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Our ref: XA/2025/100442/01

Your ref: EN010165

Date: 28 October 2025

Dear Sir/Madam

**PROPOSED KINGSWAY SOLAR FARM DEVELOPMENT CONSENT ORDER
APPLICATION STATUTORY PRE-APPLICATION CONSULTATION: 17
SEPTEMBER TO 29 OCTOBER 2025.**

**SECTION 42 PLANNING ACT 2008: DUTY TO CONSULT ON A PROPOSED
APPLICATION.**

**THE INFRASTRUCTURE PLANNING (APPLICATIONS AND PRESCRIBED
FORMS AND PROCEDURE) REGULATIONS 2009.**

**THE INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT
ASSESSMENT) REGULATIONS 2017.**

Thank you for referring the above report, which was received on 18 September 2025.

In order to inform our response, we have reviewed the following document:

- Kingsway Solar Farm Stage 2 consultation Preliminary Environmental Information Report dated September 2025.

Environment Agency Comments:

Overall, we are generally satisfied with the scope and content of the Preliminary Environmental Information Report (PEIR) to reasonably inform us of the likely significant environmental effects to be considered.

There are, however, areas which we consider require further clarification, additional information and / or assessment which are set out below. Our main key issues are listed below, and further detailed comments are listed in Appendix A.

Key Issues to be addressed:

BESS Site Location

Substation and BESS compounds represent potentially significant source of pollution which could impact groundwater and/or surface water quality. The Applicant should assess whether these features, in particular the co-located BESS and 400kV/132kV/33kV substation can be sited in an area of lower groundwater sensitivity.

Flood Risk & Modelling

Flood risk has been scoped out of the assessment. Therefore, our comments on the flood risk implications associated with the project are limited until we have seen the Flood Risk Assessment (FRA), which is proposed to be submitted as an appendix to the Environmental Statement (ES).

Protective Provisions

Any requests to disapply any permits or consents should be sent to us in writing as soon as possible to allow us sufficient time to consider them (minimum 6 months). Depending on the outcome this will have implications on the content of the Development Consent Order (DCO).

Please note this response does not represent our final view in relation to any future planning application, or any environmental permit applications made to us. Our final views will be based on all relevant information including applications and guidance available at the time of submission.

Yours faithfully

[Redacted signature block]

Direct email - [Redacted email address]

List of appendices

Appendix A – Detailed Environment Agency comments

Appendix B – General Comments

Appendix A – Detailed Environment Agency comments

Fisheries

Document Reference(s): PEIR Ch 2 Biodiversity, Table 6.2	
Issue	Conducting a fish habitat assessment alone as the only survey.
Impact	This alone does not give a presence or absence of fish and thus does not provide confidence in the baseline. The potential for fish being present based on a habitat survey maybe subjective and could result in a harm to fish.
Solution	Where fish habitat is present, fish presence/absence surveys should be conducted in order to ascertain the baseline and inform the design and mitigation.
Additional narrative/ explanation (if necessary)	
Fish surveys were proposed in the EIA Scoping report and therefore should be conducted. FR2 applications should be made to the EA coupled with a method statement ensuring fish welfare is considered, suitability of equipment being used for the site and staff competence.	

Document Reference(s): PEIR Ch 2 Biodiversity, Section 6.6	
Issue	Fish have not been assessed in the preliminary assessment of likely significant environment effects at construction.
Impact	<p>There are a number of impact-pathways associated with construction that may have a likely significant effect on fish. These need to be assessed in order to inform the design by avoidance and/or mitigation.</p> <p>The construction of crossings or temporary crossings (e.g. culverting or bridge abutments) of watercourses is likely to be the most significant effect on fish during the construction phase.</p>
Solution	Include fish in the assessment of likely significant effect at construction. If it is considered that there will not be a likely significant effect, then this also needs to be explained. We note details in 6.6.15 for watercourse crossings, but this also needs to include an assessment for fish.
Additional narrative/ explanation (if necessary)	

Biodiversity

Document Reference(s): Chapter 6/ Appendix 6.2

Issue	A greater emphasis/ attention should be paid to aquatic habitats and species.
Impact	Potential for impacts to ecological features associated with aquatic habitats to be overlooked and opportunities for enhancements not to be realised.
Solution	Ensure aquatic habitats and species are given due consideration in terms of assessment, mitigation and enhancement measures. The River Stour should be subject to Morph survey/ river condition assessment. Based on the description of ponds (e.g. 3.2.23-4 in the PEA) and ditches (3.2.25 in the PEA) it would seem like there is considerable opportunity to enhance the biodiversity of ponds and ditches. Encourage the applicant to incorporate enhancement and creation measures within the LEMP.
Additional narrative/ explanation (if necessary)	
<p>4.4.1 of Volume 4 Appendix 6.2 (Baseline Data) lists key habitats for invertebrates but omits aquatic habitats such as ditches, ponds and Rivers.</p> <p>The River Stour, which may represent a Habitat of Principal Importance (HPI), is located on the boundary of site but is not shown on some figures including Figure 6.4 (Priority Habitats) and Vol 3 Figure 6.6 (Habitat Assessment). Similarly, ponds may also have HPI status and are not identified as such.</p> <p>In Chapter 6 (biodiversity), no description is provided for the River Stour in the Table 6.6 which describes habitats present.</p> <p>Table 6.3 summarises Baseline Characterisation Methods, but no methods considering aquatic habitats or species are mentioned.</p> <p>It is noted that a watercourse occurs in an unsurveyed location in inter-array corridor 1.</p>	

Document Reference(s): Chapter 6 Appendix 6.2	
Issue	It is not clear that aquatic invertebrates have been given due attention
Impact	Potential for impacts to aquatic invertebrates not to be assessed and/ or opportunities for mitigation not to be realised.
Solution	Ensure aquatic invertebrates are considered in the assessment with mitigation measures such as buffers implemented as appropriate.
Additional narrative/ explanation (if necessary)	
<p>Is there potential for notable invertebrates to occur in aquatic habitats, including ditches, ponds and the River Stour, and/or for aquatic invertebrate populations to be significantly affected? What is the importance of these ecological features?</p> <p>There is some evidence that Solar PV modules can negatively affect aquatic invertebrates by having an attractant effect. This impact pathway is not mentioned in 6.2.25 which lists potential impacts and effects.</p>	

Document Reference(s): Vol 4 appendix 6.5	
Issue	Buffer of 5 to 8m is committed to for ordinary watercourses and main rivers respectively. The applicant will be aware that minimum of 10 meters is required to avoid encroachment under BNG for rivers and streams.
Impact	Potential for impacts to aquatic habitats and species. Refer to below comments in regard to potential impacts upon aquatic invertebrates.
Solution	Implement wider buffers to watercourses where possible. Ensure unavoidable impacts are fully assessed and mitigated as appropriate.
Additional narrative/ explanation (if necessary)	

Document Reference(s): Chapter 6 Biodiversity	
Issue	Table 6.1: A study area of Site only for several receptors including water vole and invertebrates is not considered to adequately capture the likely zone of influence of the development.
Impact	Potential for impacts to be overlooked.
Solution	Ensure impacts to ecological features that could occur outside of the site are considered. Consider zone of influence of impacts. Potential requirement to expand study areas in some cases. Define Zones of influence for impacts.
Additional narrative/ explanation (if necessary)	

Document Reference(s): Chapter 6 Biodiversity	
Issue	Table 6.2 references surveys being undertaken September-November, with the survey window generally recommended to be April/May-June and July-September, as per Water vole mitigation guidelines
Impact	Surveys undertaken outside of the correct window may not be reliable.
Solution	Ensure surveys undertaken in correct window as far as practicable. Where this is not possible, assessment will need to consider the potential implications of this in order to ensure robust impact assessment and mitigation solution.
Additional narrative/ explanation (if necessary)	

Groundwater and Contaminated Land

Document Reference(s): Volume 1 Chapter 3 Section 3.4.10	
Issue	Siting of proposed substation and BESS compounds.
Impact	Substation and BESS compounds represent potentially significant source of pollution which could impact groundwater and/or surface water quality.
Solution	The Applicant should assess whether these features, in particular the co-located BESS and 400kV/132kV/33kV substation can be sited in an area of lower groundwater sensitivity.
The Applicant should submit a proposed development plan confirming that the BESS compound and Substations will not be positioned within Zone 1 of a Groundwater Source Protection Zone and preferably are sited on superficial Lowestoft Formation	

Diamicton deposits, as far as practicable from the public water supply abstractions present in and around the site.

Document Reference(s): Volume 1 Chapter 3 Table 3.1	
Issue	Significant increase in anticipated photovoltaic (PV) array pile depth.
Impact	Increased pile depth may create contaminant pathways into underlying chalk Principal aquifer.
Solution	The Applicant should reassess the risks posed by piling for PV foundation structures.
Additional narrative/ explanation (if necessary)	
<p>The maximum anticipated depth for the photovoltaic panel foundation piles is stated in Chapter 3 Table 3.1 to be between 1.5 and 3.0mbgl. Section 2.7.8 of the Scoping Report stated that PV panel frames would typically be driven 1.0 to 1.5m into the ground.</p> <p>The maximum PV panel height is also noted to have increased from 3.5m above ground level to 4.2m above ground level between the Scoping and PEIR assessments, which may have landscape and visual impact implications.</p> <p>The anticipated trench dimensions for underground cable installation in the Inter-Array Connections is also noted to have changed between the Scoping Report (Table 2-1) and PEIR (Table 3.1), from 2m wide and 1.5m deep to 1.5m wide and 2m deep. No anticipated trenching dimensions are provided in Table 3.1 of Chapter 3 for the Grid Connection underground cables – these should be clearly stated.</p> <p>Any changes to design parameters which may increase the likelihood or severity of impact should be clearly identified.</p>	

Document Reference(s): Volume 1 Chapter 3 Table 3.1	
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Impact	Increased pile depth may create contaminant pathways into underlying chalk Principal aquifer.
Solution	The Applicant should reassess the risks posed by piling for PV foundation structures.
Additional narrative/ explanation (if necessary)	
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Document Reference(s): Volume 1 Chapter 3 Table 3.1	
Issue	No clear control mechanism to prevent impact to surface and groundwater from operational leaks and spills in the BESS compound.
Impact	Potential for operational leaks and spills to pass through the SuDS drainage system and impact surface water/groundwater quality.
Solution	The Applicant should ensure that measures to identify and manage spills and leaks during operation are in place in the event an infiltration drainage solution is adopted for these structures and should use sentinel monitoring systems to provide early warning of fugitive emissions to the water environment under normal operation.
Additional narrative/ explanation (if necessary)	
<p>The report states that “firewater containment [is necessary] associated with the BESS area to prevent the potential for pollution of groundwater or ordinary watercourses.”</p> <p>The report states that containment is likely to be achieved by including an impermeable lining to drainage features and Sustainable Drainage Systems (SuDS), and the containment of fire runoff using automatic penstock valves.</p> <p>Although automated fire water management systems are proposed to prevent discharge of fire water from a BESS fire, the potential for contaminants released from spills and leaks during normal operation to enter groundwater bodies cannot be fully discounted.</p> <p>Any automatic penstock system should also enable manual operation in the event of failure of the automatic triggering system. A routine maintenance programme should also be incorporated into the oOEMP, as penstock valves have been known to seize and be inoperable if unused for extended periods of time.</p> <p>We are pleased to see that an outline Battery Fire Safety Management Plan (oBFSSMP) will be submitted in support of the DCO Application for the BESS.</p>	

Document Reference(s): Volume 1 Chapter 3	
Issue	No anticipated foundation design information is provided for the BESS and substation developments.
Impact	Difficult to assess risk of contaminant migration pathways into underlying Principal aquifer
Solution	The Applicant should provide Maximum Design Scenario foundation information for proposed BESS and substation developments.
Additional narrative/ explanation (if necessary)	
<p>The method of foundation construction to be adopted at the BESS and substation compounds will have a significant influence on the potential for introduction of a new contaminant migration pathway into the underlying Principal aquifers, which could affect nearby public potable water abstractions.</p>	

Document Reference(s): Volume 1 Chapter 3 Section 3.12	
Issue	Where underground cables are proposed to be retained post decommissioning.

Impact	Retained cables could pose a contamination risk to controlled waters, particularly the on-site Principal aquifer.
Solution	The Applicant should demonstrate, where buried cables are to be retained, that they would not pose a significant risk to Controlled Waters via degradation and/or damage from future agricultural activities. We also urge the Applicant to ensure that underground cables are inherently free of PFAS where possible.
Additional narrative/ explanation (if necessary)	
Section 3.12.2 states that any underground cable sections would be removed, unless designations, environmental sensitivities or landowner agreements determine otherwise.	

Document Reference(s): Volume 2 Chapter 9 Sections 9.4.3 and 9.4.4	
Issue	No reference to peat deposits within Grid Connection Corridor
Impact	Impacts on peat deposits have not been considered.
Solution	The Applicant should discuss the likely presence and extent of peat deposits within the Grid Connection Corridor and assess any impacts the Proposed Development may cause.
Additional narrative/ explanation (if necessary)	
British Geological Survey maps show the presence of deep peat deposits in the northern part of the Grid Connection Corridor, which is referenced in Section 6.4.5 (Baseline Conditions) of the Scoping Report: "Peat deposits are shown to be present towards the northern extent of Grid Connection Corridor A (to the west of Burwell)".	
If damaged, peat can cause detrimental impacts to surface water and groundwater quality by releasing contaminants.	

Document Reference(s): Volume 2 Chapter 9 Section 9.6.3	
Issue	Construction phase risks do not include impacts from trenchless installation construction methods (e.g. horizontal directional drilling (HDD)). Although trenchless drilling methods are referenced in Section 3 there is no discussion of this, or of the need for crossing of watercourses or other sensitive areas, in Chapter 9.
Impact	Potential for impacts from trenchless construction methods not to be adequately assessed and mitigated.
Solution	The Applicant should include trenchless cable installation effects on groundwater and surface water quality.
Additional narrative/ explanation (if necessary)	
It is not currently clear how many crossings using trenchless methods are proposed as part of the Proposed Development. Section 16.6.29 refers primarily to the use of overhead lines within the Grid Connection Corridor to span over watercourses, however also states, "Should HDD techniques be required then an HDD fluid breakout plan will be provided with the DCO application as part of the Outline CEMP."	

Trenchless crossing methods such as HDD could impact water quality by creating a migration pathway for existing contamination, or via 'frac-out' of drilling fluids.

Any trenchless crossings should be supported by a hydrogeological impact assessment where these may interact with Principal or Secondary A aquifers or pass beneath surface watercourses or sensitive ecological receptors. A drilling fluid breakout plan should also be developed for all trenchless crossings. If Horizontal Directional Drilling is proposed to cross watercourses the Applicant would need to assess whether this would affect local licenced or unlicensed abstractions by carrying out a Water Features Survey. If groundwater is likely to be encountered at trenchless river crossings a Hydrogeological Impact Assessment should be carried out, assessing whether dewatering is likely to be required and the effect any dewatering may have on surface water features, licensed and unlicensed abstractions.

Table 1 of Appendix 9.4 states that details relating to mitigation of HDD impacts will be covered in the Construction Phase CEMP. Section 9.5. of Chapter 9 (Embedded Mitigation) currently does not refer to any trenchless drilling mitigation measures (e.g. drilling fluid breakout plans and hydrogeological risk assessments). These should also be referenced as part of the outline CEMP.

We note that no commitments to hydrogeological risk assessments are stated in the PEIR at present, in relation to trenchless crossings or dewatering activities.

Document Reference(s): Volume 1 Chapter 3 Sections 3.10.24 and 3.12.7, Volume 2 Chapter 9 Section 9.6.6, Table 9.3

Issue	Construction phase and Decommissioning phase effects to the Principal aquifer and associated groundwater abstractions are assessed as not significant (negligible impact magnitude, negligible effect) based on application of the outline CEMP and DEMP, neither of which are currently available for review.
Impact	Impact significance may be underestimated and the proposed controls are insufficiently detailed at this stage.
Solution	At this stage we do not consider there to be sufficient confidence in the hydrogeological conceptual model or a sufficient level of detail on mitigation measures to agree that the proposed mitigation will be sufficient to reduce impact to groundwater to 'not significant'. Due to the high sensitivity of the underlying Principal Aquifer and frequent local absence of superficial cover this is of particular importance. The Environment Agency should be named as a consultee for the final CEMP and DEMP in addition to the Local Planning Authorities (Chapter 3 Sections 3.10.24 and 3.12.7).

Additional narrative/ explanation (if necessary)

Due to the level of uncertainty in the hydrogeological model we do not feel that the preliminary assessment represents a likely worst-case appraisal, as stated in 9.10.1.

At present no outline CEMP or DEMP is available for review, although the production of this document is referenced across multiple parts of the PEIR submission. We note the proposed embedded mitigation to be applied across the construction, operation and decommissioning phases in Section 9.5 of Volume 2

Chapter 9, and expect to see these captured in the respective outline EMPs. However, further detail is required to provide confidence that the proposed measures will be sufficient to effectively manage the risks.

We look forward to reviewing these documents, and detail of the supporting documents which will be embedded in the oCEMP and oDEMP, when these are made available.

Document Reference(s): Volume 2 Chapter 9 Section 9.3.32

Issue	No intrusive survey data are available to confirm ground conditions, groundwater depths or flow direction.
Impact	The hydrogeological regime at the site is currently poorly understood and impacts to groundwater may not be adequately assessed and mitigated.
Solution	The Applicant should commit to carrying out intrusive ground investigations and groundwater level monitoring over a sufficient period of time to adequately assess groundwater elevation, condition and flow across the Proposed Development accounting for seasonal variability.

Additional narrative/ explanation (if necessary)

The Applicant notes in Section 9.3.32 that no intrusive site survey data (e.g. Site-specific borehole information) is available at this preliminary stage.

The Preliminary Risk Assessment (Section 7.2.1 of Volume 4 Appendix 9.2 Part 1) makes recommendations for intrusive site investigations to provide information on the groundwater regime and soil contamination status.

There is currently no clear commitment in the PEIR to carrying out intrusive surveys to address these data gaps.

Document Reference(s): Volume 2 Chapter 9 Section 9.6.8, Table 9.3

Issue	Operational phase effects do not include impacts to groundwater and surface water quality from firewater generated in the event of a fire at BESS or substation developments.
Impact	Impact significance may be underestimated.
Solution	At this stage we do not consider there to be sufficient detail available to agree that the mitigation to be committed in the OEMP will be sufficient to reduce impact to 'not significant'.

Additional narrative/ explanation (if necessary)

We acknowledge that as set out in Sections 9.5 and 9.6.11 of Chapter 9, control measures to be established at the BESS compound to manage the potential for contaminated firewater generation in the event of a fire. However, even with these controls in place we remain concerned about the likely severity of impact should containment fail, or for impacts from operational spills and leaks, based on the sensitivity of the underlying Principal aquifer. As stated elsewhere we encourage the Applicant to consider positioning the BESS compound as far away from public water supply abstractions as possible, preferably on relatively low permeability superficial deposits.

The Surface Water Drainage Strategy and OEMP will be key documents providing confidence that the measures to be put in place would be sufficiently protective of controlled waters. We look forward to reviewing this document.

Document Reference(s): Volume 2 Chapter 9

Issue	The report does not consider groundwater dependent terrestrial ecosystems (GWDTEs) as a possible sensitive receptor.
Impact	Impacts to GWDTEs have not been assessed and may not be mitigated.
Solution	The Applicant should assess possible impacts to GWDTEs within the hydrogeological study area.
Additional narrative/ explanation (if necessary)	
There is one candidate GWDTE site located immediately adjacent to the Connection Corridor, Newmarket Heath SSSI. Other sensitive ecological sites which could also be influenced by groundwater may also be present within the study area. Potential impacts to these from the Proposed Development should be identified and assessed, and mitigation measures identified where necessary.	

Document Reference(s): Volume 2 Chapter 9 Section 9.4.13

Issue	The report does not discuss the presence of a second historic landfill (Weston Colville) located immediately adjacent to the site boundary.
Impact	Potential for an offsite source of contamination to have been inadequately assessed.
Solution	The ES should assess the potential for contamination associated with the historic Weston Colville landfill to affect the Proposed Development.
Additional narrative/ explanation (if necessary)	
Weston Colville Landfill site is situated immediately adjacent to the northern boundary of Developable Area C, located at approximate National Grid Reference Easting 560400, Northing 253500. This landfill was referenced in Section 6.4.5 of the EIA Scoping Report.	

Document Reference(s): Volume 2 Chapter 9 Section 9.5.2

Issue	If contamination is encountered, where required the Local Planning Authority is named as to be notified.
Impact	Potential for unidentified contamination to pose a significant risk of impact to controlled waters.
Solution	The Environment Agency should be named as a consultee, if required, should contamination be encountered during development.
Additional narrative/ explanation (if necessary)	
The reference to fuel and oil bunding should clarify that the storage capacity would be >110%.	

Document Reference(s): Volume 2 Chapter 9 Section 9.5.3

Issue	The Applicant states that piling risk assessments will be prepared in accordance with Environment Agency guidance.
Impact	Potential for non-piled foundation structures to result in the creation of contaminant linkages.

Solution	The Applicant should also commit to the preparation of Foundation Works Risk Assessments for non-piled structures where the potential for these to result in the mobilisation of contamination or creation of migration pathways is identified.
Additional narrative/ explanation (if necessary)	

Document Reference(s): Volume 4 Appendix 9.2 Table 9	
Issue	The Desk Based Assessment was unable to conclude anticipated groundwater flow direction based on the available information.
Impact	Uncertainty around likely depth to groundwater across the Proposed Development and lack of detail in hydrogeological model.
Solution	Recommendation that the Applicant submits an information request to the Environment Agency for any groundwater monitoring data and hydrogeological model output data for the study area.
Additional narrative/ explanation (if necessary)	
<p>The Environment Agency holds publicly accessible hydrological and hydrogeological monitoring data at the following location: Hydrology Data Explorer - Explore.</p> <p>Further surface water and groundwater monitoring data may be held by local area Environment Agency teams, and may hold hydrogeological modelling data which may help to refine and validate the conceptual ground model.</p> <p>Table 9 states that details of unlicensed groundwater abstractions have been requested from East Cambridgeshire Local Authority and are awaited. Once available this information should be taken into consideration, along with details of known or suspected operable wells and any springs.</p> <p>Note that the presence of surface water bodies on site as reported in Table 10 of the appendix (drainage ditches and several ponds within Developable Area C, for which no available groundwater monitoring data was available) may indicate the presence of significant local interaction between surface and groundwater.</p> <p>As mentioned at Scoping stage, the rivers emerging to the west and north of the Site are chalk fed streams (The Lodes, New River, Little Wilbraham River/Quy Water and River Cam), some of which are fed by ordinary watercourses which pass through the Developable Area. Fulbourn Fen SSSI, located approximately 3km West of the Developable Area, is dependent on chalk groundwater. A number of the chalk streams are supported by the Lodes Granta River Support Scheme, established in the 1970s/80s to mitigate the impact of groundwater abstraction on these water bodies, which illustrates both the vulnerability and utilisation of the aquifer, and the significant interaction between groundwater and surface water. The River Granta, located approximately 2.6 km south of the Developable Area, is fed by an unnamed stream originating in the southern part of Developable Area C. The River Granta is designated a flagship chalk catchment as part of the Chalk Stream Restoration Group's Chalk Stream Strategy and as such is subject to significant scrutiny.</p>	

Document Reference(s): Volume 4 Appendix 9.2 RSK Geosciences Preliminary Risk Assessment

Issue	The Applicant has submitted a Preliminary Risk Assessment assessing the Developable Areas and Inter Connection Corridors only.
Impact	Potential contamination sources may not have been identified for the Grid Connection Corridor.
Solution	The Applicant should provide a new or updated Preliminary Risk Assessment covering the Grid Connection Corridor to support the Environmental Statement.
Additional narrative/ explanation (if necessary)	
<p>At Scoping stage it was stated that an environmental data search would be commissioned for the Grid Connection Corridor area once the preferred alignment of this feature had been defined. At PEIR stage a single indicative route corridor area has been established, however as Section 9.3.32 states the grid connection alignment has not yet been finalised and this study is still pending. This should be made available for review alongside the Environmental Statement, and any potentially significant contamination sources identified should be taken into consideration in the ES.</p> <p>The Applicant has not yet carried out a walkover (also referred to as Site Reconnaissance) at the Cable Connection Corridor. This should be carried out and taken into consideration for the Environmental Statement if possible. These should be conducted in accordance with the recommendations of the Environment Agency's LCRM guidance and BS10175:2011+A2:2017, in particular to establish the potential for infilled ground to be present associated with the former gravel and chalk pits – see informative at the end of this response.</p>	

Document Reference(s): Volume 2 Chapter 9	
Issue	The Applicant does not present an assessment of thermal impacts from buried cables.
Impact	Impacts to sensitive groundwater receptors (including hydraulically connected surface water bodies, Groundwater Dependent Terrestrial Environments and abstractions) from thermal emissions may not be identified and mitigated against.
Solution	The Applicant should assess potential thermal impacts from buried cables on controlled water receptors.
Additional narrative/ explanation (if necessary)	
<p>Heat as a groundwater pollutant was introduced in 2023 via the Environmental Permitting (England and Wales) (Amendment) (England) Regulations 2023 SI No.2023/651:</p> <p>““pollutant”, in relation to England, means any— a) substance, b) heat, or c) biological entity or micro-organism, which is liable to cause pollution;”</p> <p>We are mindful that work is being carried out in this area in relation to heating of groundwater from ground source heating and cooling systems but there is currently no guidance relating to the potential thermal implications of high voltage buried electricity cables.</p>	

The Environment Agency is currently developing guidance about heat as a pollutant to groundwater. To date, we have published a regulatory position statement, exemptions and permitting regime for open and closed loop ground source heating and cooling systems (GSHCs): [Closed loop ground source heating and cooling systems: exemption conditions - GOV.UK](#).

This guidance is based on the Environment Agency's Chief Scientist's Group report for Ground Source Heating and Cooling (GSHC) systems ([Environmental Impacts of Temperature Changes from Ground Source Heating and Cooling Systems](#)). In this study, a 'thermal plume' was defined as the region around a GSHC system that experiences a 1 degree C temperature change or greater. While the study is not directly applicable to thermal emission from underground cables, an equivalent benchmark could be considered when assessing heat pollution from underground HV cables.

The Chief Scientist's Group states that the environmental factors with the greatest influence on thermal plume development include groundwater flow and bulk thermal conductivity. It identifies that impacts may occur by direct (temperature change) and indirect (e.g. changes in water chemistry) means.

Thermal emissions from buried high voltage cables in contact with Peat deposits may also cause local heating and degradation, which could potentially result in ground stability issues and release of previously peat-bound pollutants affecting groundwater and surface water quality.

At this stage we require the potential thermal implications of buried cables, in relation to risks to groundwater and Peat deposits, to be considered further.

Currently, the main driver for the prevention of heat pollution is to protect surface water ecology, protected sites and ancient woodlands. Heat should also not impact quality or quantity of water in existing groundwater or surface water abstractions. In the first instance the developer should ensure that where practicable the proposed cabling:

- is fully sealed;
- does not discharge pollutants other than heat transfer to the environment;
- does not cause pollution of surface water or groundwater;
- is not within a groundwater source protection zone 1 (SPZ1) that's used to supply water for domestic or food production purposes;
- is not within 50m of a well, spring or borehole used to supply water for domestic or food production purposes;
- installation does not mobilise any contaminants present in the subsurface to the extent that the pollution of groundwater occurs; and
- is not adjacent to a septic tank or cesspit, including the infiltration system

Desk based assessments at the planning stage should consider heat from electricity cables. The GSHC exemption criteria and resources referenced in this document could help assess the risk. For example, for sections of the cabling route that meet all these criteria, and where the developer is satisfied that the cables will not cause harm via discharge of heat and heat pollution, those sections can be scoped out from requiring further risk assessment.

You do not need to complete any further assessments or apply for a permit if your cabling route meets all the exemption conditions.

Water Quality

Document Reference(s): Chapter 16 Other Environmental Topics	
Issue	<u>Buffer distances</u> We recognise that section 16.6.30 says that the scheme would include minimum setbacks from watercourses of up to 9-10m where practicable. However, this should be increased to 10m from bank top.
Impact	If suitable watercourse buffers are not implemented, then it increased the risk of pollutants and sediment entering watercourses and deteriorating the water quality. Buffer distances should be sufficient and not encroach into the riparian zone.
Solution	In line with best practice, and to minimise confusion for contractors, we request that this distance is extended to 10m from top of bank. The riparian zone as described in Biodiversity Net Gain (BNG), underpinned by the Environment Act 2021, is the habitat within 10m of the crest of the riverbank and the watercourse channel itself.
Additional narrative/ explanation (if necessary)	

Document Reference(s): Chapter 3 The Scheme	
Issue	<u>PFAS in PV modules</u> PFAS in materials or in any coating applied to the panels is unknown.
Impact	PFAS are ‘forever chemicals’ that will negatively affect water quality, and can have health consequences if they enter drinking water. This risk can be increased if panels are regularly washed to keep them clean, for maximum efficiency of energy generation.
Solution	Check with panel manufacturers if the materials used, and determine if regular panel washing will occur during operation and maintenance phase which could introduce a pathway between the panels and water receptors of any chemicals in the coating.
Additional narrative/ explanation (if necessary)	

Document Reference(s): Chapter 9 Land and Groundwater Quality	
Issue	<u>Pollution prevention measures</u> The lists of mitigation in section 9.5 are currently inadequate and do not address full detail on fuel, oil and chemical storage; management of concrete

	works; contamination of sediment, hydrocarbons or metals in runoff associated with wheel and vehicle washing etc
Impact	Impacts from fuel, oil or chemical spillages, or increased sediment, could enter surface water runoff, and decrease the water quality of watercourses unless sufficient mitigation measures are in place.
Solution	Further details are expected in the CEMP, surface water drainage strategy, WFD Assessment, and Chapter 9.
Additional narrative/ explanation (if necessary)	
<p>Sustainable Drainage System (SuDS) features (e.g. swales, infiltration trenches, attenuation ponds) are proposed to manage surface water. We would like to see further details on how these SuDS may offer treatment to improve water quality, and how they will isolate any contaminated water.</p> <p>Concrete is a known source of hazardous substances, particularly during the curing phase. Concrete and cementitious materials present in runoff presents a contamination risk to surface water, which will cause a deterioration in the WFD status of a waterbody.</p> <p>Locations of wheel washing, vehicle washing or refuelling must be in designated bunded impermeable areas. Water associated with these activities may be required to be isolated and disposed off appropriately offsite. For fuel, oil and chemical storage, consider best practice measures such as uses 110% volume bunds, with automatic shutoffs on any outfalls (i.e. if oil is detected).</p> <p>This guidance could not be seen in any of the references and should be used: Pollution prevention for businesses - GOV.UK</p>	

Document Reference(s): Chapter 3 The Scheme; Chapter 16 Other Environmental Topics	
Issue	<p><u>Firewater penstocks</u></p> <p>Sections section 3.4.17, 3.8.8 and 16.6.31 suggests that the BESS will have automatic penstock valves for containment fire runoff, which we support. However, a manual or a back-up system must also provided, in the event of power failure.</p>
Impact	Firewater poses an unacceptable risk to the water environment receptors and will deteriorate surface water quality unless it is contained sufficiently.
Solution	Add explanation that any isolation valves/penstocks should shut automatically in the event of fire alarms or fire suppression systems activated, thus preventing accidental discharge of fire water to the wider water environment. Ensure the design includes a manual or a back-up system, in the event of power failure.
Additional narrative/ explanation (if necessary)	
It is proposed that any polluted runoff contained would be removed by tanker as soon as possible following the event and treated appropriately off site. We agree with the plan to tanker away any contaminated firewater.	

The BFSMP should include a section that confirms actions post-fire event, this must include further details on the testing of the firewater, where appropriate, and provide provision to be able to clean the firewater containment area down to the lining layer prior to drainage flow restarting.

Document Reference(s): Chapter 3 The Scheme

Issue	<p><u>Foul water</u></p> <p>Section 3.8.5. says that during construction and decommissioning, portacabin toilets will be provided and waste removal would be the responsibility of the contracting company. During operation, cess pits will be provided, and wastewater would be tankered away at intervals which will be confirmed at detailed design. Details of waste management and permit requests are required to be seen in the ES.</p>
Impact	<p>There is a requirement to ensure that foul water treatment and disposal is adequate to minimise risk to water quality.</p>
Solution	<p>Foul water disposal strategy should be provided for all phases.</p>

Additional narrative/ explanation (if necessary)

If road transport to an offsite disposal facility is required to remove foul water from the Portaloo-type facilities, then there should be regard for this within the waste management procedures.

If treatment and discharge at the site is required, you should consider any potential impacts of this discharge and confirm that a water discharge activity permit will be sought. Given the timeframe to determine environmental permits we encourage applicants to engage with us on permit requirements at the earliest possible stage.

[Septic tanks and sewage treatment plants: what you need to do: Apply for a permit - GOV.UK](https://www.gov.uk/guidance/septic-tanks-and-sewage-treatment-plants-what-you-need-to-do-apply-for-a-permit)

Document Reference(s): Chapter 9 Land and Groundwater Quality

Issue	<p><u>Water quality monitoring</u></p> <p>There is currently no mention of monitoring. We expect water quality monitoring to be undertaken prior to and during the construction activity, however this should continue into the early operation phase.</p>
Impact	<p>If a monitoring plan is not suitably designed then it may not be able to detect relevant trends, if any, on water quality during the construction and operation phases. This monitoring during the first few months of operation is to provide confirmation that there is no residual water quality impacts post-construction.</p>
Solution	<p>Ensure that a water quality monitoring plan is produced, this could be attached to the CEMP. In the meantime, see below for what we would expect to be included in a monitoring programme.</p>

Additional narrative/ explanation (if necessary)

The Applicant should be aware that monitoring locations must include upstream and downstream of any proposed surface water outfalls and water crossings. With regard to frequency, we recommend at least once per month, which should start at least six months prior to construction. During construction, we suggest the frequency of sampling should increase during the first three months of construction, and during any earthworks or concrete work (i.e. every two weeks). Monitoring should continue monthly all throughout construction, and for six months after construction too. Consideration of which parameters will be monitored, and consequently if in-situ handheld devices or collecting sampling to be sent off to United Kingdom Accreditation Service (UKAS) accredited laboratories should also be clarified. A similar monitoring plan is likely to be required during any decommissioning works too. The monitoring plan should include enough monitoring samples to detect any variation as a result of seasons or weather conditions.

Document Reference(s): Chapter 3 The Scheme; Chapter 9 Land and Groundwater Quality

Issue	<u>SuDS</u> Sustainable drainage solutions (SuDS) are suggested to be used to ensure that surface water run-off is managed appropriately. However, some beneficial guidance in the Chapter references is absent.
Impact	Relevant guidance should be referred to ensure that designs and management of surface water run-off are sufficient.
Solution	Include the CIRIA SuDS Manual (C753) as a reference in Chapter 3, 9 and 16.

Additional narrative/ explanation (if necessary)

Document Reference(s):

Issue	<u>Exclusion of risk to surface waters</u> Section 16.6.28 does not mention any protections of surface water quality and WFD watercourses during operation phase. Additionally, section 9.6.13 does not reference the risk that spills and leakages could pose to surface waters, it only specifies underlying aquifers.
Impact	Maintenance and on-site vehicles could still pose a risk to water quality and WFD watercourses during operation.
Solution	The OEMP must ensure sufficient protections of surface water quality and WFD watercourses during operation phase, including emergency spill response procedures.

Additional narrative/ explanation (if necessary)

Whilst we recognise that there will be a Surface Water Drainage Strategy prepared to ensure no increase in rate of surface water runoff from the Site compared to the

greenfield scenario, this is insufficient to manage any pollution risks during operation and maintenance.

Water Resources

Document Reference(s): Chapter 16 – Other Environmental Topics; Appendix 16.9: Legislation, Policy and Guidance Water Resources	
Issue	<p>Not all water demands are referenced in the water supply sections of the report. Water supply for HDD drilling fluids are not acknowledged in this section.</p> <p>There is insufficient detail for all demands identified which include dust suppression, plant washing and supply to welfare stations for there to be confidence that these can be met by the supply options described.</p>
Impact	If volumes of water are underestimated, supply options are extremely limited in this catchment and need to be evaluated fully for there to be confidence that this will not affect the feasibility and practicality of the project construction phase.
Solution	A more detailed appraisal of all water demands during construction and volumes required should be estimated to provide confidence that these can be met by the supply options stated in the report.
Additional narrative/ explanation (if necessary)	
<p>The Other Environmental Topics section of the PEIR confirms that a standalone water chapter has been scoped out of further assessment. The report states that raw water requirements could be met via a mixture of rainwater harvesting, water tanker or bowser from private water suppliers, private supply of water from existing abstraction sources, and public mains supply where feasible. It is also acknowledged that water company supply will not exceed 20m³ per day which is agreed with Anglian water.</p> <p>We are happy that different options of supply are being considered, however the feasibility of whether demands can be met outside of mains water supply is still unclear particularly with the omission of some activities such as HDD.</p> <p>The Environment Agency accepts that the volumes required will be relatively low and temporary in nature however the applicant should consider the feasibility and practicality of lack of water availability to the scheme.</p> <ul style="list-style-type: none"> • Mains water supply may be limited to potable/domestic use and has been agreed to be <20m³/day; • Tankering water adds HGVs to local roads (sometimes refused) and should be evaluated in the Traffic and Transport chapter for the local authority to be made aware of; <ol style="list-style-type: none"> 1. Rain water harvesting is positively encouraged however likely volumes and storage capacity have not been evaluated; 	

- The use of existing abstraction sources will require changes to licences. The Lodes waterbodies are water stressed and some require groundwater augmentation to support low flows. Any increased uptake in abstraction will be assessed at determination of licence changes required and new licences are restricted to very high (winter only) flows.

Document Reference(s): Chapter 11 – Land and Groundwater Quality

Issue	The extent of dewatering required is yet not made clear. The impact is deemed to be negligible based on mitigation measures outlined in the CEMP.
Impact	The land and Groundwater Quality chapter acknowledges localised dewatering for substructure installation could lead to temporary drawdown of groundwater levels in shallow aquifers and could also potentially impact groundwater abstractions on or near the Site.
Solution	The catchment is predominantly agricultural and can experience water shortages during the irrigation season. The applicant should be aware that if dewatering activity will impact upon groundwater dependent surface water features or derogate other lawful water users, then a licence for the activity will be refused.

Additional narrative/ explanation (if necessary)

If dewatering is required, it will require an abstraction licence if it doesn't meet the criteria for exemption in [The Water Abstraction and Impounding \(Exemptions\) Regulations 2017 Section 5: Small scale dewatering in the course of building or engineering works](#). It may also require a discharge permit if it falls outside of our [regulatory position statement for de-watering discharges](#).

Consumptive abstraction from Groundwater is not be available, more details can be found in the [Abstraction Licensing Strategy](#) for the catchment. If the dewatering activity can be demonstrated to be discharged to the same source of supply without intervening use (i.e. non-consumptive), this will increase the likelihood of a licence being granted.

Waste Management

Document Reference(s): Chapter 11 – Land and Groundwater Quality

Issue	The PEIR outlines general waste management principles but lacks detailed commitments regarding the handling, classification, and reuse of both hazardous and non-hazardous waste, including excavated materials.
Impact	Without clear protocols, there is a risk of non-compliance with hazardous waste regulations, missed opportunities to reuse clean excavated

	materials on-site, leading to unnecessary disposal and environmental impact and insufficient planning for lifecycle waste impacts, especially during construction and decommissioning.
Solution	A Materials Management Plan (MMP) and Waste Management Plan (WMP) is required.
<p>Additional narrative/ explanation (if necessary)</p> <p>The Materials Management Plan (MMP) and Waste Management Plan (WMP) should include the following details:</p> <ul style="list-style-type: none"> • Classification and handling of hazardous and non-hazardous waste. • Compliance with WEEE Directive, Waste Batteries and Accumulators Regulations 2009, and Duty of Care Regulations 1991. • Use of CL:AIRE DoWCoP to enable reuse of clean excavated materials on-site, avoiding unnecessary classification as waste. • Clear protocols for characterisation, storage, and transport of waste, including treated wood and solar panel components. • Recommend early engagement with the National Permitting Service for any required Environmental Permits. <p>Further submissions should explicitly state the intention to apply the CL:AIRE DoWCoP framework for managing excavated materials. This would support sustainable resource use and reduce off-site disposal. The applicant should also confirm whether any materials will be used under waste exemptions or require recovery permits.</p>	

Appendix B – General Comments

Groundwater and Contaminated Land

BESS

Under normal operation, BESS developments do not present significant risks to groundwater or surface water. However, there is potential for pollution of the water environment due to abnormal and emergency situations at BESS developments, in particular fires. This would be exacerbated if in a vulnerable location, such as an SPZ1, shallow groundwater table or near a surface watercourse.

Generally, the risks to groundwater and surface water from BESS development would be from pollution of surface water drainage from the site due to:

- A battery container fire at a BESS site
- Accidents or spillages from battery containers at a BESS site.

In the event of a fire at a BESS it is currently considered best practice to let the containers on fire burn out. However, water is likely to be used to cool neighbouring containers. This water could enter burning containers through surface run off or directly from spray cooling neighbouring containers. Furthermore, during or following a fire at a BESS development, rainwater could enter exposed containers during the period of time it takes to remove or cover burnt out containers.

There is a risk that highly polluting chemicals in batteries could enter groundwater or surface water in firewater or rainfall. Applicants should consider this risk and ensure mitigation is in place to ensure containment of this water. To appropriately manage the risks from pollution of groundwater and surface water, applicants will need to assess the likelihood of pollutants within the site coming into contact with nearby waterbodies, directly or indirectly, and the degree of risk posed by the particular pollutants in question.

See also the following Guidance from National Fire Chief's Council (NFCC) [Grid Scale Battery Energy Storage System planning – Guidance for FRS](#).

The BESS compound and Substation compounds should furthermore be preferentially sited away from sensitive controlled water receptors, including areas of high groundwater vulnerability. The Proposed Development is underlain by a Principal aquifer used to supply public water abstraction (with the entirety of Developable Areas A, B and C situated wholly or partly within groundwater Source Protection Zone (SPZ) 1, 2 or 3). BGS mapping and borehole records indicate this to directly underlie the site or be covered by a presumably thin superficial layer. Due to the high sensitivity of the groundwater receptor and the risk of contaminative impact by spills or leaks, and infiltration of fire water, we urge the applicant to:

- position the co-located 400kV/132kV/33kV substation and BESS away from SPZ1 and SPZ2 and preferably on the relatively low permeability Lowestoft Formation deposits present in the south of Developable Area B.
- position the 132kV/33kV substation in the south-eastern part of Developable Area A outside SPZ2, preferably on an area underlain by relatively low permeability superficial Diamicton deposits.
- position the 132/33kV substation in the south-eastern part of Developable Area C outside SPZ1 and SPZ2, preferably on an area underlain by relatively low permeability superficial Diamicton deposits.

Although no proposed development layout is provided in the PEIR, one such plan is provided in Volume 4 Appendix 6.2 Appendix B. This shows the BESS is proposed to be sited in the northernmost extent of Developable Area B, within SPZ2, less than 150m from an SPZ1 serving public water abstraction boreholes at Great Wilbraham and directly sited on Principal aquifer.

The proposed substation location within Developable Area C is also located within an SPZ 2, within approximately 400m of an SPZ1 and directly underlain by chalk Principal aquifer according to BGS mapping. The proposed substation within Developable Area A is also shown to be directly underlain by chalk Principal aquifer within an SPZ 3.

The Applicant should reassess the locations of these features. Section 4.3.37 of Volume 1 Chapter 4 states that where possible the design locates permanent infrastructure away from sensitive SPZs and groundwater abstraction points. In the absence of a clear rationale, we consider that the positioning of high pollution potential features in highly sensitive groundwater areas demonstrate this approach has not been adopted.

Operation of the BESS should be supported by a Battery Safety Management Plan, to capture emergency planning, response and contingency arrangements.

The Applicant should submit a proposed development plan confirming that the BESS compound and Substations will not be positioned within Zone 1 of a Groundwater Source Protection Zone and preferably are sited on superficial Lowestoft Formation Diamicton deposits, as far as practicable from the public water supply abstractions present in and around the site. A figure showing the indicative siting zones for the Substations and BESS in context of mapped superficial geology would be beneficial.

We recommend that micro-siting of these compounds is carried out based on ground investigation data, to ensure a maximum thickness of low permeability deposits is present beneath these features where possible. Foundation and piling methodology for BESS and substation structures should be subject to risk assessment and selected to prevent the creation of new migration pathways through any superficial deposits and into the underlying chalk.

The applicant should provide a detailed drainage plan for the site. This information must satisfactorily demonstrate to the local planning authority that the risks to controlled waters have been fully understood and can be addressed through appropriate measures.

Any BESS sited within the development must have a sealed drainage system in place to adequately contain and manage any fire-fighting effluent or contaminated surface waters generated by a fire at the site, to ensure that there is no discharge of polluted water to ground or surface water bodies. The adoption of an infiltration solution for surface water drainage at the BESS and Substation compounds would not be acceptable. Any firewater containment system would need to be demonstrated to be able to operate effectively in the worst case-instance of a combined fire and flooding event.

This information should include, but not be limited to:

- A detailed drainage plan which demonstrates, in the event of an emergency, that contaminated firewater can be adequately contained within the site to ensure that there is no discharge of polluted water to ground or surface water bodies.
- The scheme should include an impermeable base or layer beneath the battery unit compound to ensure infiltration beneath the site can be controlled.
- Any system for the storage of contaminated firewater should have sufficient capacity/headroom for the volumes expected in the event of a fire, even during periods of intense rainfall.
- The system for containing firefighting effluent should be automatic with a backup system in place in case of power failure.

Due to the sensitivity of ground and surface waters on the site, a sentinel water pollution monitoring system should be established to provide early warning of any spills or leaks from the BESS and Substation drainage systems which may affect water quality under normal operation.

We look forward to reviewing the Surface Water Drainage Strategy (mentioned in Chapter 16 Section 16.6.25) when made available.

Other Comments

Volume 1 Chapter 2 Section 2.7.2 – The list of designated sensitive land uses does not include the Fenland SAC located approximately 5.1km northeast of the redline boundary. The footprint of the SAC is similar to the Ramsar site, which is listed in the report. We acknowledge that the distance from the site to the SAC is sufficient that no impacts are likely to occur to this receptor from the development.

Volume 1 Chapter 3 Section 3.4.4 – The solar PV module design information provided in the PEIR does not refer to the potential for PFAS compounds to be present.

We strongly recommend that all solar panels are Per- and polyfluoroalkyl substances (PFAS) free. Some solar panels are treated with a PFAS coating. PFAS is not mentioned in the PEIR. If panels containing PFAS are used, we suggest that there is consideration of this in the Operational Environmental Management Plan (OEMP) and Decommissioning Environmental Management Plan (DEMP). For example, if PFAS coating is damaged there is a risk of persistent chemicals entering the natural environment during heavy rainfall, washing, maintenance and removal. The OEMP should also incorporate measures to minimise the risk of panel coatings becoming damaged via ‘thermal shock’ such as if cleaned whilst at a high temperature due to prolonged exposure to sunlight.

Section 9.5.5 of Volume 1 Chapter 9 refers to the use of non-toxic biodegradable cleaning agents during periodic cleaning of PV panels. The Applicant may wish to explore whether the use of cleaning agents other than deionised water is beneficial.

Volume 1 Chapter 3 Section 3.4.17 – The report states that “firewater containment [is necessary] associated with the BESS area to prevent the potential for pollution of groundwater or ordinary watercourses.”

The report states that containment is likely to be achieved by including an impermeable lining to drainage features and Sustainable Drainage Systems (SuDS), and the containment of fire runoff using automatic penstock valves.

The following scenario should be taken forward into any detailed design stage for BESS drainage design:

- A fire takes place in a BESS battery container and the fire suppression system is activated, automatically closing the drainage system.
- The suppression system ultimately extinguishes the fire, but the fire water is contaminated by the fire damaged batteries (PFAS, etc.).

If a gravel attenuation substrate is used, consider how any sorbed contamination in this substrate is managed, as this could act as an ongoing secondary source of contamination of rainwater runoff following the removal of contaminated firewater post-event. If the substrate is found to have an ongoing issue, consider if all containers need to be removed to enable remediation of this material. Catchment zoning and isolation should be considered in this case. Alternatively, an above-ground attenuation system would make managing sediment or surface contamination easier.

Volume 2 Chapter 9 Section 9.5.5 – The report states that fire suppression systems will use ‘environmentally safe foams’. Confirmation of the chemicals proposed to be used in fire suppression systems is requested, along with confirmation that these will not contain PFAS compounds.

Pollution control measures for parts of the development anticipated to include oil containing plant, such as substations, should include oil-water separators.

Some of the text provided in the bullet list relating to mitigation measures at the BESS is unclear: “a Clarify its in construction and operational. List separately. Both relevant post-incident environmental monitoring will be conducted to ensure soil and water quality is not compromised.” This should be checked and corrected.

Volume 2 Chapter 9 Section 9.5.5 – The report provides a list of embedded mitigation measures during the operational phase. Measures to manage fire risk via an Outline Battery Fire Safety Management Plan (Outline BFSMP) is included, and outline mitigation measures to manage battery-related fires are listed. The Applicant should also account for the storage and management of damaged/waste batteries. The Applicant should provide details of proposed arrangements for storage and monitoring of waste batteries prior to their removal from site, to ensure that these do not pose a contamination risk to surface water or groundwater quality.

Volume 4 Appendix 9.1 – The report should reference and consider Environment Agency guidance ‘[The Environment Agency’s approach to groundwater protection](#)’ in addition to the other legislation and guidance cited.

Volume 3 Figure 10.1 – The existing geology map shows only the geological setting of the Developable Areas and does not represent the Inter Array Connection Corridor or Grid Connection Corridor areas in context. The scale bar for the figure also obscures part of the descriptive text.

Volume 4 Appendix 6.2 Table 14 – The table concludes that contamination from off-site sewage works could migrate into groundwater, but that this is unlikely due to the anticipated low mobility of groundwater due to generally level topography. We do not consider there to be sufficient confidence in the groundwater conceptual model based on the available information as stated in Table 9 and the significant range of topographic elevations observed between the south-eastern and north-western extents of the Main Site. However, we do agree with the overall assessment of risk severity for this potential contaminant linkage.

We note that Section 6.2 of the PRA report establishes that further assessment is required relating to the potential for contaminants to be present associated with historic landfill sites, and the recommendation (Section 7.2.1) for intrusive site investigation to quantify the potentially significant contaminant linkages established in the Preliminary Risk Assessment.

Permitting

The Environment Agency regulates the abstraction of water from surface water and underground sources. An abstraction licence is not needed to install and test a borehole solely for the purpose of firefighting (including training and testing). It is recommended the operator of the site obtains a groundwater investigation consent (under section 32/3 of the Water Resources Act 1991) so they can find out whether there is adequate water available. See [Apply for consent to investigate a groundwater source - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/apply-for-consent-to-investigate-a-groundwater-source) for further information.

Water Quality

We note surface water quality effects have been scoped out of the assessment. Therefore, our comments on surface water quality effects associated with the project are limited until we can review the CEMP, OEMP and DEMP (Environmental Management Plans for all phases), the Battery Fire Safety Management Plan, the HDD fluid breakout plan, the WFD assessment and the Surface Water Drainage Strategy. We have not yet been able to review any draft versions of these documents. Therefore, until we can review these, we are unable to comment on if their measures and mitigations are sufficient. We have also not seen a commitments register or a draft DCO.

Within the draft DCO, Schedule 2 Requirements, we would like to request that the Environment Agency is named as a consultee to approve each of the management plans listed above, as well as any foul water strategy and drainage strategy.

We welcome the inclusion of some pollution prevention measures in Chapter 9 of the PEIR which will help support a good surface water quality. We are also pleased to see firewater containment measures in Chapters 3 and 16 of the PEIR.

Fire risk

Management of fire risk must be considered for BESS units, but also with regard to on-site substations and any areas of storage for waste batteries (prior to their disposal offsite). It is good that a BSMP will be prepared. However, fire risk is not solely associated with the BESS.

Be aware that in the event of a fire, depending on the type of transformers used and methods to put out the fire, substations can pose an unacceptable risk to the water environment receptors and will deteriorate water quality unless it is contained sufficiently. If the substations do contain oil transformer, in the event of a fire, there would be a pathway for contamination to get into surface water runoff. The substations designs need to include provisions for preventing contamination to water quality in the event of a fire.

Furthermore, if batteries are removed from the BESS they will need suitably storing prior to disposal. Section 9.5.5 says "In the event of a fire, hazardous materials from damaged battery systems will be managed through containment and cleanup protocol". There could be risk to water quality due to chemical leakage, or fire water

runoff in the event of extinguishing a waste battery fire. Stored damaged batteries are susceptible to spontaneous combustion. Therefore, there must be suitable provision for this in the BSMP and in any waste management plans.

We support that section 3.4.17, 3.8.8 and 16.6.31 suggests that the BESS will have impermeable lining. We advise that all lining around the BESS, substation and battery storage must be impermeable.

Application of herbicides and cleaning agents

We note that section 9.5.5. suggests that “non-toxic biodegradable cleaning agents” may be used on solar panels. Additionally, section 9.6.8 suggests that herbicides may be applied for vegetation management.

We accept that details about cleaning products and herbicides, particularly with regard to type and concentration intended on being used, quantities kept on site, and frequency of application etc will not be known at this stage. However, we advise that details of these are included in the OEMP and LEMP, where possible. This will allow us to be confident in conclusions that there will be no harmful effects to the environment, particularly with respect to water quality should these substances interact with surface runoff.

Flood Risk

Our comments on the flood risk implications associated with the project are limited until we have seen the Flood Risk Assessment (FRA), which is proposed to be submitted as an appendix to the Environmental Statement (ES).

We welcome the assessment of future flood risk within the FRA, accounting for climate change, as detailed in Chapter 16, paragraph 16.6.24 of the PEIR.

1. Outlined below are some specific points we would advise be addressed as part of the FRA:

Evidence of a sequential approach to site layout having been adopted. Currently there are a few inconsistencies throughout the PEIR report regarding the avoidance of building within flood risk areas:

- Chapter 4, paragraph 4.3.37 states that Flood Zones 2 and 3 can be adequately avoided through the scheme design.
- Chapter 15, paragraph 15.7 states that it will be possible to avoid the development of the PV Arrays in areas of highest flood risk.
- Chapter 16, paragraphs 16.6.24 and 16.6.35 state that any water sensitive critical components could all be located outside of Flood Zones 2 and 3.
- Chapter 3, paragraph 3.3.7 does not indicate that flood risk areas would be avoided, but states that flood-sensitive infrastructure ‘may be elevated above the adjacent flood extents associated with the on-site ditches and overland flow paths’ and that ‘the elevation may necessitate the localised raising of ground levels’.

The project should take a sequential approach to site layout. If there are any opportunities for development to be located within Flood Zone 1 then this should be prioritised.

2. The FRA should consider all flood risk related impacts during the construction, operation and decommissioning of the Scheme.
3. The FRA should be based on site specific flood modelling – as stated within our response to the EIA Scoping Consultation, there are some small ordinary watercourses that cross the site which have no associated Flood Zone mapping due to the small size of their respective catchments. There may be flood risk associated with these watercourses that have not been mapped or included within the Flood Map for Planning and should be taken into consideration for the site layout and ensuring the project is safe for flooding up to the 1 in 100yr, including an allowance for climate change, design flood event.
4. Flood emergency planning / access and egress – as stated in Chapter 3, paragraph 3.11.2, it is expected that approximately 15 permanent staff be based on site. Therefore, the FRA should consider the ability of its users to safely access and exit the development during a design flood and to evacuate before an extreme flood. One of the key considerations to ensure that any new development is safe is whether adequate flood warnings would be available to people using the development. This should apply to permanent staff during site operation as well as any staff on site during construction and decommissioning.
5. Proximity to main rivers – as acknowledged by the PEIR, there are 3 EA Main Rivers identified within the site boundary and study area. We recommend a minimum of 8m setback of works from any Main River wherever possible.

FRAP Informative:

The Environmental Permitting (England and Wales) Regulations 2016 require a permit of exemption to be obtained for any activity which will take place:

- on or within 8 metres of a main river (16 metres if tidal)
- on or within 8 metres of a flood defence structure or culvert (16 metres if tidal)
- on or within 16 metres of a sea defence • involving quarrying or excavation within 16 metres of any main river, flood defence (including a remote defence) or culvert
- in a floodplain more than 8 metres from the river bank, culvert or flood defence structure (16 metres if it's a tidal main river) and you don't already have planning permission.

For further guidance please visit [https://www.gov.uk/guidance/flood-risk-activities\[1\]environmental-permits](https://www.gov.uk/guidance/flood-risk-activities[1]environmental-permits) or contact our National Customer Contact Centre on 03708 506 506 (Monday to Friday, 8am to 6pm) or by emailing enquiries@environment-agency.gov.uk.

Flood Modelling

Whilst Flood Risk has been scoped out we note a Flood Risk Assessment will be produced which will form an appendix to the Environmental Statement. This is welcomed.

The indicative locations of the BESS and on-site substations are in Flood Zone 1 and outside of any areas of notable surface water flood risk which is welcomed.

Outlined below are some specific points with respect to flood modelling which should be considered when producing the Flood Risk Assessment:

There are some small ordinary watercourses which cross the site which have no associated Flood Zone mapping due to the small size of their respective catchments. There may be flood risk associated with watercourses which have smaller catchments, it is just not mapped or included within the Flood Map for Planning. Please bear this in mind when assessing flood risk to the proposed site.

Careful consideration will need to be given to how the design flood level will be determined for infrastructure which may fall within flood risk areas (for example Solar PV Panels). Typically, this would be determined by undertaking detailed hydraulic modelling or referring to existing detailed hydraulic modelling data (where available and suitable). If a reliance is being placed on existing flood risk products such as the Risk of Flooding from Surface Water (RoFSW) mapping, then clear justification should be provided as to why this is a suitable proxy for representing fluvial flood risk taking into consideration the effects of climate change.

Water Resources

The report correctly identifies the location of this development as an area of serious water stress. Anglian Water Services (AWS), who supply the region of this development, is subject to licence reductions (caps) on its groundwater licences to manage the risk of deterioration of the associated water bodies, according to the principles set out in the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (WFD Regulations). The company's 2024 water resources management plan (WRMP24) has set out that it will be reliant on seeking to defer some licence reductions until new strategic supplies can be developed (e.g. via strategic schemes; see Section 4.4.3 Time-limited and permanent licences in WRMP). This means that until these new sustainable supplies are available, supplies to existing customers and those to supply growth will be as a result of deferring some licence changes under Regulation 19 of the Water Framework Regulations.

As a result, AWS has adopted a "Non-Domestic Water Requests Policy" for which it asks of applicants who require non-domestic water supply to complete Water Resource Assessment to understand water demands, water efficiency measures and to effectively forecast water supply requirements. Despite water company supply being kept to <20m³ per day, the Environment would like to see such an assessment carried out.