reasonable alternatives studied by the developer; and in the context of Policy CS42 the option of part above ground storage which would require the excavation of less mineral.

4.148 The applicant’s efforts to install water level monitoring points on the AGW land during October 2020 is appreciated. However, to make full use of these monitoring points additional information not originally presented, albeit alluded to, within the updated application was required and subsequently provided. (21 June 2021) This allows AGW to monitor BH14 and BH15 directly in parallel to the applicant. A lower limit hasn’t been set for those as yet, whilst the continued drop in water level from the 10th February is demonstrative of the core issue for AGW, that the first quarter of the year free from dewatering is necessary to allow a natural recovery pattern to recharge the water system.

4.149 (25 February 2021) Paragraphs A2.25 – A2.27 of the Proposed Groundwater Level Monitoring Strategy discuss the “Mitigation to maintain groundwater levels during critical period for surface water abstractors April to September”. The statements are clear that active Groundwater Management (i.e. dewatering) will only take place during the October – December period. However, they are more ambiguous regarding a suitable recovered groundwater level which must be adhered to and the consequences of such. Paragraph A2.25 essentially states that:
1) groundwater levels must return to the level set in the April of the previous dewatering year; and
2) groundwater levels on the 5th April each year cannot in any year after dewatering be below: • +0.12mAOD at BH09 • +0.04mAOD at BH02a • -0.11mAOD at BH12; and • -0.12mAOD at BH01.

4.150 The logical conclusion is that there will be insufficient water available if these groundwater elevations cannot be met and therefore an immediate requirement for a compensation payment due to crop loss and for the mechanism of this compensation to be written into the planning permission. Paragraph 3.11.8 [of the revised HIA], however, extends the dewatering period to the end of February. This is unacceptable and an extension of dewatering to the end of February is not agreed. The entire purpose of this dewatering is intended to locally empty the aquifer during the primary recharge period (i.e. January and February). Consequently, the benefit to annual seasonal aquifer recharge will be lost. The assurances given that the aquifer can be locally recharged with waters from Reservoirs A and B are inadequate and fail to demonstrate how and where this could occur. Nor does the assessment demonstrate that this could in practice recharge the aquifer outside of the immediate sphere of the recharge point including the AGW lands to the south and east of the dewatering zone, which as upgradient locations and are recharged from the wider hydrogeological system.

4.151 A second concern is the extended dewatering period is that it is to occur during what is likely to be the highest demand on the IDB to ensure that agricultural land does not become waterlogged. It is unclear on why an extension to the dewatering period into the January – February period is necessary to construct the two smaller lagoons, when the larger lagoon, Reservoir A can be engineered with a 3-month autumn dewatering period. Given the concerns regarding water availability, specific conditions are requested to be included within the planning permission.

4.152 The Figure 5 data from the HIA2 [revised HIA] demonstrates that the BH12 water elevation is identical to that of BH14 (at +0.28mAOD on 4th January 2021), whilst that of BH15 is +0.06m above that of BH01. Consequently, there is a mechanism to provide an independent and appropriate verification that aquifer management objectives are achieved. Therefore, at this stage and based on the applicant's monitoring data provided a condition in the planning permission, in addition to any required by the Environment Agency is sought, that states:
1) No dewatering outside of the October to December period; and
2) By the first of April in any year following a period of dewatering, groundwater levels must recover to:
a) -0.06mAOD at BH15; and
b) -0.11mAOD at BH14.
This recovered water elevation can then be monitored by both the applicant and AGW. If groundwater levels have not recovered by the 1st April a crop loss payment will become due to AGW.

4.153 It is proposed that as water level data is such a critical factor, that data is shared between parties by email following each monitoring event as a condition of the permission. Ideally this should be in the form of a spreadsheet as presented in Document 28A Borehole Monitoring Logs September 2018-December 2020 and include all monitoring points on AGW land, as well as the wider sphere of monitoring points identified by the Environment Agency and the IDB. This should be updated on a weekly basis and circulated immediately to relevant parties, including AGW and the IDB throughout February and March each year, and monthly for the remainder of each year.

4.154 Although there is always a potential risk due to future weather pattern changes, a natural water level is expected to be returned by April if the dewatering programme does follow a

programme of dewatering only during the October to December period, thus allowing recovery during January, February and March of the year following any dewatering period. Consequently, it should be readily possible to monitor the recovering groundwater system in a timely fashion during the first quarter of each year to enable a decision to be made on a "crop loss payment" immediately at the start of April each year. A separate legal agreement [between the neighbouring landowners] as identified by Environment Agency (17 February 2021) [see paragraph 4.34 above] is required which sets out the conditions of this scheme as a condition of the permission. It is appreciated that a separate Groundwater Abstraction Permit is required from the Environment Agency and would ask that any conditions set are made with the full agreement of the IDB.

4.155 The updated application documentation states that there is an intention to extend active groundwater management after December into January and February. This is unacceptable. It is considered necessary to ensure that there is confidence in a monitoring /compensation schedule within the planning permission and that there is a condition that groundwater dewatering is only to take place during the October to December period. Conditions are requested that require groundwater monitoring to continue to take place during the irrigation season along with inspection of the lagoons to ensure that the lagoon liner is not ruptured by groundwater pressure acting on the sidewall. Such a rupture if significant could allow groundwater ingress and therefore additional water loss from the natural system, a particular concern during dry periods. In the first instance this can be addressed by third party Construction Quality Assurance (CQA) supervision during liner construction with associated reporting. Liner inspection is by definition a summer / autumn activity as water levels will need to be lowered in the lagoons to allow inspection. Such a programme can be readily incorporated into the planning permission and can be carried out by a suitably qualified engineer whilst continued groundwater monitoring in the longer term would enable a cross-check of the significance (if any) of liner leakage/ruptures, which could artificially reduce groundwater availability in the surrounding lands.

4.156 Until the January, February and March dewatering is removed from the proposal the objection to the application is maintained and the gravel extraction should not go ahead.

Cllr Steve Criswell (member for Somersham & Earith Division)

4.157 I am not the local councillor for the site of the proposed development but represent the people who will be most affected by it. I have received the Transport officer's response to the points I've previously raised, but do not accept that a Routing Agreement could not be conditioned in order to direct the associated HCV traffic onto the primary network by the shortest route possible via the A1421. The A142 is a far superior road to the A1123 directly serving the A141 or A10 which in turn connect with the A1 and A14, covering all directions. In the absence of such a Routing Agreement, I would like to register my objection to the above application and make the following points;

• East Cambs Transport Strategy 2016 gives particular mention to HCV problems on the A1123 and surrounding villages, with a stated intention to remove HCV traffic from the 'central diamond'. The aim is that HCVs will use A141/142, A10 or A14. Andy Preston's team are tasked with delivering this. The opening of the Ely Southern bypass reinforces that intention.

• The Advisory Road Freight Map was altered specifically to move 'through HCV traffic' from the A1123. This was also intended to ensure that local HCVs would access the primary routes by the shortest means possible. If not, they just become 'through traffic'. • The

shortest route from Willow Hall Farm is via the A1421 onto the A142. This involves one village only. If that is not acceptable, then nor is Earith, Bluntisham and part of St Ives.
• Earith High Street is extremely problematic. It is far narrower than is now acceptable for an A class road. HCVs regularly mount the kerb when passing each other. The footpath is also very narrow in places, putting pedestrians dangerously close to passing vehicles. It is not uncommon for lorry door mirrors to be found on the footpath. Very old properties with little foundation are situated close to the road and are structurally suffering.
• The applicant acknowledges that SI Ives is not the final destination of minerals, purely his preferred route onto the primary road network. His preference should not be at the expense of any more residents than absolutely necessary.
• The B1096 and associated junctions at St Ives is currently one of the most congested areas in the county. With additional growth in the area imminent, this will get worse. Work is underway, but a solution has yet to be identified. When it is, it is unlikely to be delivered in time to serve this development.
• I accept that new applications should not be expected to address existing problems, however there comes a point when the additional impact of a proposed development renders the situation severe and unacceptable. Earith High Street and the residents who live there cannot be expected to accept unlimited HCV traffic “because a problem already exists”.

5. Planning history

5.1 There is no relevant planning history for the proposed development site.

6. Planning policy and guidance

6.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 and section 70(2) of the Town and Country Planning Act 1990 require that applications for planning permission must be determined in accordance with the development plan unless material considerations indicate otherwise. The development plan comprises:

- Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy Development Plan Document (adopted July 2011) (the MWCS); and
- East Cambridgeshire Local Plan (adopted April 2015) (the ECLP).

6.2 Other relevant planning policy documents are:

- Cambridgeshire Flood & Water Supplementary Planning Document (adopted 14 July 2016) (the FWSPD)
- East Cambridgeshire District Council Natural Environment – Supplementary Planning Document (SPD) (adopted 24 September 2020) (the NESPD)

6.3 Cambridgeshire County Council and Peterborough City Council are undertaking a review of the Minerals and Waste Development Plan. This new Plan will be known as the Cambridgeshire and Peterborough Minerals and Waste Local Plan (MWLP). The examination in public hearing sessions took place between 15 and 17 September 2020, the Inspector’s final report has been received and the plan has been found ‘sound’, subject to his final Main Modifications so the emerging MWLP carries some weight until it is adopted and entirely replaces the MWCS.

6.4 The following policies contained in the MWCS are considered relevant to this proposal:

CS1 Strategic Vision and Objectives for Sustainable Minerals Development
CS4 The Scale and Location of Future Sand and Gravel Extraction
CS13 Additional Mineral Extraction
CS22 Climate Change
CS24 Design of Sustainable Mineral and Waste Management Facilities
CS25 Restoration and Aftercare of Mineral and Waste Management Sites
CS26 Mineral Safeguarding Areas
CS32 Traffic and Highways
CS33 Protection of Landscape Character
CS34 Protecting Surrounding Areas
CS35 Biodiversity and Geodiversity
CS36 Archaeology and the Historic Environment
CS38 Sustainable Use of Soils
CS39 Water Resources and Water Pollution Prevention
CS42 Agricultural Reservoirs, Potable Water Reservoirs and Incidental Mineral Extraction

6.5 The following ECLP policies are considered relevant to this proposal:

ENV1 Landscape and settlement character
ENV2 Design
ENV7 Biodiversity and geology
ENV8 Flood risk
ENV9 Pollution
ENV14 Sites of archaeological interest
COM7 Transport impact

6.6 The following MWLP policies are considered relevant to this proposal:

Policy 1 Sustainable Development and Climate Change
Policy 2 Providing for Mineral Extraction
Policy 5 Mineral Safeguarding Areas
Policy 9 Reservoirs and Other Incidental Mineral Extraction
Policy 17 Design
Policy 18 Amenity Considerations
Policy 19 Restoration and Aftercare
Policy 20 Biodiversity and Geodiversity
Policy 21 The Historic Environment
Policy 22 Water Resources
Policy 23 Traffic, Highways and Rights of Way
Policy 24 Sustainable Use of Soils

6.7 The National Planning Policy Framework (July 2021), and Planning Practice Guidance (PPG) are also material planning considerations.

7. Planning considerations

7.1 The NPPF sets out the Government's planning policies and how it expects them to be applied. Paragraph 7 states that "The purpose of the planning system is to contribute to the

achievement of sustainable development". Paragraph 8 sets out three overarching objectives: economic, social and environmental. One part of the environmental objective is "mitigating and adapting to climate change". Paragraph 11 gives a presumption in favour of sustainable development and states that "For decision-taking this means

"c) approving development proposals that accord with an up-to-date development plan without delay; or

d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:
i) the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or
ii) any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."

7.2 Section 17 of the NPPF (Facilitating the sustainable use of minerals) states at paragraph 209 the Government's view that "It is essential that there is a sufficient supply on minerals to provide the infrastructure, buildings, energy and goods that the county needs. Since minerals are a finite natural resource, and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation." Paragraph 211 states "When determining planning applications, great weight should be given to the benefits of mineral extraction, including to the economy" and that mineral planning authorities should:

"b) ensure that there are no unacceptable adverse impacts on the natural and historic environment, human health or aviation safety, and take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality;

c) ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations are controlled, mitigated or removed at source, and establish appropriate noise limits for extraction in proximity to noise sensitive receptors;

e) provide for restoration and aftercare at the earliest opportunity, to be carried out to high environmental standards, through the application of appropriate conditions. Bonds or other financial guarantees to underpin planning conditions should only be sought in exceptional circumstances."

7.3 Paragraph 213 of the NPPF states that mineral planning authorities should plan for a steady and adequate supply of aggregates by, amongst other things, "maintaining landbanks of at least 7 years for sand and gravel" and "ensuring that large landbanks bound up in very few sites do not stifle competition."

Principle of the development

7.4 Climate change predictions are that the UK can expect a significant reduction in summer rainfall and higher summer temperatures which would increase evaporation rates. This will have a direct impact upon the potential soil moisture deficit and accordingly, there will be a similar increase in demand for irrigating agricultural crops. The greatest increase will be in areas such as Cambridgeshire where the land is suitable for arable farming but which has relatively low levels of rainfall. Restrictions on summer water abstraction licences are in

place. In March 2020 the Environment Agency published the following document: “Meeting our future water needs: a national framework for water resources” which sets out a strategic direction for the work being carried out by regional water resources groups and how the likely pressures on demand for water will be met. It identifies the east of England as facing significant pressure, having little surplus water available and a high level of demand from agriculture in particular. The Environment Agency is supportive of the development from a water resources resilience point of view (see paragraph 4.25 above).

7.5 As noted in paragraph 7.1 the NPPF supports measures to mitigate and adapt to climate change. MWCS policy CS22 states that “In the case of mineral workings, restoration schemes which will contribute to addressing climate change adaptation will be encouraged e.g. through flood water storage, and biodiversity proposals which create habitats which act as wildlife corridors and living carbon sinks.” MWLP Policy 19 has an almost identical provision and MWLP Policy 1 also supports proposals that would ensure the future resilience of communities and infrastructure to climate change impacts. ECLP policy EMP2 supports the expansion of existing businesses in the countryside where a full justification is made. Section 6 of the NPPF (Building a strong, competitive economy) states at paragraph 84 that planning policies and decisions should enable “the development and diversification of agricultural and other land-based rural businesses”.

7.6 It is considered that the principle of harvesting water during the winter when it is in plentiful supply and storing it for use in dry periods of the growing season would potentially provide winter flood storage and reduce the need to abstract water in the summer would meet the policy aims set out in the previous paragraphs.

7.7 The benefits to the applicant company’s farm business are set out in broad terms in paragraph 2.1 above. The MPA appointed Peter Danks of Reading Agricultural Consultants (RAC) to provide independent advice on the agricultural need and justification for the proposal. Although critical of the extent of the applicant’s capital cost exercise and his apparent failure to consider a balanced excavation and part above-ground storage, which would involve the extraction of less mineral, Mr Danks has concluded that there is a reasonable need for the volumes of water proposed to be abstracted and stored at Willow Hall Farm given the operational command area identified in the proposal.

7.8 MWCS policy CS42 deals with agricultural reservoirs, potable water reservoirs and incidental mineral extraction and states that:

“Proposals for new or extensions to existing agricultural reservoirs, potable water reservoirs, or development involving the incidental extraction and off site removal of mineral, will only be permitted where it can be demonstrated:

a. there is a proven need for the proposal
b. that any mineral extracted will be used in a sustainable manner
c. where the proposal relates to a reservoir, the design minimises its surface area by maximising its depth
d. the minimum amount of mineral is to be extracted consistent with the purpose of the development
e. the phasing and duration of development proposed adequately reflects the importance of the early delivery of water resources or other approved development

The determination of planning applications will have regard to the objectives of the mineral and waste spatial strategies in this Plan"

7.9 MWLP Policy 9 states that:

"Proposals for new or extensions to existing reservoirs, or other development involving the incidental extraction and off site removal of mineral (such as lakes, marinas, agricultural or potable water reservoirs, or commercial fish farming or fishing ponds), will be supported where it can be demonstrated that:

a. there is a proven need* and demonstrable sustainability benefits† for the proposal, or the proposal is identified in a water company's water resource management plan;
b. any mineral extracted will be used in a sustainable manner;
c. where the proposal relates to a reservoir, it has considered wider implications than just the operational needs of the future reservoir, such as whether viable mineral might be sterilised, the loss of productive land, and any dewatering implications during the construction phase. To address some of these implications it may be necessary to minimise the surface area by maximising the depth;
d. the minimum amount of mineral to be extracted is consistent with the purpose of the development; and
e. the phasing and duration of development adequately reflects the importance of the early delivery of water resources or other approved development.

*'proven need' would have to demonstrate that the proposal was in the public interest to proceed. †'sustainability benefits' could include, but not necessarily be limited to: water storage in order to reduce currently unsustainable groundwater extraction; significant biodiversity net gains or measures to help preserve or enhance designated biodiversity sites; and flood risk management benefits".

7.10 The five criteria (a) to (e) in MWCS policy CS42 and MWLP Policy 9 will be addressed in turn in the following paragraphs.

7.11 a. there is a proven need for the proposal and demonstrable sustainability benefits

The application was accompanied by a report on the need for irrigation water which was revised in August 2019 in response to initial comments by RAC. The command area was amended in December 2019 and January 2020 as set out in paragraphs 2.3 and 2.4. Given the advice from RAC it is considered that the need for the proposed reservoirs had been sufficiently demonstrated. The proposal would meet the "sustainability benefit" test in MWLP Policy 9 in that it would store water that would be used in place of groundwater abstracted in the growing season and potentially provide floodwater storage capacity in winter.

7.12 b. that any mineral extracted will be used in a sustainable manner

In the case of sand and gravel, paragraph 11.77 of the MWCS and paragraph 4.10 of the MWLP indicate that processing the mineral on site or exporting it to a nearby processing plant would meet this criterion. It is proposed that the sand and gravel would be processed on the development site so the proposal would comply with criterion (b).

7.13 c. where the proposal relates to a reservoir, the design minimises its surface area by maximising its depth and wider implications have been considered

The proposed volume of water has been justified (see paragraph 7.7 above) and it is proposed that the full depth of sand and gravel would be extracted to the underlying clay. As set out in paragraph 2.2 above, the scheme was amended so that the surface area of the reservoirs is 8.3 hectares less than originally proposed. It is considered that this would comply with criterion MWCS policy CS42 (c).

The full depth of the underlying sand and gravel would be removed so none would be sterilised. The development would result in the loss of approximately 15.5 hectares of mostly grade 3 agricultural land (the reservoirs and the conservation grassland area). It is considered that this would be outweighed by the benefits of increasing productivity on 616 hectares (over the whole rotation cycle) of mostly grade 2 and grade 1 land. The implications of dewatering during the construction phase as set out in paragraph 2.7 are discussed later in this report as are the off-site impacts of the HGV traffic.

7.14 d. the minimum amount of mineral is to be extracted consistent with the purpose of the development

This is covered by paragraphs 7.7 and 7.13 above.

7.15 e. the phasing and duration of development proposed adequately reflects the importance of the early delivery of water resources or other approved development

It is proposed that the first reservoir would be functional within 2 years of commencement and the second by year 4. It is recommended that if planning permission is granted it should be subject to a condition that no work shall commence in the third reservoir until the first reservoir is complete and capable of supplying irrigation water. The proposed development should be completed within 5 years. This is considered reasonable given the quantity of sand and gravel to be extracted, the restriction on the number of HGV movements and the method of working described in paragraph 2.7.

7.16 It is considered that in principle the proposed development would comply with MWCS policy CS42 and with the comparable criteria in MWLP Policy 9 so should be supported provided that there are no overriding material planning considerations which indicate otherwise. There is very little, if any, objection to the principle of a winter storage reservoir but there is concern from individuals and local community organisations about some of the effects of the development particular to its location. These are the possible impact of dewatering on groundwater in adjacent land and the impact of the HGV traffic on the communities of Earith and Bluntisham. These matters will be considered within later sections of this report.

Sand and gravel landbank and impact on other mineral sites

7.17 The proposed development would allow 691,000 tonnes of sand and gravel to enter the market at a rate of up to 200,000 tonnes per year from a “windfall site” that has not been allocated in the MWCS or MWLP. The MWLP contains the more up to date analysis of the sand and gravel landbank (41.43 million tonnes (Mt) permitted reserves at the end of 2017 within Cambridgeshire and Peterborough) and the amount that should be provided from within the Plan area (2.6 million tonnes per annum (Mtpa)). The MWLP makes allocations

for a total of 17.623 Mt of sand and gravel, 27% of which is at site M035: Block Fen/Langwood Fen East and is being carried forward from the MWCS as land which must be restored to complementary Ouse Washes habitat (wet grassland).

7.18 The RSPB considers that the proposed development would adversely impact on the creation of habitat on which the Block Fen / Langwood Fen Master Plan (July 2011) is based so would not be in accordance with minerals policy. In the 10 years since the MWCS and Master Plan were adopted only two applications for new mineral development within the Master Plan area have come forward. The first (ref. no. F/2001/16/CM) was for 1.9 Mt of sand and gravel and was refused in 2017 principally because only 5 hectares of the 62 hectare site would be restored in accordance with the Master Plan to complementary Ouse Washes habitat. The second (ref. no. F/2014/18/CM) is for 430,000 tonnes of sand and gravel and 180,000 cubic metres of clay. The whole 17 hectare site would be restored to wet grassland and would contribute to the approximately 100 hectares that it would be viable for the RSPB to manage. Permission was granted in December 2020 and the applicant is currently discharging pre-commencement conditions. It appears to be landowner reluctance to commit to restoring their sites to wet grassland that is a major factor delaying the implementation of the Master Plan and it is not considered that the proposed reservoir development would significantly prejudice this. It is noted that no objections to the proposal have been raised by mineral operators with whom the proposed development would be competing for a share of the market.

Groundwater and water quality

7.19 MWCS policy CS39 states that:

"Mineral and waste management development will only be permitted where it is demonstrated that there would be no significant adverse impact or risk to:
a. the quantity or quality of surface or ground water resources; and
b. the quantity or quality of water abstraction currently enjoyed by abstractors unless acceptable alternative provision is made; and
c. the flow of groundwater at or in the vicinity of the site.

All proposed mineral and waste management development will be required to incorporate adequate pollution control and monitoring measures."

7.20 MWLP Policy 22 states that:

"Mineral and waste management development will only be permitted where it can be demonstrated (potentially through a detailed hydrogeological assessment) that there would be no significant adverse impact on:
a. the quantity and quality of surface or groundwater resources;
b. the quantity and quality of water abstraction currently enjoyed by abstractors unless acceptable alternative provision is made;
c. the flow of groundwater at or in the vicinity of the site; and
d. increased flood risk, both on-site and off-site.

All proposed development will be required to incorporate adequate pollution control and monitoring measures.

Proposals should also have due regard to the latest policies in the Cambridgeshire Flood and Water SPD and the Peterborough Flood and Water Management SPD (or their successors)."

7.21 ECLP Policy ENV9 seeks to protect surface and groundwater quality as does the NPPF at paragraph 174 (e).

7.22 The proposed method of working evolved in response to concerns that dewatering the site to extract the sand and gravel and construct the reservoirs would adversely affect the groundwater in nearby land outside the applicant's ownership. The current proposal is that dewatering would only take place in the winter. The Environment Agency's position is set out in detail in paragraphs 4.26 to 4.34 above. In summary they consider that the proposed development, although not entirely without risk, is capable of being carried out in such a way that adverse impacts are mitigated to acceptable levels.

7.23 One key factor is the integrity of the reservoirs' impermeable clay liners and a condition has been recommended by the Environment Agency which would require the developer to commission a report or CQA validation by a competent engineer before each reservoir is filled with water. Lining mineral voids with the clay which underlies the sand and gravel to create an impermeable liner is a well-established method of containing either landfilled waste or water. With appropriate design and supervision there is no reason to believe that this couldn't be achieved in this instance.

7.24 A neighbouring landowner, A G Wright and Sons Farms Ltd (AGW) (see paragraphs 4.147 to 4.156 above), is greatly concerned about the potential impact on groundwater and consequently on their farming business. The Environment Agency has explained the proposed winter dewatering will be subject to an abstraction licence and that during the licensing process they will need to be satisfied that the activity of dewatering will not adversely affect the water environment or derogate licences held by nearby water users. Having reviewed the applicant's Revised Hydrogeological Risk Assessment (Document 31A April 2021) the Environment Agency concludes that on the balance of the information provided the proposed mitigation in section 3.11 of the Revised HRI and temporary nature of the dewatering, is considered satisfactory. They are also content with the applicant's proposed groundwater level monitoring strategy which can be secured by condition (see recommended condition 7) which would be subject to a reporting requirement (see recommended condition 8).

7.25 The proposed dewatering periods are set out in paragraph 2.7 above. AGW are strongly opposed to it continuing beyond December (see paragraphs 4.147 – 4.156 above). The applicant has submitted a revised HIA and groundwater monitoring scheme which the Environment Agency considers to be acceptable and has not requested that dewatering cease after December. It is considered that there are insufficient grounds to require dewatering to cease at the end of December. The proposed groundwater monitoring strategy includes monitoring at 3 boreholes south of Hillrow Causeway, two of which are on AGW's land.

7.26 AGW has asked that some form of redress be incorporated within the planning permission if, despite the mitigation and monitoring, their land is adversely affected by the applicant's dewatering. It is considered that this would go beyond the remit of the planning system and would be a private matter between the two landowners. Members are reminded that

paragraph 56 of the NPPF states, “Planning conditions should be kept to a minimum and only imposed where they are necessary, relevant to planning and to the development to be permitted, enforceable, precise and reasonable in all other respects.” In the circumstances the impact on the area generally can be adequately controlled through the conditions as suggested. Further to the limitations on the use of conditions set out in the NPPF issue of any compensation that may be due between landowners is not relevant to planning and as such cannot be dealt with by condition.

7.27 The Environment Agency has drawn attention to the need to protect water quality (see paragraph 4.42 above). The main risk of pollution of surface or groundwater would be from spillages from the plant and machinery used to extract, process and transport the mineral and to construct the reservoirs. This would not be significantly different to many farming activities. Surface water could be polluted by suspended solids from mineral processing. It is estimated that 90% of this water would be recirculated having passed through silt settlement lagoons. The Environment Agency has recommended a condition requiring a water quality monitoring plan to be put in place (see paragraph 4.42 above and recommended condition 10).

7.28 Subject to the conditions referred to above being in place it is considered that the proposed development would comply with MWCS policy 39, ECLP Policy ENV 9, MWLP Policy 22 and NPPF paragraph 174 (e) in respect of protecting ground and surface water quantity and quality.

Flood risk

7.29 The proposed reservoirs would be within flood zone 3 so the sequential test should be applied. The aim of the sequential test is to steer new development to areas with the lowest probability of flooding. The purpose of the proposed development is to use water from the HLDC district in winter to irrigate land within the district in summer therefore it would need to be located within the district. Only a small part of the HLDC district is outside flood zone 3 and already contains a small above ground reservoir. The Environment Agency considers sand and gravel working and water transmission infrastructure to be water compatible development. The LLFA is satisfied that the proposed development would not increase the risk of flooding so has no objection to the proposed development and recommends that a surface water drainage scheme be secured by planning condition.

7.30 The Environment Agency considers that the proposed temporary buildings may present a hazard to during a flood event and recommends that a condition is imposed requiring them to be securely anchored (see recommended condition 34).

7.31 For the reasons set out above it is considered that if a surface water drainage scheme is secured by condition and the temporary buildings are secured against a flood event the proposed development would comply with paragraphs 167 and 169 of the NPPF, MWCS policy CS22, ECLP Policy ENV8 and MWLP Policy 22.

Highways and traffic

7.32 MWCS policy CS32 of the Core Strategy states that:

“Minerals and waste development will only be permitted where:

a. it is demonstrated that opportunities for the use of alternative methods of transport have been evaluated and the most appropriate pursued where practicable;
b. access and the highway network serving the site are suitable or could be made suitable and able to accommodate any increase in traffic and / or the nature of the traffic associated with the development;
c. any associated increase in traffic or highway improvements would not cause unacceptable harm to the environment, road safety or residential amenity; and
d. binding agreements covering lorry backloading, routeing arrangements and HCV signage for mineral and waste traffic may be sought. In Cambridgeshire this will be informed by the Cambridgeshire Advisory Freight Map."

7.33 The relevant parts of ELP Policy COM7 are that "Development proposals shall:

a. Provide safe and convenient access to the highway network.
f. Be capable of accommodating the level/type of traffic generated without detriment to the local highway network and the amenity, character or appearance of the locality.
g. Be accompanied by a Transport Statement where appropriate; or if the proposals are likely to result in significant transport implications, be accompanied by a Transport Assessment. The coverage and detail of this should reflect the scale of development and the extent of the transport implications.
i. Within (g) and (h) indicate any steps to mitigate impacts relating to noise, pollution, amenity, health, safety and traffic."

7.34 MWLP Policy 23 states that:

"Mineral and waste management development will only be permitted if:

a. appropriate opportunities to promote sustainable transport modes can be, or have been, taken up, to the degree reasonably available given the type of development and its location. If, at the point of application, commercially available electric Heavy Commercial Vehicles (HCVs) are reasonably available, then development which would increase HCV movements should provide appropriate electric vehicle charging infrastructure for HCVs;
b. safe and suitable access to the site can be achieved for all users of the subsequent development;
c. any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree;
d. any associated increase in traffic or highway improvements would not cause unacceptable harm to the environment, road safety or residential amenity, and would not cause severe residual cumulative impacts on the road network; and e. binding agreements covering lorry routing arrangements and/or HCV signage for mineral and waste traffic are agreed, if any such agreements are necessary and reasonable to make a development acceptable.

Use of HCV Route Network
Where mineral and/or waste is to be taken on or off a site using the highway network, then all proposals must demonstrate how the latest identified HCV Route Network is, where reasonable and practical to do so, to be utilised. If necessary, arrangements ensuring that the use of the HCV Route Network takes place may need to be secured through an appropriate and enforceable agreement. Any non-allocated mineral and waste

management facility in Cambridgeshire which would require significant use of the highway must be well related to the HCV Route Network."

7.35 The application proposes that during the mineral extraction phase the development would generate a maximum of 50 and an average of 45 loads per day each with an average capacity of 18 tonnes and a maximum capacity of 24 tonnes. This would amount to 4 or 5 loads (8 – 10 HGV movements) per hour. It is proposed that these vehicles would use the A1123 to the west of the site which goes through Earith, Bluntisham and the outskirts of St Ives on the A1096 before reaching the A1307 (former A14) at Galley Hill. There is a lot of concern in the local community about the impact that these HGVs would have on road safety especially for pedestrians and cyclists; damage to the carriageway and the resulting need for more frequent repair; and the unsuitability of the roads on the proposed route for more HGV traffic. They are also concerned about the vibration, noise and air pollution that the HGVs would cause when travelling on the A1123 through Earith and Bluntisham.

7.36 In response to a request from within the local community the applicant's transport consultants undertook a review of the alternative routes that would potentially be available (HGV Route Review Document 15) (see Agenda Plan 4):

Route 1 – A1123 to the west through Earith and Bluntisham and the A1096 St Ives bypass to the A1307 (former A14) at Galley Hill (as proposed in the application)

Route 2 – A1123 to the east to Haddenham then A1421 north to the A142 at Witcham Toll, around Chatteris to the A141 joining the A14 at Spittals Interchange

Route 3 – A1123 to the west then B1050 through Willingham and around Longstanton to the A14 at Bar Hill

7.37 They conclude that to gain access to the A14 route 2 is not desirable in highway terms given the accident record, the turn at The Green/Station Road junction which involves HGV crossing the opposite carriageway and the additional travel time and distance to deliver material. They consider that there is little difference in benefit between routes 1 and 3 and that both would be suitable for HGV use.

7.38 The highway authority's comments are set out in paragraphs 4.77 to 4.81 above. The transport assessment (TA) team have reviewed the applicant's HGV Route Review and acknowledge the HGV traffic associated with the proposals could route to the west using Routes 1 and 3. The TA Team have previously concluded 'no objections' to the proposals. The HGV Route Review document does not change previous comments therefore maintains no objections to the proposal.

7.39 Both MWCS CS32 and MWLP Policy 23 promote the direction of minerals and waste traffic to the Strategic Routes shown on the Cambridgeshire Advisory Freight Map. Route 1 is 10.6 kilometres from the A1096, Route 2 is 8.8 kilometres from the A142 and Route 3 is 15 kilometres from the A14 at Bar Hill. The applicant has assumed that the traffic would travel to and from the A14 in the Huntingdon area and has included in Route 2 use of the A142 and A141 (both Strategic Routes) to reach the A14 at Huntingdon. The applicant has not taken into account the potential route from the A142 Witcham Toll to the A10 at Ely and joining the A14 at Milton.

7.40 Notwithstanding the Route Review, the application has not been amended and the proposed HGV route is to the west (Route 1 on Agenda Plan 4) and is what the highway authority has based its comments on. No concerns have been raised about highway capacity. The TA team has concluded that the proposed development would not result in a severe impact on the highway network (see paragraphs 4.80 above). The Highway Development Manager has more recently reviewed the proposed design of the junction of Doles Drove and the A123 and considers that a conventional junction with visibility appropriate for road with a 60 mph speed limit would be preferable (see paragraph 4.81). This has been provided and its provision could be secured by condition (see recommended condition 14).

7.41 Haddenham, Willingham, Hilton and Wilburton Parish Councils have raised concerns about HGVs generated by the proposed reservoir development using roads through those villages. The proposed HGV route is Route 1 as set out in paragraph 7.35 above. There would be no HGV traffic from the proposed development on the A1123 through Haddenham village or Wilburton; the B1050 through Willingham; or the B1040 through Hilton unless delivering sand and gravel to a customer in those settlements. The HGV routeing could be secured by planning condition (see recommended condition 19).

7.42 The East Cambridgeshire Joint Villages HCV Group has drawn attention to a planning application for mineral extraction at Bridge Farm, Earith Road, Willingham (ref. no. S/01468/87/CM) which would have generated about 90 HGV movements over a 12 hour day, was refused by the MPA and the subsequent appeal dismissed. The appeal decision letter states that "The Secretary of State agrees with the Inspector's findings and conclusions and accepts his recommendation. Whilst he does not necessarily concur with the Inspector's view that the A1123 and B1050 are unsuitable routes for HGV he does however consider that in this particular instance the proposed increase in HGV is unacceptable." The HGV mineral traffic from Bridge Farm would have needed to use approximately 2 kilometres of the B1050 to join the A1123 at Earith Bridge. From the information available it is not clear whether all or part of the proposed HGV route were in 1989 considered unsuitable. In any event, the highway authority considers that this case is too old to now be of relevance.

Environmental impact of HGV traffic

7.43 The NPPF at paragraph 104 states that "Transport issues should be considered from the earliest stages of plan-making and development proposals, so that: …. d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains;". NPPF paragraph 185 states that "Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should: a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;" Residents of Earith and Bluntisham have raised concerns about the impact of vibration, noise and vehicle emissions particularly on properties close to the A1123 and their occupants. Detailed representations have been made by the East Cambridgeshire Joint Villages HCV Group (see paragraphs 4.113 – 119), Hilton Action on Traffic (paragraphs 4.130 – 4.136) and a number of individual householders.

Air quality

7.44 Huntingdonshire District Council's environmental health officer has concluded that the proposed development would not lead to a breach in national air quality objectives or an unacceptable risk from air pollution and considers that there is not sufficient evidence to justify objecting to the application on air quality grounds. Aware that this matter is of great concern to local residents, the County Council, as stated at paragraph 1.3 above, engaged Air Quality Consultants (AQC) to provide independent advice on the impact of the HGV traffic generated by the proposed development on air quality. AQC assessed information provided by the applicant and the representations made by third parties and conclude that although there would be changes in the annual mean nitrogen dioxide and PM10 concentrations as a result of the increase in HGV traffic, these changes would be negligible and would not affect compliance with air quality objectives. The County Council's Public Health team have taken into account AQC's technical comments and advise that any adverse health effects on the general population from the traffic generated by the proposed development are likely to be negligible.

Noise from HGV traffic

7.45 As stated in paragraph 1.3 above the County Council engaged Acoustic Associates to provide independent advice on the noise impact of the proposed development. Noise from the mineral extraction operations are dealt with separately (see paragraphs 7.58 – 7.62). Acoustic Associates assessed the information provided by the applicant and the representations made by third parties and conclude that road traffic noise is not likely to increase by more than 1 dB as a result of the HGV movements generated by the proposed development. They have advised that road traffic noise levels are already very high and significantly above the WHO recommended levels and the contribution of the additional HGVs would be insignificant.

7.46 To conclude this section on traffic and highways, provided that the access to the site is constructed in accordance with the submitted design; that the level of HGV traffic does not exceed what the application has been assessed on; and the HGV traffic follows the proposed route it is considered that the proposed development would comply with MWCS policies CS32 and CS34, ECLP policies ENV9 and COM7 and MWLP policy 23. Paragraph 111 of the NPPF states that "Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe." In the view of the highway authority these tests have not been met and there is no justifiable reason to refuse planning permission on grounds of the impact of the traffic that would be generated by the proposed development.

Designated and protected sites

7.47 The application site's relationship to designated sites is set out in paragraph 3.3 above. MWCS policy CS35, ECLP Policy ENV7 and WMLP Policy 20 seek to protect sites designated for their biodiversity and geodiversity. Natural England is satisfied that the proposed development is unlikely to have any adverse impact on the integrity of the Ouse Washes SSSI, SAC, SPA and Ramsar site subject to mitigation measures being implemented and secured through appropriate planning conditions. They have taken into account the Environment Agency's review of the latest Hydrogeological Impact

Assessment. The County Council has carried out a Habitat Regulations Assessment which has been approved by Natural England who were satisfied with the conclusion that the proposed development will not have an adverse effect on the integrity of the Ouse Washes European site. This is based on the findings of the applicant's Hydrogeological Impact Assessment including confirmation that the Ouse Washes, located 291 metres from the proposed development, lies significantly beyond the 144 metres dewatering zone of influence for the proposed reservoir and the delivery of the proposed mitigation measures being secured through planning conditions.

7.48 It is considered that the proposed development would not have an unacceptable adverse impact on areas designated as having nature conservation importance so is in accordance with MWCS policy CS35, ECLP Policy ENV7, MWLP Policy 20 and NPPF paragraph 174 (a).

Ecology and protected species

7.49 MWCS policy CS35, ECLP Policy ENV7, MWLP Policy 20 and NPPF paragraph 180 (d) seek to protect and enhance biodiversity. The applicant has provided an Ecological Management Plan (EMP). The measures to safeguard protected species are considered satisfactory in principle but updated surveys should be carried out as recommended by Natural England and the CCC ecology officer. This can be secured by planning condition (see recommended condition 12). The submitted Dust Management Plan is also considered acceptable from an ecological point of view and can be secured by condition (see recommended condition 22). The EMP also outlines how the area of conservation grassland and wetland would be created at the restoration stage and managed thereafter. However, whilst the restoration scheme is acceptable in principle, further details are required and these could be secured by condition as recommended by Natural England and the CCC ecology officer (see recommended condition 13). With reference to paragraph 4.11 above, Haddenham Parish Council and Haddenham Conservation could be consulted on the detailed restoration scheme.

7.50 The Government confirmed in March 2019 that it intends to introduce "biodiversity net gain" in the forthcoming Environment Bill. Biodiversity net gain requires developers to ensure habitats for wildlife are enhanced and left in a measurably better state than they were pre-development. They must assess the type of habitat and its condition before submitting plans, and then demonstrate how they are improving biodiversity – such as through the creation of green corridors, planting more trees, or forming local nature spaces. The proposed reservoir site is intensively farmed arable land and for this reason has little biodiversity interest. It is considered that the proposed creation of approximately 4 hectares of conservation grassland and wetland would represent a net biodiversity gain but in order to comply with the East Cambridgeshire Natural Environment SPD this should be quantified. This has been picked up in recommended condition 13. It is noted that the RSPB recommend that the conservation and wetland area should be managed for 25 years (see paragraph 4.75) but it is considered that this would be disproportionate for size of the area and a minimum of 5 years as recommended by the ecology officer (see paragraph 4.69) should be required.

7.51 It is considered that with appropriate mitigation and the realisation of biodiversity net gain the proposed development could be carried out without unacceptable impacts on the ecological interest of the site and its surroundings so would comply with MWCS policy

CS35 ECLP policy ENV7, MWLP Policy 20 and NPPF paragraph 180 (d).

Agricultural land

7.52 MWCS policy CS38 and MWLP Policy 24 seek to protect the best and most versatile agricultural land (grades 1, 2 and 3a). The NPPF at paragraph 174 (a) states that planning decisions should “contribute to and enhance the natural and local environment by: a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan”.

7.53 The approximately 28 hectares of land that would be disturbed by the proposed development fall roughly equally within grades 2, 3a and 3b. The proposed reservoir development would be within a wider area of predominantly grade 1 and grade 2 land where there is relatively little scope to locate it entirely within grade 3b land. The uses of the topsoil and subsoil stripped from the footprint of the reservoir that are described in paragraph 2.7 above are considered acceptable. Natural England welcomes the reuse of a significant proportion of the topsoils in a sustainable manner to enhance the soil horizon across the remainder of the farm holding. It is considered that this would be in accordance with MWCS policy CS38 and MWLP Policy 24 and NPPF paragraph 174 (a).
Historic environment

7.54 The proposed development site is located in an important archaeological location, surrounded by numerous scheduled monuments of Neolithic long barrows and cemeteries of Bronze Age round barrows. There are no designated heritage assets close to the site which are likely to be impacted by the proposed development. The archaeological interest of the proposed development area has been mapped and because the mineral extraction would have a total impact on the remains an archaeological mitigation strategy is required and this could be secured by condition as recommended by the Historic Environment Team in paragraph 4.85. It is considered that with this mitigation in place the proposed development would comply with MWCS policy CS36, ECLP policy ENV14 and MWLP Policy 21.

Visual impact

7.55 MWCS policy CS33, ECLP policy ENV1, MWLP Policy 17 and paragraph 174 of the NPPF seek to protect the landscape. The application site is within a flat, intensively farmed landscape which is typical of the fens. It does not lie in or near an area designated for its special landscape value. The locations of the closest residential properties are set out in paragraph 3.1 above. The proposal does not include any permanent buildings, plant or machinery. It is proposed that the sand and gravel would be processed within the eastern part of the site using plant which would be approximately 6.3 metres high at its highest point (the top of the feed conveyor). Most of the plant would be less than 5 metres high. Unprocessed “as dug” sand and gravel would be held in a stockpile with a maximum height of 5 metres. Three small temporary buildings (6 metres x 3 metres x 2.5 metres high would be located close to the site entrance. The processing area would be enclosed to the east and south by a 5 metre high subsoil acoustic screening mound. The southern (roadside) and part of the western boundary of the development site would be defined by a 3 metre high topsoil storage mound as described in paragraph 2.13 above.

7.56 The application was accompanied by a landscape and visual impact assessment which concludes that the proposed development would have some adverse visual effects during the construction (mineral extraction) phase, particularly from viewpoints close to the site. Willow Farm, a bungalow close to the southwest corner of the site, would be most affected by the soil stripping phase but this would be reduced once the 3 metres high topsoil perimeter bund was in place. Most of the activities would be screened by the soil bunds along the road frontage and the western and eastern boundaries and they would be temporary.

7.57 Once completed the reservoirs would have little impact in the landscape due to its low lying nature with the exception of views from the A1123. These would be transient and the changes would be from fields to open water providing a degree of visual interest. For the reasons set out in paragraphs 7.55 and 7.56 it is considered that the proposed development would not have a significant additional impact on the landscape. Any impacts would be limited to a period of 6 years. It is considered that the proposal complies with MWCS policy CS33, ECLP policy ENV1, MWLP Policy 17 and NPPF paragraph 174.

Operating hours and noise

7.58 NPPF paragraph 211 states that "In considering proposals for mineral extraction, minerals planning authorities should: … c) ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations are controlled, mitigated or removed at source, and establish appropriate noise limits for extraction in proximity to noise sensitive properties;" MWCS policy CS34, ECLP policy ENV9, MWLP Policy 18 and NPPF paragraph 211 seek to protect surrounding land uses from the impacts of the development including noise. The proposed hours of operation set out in paragraph 2.10 above would be within what is classified as the daytime period except for the proposed departure of pre-loaded lorries between 06:00 and 07:00. The application was accompanied by a noise impact assessment which has been reviewed by the environmental health officers (EHO) at East Cambridgeshire and Huntingdonshire District Councils and by Acoustic Associates. The East Cambridgeshire EHO has suggested different (standard) hours for the construction phase. However, the whole of the development that would be regulated by the mineral planning authority would be construction so it is not considered reasonable to impose a shorter working day.

7.59 Planning Practice Guidance (PPG) provides advice on noise from mineral sites:

"Mineral planning authorities should aim to establish a noise limit, through a planning condition, at the noise-sensitive property that does not exceed the background noise level (LA90,1h) by more than 10dB(A) during normal working hours (0700-1900). Where it will be difficult not to exceed the background level by more than 10dB(A) without imposing unreasonable burdens on the mineral operator, the limit set should be as near that level as practicable. In any event, the total noise from the operations should not exceed 55dB(A) LAeq, 1h (free field). For operations during the evening (1900-2200) the noise limits should not exceed the background noise level (LA90,1h) by more than 10dB(A) and should not exceed 55dB(A) LAeq, 1h (free field). For any operations during the period 22.00 – 07.00 noise limits should be set to reduce to a minimum any adverse impacts, without imposing unreasonable burdens on the mineral operator. In any event the noise limit should not exceed 42dB(A) LAeq,1h (free field) at a noise sensitive property."

7.60 Acoustic Associates (AA) have reviewed the applicant's noise impact assessment and challenged some of its methods, assumptions and conclusions. Essentially AA considered that the background noise level was lower and the calculated noise level from the proposed development would be higher for the mineral extraction and construction phase. The applicant's criterion of 54dB(A) LAeq, 1h (free field) (background level + 10 dB) would be exceeded at one of the three receptor sites. Following the provision of further information by the applicant, AA considered the noise predictions to be satisfactory. This work was based on the original proposal which included a reservoir and mineral extraction at the southwest corner of the site close to Willow Farm Bungalow. In the current scheme the only part of the development close to this property would be the perimeter topsoil bund which would be constructed over a short period of time (see recommended condition 24 (iii)). The impact on the other two receptors, Third Bridge Holiday Home to the south of the A1123 opposite the first extraction phase and close to the processing area and Willow Hall Farm approximately 300 metres southeast of the site access would be largely unaffected by the amended scheme. It is proposed that daytime operations be subject to a noise limit of 54dB(A) LAeq, 1h (free field) at any noise sensitive property. According to AA's calculations this would be exceeded at Third Bridge Holiday Home. It is considered that in order to comply with the recommended limit, the main noise sources (the loading shovel and dumpers) would not be used at the same time when operations are close to the property. It is recommended that the developer be required to carry out monitoring to assess whether the limits are being complied with (see recommended condition 25).

7.61 The only activities that would take place within the most sensitive night time period would be the departure of pre-loaded lorries and AA is satisfied that the noise generated would be within the PPG level of 42dB(A) LAeq,1h (free field) at the nearest noise sensitive properties. Acoustic Associates noted that if the construction of the perimeter topsoil bund would take place for longer than 8 weeks additional assessment and mitigation would need to be undertaken (see paragraphs 4.101 - 4.102 above). The applicant has agreed to a condition limiting bund construction to no more than 14 days in any calendar year (see recommended condition 24(iii)).

7.62 It is considered that provided the conditions outlined in paragraph 7.60 are imposed the proposed development would comply with MWCS policy CS34, ECLP policy ENV9, MWLP Policy 18 and NPPF paragraph 211 in respect of noise.

Dust

7.63 MWCS policy CS34, ECLP policy ENV9, MWLP Policy 18 and NPPF paragraph 211 seek to protect surrounding land uses from the impacts of the development. A Dust Management Scheme (Document 12) was submitted. The proposed mitigation measures are those typically employed on sand and gravel extraction sites. They are considered to be satisfactory and could be secured by condition. It is not considered necessary to duplicate these measures in a CEMP as recommended by the EHO. The CEMP recommended in condition 10 would encompass wider ecological protection measures.

7.64 It is considered that provided the dust action plan is secured by condition the proposed development would comply with MWCS policy CS34, ECLP policy ENV9, MWLP Policy 18 and NPPF paragraph 211 in respect of dust.

8. Conclusion

8.1 The principle of providing a sustainable and secure source of water to irrigate crops would be in accordance with the broad policy aims of creating resilience to the effects of climate change. The development has been proposed on the basis of an agricultural need. The benefits to the farming business have been assessed by an independent expert and although he had some reservations, concluded that the capacity of the reservoirs was justified. The proposed development would give rise to economic mineral and has been tested against MWCS policy CS42 and MWLP Policy 9. It is considered that the criteria of these policies are met. It is not considered that the proposed development would materially prejudice the realisation of the Block Fen / Langwood Fen Master Plan restoration aspirations.

8.2 There are two principal areas of concern that have been expressed strongly by third parties: the impact on groundwater and the impact of HGV traffic through villages. The Environment Agency does not raise an objection and has advised that although the proposal is not entirely without risk, the potential impacts on groundwater can be addressed by a programme of monitoring and if necessary, mitigation. The Haddenham Level Drainage Commissioners and A G Wright and Sons Farms Ltd object to the proposed development because they consider that dewatering after December would not allow the groundwater to recharge and would have an adverse impact on neighbouring land and its agricultural productivity.

8.3 Parish councils, local community and environmental organisations and many individuals have raised objections on the grounds that the additional HGV traffic would compromise highway safety and increase already high levels of air and noise pollution which are experienced close to the A1123. The applicant has proposed that traffic would be routed to and from the west and would agree to a routeing agreement being secured by condition. The highway authority's advice is that the proposed level of traffic would not be unacceptable in terms of either safety or congestion on the road network.

8.4 The mineral planning authority commissioned specialist independent advice on both noise and air quality. Acoustic Associates acknowledge that the existing noise levels on Earith High Street are already very high but conclude that the increase from traffic generated by the proposed development would be insignificant. Similarly, Air Quality Consultants conclude that the additional traffic would not give rise to significant air quality impacts.

8.6 The known and potential impacts of the proposed development which have been addressed in detail in section 7 of this report have been balanced against the suggested benefits which would be the provision of a secure and sustainable supply of irrigation water which would make the applicants' agricultural business more resilient to the effects of climate change. It is considered that the proposed development would, subject to conditions, comply with the relevant national and development plan policies and in this instance the benefit is considered to outweigh other material considerations so should be supported.

8.7 This recommendation takes into account Natural England's advice in respect of the Ouse Washes and the Environment Agency's advice on potential impacts on ground and surface water. It also takes into account the MPA's Habitats Regulations Assessment (Appendix A).

9. Recommendation

9.1 It is recommended that permission be granted subject to the following conditions:

Advisory Note:
The Town & Country Planning (Development Management Procedure) (England) Order 2015 requires the planning authority to give reasons for the imposition of pre-commencement conditions. Conditions 5, 10, 11,12,13, and 25 below require further information to be submitted, or works to be carried out, to protect the historic, natural and human environment and are therefore attached as pre-commencement conditions. The developer may not legally commence new development on site until these conditions have been satisfied.

1. Site area

This permission relates to the land outlined and shaded in red on drawing no. 01-18-WHF Location Plan dated 17/04/18 (received 14 January 2021) referred to in these conditions as "the Site".

Reason: To define the permission for the avoidance of doubt.

2. Commencement

The development hereby permitted shall be commenced not later than three years from the date of this permission. Within seven days of the commencement of development, the developer shall notify the mineral planning authority in writing of the exact commencement date.

Reason: To comply with Section 91 of the Town and Country Planning Act 1990 as amended by Section 51 of the Planning and Compulsory Act 2004.

3. Approved plans

The development hereby permitted shall not proceed except in accordance with the following approved drawings unless otherwise stated in this permission or as amended by the information approved as required by the other conditions of this permission:

i) 01-18-WHF Location Plan dated 17/04/2018 (received 14 January 2021);
ii) 03-18-B-WHF Reservoir Design dated 20/03/20 (received 14 January 2021);
iii) 04-18-B-WHF Working Proposals dated 25/03/20 (received 14 January 2021);
iv) 05-18-A-WHF Site Access and Infrastructure dated 03/06/19 (received 14 January 2021);
v) 06-18-B-WHF Working Proposals dated 25/03/20 (received 14 January 2021);
vi) 07-18-WHF Wheelwash and Weighbridge Facility dated 02/05/2019 (received 14 January 2021);
vii) 08-18-WHF Mineral Processing Plant dated 24/05/2019 (received 14 January 2021);
viii) Figure WHF7a – Cross Section A-A (following page 22 Document 30 Regulation 25 Request (2) January 2021 (received 14 January 2021);
ix) Figure WFH8a – Cross Section B-B (preceding page 25 Document 30

Regulation 25 Request (2) January 2021 (received 14 January 2021); and

x) 19413-02-2 Rev D Proposed Site Access dated July21 (received 20 July 2021)

Reason: To ensure the development is carried out in accordance with the approved plans and to define the site and preserve the character, appearance and quality of the area in accordance with the Cambridgeshire and Peterborough Minerals and Waste Core Strategy DPD (July 2011) policies CS25, CS33, CS34, CS35 and CS38, East Cambridgeshire Local Plan (April 2015) policies ENV1, ENV2 and ENV9 and the emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 17, Policy 19, Policy 20 and Policy 24.

4. Timescale of permission

Extraction, processing and despatch of mineral shall cease no later than 5 years from the date of commencement referred to in condition 2. Within seven days of the cessation of mineral extraction, processing and despatch the operator shall notify the mineral planning authority in writing of the date on which the mineral extraction, processing and despatch ceased. The Site shall be completed in accordance with drawing no. 03-18-B-WHF Reservoir Design dated 20/03/20 (received 14 January 2021) within 1 year of the cessation of mineral extraction and processing.

Reason: To ensure the completion and progressive restoration of the site within an approved timescale in accordance with the Cambridgeshire and Peterborough Minerals and Waste Core Strategy DPD (July 2011) policies CS25 and CS42(e) and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 9 (e) and Policy19.

5. Archaeology (pre-commencement Written Scheme of Investigation)

No development shall commence until the applicant, or their agents or successors in title has secured the implementation of a programme of archaeological work in accordance with a Written Scheme of Investigation that has been submitted to and approved in writing by the mineral planning authority. The pre-commencement aspects of archaeological work shall include:

i) Submission of a Written Scheme of Investigation that sets out the methods and timetable for the investigation of archaeological remains in the development area starting with the evaluation of the impact areas which responds to the requirements of the local authority archaeology brief including a strategy for the local or museum-based display of selected evidence; and

ii) Completion of mitigation fieldwork in accordance with the approved Written Scheme of Investigation.

Reason: To ensure that the archaeological interest of the site is investigated and recorded in accordance with the Cambridgeshire and Peterborough Minerals and Waste Core Strategy DPD (July 2011) policy CS36, East Cambridgeshire Local Plan (April 2015) policy ENV14, emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 21 and paragraph 205 of the National Planning Policy Framework (February 2019). This is a pre-commencement condition because it is necessary to agree the programme of archaeological work in order to ensure that underlying archaeology is

protected before any development take place.

6. Archaeology (post-fieldwork)

The post-fieldwork sections of the archaeology programme shall be fully implemented in accordance with the timetable and provisions of the approved Written Scheme of Investigation referred to in condition 5. This stage of the programme shall follow the signed-off fieldwork and shall comprise:

i) Completion of a Post-Excavation Assessment report and an Updated Project Design for the analytical work to be submitted for approval within six months of the completion of fieldwork, unless otherwise agreed in advance with the mineral planning authority;
ii) Completion of the approved programme of analysis and production of an archive report; submission of a publication synopsis and preparation of a publication report to be completed within 18 months of the approval of the Updated Project Design, unless otherwise agreed in advance with the mineral planning authority;
iii) Deposition of the physical archive in the Cambridgeshire Archaeological Archive Facility or another appropriate store approved by the mineral planning authority and deposition of the digital archive with the Archaeology Data Service or another CoreTrustSeal certified repository within 1 year of completion of (ii).

Reason: To ensure that the archaeological interest of the site is investigated and recorded in accordance with the Cambridgeshire and Peterborough Minerals and Waste Core Strategy DPD (July 2011) policy CS36, East Cambridgeshire Local Plan (April 2015) policy ENV14, emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 21 and paragraph 205 of the National Planning Policy Framework (February 2019).

7. Groundwater monitoring

The development hereby permitted shall be carried out in strict accordance with the Proposed Groundwater Level Monitoring Strategy (Appendix 2 Document 31(B) Revised Hydrogeological Impact Assessment April 2021) (received 14 May 2021) which sets out the maximum dewatering periods for each reservoir: paragraph A2.4 for the construction of Reservoir A; paragraph A2.5 for the construction of Reservoir B; and paragraph A2.6 for the construction of Reservoir C.

Reason : Monitoring is required to identify risks to other water resources namely the nearby abstraction reaches to the south of the development site which fall in the identified radius of influence of the dewatering activity in accordance with Cambridgeshire and Peterborough Minerals and Waste Core Strategy DPD (July 2011) policy CS39, East Cambridgeshire Local Plan (April 2015) policy ENV9 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 22.

8. Groundwater monitoring report

During and prior to the construction phase an annual monitoring report showing the groundwater levels relative to the agreed trigger levels in the Proposed Groundwater Level Monitoring Strategy referred to in condition 7 shall be submitted to the mineral planning

authority. If the trigger levels are not met the Hydrogeological Impact Assessment and mitigation measures shall be reassessed before any further mineral extraction or dewatering takes place.

Reason: To be confident that the assumptions in the HIA are holding true and any impacts which have not been identified or are greater than envisaged are assessed and enhanced mitigation put in place if required as set out in section 3.15.1 of Document 31 Revised Hydrogeological Impact Assessment (January 2021) and Cambridgeshire and Peterborough Minerals and Waste Core Strategy DPD (July 2011) policy CS39, East Cambridgeshire Local Plan (April 2015) policy ENV9 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 22.

9. Reservoir construction

Within 28 days of the completion of the construction of each reservoir as identified on drawing no.03-18-B-WHF Reservoir Design dated 20/03/20 a report or Construction Quality Assurance (CQA) validation completed by a competent engineer shall be submitted to the mineral planning authority providing details of the lining and side wall construction of the reservoirs to demonstrate that the reservoir is sealed from the sand and gravel aquifer by an impermeable boundary of adequate construction in accordance with section 3.3 of Document 30 Regulation 25 Request (2) (January 2021).

The reservoirs shall not be filled until the report or CQA validation has been approved by the mineral planning authority. The reservoirs shall be maintained thereafter in accordance with the recommendations made in the report or CQA validation.

Reason: The applicant's feasibility and sustainability relies on the ability to ensure the reservoirs are a discrete waterbody disconnected from the surround water environment in this case the sand and gravel aquifer in accordance with Cambridgeshire and Peterborough Minerals and Waste Core Strategy DPD (July 2011) policy CS39, East Cambridgeshire Local Plan (April 2015) policy ENV9 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 22.

10. Water quality

No development shall commence until a water quality monitoring and maintenance scheme has been submitted to and approved in writing by the mineral planning authority. The scheme shall include a timetable of monitoring and provide for the submission of reports to the mineral planning authority. The reports specified in the approved scheme shall include details of any necessary contingency action arising from the monitoring.

The development shall be carried out in accordance with the approved scheme.

Reason: To ensure that the development does not pose any further risk to the water environment by managing any ongoing issues and completing all necessary long-term remediation measures in accordance with Cambridgeshire and Peterborough Minerals and Waste Core Strategy DPD (July 2011) policies CS35 and CS39, East Cambridgeshire Local Plan (April 2015) policy ENV9, emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 20 and Policy 22 and paragraph 174 of the National Planning Policy Framework. This is a pre-commencement condition because it is necessary

for water quality monitoring to be agreed and in place before any development takes place.

11. Surface water drainage

No development shall commence until a surface water drainage scheme, based on sustainable drainage principles, has been submitted to and approved in writing by the mineral planning authority. The scheme shall be based upon the principles within the Flood Risk Assessment and Hydrological Review (ref: H8201) dated April 2018 and the Flood Risk Assessment & Hydrological Summary - Addendum (ref: H8201-ADD) dated 17 June 2019 prepared by Amber Planning, comply with the hierarchy of drainage options set out in the National Planning Policy Framework (February 2019) and Planning Practice Guidance and shall also include:

a) Detailed drawings of the entire proposed surface water drainage system, including levels, gradients, dimensions and pipe reference numbers;
b) Full details of the proposed attenuation and flow control measures;
c) Temporary storage facilities;
d) Details of overland flood flow routes in the event of system exceedance, with demonstration that such flows can be appropriately managed on site without increasing flood risk;
e) Full details of the maintenance/adoption of the surface water drainage system;
f) Measures taken to prevent pollution of the receiving groundwater and/or surface water; and
g) A timetable for implementation.

The development shall be carried out in accordance with the approved scheme.

Reason To ensure that the proposed development can be adequately drained and to ensure that there is no increased flood risk on or off site resulting from the proposed development in accordance with paragraphs 167 and 169 of the National Planning Policy Framework (February 2019), East Cambridgeshire Local Plan (April 2015) policy ENV8 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 22. This is a pre-commencement condition because it is necessary for surface water drainage to be agreed and in place before any development takes place.

12. Construction environmental management plan

No development shall commence until a construction environmental management plan (CEMP) has been submitted to and approved in writing by the mineral planning authority. The CEMP shall include but not be limited to the following:

a) Risk assessment of potentially damaging construction activities;
b) Identification of “biodiversity protection zones”;
c) Practical measures (both practical measures and sensitive working practices) to avoid or reduce impacts during construction including but not limited to ditches;
d) The location and timing of sensitive works to avoid harm to biodiversity features;
e) The times during construction when specialist ecologists need to be on site to oversee works;
f) Responsible persons and lines of communication;
g) Use of protective fences, exclusion barriers and warning signs;

h) Updated species surveys and mitigation proposals including but not limited to water vole; and
i) Monitoring and reporting.

The development shall be carried out in accordance with the approved CEMP.
Reason: To minimise the impact of the development on wildlife and wildlife habitats in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policy CS35, East Cambridgeshire Local Plan (April 2015) policy ENV7 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 20. This is a pre-commencement condition because it is necessary to agree the detailed information relating to protection of the environment and biodiversity during the construction phase before any development takes place.

13. Restoration and aftercare scheme

No development shall commence until a detailed restoration and management scheme for the area shown as Conservation grassland with wetland (reduced area) on drawing no. 06-18-B-WHF Wetland Area dated 20/03/2020 has been submitted to and approved in writing by the mineral planning authority. The scheme shall demonstrate how the net gain in biodiversity has been calculated and shall include but not be limited to:

a) Soil / landscape specification demonstrating how a low-nutrient soil profile will be created from on-site subsoils and top-soil, to enable wildflower grassland to establish, including:
    i) Soil testing to create acceptable pH / nutrient-levels for the soil;
    ii) Measures to reduce residual fertility (e.g. growing a crop prior to sowing);
    iii) Treatment of high weed burden associated with arable reversions to meadow;
b) Landscape specification for the hedgerow;
c) Details of the scrapes, including:
    i size and profile;
    ii. expected water-levels (taking into consideration climate change projections;
d) Final levels of restored land;
e) Water vole mitigation strategy (if required); and
f) Management for at least 5 years including annual habitat assessments against specific target conditions to determine whether establishment is taking place or whether any remedial action is required, such as re-seeding, replanting or weed control.

The development shall be carried out in accordance with the approved restoration and aftercare scheme.

Reason: To minimise the impact of the development on wildlife and wildlife habitats in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policy CS35, East Cambridgeshire Local Plan (April 2015) policy ENV7, East Cambridgeshire District Council Natural Environment – Supplementary Planning Document (SPD) (September 2020) and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 20. This is a pre-commencement condition because it is necessary for the restoration details to be designed into the scheme and to ensure that the net gain in biodiversity can be

achieved.

14. Access construction

No soil stripping shall commence until the junction of Doles Drove and the A1123 Hillrow Causeway has been constructed in accordance with drawing no.19413-02-2 Rev D Proposed Site Access dated July21.

Reason: In the interests of highway safety in accordance with the Cambridgeshire and Peterborough Minerals and Waste Core Strategy DPD (July 2011) policy CS32, East Cambridgeshire Local Plan (April 2015) policy COM7 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 23.

15. Vehicular access

Vehicular access to the site shall only be from the location shown as Access point on drawing no. 03-18-B-WHF Reservoir Design dated 20/03/20.

Reason: In the interests of highway safety in accordance with the Cambridgeshire and Peterborough Minerals and Waste Core Strategy DPD (July 2011) policy CS32, East Cambridgeshire Local Plan (April 2015) policy COM7 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 23.

16. Prevention of mud on the public highway

No soil stripping shall commence until the Access road shown on drawing no. 05-18-A-WHF dated 03/06/19 has been constructed in accordance with paragraph 3.2.3 of Document 30 Regulation 25 Request (2) dated January 2021. Thereafter HGVs and the Access road shall be cleaned as necessary to prevent materials including mud and debris being deposited on the public highway. The surface of the Access road and wheel wash shall be retained and maintained for the duration of the development hereby permitted.

Reason: In the interests of highway safety and safeguarding local amenity in accordance the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policies CS32 and CS34, East Cambridgeshire Local Plan (April 2015) policy COM7 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 23.

17. Restriction of heavy goods vehicle (HGV) movements

The total number of HGV movements to and from the Site shall not exceed the following maximum limits:

- 100 movements per day on Mondays to Fridays except bank and public holidays;
- 50 movements per day on Saturdays; and
- No movements on Sundays and bank and public holidays.

For the avoidance of doubt a vehicle entering the site counts as one movement and a vehicle exiting the site counts as a separate movement. There shall be no HGV movements outside the hours set out in condition 20.

Reason: It has not been demonstrated that the public highway is capable of safely accommodating higher number of vehicle movements and in the interest of the amenity of occupiers of nearby properties in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policies CS32 and CS34, East Cambridgeshire Local Plan (April 2015) policy COM7 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 23 and Policy 18.

18. HGV records

A record of the date and time of all HGV movements to and from the site shall be kept and made available to the mineral planning authority within seven days of a written request.

Reason: To enable compliance with condition 17 to be monitored in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policies CS32 and CS34, East Cambridgeshire Local Plan (April 2015) policy COM7 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 23 and Policy 18.

19. HGV routeing agreement

The site shall not be operated except in accordance with the Traffic Management Scheme dated July 2021.

Reason: In the interests of limiting the effects on local amenity to control the impacts of the development and to comply with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policy CS34, East Cambridgeshire Local Plan (April 2015) policy COM7 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 18.

20. Hours of operation

No development including the entry and exit of HGVs shall take place within the site outside the hours of:

07:00 – 19:00 on Mondays to Fridays except bank or public holidays; and
07:00 – 13:00 on Saturdays.

Except that pre-loaded HGVs may leave the site between 06:00 and 07:00 on Mondays to Fridays except bank or public holidays.

No development authorised by this permission shall take place on Sundays or on bank or public holidays.

Reason: To minimise disturbance to residents and users of the area in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policy CS34, East Cambridgeshire Local Plan (April 2015) policy ENV9 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 18.

21. Stockpile heights

No stockpile of processed mineral, unprocessed mineral or clay and no overburden or subsoil storage mound shall exceed a height of 5 metres measured from the adjacent ground level except the Subsoil storage area on backfill shown on drawing no. 04-18-B-WHF shall not exceed a height of 3 metres when measured from the adjacent ground level. No topsoil storage mound shall exceed a height of 3 metres measured from the existing adjacent ground level.

Reason: In the interests of visual amenity in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policies CS33 and CS34, East Cambridgeshire Local Plan (April 2015) policies ENV1 and ENV2 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 17 and Policy 18 and in order to protect the integrity of the soils for restoration in accordance with Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policy CS38 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 24.

22. Dust controls and mitigation measures

The development hereby permitted shall not take place except in accordance with the Dust Management Scheme Document 12 (received 23 August 2019).

Reason: To minimise the impact of the development on wildlife and wildlife habitats in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policy CS35, East Cambridgeshire Local Plan (April 2015) policy ENV9 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 20.

23. Maintenance, silencers and reversing alarms

All vehicles, plant and machinery operated on the site shall be maintained in accordance with the manufacturers' specifications at all times and shall be fitted with effective silencers that shall be used at all times. All vehicles that are fitted with reversing alarms shall be fitted with 'white noise' type or similar, reversing alarms.

Reason: To protect the amenities of occupiers of nearby properties in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policy CS34, East Cambridgeshire Local Plan (April 2015) policy ENV9 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 18.

24. Noise limits

Noise shall be limited to the following levels:

i. Between 07:00 and 19:00 noise emissions attributable to the development hereby permitted shall not exceed 54 dB LAeq, 1 hour (free field) at the boundary of any occupied residential property.

ii. Between 06:00 and 07:00 noise emissions attributable to the development hereby permitted shall not exceed 42 dB LAeq, 1 hour (free field) at the boundary of any occupied residential property.

iii. During the construction and removal of the Topsoil storage mound shown on drawing no. 04-18-B-WHF the equivalent continuous noise level when measured at any occupied residential property, shall not exceed 65dB LAeq, 1 hour (free field). Such temporary operations shall not take place for more than 14 days in any 12 month period.

Reason: To protect the amenities of occupiers of nearby properties in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policy CS34, East Cambridgeshire Local Plan (April 2015) policy ENV9 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 18.

25. Noise monitoring

No development shall commence until a noise monitoring scheme has been submitted to and approved in writing by the mineral planning authority.

The development shall be carried out in accordance with the approved scheme.

Reason: To enable the developer to demonstrate whether the noise limits in condition 22 are being complied with to protect the amenities of occupiers of nearby properties in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policy CS34, East Cambridgeshire Local Plan (April 2015) policy ENV9 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 18. This is a pre-commencement condition because it is necessary for noise monitoring to be agreed and in place before any development takes place.

26. Lighting

No security lights or floodlighting shall be installed except in accordance with details that have been submitted to and approved in writing by the mineral planning authority. Such lighting shall be for the construction period only.

Reason: To protect the amenity of local residents and the rural environment in accordance with Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policy CS34, East Cambridgeshire Local Plan (April 2015) policy ENV9 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 18.

27. Importation of materials

No mineral, waste or other materials shall be imported to the site for processing, construction or disposal.

Reason: This development was not part of the proposal so the potential environmental

impacts have not been assessed in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policies CS32, CS34, CS35 and CS39 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 18, Policy 20, Policy 22 and Policy 23.

28. Surplus soil

No subsoil or overburden shall be removed from the site. No topsoil shall be removed from the site other than for use on the applicant's land shown edged and shaded blue on drawing no. 01-18-WHF dated 17/04/2018 (received 14 January 2021).

Reason: To ensure that surplus soils are used sustainably in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policy CS38 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 24.

29. Phasing

No development other than subsoil storage shall take place in the area shown as Reservoir C on drawing no. 03-18-B-WHF Reservoir Design until Reservoir A has been filled with water and capable of being used for irrigating land.

Reason: To ensure the early delivery of irrigation water and completion and progressive restoration of the site within an approved timescale in accordance with the Cambridgeshire and Peterborough Minerals and Waste Core Strategy DPD (July 2011) policies CS25 and CS42(e) and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021 Policy 9(e) and Policy 19.

30. Land contamination

If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the mineral planning authority) shall be carried out until the developer has submitted a remediation strategy detailing how this unsuspected contamination shall be dealt with and obtained written approval from the mineral planning authority. The remediation strategy shall be implemented as approved.

Reason: To protect and prevent the pollution of controlled waters from potential pollutants associated with current and previous land uses in accordance with National Planning Policy Framework paragraphs 174, 183, 184, the Environment Agency's Approach to Groundwater Protection (Formerly GP3), the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policy CS39, East Cambridgeshire Local Plan (April 2015) policy ENV9 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 22.

31. Soil handling

Soils shall be handled in accordance with the 'Good practice guide for handling soils' (MAFF; April 2000).

Reason: To ensure that the quality of the soil is maintained for its use in site restoration and elsewhere on the farm holding in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policy CS38 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 24.

32. Site infrastructure

The mineral processing plant and weighbridge shown on drawing no. 05-18-A-WHF Site Access and Infrastructure dated 03/06/19 shall be removed from the site within 1 month of the cessation of mineral processing as specified in condition 4.

Reason: To ensure that the mineral processing area is restored in the interests of the visual amenity of the area in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policies CS33 and CS34, East Cambridgeshire Local Plan (April 2015) policy ENV1 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 17 and Policy 18.

33. Use of the reservoir

The reservoirs hereby permitted shall only be used for agricultural irrigation and shall not be used for sailing, match fishing, shooting (including wildfowling) or by powered craft or for any other recreational use except for the purposes of pest control.

Reason: To ensure that the water is available for agricultural irrigation in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policy CS42 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 9. To ensure no adverse impact on the Ouse Washes Special Protection Area and Ramsar site in accordance with the Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policy CS35, East Cambridgeshire Local Plan (April 2015) policy ENV7 and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 20.

34. Temporary buildings

The offices shown on drawing no. 05-18-A-WHF Site Access and Infrastructure dated 03/06/19 shall be securely anchored such that they are not a hazard during a flood event. They shall be removed from the Site within 1 month of the completion of the development in accordance with drawing no. 03-18-B-WHF Reservoir Design dated 20/03/20 (received 14 January 2021) as specified in condition 4.

Reason: Tidal Hazard Mapping indicates that the site could flood to a depth of greater than 2 metres. The findings of the Flood Risk Assessment (Document 3 April 2018) in relation to the likely duration, depths, velocities and flood hazard rating against the design flood event indicates that there will be a danger for all people including the general public and the emergency services.

35. Bonfires or Burning of Waste

There shall be no bonfires or burning of waste on the Site.

Reason: To ensure the environmental impact of the construction of the development is adequately mitigated in the interests of the amenity of nearby residents/occupiers. In accordance with Cambridgeshire and Peterborough Minerals and Waste Development Plan Core Strategy DPD (July 2011) policy CS34, East Cambridgeshire Local Plan (April 2015) policy ENV and emerging Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Policy 18.

Informatives for applicant

Condition 7: Dewatering periods

Paragraphs A2.4 to A2.6 from the Proposed Groundwater Level Monitoring Strategy (Appendix 2 Document 31(B) Revised Hydrogeological Impact Assessment April 2021) (received 14 May 2021) have been reproduced below for ease of reference:

A2.4 During construction of Reservoir A (dewatering during October to December only) groundwater will be pumped out of the excavation into the adjacent IDB drainage system, with a fallow period during the spring and summer sensitive recharge/abstraction period to allow groundwater recovery and mitigate any potential effects on licensed surface water abstractions and on the adjacent Special Area of Conservation (SAC).

A2.5 During construction of Reservoir B (dewatering during October to February only) groundwater will be pumped out of the excavation into either Reservoir A or into the adjacent IDB drainage system, with a fallow period during the spring and summer sensitive recharge/abstraction period to allow groundwater recovery and mitigate any potential effects on licensed surface water abstractions and on the adjacent Special Area of Conservation (SAC). The Reservoir B void space will be topped up by pumping of clean water from Reservoir A.

A2.6 During construction of Reservoir C (dewatering during October to March only) groundwater will be pumped out of the excavation into either Reservoir A, Reservoir B or into the adjacent IDB drainage system, with a fallow period during the spring and summer sensitive recharge/abstraction period to allow groundwater recovery and mitigate any potential effects on licensed surface water abstractions and on the adjacent Special Area of Conservation (SAC). The Reservoir C void space will be topped up by pumping of clean water from Reservoirs A or B.

Condition 8 – The report should include information as per appendix 2 of the HIA Document 31 and in addition, quarterly groundwater level plots and groundwater level data from the offsite wells 13 to 15. Should trigger levels not be met a revised HIA mitigation measures should be produced in accordance with the HIA section 3.15.1. (from Environment Agency 17 February 2021).

Conditions 12 & 13 – The applicant is advised to use the CCC Ecology Officer's letters dated 23 April 2020 and 18 March 2021 to inform the CEMP and restoration and aftercare

schemes.

The applicant's attention is drawn to the Environment Agency's letters dated 12 November 2019 and 17 February 2021 which provide technical advice on dewatering, abstraction licences and the design of the reservoir.

Compliance with paragraph 38 of the National Planning Policy Framework (February 2019)

The applicant did not obtain pre-application advice or an environmental impact assessment scoping opinion. The mineral planning authority has worked with the applicant and statutory and other consultees to ensure that sufficient information was provided by the applicant to enable an informed decision to be made. The mineral planning authority has worked with the applicant and the Environment Agency to ensure that the planning conditions are relevant and necessary.

The creation of winter-filled reservoirs has been justified by the applicant and would provide a secure and sustainable supply of irrigation water which would make the applicants' agricultural business more resilient to the effects of climate change thereby improving the economic, social and environmental conditions of the area. It is considered that these benefits would outweigh the impacts on the environment and local residents which would be mitigated to acceptable levels by the design of the development and secured by planning conditions.

Source Documents

Link to the National Planning Policy Framework (July 2021) National Planning Policy Framework - Guidance - GOV.UK (www.gov.uk)

Link to the Cambridgeshire and Peterborough Minerals and Waste Core Strategy Development Plan Document (adopted July 2011) Adopted minerals and waste plan - Cambridgeshire County Council

Link to the East Cambridgeshire Local Plan (adopted April 2015) East Cambridgeshire Local Plan 2015 | East Cambridgeshire District Council (eastcambs.gov.uk)

Link to the East Cambridgeshire District Council Natural Environment – Supplementary Planning Document (SPD) (adopted 24 September 2020) Supplementary Planning Documents | East Cambridgeshire District Council (eastcambs.gov.uk)

Link to the Cambridgeshire Flood & Water Supplementary Planning Document (adopted 14 July 2016) Surface water and sustainable drainage systems (SuDS) planning - Cambridgeshire County Council

Link to the Cambridgeshire and Peterborough Minerals and Waste Local Plan (July 2021) Emerging Minerals and Waste Local Plan - Cambridgeshire County Council