

Planning Inspectorate

Our ref: XA/2026/100531/01-L01

Your ref: EN0110013

[via PINS portal]

Date: 27 February 2026

To whom it may concern

**ENVIRONMENT AGENCY RELEVANT REPRESENTATION. THE DROVES
SOLAR FARM, EAST ANGLIA.**

We are advised that, on 16 December 2025, an application (reference: EN0110013) for a Development Consent Order (DCO) was accepted by the Planning Inspectorate for Examination.

These Relevant Representations contain an overview of the project's issues which fall within our remit. They are given without prejudice to any future detailed representations that we may make throughout the examination process. We may also have further representations to make when supplementary information becomes available in relation to the project.

We have reviewed the draft DCO, Environmental Statement (ES) and supporting documents that were submitted to the Planning Inspectorate as part of the abovementioned application. Our key issues are listed below and explored in detail within Appendix A, while additional advice and informatives for the Applicant are provided in Appendix B. The Environment Agency's current position on this DCO is summarised in Appendix C.

Key Issues:

- Low resolution of hydrogeological model which contradicts other lines of evidence, with implications that interactions with groundwater may not be fully understood
- Risks to groundwater from pollution have not been considered fully
- Risks to surface water from pollution have not been considered fully
- Insufficient management proposed for invasive species
- Decommissioning – measures required to ensure appropriate removal of infrastructure and waste are insufficient
- Drainage proposals require further consideration
- Requirement wording needs addressing
- We request to be a named consultee for the discharge of Requirements 13 and 14

creating a better place
for people and wildlife



We trust our advice is useful.

Yours faithfully

[Redacted signature]

Planning Specialist – National Infrastructure Team

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APPENDIX A – KEY ISSUES

Drawings / Plans / Sections

ID: EA01 (Source Protection Zone)		
Figure 12.5: Source Protection Zone [APP-119]	Issue:	Figure 12.5 is not easily interpreted due to shading not being used to define Source Protection Zone (SPZ) extents.
	Impact:	Unclear to the reader how the draft Order Limits, Battery Energy Storage System (BESS) sites, substation sites and SPZs intersect.
	Solution:	Update Figure 12.5 to use shading to clearly define SPZ extents.
Additional comments:		

ID: EA02 (Drinking Water Protected Area)		
Figure 12.12 Drinking Water Protected Area [APP-126]	Issue:	Figure 12.12 shows the extents of a designated Drinking Water Protected Area in the context of the site, but there are no figures showing other drinking water protection designations.
	Impact:	The reader is unable to see how the Drinking Water Surface Water Safeguard Zone lies across the entire draft Order Limits area, and how a Drinking Water Groundwater Safeguard Zone lies across the south-western part of the site.
	Solution:	Provide figures showing other drinking water protection designations in the context of the draft Order Limits.
Additional comments:		

ID: EA03 (3D Representation of Groundwater)		
Figure 12.7 3D Representation of Groundwater [APP-121] Figure 12.8 Minimum Static Groundwater Level Depths within CSA [APP-122]	Issue:	Figure 12.7 is poorly executed.
	Impact:	Figure 12.7 is difficult to interpret which limits its value. It is difficult to distinguish the site topography, relative elevation of groundwater, extents of the hydrogeological model, viewpoint orientation and relation to the study site. Groundwater elevation appears to be a single plane uninfluenced by surface elevation in the context of the model.
	Solution:	Revise Figure 12.7 to provide additional views of the modelled area, with clearer indication of view orientation and contouring of the groundwater surface, if applicable.

<p>Figure 12.9 Maximum Static Groundwater Level Depths within CSA [APP-123]</p>		
<p>Additional comments:</p>	<p>It is unclear whether the 3D model output is identical to the 2D minimum or maximum groundwater depth model data shown in Figure 12.8 or 12.9 respectively, or if it represents a separate dataset.</p>	

<p>ID: EA04 (Groundwater Flow Direction)</p>		
<p>Figure 12.7 3D Representation of Groundwater [APP-121]</p>	<p>Issue:</p>	<p>Estimated groundwater flow direction across most of the draft Order Limits area is indicated to be toward the north-east, north or northwest, approximately following local topography.</p>
<p>Figure 12.8 Minimum Static Groundwater Level Depths within CSA [APP-122]</p>	<p>Impact:</p>	<p>Groundwater flow direction as indicated in Figures 12.7 to 12.16 may be inaccurate.</p>
<p>Figure 12.9 Maximum Static Groundwater Level Depths within CSA [APP-123]</p>	<p>Solution:</p>	<p>Claims such as that made in Sections 12.6.37 and 12.6.38 regarding potential groundwater interception should be revised and new evidence, preferably across multiple lines, sought to support them. Intrusive investigation to measures groundwater level with empirical evidence is highly recommended.</p>
<p>Figure 12.10 Groundwater Flow Patterns [APP-124]</p>		
<p>Figure 12.11 Private Water Supplies Locations [APP-125]</p>		
<p>Figure 12.12 Drinking Water Protected Area [APP-126]</p>		
<p>Figure 12.13 Work No.2 Piling Locations within CSA for Maximum</p>		

<p>Groundwater Level [APP-127]</p> <p>Figure 12.14 Work. No 3 Piling Locations within CSA for Maximum Groundwater Level [APP-128]</p> <p>Figure 12.15 Work No. 4 Piling Locations within CSA for Maximum Groundwater Level [APP-129]</p> <p>Figure 12.16 Maximum Foundation Extents for Minimum Groundwater Level [APP-130]</p> <p>Environmental Statement Chapter 12: Water Resources [APP-061], Sections 12.6.9, 12.6.37 and 12.6.38</p>		
<p>Additional comments:</p>	<p>The majority of the draft Order Limits area is shown to be underlain directly by Chalk Principal aquifer, and according to Chapter 12 Section 12.6.9, trial trenching activities in the vicinity of the proposed BESS and substation sites did not encounter superficial deposits. The draft Order Limits area lies within Zone 1 and Zone 2 of a groundwater SPZ for a potable water abstraction at Marham, located to the west of the draft Order Limits area. This indicates that groundwater within the Principal aquifer in this area is anticipated to migrate toward the abstraction point to some degree.</p> <p>A review of the 1976 British Geological Society (BGS) Hydrogeological Map of Northern East Anglia (British Geological Survey (BGS) large image viewer IIPMooViewer 2.0) indicates that</p>	

	<p>the potentiometric groundwater upper surface within the Chalk principal aquifer in the vicinity of the site is locally northward toward the River Nar valley but more generally toward the west in the direction of the Marham public water supply abstraction. This is shown in the BGS map as ranging from approximately 30m Above Ordnance Datum (AOD) in the east to approximately 15m AOD in the west.</p> <p>The model outputs produced by the Applicant can be compared to the outputs for various hydrological scenarios available from the Environment Agency’s North East Anglian Chalk (NEAC) model, a bespoke groundwater model using MODFLOW 5 which covers most of East Anglia.</p> <p>The outputs for a wet month Scenario (March 2001 – corresponding to the Applicant’s ‘worst-case’ data usage of highest recorded levels) show very different groundwater contours and resultant flow directions compared with those produced by the Applicant. Flow in the Chalk is east-to-west in the NEAC model data, rather than south-to-north using the Applicant’s techniques derived from individual boreholes nearby. Northwards flow is present locally near the left bank of the Nar, but this reflects the topography close to the Nar intercepting the westerly flowing groundwater. If modelling will be used in the future, the Applicant is advised to consider groundwater flow on a more regional level rather than overfitting a model to a low number of interpolated datapoints. They may also choose to request model runs done on the Environment Agency’s NEAC model which can run scenarios designed and paid for by the Applicant.</p> <p>Although the Applicant’s estimations are within a similar range of values for most of the Study Area, the figures provided from their modelling should not be accepted as an accurate representation of subsurface groundwater elevation or flow direction.</p>
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ID: EA05 (Maximum Foundation Extents)		
<p>Figure 12.13 Work No.2 Piling Locations within CSA for Maximum Groundwater Level [APP-127]</p>	<p>Issue:</p>	<p>Figures 12.13 to 12.16 do not clearly show the orientation of each 3D model view, and the elevation of the maximum extent of foundations is not given.</p>
	<p>Impact:</p>	<p>Difficulty in interpreting figures.</p>
<p>Figure 12.14 Work. No 3 Piling Locations within</p>	<p>Solution:</p>	<p>Revise figures to more clearly define the area represented in the drawings, including view orientation, and the maximum foundations extent should be shaded to show elevation values. The model should be updated to inform detailed foundation design, based on site specific survey and monitoring data.</p>

<p>CSA for Maximum Groundwater Level [APP-128]</p> <p>Figure 12.15 Work No. 4 Piling Locations within CSA for Maximum Groundwater Level [APP-129]</p> <p>Figure 12.16 Maximum Foundation Extents for Minimum Groundwater Level [APP-130]</p>		
<p>Additional comments:</p>	<p>Use of inconsistent terminology may also result in confusion. Figures 12.13 to 12.15 are titled to show the anticipated extent of piling in comparison with the maximum groundwater level. In the context of the data presented, the maximum groundwater level in mAOD represents the shallowest extent and therefore worst-case condition for groundwater. For clarity the report should preferably refer to groundwater 'elevation' (in mAOD) as is represented within the figures rather than 'level', which could be misinterpreted as relative to ground level rather than Ordnance Datum.</p> <p>Figure 12.16 shows the minimum (i.e. deepest) groundwater elevation (i.e. best case) in relation to anticipated piling depth. Although this is useful information, this could potentially be misinterpreted by the reader as presenting a combined overview of the information provided in Figures 12.13 to 12.15.</p>	

ID: EA06 (Avoidance of Pipelines)

<p>Figure 16.1 Utilities Plan [APP-131]</p>	<p>Issue:</p>	<p>Figure 16.1 does not show the approximate routes of the former Ministry of Defence (MoD) oil pipeline or Exolum pipeline which traverse the draft Order Limits.</p>
<p>Environmental Statement Chapter 12: Water Resources [APP-061], Sections</p>	<p>Impact:</p>	<p>If damaged by construction works, both pipelines could cause groundwater contamination. There may be historic soil and/or groundwater contamination associated with these features, which could be encountered by ground works.</p>
<p>12.6.19 and 12.8.31</p>	<p>Solution:</p>	<p>The Applicant should, if able, identify the approximate routes of the pipelines, and confirm the measures which</p>

		will be taken at detailed design stage to locate and avoid these.
Additional comments:	Sections 12.6.19 and 12.8.31 refer to the presence of a redundant MoD fuel pipeline traversing Work Nos. 1 to 4, and a separate Exolum pipeline traversing Work No. 1. Both are stated to be avoided during detailed design phase, i.e. not placing infrastructure within a working area of the pipelines and therefore reducing the risk of introducing contaminants to the underlying aquifer via construction activities. The MoD pipeline is described as reportedly buried at shallow depth (1.0 to 1.5 mbgl). Either pipeline could be damaged if encountered during intrusive investigations or construction works.	

Environmental Statement

ID: EA07 (Environmental Legislation)		
Appendix 7.1: Consultation and Legislation, Planning Policy and Guidance [APP-147], Section 7.2	Issue:	Omission of Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024 and The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017.
	Impact:	Risk of not considering all relevant environmental legislation and new environmental definitions in legislation in respect of Biodiversity Net Gain (BNG), such as 'irreplaceable habitat', along with related offences to said habitats.
	Solution:	Please include the following legislation, policy and guidance: Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024 and The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 in Section 7.2, for completeness.
Additional comments:		

ID: EA08 (Watercourse Buffers)		
Environmental Statement Chapter 5: The Scheme [APP-054], Section 5.5.22 and Table 5-2	Issue:	Insufficient buffer around watercourses.
	Impact:	Increased opportunity for pollutant and fine sediment runoff to enter watercourses, disruption to the integrity of the natural river corridor, loss of riparian habitat and subsequently lateral connectivity, disturbance to fish species; restriction of the free movement of riparian mammals.
Environmental Statement, Chapter 7: Ecology and Biodiversity	Solution:	The Applicant should commit to avoiding the riparian zone, which is defined as 10m from bank top under guidance for BNG. It should be clearly demonstrated that there is a sufficient buffer between the

<p>[APP-056], Table 7-10</p> <p>Environmental Statement Chapter 12: Water Resources [APP-061], Sections 12.7.7 and 12.8.10</p> <p>Outline Construction Environmental Management Plan [APP-186], Table 7</p>		<p>development, any fences and any watercourse or ditch. This will allow for the natural river corridor to be maintained and free movement of riparian mammals up and down the system.</p> <p>This is supported by paragraph 2.10.78 of National Policy Statement for Renewable Energy Infrastructure (EN-3).</p>
<p>Additional comments:</p>	<p>There are inconsistencies in watercourse buffer distances between documents. Table 7-10 of Chapter 7 highlights a 6m buffer zone around ditches, while Table 7 within the outline Construction Environmental Management Plan (CEMP) states that a minimum of 10m will be maintained.</p> <p>It is acknowledged that Sections 5.5.22, 12.7.7 and 12.8.10 state that infrastructure would be placed at least 10m away from watercourses, however this should be updated in Table 5-2.</p> <p>During the construction phase, temporary construction compounds within 15 metres of watercourses could be screened with fencing on sides adjacent to the watercourse, and working lighting could be positioned to avoid light-spill onto sections of the watercourse. Both measures would lower the risk of disturbance to riparian mammals occupying the watercourse.</p>	

<p>ID: EA09 (Otter & Water Vole)</p>		
<p>Environmental Statement, Chapter 7: Ecology and Biodiversity [APP-056], Table 7-12</p> <p>Outline Construction Environmental Management Plan [APP-186], Table 2</p>	<p>Issue:</p>	<p>Inconsistencies in monitoring requirements for otter and water vole.</p>
	<p>Impact:</p>	<p>Inconsistencies leading to confusion around monitoring requirements.</p>
	<p>Solution:</p>	<p>Update Table 7-12 of Chapter 7 to reflect the monitoring requirements described in the outline CEMP for all relevant protected species.</p>

Additional comments:	Table 7-12 of Chapter 7 indicates that there are no monitoring requirements for any protected species including otter and water vole. However, Table 2 of the outline CEMP states that monitoring requirements including pre-construction site walkovers and further surveys for protected species including otter and water vole may be carried out if required.
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ID: EA10 (Invasive Non-Native Species)

Environmental Statement, Chapter 7: Ecology and Biodiversity [APP-056] , Sections 7.7.13 and 7.8.46; Table 7-12 Outline Construction Environmental Management Plan [APP-186] Outline Landscape and Ecological Management Plan [APP-191]	Issue:	Inconsistencies and lack of detail regarding the management of invasive non-native species (INNS) found on site, including Variegated Yellow Archangel and Three-cornered Garlic.
	Impact:	Lack of information within the outline CEMP and Landscape and Ecological Management Plan (LEMP) could result in the uncontrolled spread of INNS listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). There is also an increased risk of legal non-compliance. The accidental spread of INNS is an offence under the Wildlife and Countryside Act 1981.
	Solution:	Produce an Invasive Species Management Plan to support both the outline CEMP and outline LEMP. This should include details of measures to prevent the spread of INNS such as biosecurity measures. We would strongly advise that both INNS are eradicated from the site to prevent their spread. Although the locations of both species are currently limited to buffer areas, there is potential for them to grow and spread over time or through indirect disturbance through accidental encroachment into buffer areas (see Section 7.8.46 of Chapter 7).
Additional comments:	Sections 7.7.13 and 7.8.46 of Chapter 7 state that invasive species management to prevent the spread of INNS will be delivered through embedded and additional mitigation which will be detailed in the outline CEMP and outline LEMP. However, Table 7-12 of Chapter 7 indicates that there is no additional mitigation, and details of embedded and/or additional mitigation are not included within the outline CEMP or outline LEMP.	

ID: EA11 (Waste Classification)

Environmental Statement Chapter 16: Other	Issue:	Lack of detail regarding outline measures for Duty of Care to ensure waste is described and classified correctly by the waste producer or holder, throughout all phases.
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Environmental Matters [APP-065] Outline Decommissioning Strategy [APP-190]	Impact:	Waste arising from the Proposed Development may be improperly classified which could lead to inappropriate process controls, recovery treatment or disposal locations. Without a waste assessment of each waste component, the risk of harm to the environment is increased, as waste may end up somewhere without the appropriate controls. Proper disposal or recycling is critical to avoid environmental contamination.
	Solution:	Update Chapter 16 and the outline decommissioning strategy with further details that require waste to be described and classified in accordance with relevant technical guidance at the time. Furthermore, these documents should be updated so that reference is made that responsibility will be taken to ensure all waste is appropriately classified in accordance with WM3, or other technical assessment that achieves the same standard, before a suitable route for recovery or disposal can be identified. See Waste Classification Technical Guidance on WM3 .
Additional comments:	Waste quantities may be conservative if based on the maximum 40-year indicative design life rather, than a worst case scenario.	

ID: EA12 (Flood Risk – BESS)		
Environmental Statement Appendix 12.2: Flood Risk Assessment [APP-170], Section 12.2.20	Issue:	Insufficient flood mitigation provided for BESS units.
	Impact:	As currently proposed, BESS units may remain at risk of flooding where pluvial flood depths exceed 0.1m.
	Solution:	Confirm BESS units will be appropriately raised above ground level. We require raising to a minimum of 300mm above localised flood depths.
Additional comments:	Section 12.2.20 states that the BESS units will be located to avoid areas where pluvial flood depths exceed 0.4m, with units raised 0.1m above ground level. This raising is insufficient as mitigation for pluvial flooding.	

ID: EA13 (Sensitivity Criteria for Receptors)		
Environmental Statement Chapter 12: Water Resources [APP-061], Tables 12.2 and 12.3	Issue:	Water Framework Directive (WFD) status has been used to characterise receptor sensitivity. This is inappropriate, and as a result of this Table 12.2 assigns 'medium' sensitivity to Groundwater Dependent Terrestrial Ecosystems (GWDTEs), Sites of Special Scientific Interest (SSSI) and private groundwater abstractions for potable use.

	Impact:	The sensitivity of the above receptors has been underestimated.
	Solution:	Reassess the sensitivity of these receptors. This may result in changes to the determined impact significance to these receptors detailed in Table 12.3. See 'additional comments' for further information.
Additional comments:	<p>Private groundwater abstractions for potable use or food production are afforded a default 50m radius SPZ1, which is a classification stated in the same table to be High sensitivity. More information on SPZs is provided here: Groundwater source protection zones (SPZs) - GOV.UK. We consider the assignment of 'medium' sensitivity to abstractions for potable use or food production purposes to be inappropriate. However, we acknowledge that for the site in question groundwater resources are already assessed as High sensitivity due to the presence of local SPZ1 and that this has no material impact on the outcome of the assessment.</p> <p>In the absence of 'very high' and 'high' categories to differentiate between we consider that SSSI and GWDTE receptors, where present, should be assigned High sensitivity.</p> <p>It is explicit in the characterisation that the use of 'poor' waterbody status to designate waterbodies as low sensitivity is incorrect. We consider WFD waterbodies of 'poor' status to be of high priority to prevent further deterioration, and do not consider them to be 'low sensitivity' receptors. The Applicant should consider the use of aquifer typology (Principal, Secondary etc.) as a method of designating relative sensitivity to groundwater bodies.</p>	

ID: EA14 (Private Water Supplies)		
Environmental Statement Chapter 12: Water Resources [APP-061], Table 12.10	Issue:	Insufficient investigation into how Private Water Supplies (PWS) might be impacted by the Proposed Development.
	Impact:	Risk of negatively impacting PWS if risks are not sufficiently identified, assessed and mitigated.
	Solution:	Carry out further investigation into PWS at risk from the Proposed Development. This could be done using a Water Features Survey, or similar.
Additional comments:	Dipping water levels and plumbing depths of wells or boreholes will allow proper assessment of the vulnerability of these boreholes to changed in the hydrological and hydrogeological regime.	

ID: EA15 (Chalk Rivers)

Environmental Statement Chapter 12: Water Resources [APP-061], Table 12.3	Issue:	Table 12.3 assigns the receiving surface waterbody (River Nar) a 'medium' sensitivity, failing to recognise that the River Nar and several of its tributary watercourses are defined as Priority Habitat Chalk Rivers.
	Impact:	The sensitivity of the receiving surface waterbody has been underestimated.
	Solution:	Update Table 12.3 to assign the receiving surface waterbody 'high' sensitivity.
Additional comments:	<p>Table 12.3 justifies the assigned 'medium' sensitivity on the following basis: "the receiving waterbody (River Nar) in which the Scheme is located has a WFD Overall Water Body Class of "Moderate", Ecological classification of "Moderate" and a Chemical classification of "Good" (excluding uPBTs)".</p> <p>However, Table 12.3 does not note that the River Nar and several of its tributary watercourses are defined as Priority Habitat Chalk Rivers (Chalk Rivers (England) Natural England Open Data Geoportal). This was previously raised in our response at PEIR stage (Our ref: XA/2025/100395/01-L01) and is acknowledged in Section 12.6.88. Chalk streams are one of the rarest freshwater bodies on Earth, and approximately 85% of them are found in England (https://engageenvironmentagency.uk/engagementhq.com/chalk-streams). In accordance with the Catchment Based Approach the Environment Agency is committed to protecting and promoting the restoration of these waterbodies (CaBA CSRG IMP PLAN FINAL 25.11.22. V2).</p>	

ID: EA16 (Abstraction Licence)

Environmental Statement Chapter 12: Water Resources [APP-061], Section 12.6.54	Issue:	Section 12.6.54 states that one identified licensed abstraction (6/33/58/*G/0248) is listed as having domestic use, but that the property is not currently in a habitable state and is unlikely to be utilising abstracted water for potable consumption. Although the property is shown to be in poor condition, this does not preclude the possibility that the abstraction may still be in use.
	Impact:	It should not be ruled out that during the lifetime of the Proposed Development there is the potential for the abstraction to be active or else brought back into use. Failing to consider the worst-case conditions could result in an incorrect assessment of impacts to all receptors.
	Solution:	Consider the continued use of the abstraction license as representative of reasonable worst-case conditions and assess impacts to this receptor accordingly.

<p>Additional comments:</p>	<p>The location of abstraction license 6/33/58/*G/0248 is immediately outside the draft Order Limits as shown in Figure 3.2 and presumably outside the control of the Applicant. As such the potential for this property to be redeveloped and for the abstraction to be resumed for its licensed use cannot be discounted, and it should be noted that the licensed use is 'General Farming and Domestic' use, which would not require the property to be inhabited to be used.</p> <p>Abstraction 6/33/58/*G/0248 is noted to be on derelict property. However, the abstraction remains a protected right and the supply should not be derogated. The apparent lack of domestic use by the abstraction does not limit its need to be protected from disturbance or changes to groundwater. Please refer to policy statement N11 (Groundwater protection position statements - GOV.UK). Any proposal which will impact a protected right, including, but not limited to private water supply for domestic use and licensed abstractions, we would seek equivalent protection of the environment as if the effect of the development was caused by a licensable abstraction. Please refer to Section 39 and 39A and 39B of the Water Resources Act 1991. The default 50m SPZ1 is applied not just to domestic water supplies but all water supplies used in food production.</p>
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<p>ID: EA17 (WFD Groundwater Bodies)</p>		
<p>Environmental Statement Appendix 12.3: Water Framework Directive Assessment [APP-171]</p> <p>Environmental Statement Chapter 12: Water Resources [APP-061], Section 12.5.5</p>	<p>Issue:</p> <p>Impact:</p> <p>Solution:</p>	<p>Table 12.6 fails to consider all WFD Groundwater bodies within the Hydrology Study Area as defined in Figure 12.3</p> <p>Risk of impacting WFD Groundwater bodies if they are not considered within the assessment.</p> <p>Include all WFD Groundwater bodies within the Hydrology Study Area in the assessment. This includes the Cam and Ely Ouse Chalk WFD Groundwater Body (water body ID GB40501G400500) which is located within 2km south-east of the draft Order Limits.</p>
<p>Additional comments:</p>	<p>The Wider Study Area for hydrology and hydrogeology is defined as 5km from the order limits in Section 12.5.5 of Chapter 12.</p> <p>We do not expect the inclusion of the Cam and Ely Ouse Chalk WFD Groundwater Body in the assessment to result in any changes to the outcome, but do expect all WFD bodies within the Study Area to be considered.</p>	

	Table 12.6 in Chapter 12 also has an error in the header of the right-hand column. It refers to a surface water WFD body, not the WFD Groundwater body underlying the site.
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ID: EA18 (Groundwater Levels)		
Environmental Statement Chapter 12: Water Resources [APP-061], Tables 12.7 and 12.8	Issue:	No context of depth relative to ground level has been provided in Tables 12.7 and 12.8.
	Impact:	Lack of clarity regarding where groundwater levels have been recorded as artesian or sub-artesian, and it is not readily apparent how the recorded borehole groundwater level and interpolated groundwater levels reported in Table 12.8 relate to ground level.
	Solution:	Amend Table 12.7 to show depth to groundwater, and amend Table 12.8 to show surface elevation for each listed borehole.
Additional comments:	<p>Table 12.7 presents a summary of groundwater elevations at 18 groundwater monitoring stations within the local area. This does not include groundwater depths relative to groundwater level. When taking this into consideration, 9 of the 18 stations show artesian or sub-artesian conditions, with maximum hydraulic head at less than 2 mbgl. This combined with the presence of multiple springs and standing water bodies within the draft Order Limits area suggests that artesian and/or sub-artesian conditions could be encountered during construction works.</p> <p>One groundwater monitoring location within the study area which is available in the Hydrology Data Explorer (Hydrology Data Explorer - Explore) but not included in Table 12.7, is Brink Hill (TF7636621253).</p> <p>The Applicant should note that other data may be available which is not available within the Hydrology Data Explorer. The Applicant is welcome to submit an Environmental Information Request to the Environment Agency to check for any other hydrology monitoring stations within the Study Area and should consider the use of the Environment Agency's North East Anglia Chalk model, both of which may help to inform and check the Applicant's hydrogeological site conceptual model. Please be aware that BGS online mapping does not have available data showing the presence of faults in much of the East Anglia chalk. The lack of mapped structural features does not indicate that these are not present.</p>	

	Comparison of the stated interpolated groundwater level and our LiDAR records for the stated coordinates in Table 12.8 indicate that several of the interpolated values are significantly above ground level.
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ID: EA19 (Accuracy of Hydrogeological Model)

Environmental Statement Chapter 12: Water Resources [APP-061], Section 12.6.39 and Figures 12.6, 12.8, 12.9 and 12.10	Issue:	The accuracy of the hydrogeological model is unclear.
	Impact:	The anticipated depth to groundwater is significantly based on the hydrogeological model, which may result in impacts to groundwater quantity and quality if insufficient mitigation is in place.
	Solution:	The Applicant should commit to carrying out further intrusive investigations within the draft Order Limits area including groundwater level monitoring over a range of atmospheric conditions including periods of high rainfall, and refine the hydrogeological model accordingly. The findings should be used to refine detailed foundation and trenchless installation design.
Additional comments:	<p>Section 12.6.39 and Figures 12.8 and 12.9 present interpolated minimum and maximum static groundwater level depths within the Core Study Area, however the discrepancies between recorded and interpolated groundwater elevations, and interpolated groundwater elevations and surface elevations, raise concerns about the level of confidence in the hydrogeological model.</p> <p>Figure 12.6 demonstrates that the groundwater monitoring borehole network used to inform the model covers a relatively small number of locations across an extensive area and notably excludes any data from within the draft Order Limits.</p> <p>The apparent resolution of the hydrogeological model focusing on the draft Order Limits are shown in Figures 12.8 and 12.9 seems inconsistent with that of the source data. The limited groundwater elevation data is acknowledged in Section 12.6.42.</p>	

ID: EA20 (Boreholes)

Environmental Statement Chapter 12: Water Resources [APP-061], Section 12.6.50	Issue:	BGS borehole groundwater depths have been reported inaccurately in Section 12.6.50.
	Impact:	Limits understanding of the hydrogeological conceptual model.
	Solution:	Update Section 12.6.50 so that it refers to the correct borehole groundwater depths.
Additional comments:	Section 12.6.50 states that BGS borehole records show groundwater rest levels in selected abstractions in the BC dataset at 9.7 mbgl (TF81SW12) and 18 mbgl (TF81SW26). The latter is inaccurate; the	

	BGS record for TF81SW26 shows an intake depth of 18 mbgl and does not state a groundwater elevation.
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ID: EA21 (Trenchless Installation Methods)		
Environmental Statement Chapter 12: Water Resources [APP-061], Sections 12.7.7. and 12.8.22 Outline Construction Environmental Management Plan [APP-186], Tables 7 and 18	Issue:	Section 12.7.7 excludes some key mitigation measures related to the hydrological environment.
	Impact:	Exclusion of key mitigation for trenchless installation methods could result in unacceptable impacts to controlled waters.
	Solution:	Update Section 12.7.7 to include missing mitigation measures. See Additional Comments for further details.
Additional comments:	<p>Measures currently absent from Section 12.7.7 which should be included:</p> <ul style="list-style-type: none"> • Hydrogeological Impact Assessment (HIA) for all trenchless crossings due to sensitivity of watercourses and Principal aquifer, including Water Features Survey for all surface water bodies • Development of drilling fluid breakout plans for all trenchless crossings • Clarify the launch/receptor pit working area distance from watercourses <p>These measures should also be reflected in Section 12.8.22 of Chapter 12 as well as the outline CEMP.</p> <p>It is acknowledged that Table 7 and 18 of the outline CEMP states that there will be a Horizontal Directional Drilling (HDD) risk assessment and contingency plan produced to identify breakout risks, but this must be a full management plan to mitigate against risk of breakout and control any spills.</p>	

ID: EA22 (Shallow Groundwater)		
Environmental Statement Chapter 12: Water Resources [APP-	Issue:	Section 12.8.23 states that HDD works, if required, would not take place when groundwater levels are within 15m of ground level, as informed by monitoring boreholes to be installed prior to the construction phase. The current groundwater conceptual model is based on

<p>061], Section 12.8.23</p> <p>Environmental Statement Appendix 12.3: Water Framework Directive Assessment [APP-171], Table 12-4</p>		triangulation from a series of boreholes remote from these locations.
	Impact:	There is a risk that groundwater levels may be higher than anticipated, rendering this approach impossible.
	Solution:	The Applicant should account for an alternative approach in the event groundwater levels are shallower than expected.
Additional comments:	<p>Table 12-4 states that HDD works are indicated to potentially extend to 15 mbgl and could interact with maximum groundwater level in sections of Fields 25 to 27, 29 and 30.</p> <p>The Applicant should note that all monitoring boreholes should be decommissioned in accordance with best practice guidance when no longer required, in order to prevent these from acting as a preferential pathway into the underlying Principal aquifer.</p>	

ID: EA23 (Interaction with Groundwater)		
<p>Environmental Statement Chapter 12: Water Resources [APP-061], Sections 12.8.15, 12.8.19 and 12.8.20</p>	Issue:	Groundwater elevations within the draft Order Limits area are anticipated to be below the maximum extent of foundation structures, excluding potential minimal overlap with the maximum likely pile depth at the BESS and Substation sites.
	Impact:	Potential for depth to groundwater to be underestimated, and potential for groundwater to be encountered within solar photovoltaic (PV) Array Mounting Structure pile depth and a greater than anticipated proportion of the maximum BESS and Substation sites. There is a risk of encountering artesian conditions.
	Solution:	The Applicant should conduct intrusive investigations across the PV Array areas including groundwater monitoring to confirm the presence and characteristics of groundwater.
Additional comments:	<p>The report concludes that there is limited potential for the installation of Mounting Structures for the Solar PV Arrays to impact groundwater, as this has been modelled to have a maximal depth to between 4.0 and 40 mbgl. This is currently supported by very limited intrusive data.</p> <p>The report concludes that the maximum depth of piled foundations at the BESS, Customer Substation and National Grid Substation sites could marginally interact with groundwater based on triangulation of</p>	

	<p>regional borehole level data. This is not supported by suitable groundwater level data from the draft Order Limits area.</p> <p>We note that Section 12.8.20 confirms that the required piling depth will be considered in the context of the highest groundwater level, additional measures are to be implemented.</p> <p>Groundwater monitoring should be undertaken over a sufficient period to be representative of seasonal variation including worst-case groundwater levels and thus should include monitoring for at least six months including the winter period.</p>
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ID: EA24 (Foundation Works Risk Assessment)		
<p>Environmental Statement Chapter 12: Water Resources [APP-061], Section 12.8.2</p> <p>Environmental Statement Appendix 12.2: Flood Risk Assessment [APP-170], Sections 12.2.39 and 12.5.3</p>	Issue:	Section 12.2.39 of the Flood Risk Assessment (FRA) states that “once the detailed design is complete, and if the required piling depth exceeds the highest recorded groundwater level, then a Foundation Works Risk Assessment will likely be required”.
	Impact:	Risk that piled foundations may not be supported by a FWRA, when all foundation structures on the Proposed Development could create preferential flow pathways to impact the underlying Principal aquifer.
	Solution:	Due to the sensitivity of groundwater resources within the Proposed Development and presence of minimal or absent superficial cover, all piling and other foundation methods should be determined via FWRA informed by site specific data.
Additional comments:	<p>The FRA states that a FWRA will likely be required if the required piling depth exceeds the highest recorded groundwater level to ensure that groundwater is not displaced by piled foundations. Due to the high sensitivity and vulnerability of groundwater within the entire draft Order Limits area, we consider that all piled foundations should be supported by an FWRA.</p> <p>Separate to this, we note that sources of information used in preparation of the FRA are listed in Section 12.5.3, however the list does not include the Environment Agency’s Hydrology Data Explorer (mentioned as the primary source of groundwater elevation data used in hydrogeological modelling in Section 12.6.85) nor the July 2025 information on licensed abstraction records received from the Environment Agency via information request (mentioned in Section 12.6.53 and additionally in Table 12-3 of Appendix 12.1). These should be included in the reference list.</p>	

ID: EA25 (Construction Mitigation Measures)		
Commitments Register [APP-179], Table 1-1	Issue:	The construction mitigation measures for HDD lack detail and mitigation measures for BESS and Substation foundation are absent.
	Impact:	Potential that critical mitigation measures could be missed.
	Solution:	The measures should also refer to groundwater level monitoring prior to construction to ensure HDD works do not interact directly with groundwater, the production of HIAs and drilling fluid breakout plans. The measures should include the production of a FWRA based on groundwater level monitoring to support the design of piled foundations.
Additional comments:		

ID: EA26 (Drilling Fluid Breakout Plan)		
Outline Construction Environmental Management Plan [APP-186], Tables 6, 7 and 17	Issue:	It is stated in Tables 6 and 17 that no monitoring is required for drilling fluid seepage during borehole operations.
	Impact:	Surface breakout of borehole drilling fluid may go undetected and unmitigated, which could have detrimental impacts on controlled waters.
	Solution:	The Applicant should ensure that a drilling fluid breakout plan is developed for trenchless installations, and that this includes observation of the drilling route during drilling operations to identify and mitigate breakout should this occur.
Additional comments:	The above contradicts the mitigation stated in Table 7 for 'Horizontal Directional (HDD) Drilling Fluid Breakout Risk'.	

ID: EA27 (Hydrogeological Impact Assessment)		
Outline Construction Environmental Management Plan [APP-186], Tables 6, 7 and 17	Issue:	Table 6 refers to applying 'appropriate mitigation' where trenchless techniques are to be employed.
	Impact:	The definition provided in the table is vague and mitigation measures may not be sufficient.
	Solution:	Tables 6 and 7 should refer to the production of a HIA for trenchless works, which would set out the necessary mitigation measures. Mitigation of trenchless drilling impacts should also be included in Table 17.

Additional comments:	The mitigation measures in Table 7 should explicitly reference the production of a HIA for trenchless crossings.
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ID: EA28 (Spills and Leaks)		
<p>Environmental Statement Chapter 5: The Scheme [APP-054], Sections 5.4.36 and 5.4.50</p> <p>Environmental Statement Chapter 12: Water Resources [APP-061], Section 12.7.7</p> <p>Outline Construction Environmental Management Plan [APP-186], Tables 7 and 18</p>	Issue:	Mitigation measures to prevent spills and leaks from construction compounds are not currently well defined. Spillages of fuel or drilling fluid are not mentioned in the outline CEMP.
	Impact:	Risk of polluting controlled waters.
	Solution:	<p>The Applicant should provide details of mitigation proposals to prevent fugitive emissions from temporary construction compound(s) and decommissioning compounds from impacting controlled waters.</p> <p>The Applicant should update the list included in Section 5.4.36 and the outline CEMP to ensure all risks are managed.</p> <p>Section 5.4.50 should clarify whether sheltered means fully covered (i.e. no rain access), and if any storage will utilise double-skinned tanks.</p>
Additional comments:	<p>Section 12.7.7 commits to avoiding siting construction compounds within 10m of watercourses. These should also not be positioned within groundwater SPZ1 (as stated will be the case where possible in Table 7 of the outline CEMP), or within 50m of private groundwater abstractions. Due to the high sensitivity of groundwater resources, the construction compound(s) should employ a high standard of mitigation to avoid pollutants being discharged to ground from vehicles, mobile and fixed plant, equipment and construction activities carrying an elevated risk of pollution such as refuelling and concrete mixing.</p> <p>The same principles should be applied to decommissioning compounds during the Decommissioning phase.</p> <p>Further fuel and oil storage guidance is available: Pollution prevention for businesses - GOV.UK</p> <p>In the Chemical Pollution section of Table 7 and 18, under the 'Potential Hydrocarbon Contamination' it says that refuelling will be "at least 10 m away from drains", we believe this should be amended to acknowledge watercourses too.</p>	

ID: EA29 (Unexpected Contamination)		
Outline Construction Environmental Management Plan [APP-186], Tables 6 and 17	Issue:	The stated mitigation measures do not include a watching brief for unexpected contamination or a Discovery Strategy.
	Impact:	Potential for unexpected sources of contamination not to be identified and adequately managed where encountered.
	Solution:	Tables should be updated to include the provision of a watching brief for unexpected contamination and a Discovery Strategy to be employed where contamination is encountered.
Outline Operational Environmental Management Plan [APP-188], Tables 3-6, 3-7, 4-6 and 4-7		
Outline Decommissioning Strategy [APP-190], Tables 6 and 17		
Additional comments:	<p>Although unlikely, maintenance and other activities during the operational phase may include limited excavation which could potentially encounter previously unidentified contamination.</p> <p>Personnel carrying out excavation and other ground disturbing activities during all phases of the Proposed Development should be briefed on maintaining observations for visual and olfactory indicators of contamination, and the requirements of the Discovery Protocol if these are encountered.</p> <p>The table numbering in the List of Tables on page iv of the Decommissioning Strategy is incorrect and inconsistent with the content of the report.</p>	

ID: EA30 (Contaminated Soils)		
Outline Soil Management Plan [APP-193]	Issue:	The outline Soil Management Plan does not address management of contaminated soils if encountered.
	Impact:	Risk of impacts to soil and groundwater quality if contaminated soils are inappropriately managed.
	Solution:	Update the outline Soil Management Plan to direct readers to the contamination mitigation measures described in the outline CEMP.

Additional comments:	Potentially contaminated soil should be segregated from uncontaminated soils in order to prevent cross-contamination and minimise the volume of soil requiring disposal or remediation.
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ID: EA31 (Removal of Buried Cables)		
<p>Environmental Statement Chapter 12: Water Resources [APP-061], Sections 12.7.15, 12.8.130 and 12.8.181 to 12.8.183</p> <p>Outline Operational Environmental Management Plan [APP-188], Section 12.8.137</p> <p>Outline Decommissioning Strategy [APP-190], Section 2.1.5 and Table 7</p>	Issue:	The decommissioning proposals do not determine whether buried cabling would be removed, or detail the mitigation measures to minimise their potential to act as a contamination source if retained.
	Impact:	Potential for cables left in-situ to act as a source of groundwater contamination which may impact groundwater quality.
	Solution:	<p>If cable removal is not adopted at the decommissioning phase, the Applicant should demonstrate that cables left in-situ indefinitely would not pose a potentially significant source of contamination to controlled waters.</p> <p>The Applicant should provide a suitable reference to confirm that cables retained at 0.6m depth and greater would be below ploughing depth.</p> <p>The outline Decommissioning Strategy should specify how cables retained in-situ would be cut and sealed.</p> <p>Underground cabling should have a design lifespan at least commensurate with the operational phase of the Proposed Development.</p>
Additional comments:	<p>The Applicant has proposed that some or all buried cables may be left in-situ indefinitely at decommissioning. The Environment Agency does not currently have specific guidance or a regulatory position about this in the context of groundwater and land contamination. However, we recommend that cables are removed entirely at the end of the project's functional lifespan. Further, we ask the Applicant to consider the potential effects of cables being left in situ, such as deterioration of plastic and metal over extended time periods, and the release of these materials into soil and groundwater.</p> <p>The Applicant should refer to regulatory guidance and general best practice at the time of decommissioning. Whilst the current intention may be for these to be left in the ground, we strongly recommend that the applicant considers full cable removal in their designs. Allowance should be made at this stage for cable removal should it be later deemed necessary, so that the method of installation does not mean this cannot be reasonably achieved.</p>	

It is important to consider that use of plastic ducting to facilitate easy removal of cables may have its own impacts. This ducting could degrade over time in a similar manner to plastic cable housing, with some residual risk to sensitive receptors.

Section 12.8.183 report states that foundations and other below ground infrastructure will be cut to 1.2m below the surface, and that cabling will typically be installed at a depth of between 0.6m and 1.2m. If cables are retained within ploughing depth these may damage agricultural equipment and release contaminants into the soil. If cables are proposed to be retained these should be cut and sealed in a manner to minimise the rate of degradation and potential contaminant release.

Per- and polyfluoroalkyl substances (PFAS) should be avoided wherever possible in construction materials used for the project, including buried infrastructure such as cabling and also for use in solar PV panel coatings. PFAS are 'forever chemicals' that will negatively affect water quality. Risk from PFAS can be increased during washing to keep them clean, for maximum efficiency of energy generation.

We would advise the Applicant to check with the panel manufacturers if the materials used have any PFAS risk, and if design is unknown consider committing to PFAS-free panels. If panels containing PFAS are used, we suggest that there is consideration of this in the outline Operational Environmental Management Plan (OEMP) and outline Decommissioning Strategy. 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.

We note that Section 12.8.137 and the outline OEMP commit to avoiding the use of chemical cleaning products, with the plan stating that only water (preferably deionised) would be used for PV panel cleaning. Care should also be taken when wiping panels to avoid surface microabrasions.

The Applicant should also ensure that any bentonite used for trenchless drilling, or elsewhere in the scheme, has not been treated with chemicals containing PFAS. Fuel, oils and other chemicals, such

	as cleaning agents and decontaminants, should be PFAS-free wherever possible.
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ID: EA32 (Drainage System)		
<p>Environmental Statement Chapter 12: Water Resources [APP-061], Sections 12.7.15, 12.7.16 and 12.8.180</p> <p>Environmental Statement Appendix 12.2: Flood Risk Assessment [APP-170], Section 12.4.16</p>	Issue:	It is unclear how the surface water drainage infrastructure at the BESS, Customer Substation, National Grid Substation and infiltration basin would be managed at decommissioning stage.
	Impact:	As the drainage systems for these aspects of the development may include some shared infrastructure, the removal of part of the drainage system during decommissioning may compromise the system design mitigation.
	Solution:	The Applicant should clearly define how drainage systems at the BESS, Customer Substation, National Grid Substation and infiltration basin will interact, and how the removal of components of these systems at decommissioning stage will be designed and implemented without introducing new pollution risks and enabling restoration of the Site.
Additional comments:	<p>Section 12.7.15 states that the BESS units and Customer Substation would be removed from the Site and recycled or disposed of in accordance with good practice, including removal of foundations and other below ground infrastructure to 1.2m below surface and removal of piles. Section 12.7.16 indicates that the National Grid Substation and Grid Connection Infrastructure would remain in-situ.</p> <p>Section 12.4.16 of the FRA states that the BESS and Substation Compounds drainage design consists of two drainage catchments which will connect to manholes via filter drains, which will in turn connect to a tank or tanks to act as surface water attenuation and firewater storage.</p> <p>The information provided suggests that at least part of the drainage system and firewater storage infrastructure will be shared between infrastructure due for removal and infrastructure due to be retained.</p> <p>The report states “where infrastructure would be left in place (e.g. foundations for onsite buildings), drainage features would also remain where this is compatible with the detailed CEMP”.</p>	

ID: EA33 (BESS Mitigation Measures)
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Outline Construction Environmental Management Plan [APP-186]	Issue:	The outline CEMP does not clearly state that the BESS units will not be installed until the mitigation measures are in place.
	Impact:	Should a BESS fire occur during construction prior to all mitigation being in place, this could result in contamination of controlled waters.
	Solution:	The Applicant should clearly state in the outline CEMP and outline Battery Safety Management Plan (BSMP) that no BESS batteries will be taken onto site until the BESS drainage and fire management systems are in place and have been commissioned.
Additional comments:		

ID: EA34 (Penstock Valve)		
Environmental Statement Chapter 12: Water Resources [APP-061], Sections 12.8.144 and 12.8.147 Environmental Statement Appendix 12.2: Flood Risk Assessment [APP-170], Sections 12.4.18, 12.4.41 and 12.4.42 Outline Operational Environmental Management Plan [APP-188], Table 3-7 Outline Battery Safety Management Plan [APP-194], Table 6.1 Item 12	Issue:	It is unclear as to whether the automated penstock valve at the BESS, Customer Substation and National Grid Substation Sustainable Drainage Systems (SuDS)/contaminated water tank would have backup manual operation.
	Impact:	Risk of direct release of potentially contaminated firefighting water into the environment if the automatic penstock valve fails during an incident and there is no backup manual operation.
	Solution:	The Applicant should confirm that the penstock valve will also have backup manual operation, and that the valve will be subject to a programme of regular inspection and maintenance. This should be consistently referenced across the ES submission documents. The Applicant should update Chapter 12, the FRA and the outline BSMP to clarify the trigger for penstock automatically closing.

Additional comments:	We note that Table 3-7 of the outline OEMP commits to regular testing of penstocks and for repairs to be undertaken promptly if required. This is essential to ensure the penstock remains in good condition to always close promptly when required.
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ID: EA35 (Removal of Captured Firefighting Water)		
<p>Environmental Statement Chapter 12: Water Resources [APP-061], Sections 12.8.144 and 12.8.147</p> <p>Environmental Statement Appendix 12.2: Flood Risk Assessment [APP-170], Sections 12.4.18, 12.4.41 and 12.4.42</p> <p>Outline Operational Environmental Management Plan [APP-188], Section 2.14.3 and Table 3-7</p> <p>Outline Battery Safety Management Plan [APP-194], Table 6.1 Item 12</p>	Issue:	It is stated that captured firefighting water would either be tested and removed offsite to a licensed facility or discharged to groundwater. Permitted consent would be required to discharge firefighting water, the timescales for which are substantial.
	Impact:	The timescales required to receive permitted consent carry a significant risk that further rainfall events or a second fire requiring more firefighting water to be applied could exceed the storage capacity of the drainage system. This could in turn lead to pollution of the environment.
	Solution:	If the Applicant intends to retain an option of discharging firefighting water to groundwater, it must be demonstrated that they will be able to manage the risks associated with this approach. The Applicant must be able to ensure that contained firefighting water is removed and the drainage system decontaminated at the earliest opportunity following a fire event to ensure that the storage capacity of the system is not overwhelmed by subsequent rainfall or a second fire event. This is likely to be most readily achieved by tankering away the stored firewater. The Applicant should provide details of what testing is proposed in the event of a fire.
		In the absence of suitable mitigation measures, all spent firefighting water should be tankered offsite to a licensed facility.
Additional comments:	<p>It should be noted that the time taken to issue a Groundwater Activity Permit may be substantial, with decisions on applications usually being made within 4 months (Discharges to surface water and groundwater: environmental permits - GOV.UK).</p> <p>We note that Table 6.1 Item 12 within the outline BSMP states that after a fire, all firefighting water will be contained within a purpose-built tank, tested and, if applicable, treated prior to being released to ground. It does not mention that discharge of firewater to ground</p>	

	<p>following testing would require a Groundwater Activity Permit. The Plan should be updated to make it clear that discharge of firewater to ground would be subject to gaining an environmental permit from the Environment Agency’s National Permitting Service.</p> <p>It is unclear what testing is proposed. Testing is important to provide information around the quality of water that has been contained after a fire and will ascertain if it contains any contaminants and what level of risk to the water environment the contained firewater has. Firewater and other chemicals from BESS will deteriorate water quality unless it is contained and removed sufficiently.</p> <p>For advice, we expect that water samples would be taken, when safe to do so, which would then be sent to a UKAS accredited laboratory for analysis, using UKAS and MCERTS accredited methods (where applicable). The water samples should be checked against the list of hazardous substances in the surface water pollution risk assessment guide: Surface water pollution risk assessment for your environmental permit - GOV.UK</p> <p>The contaminated water storage tank(s) should be designed to be emptied by tanker should discharge to ground be impractical or not permissible.</p> <p>We note that Section 2.14.3 of the outline OEMP states that says that “Management of fire water is further described in ES Chapter 12: Water Resources”. For completeness, this should be updated to also reference the outline BSMP.</p>
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ID: EA36 (Underground Contaminated Water Tanks)		
Environmental Statement Chapter 12: Water Resources [APP-061], Sections 12.8.143 and 12.8.147	Issue:	Spent firefighting water is proposed to be contained within a dedicated underground contaminated water tank(s), sized to contain 228m ³ of spent fire suppressant plus a 1% Annual Exceedance Probability (AEP) event. Similar arrangements are proposed for the Customer Substation and National Grid Substation.
	Impact:	This may result in the underground storage of hazardous substances within a Principal aquifer within SPZ2 which may not be compliant with Position Statement D2 of The Environment Agency’s approach to groundwater protection .
	Solution:	The Applicant should justify why the storage must be underground and commit to engineering and management standards to ensure there are no leaks from this infrastructure. This equally applies to the

	closed drainage system for the Customer Substation and National Grid Substation.
Additional comments:	<p>Position Statement D2 of The Environment Agency's approach to groundwater protection states:</p> <p><i>The Environment Agency will normally object to new and increased underground* storage of hazardous substances in SPZ1. The Environment Agency will agree to such storage in principal and secondary aquifers outside SPZ1 only if there is evidence of overriding reasons why the:</i></p> <ul style="list-style-type: none"> • <i>activity cannot take place within unproductive strata</i> • <i>storage must be underground (for example public safety), in which case it is expected that the risks are appropriately mitigated</i> <p><i>For all storage of pollutants underground (hazardous substances and non-hazardous pollutants), the Environment Agency expects operators to adopt appropriate engineering standards and have effective management systems in place. These should take into account the nature and volume of the materials stored and the sensitivity of groundwater, including the location with respect to SPZs.</i></p> <p><i>* Underground storage constitutes storage whereby the tank is not wholly visible on a permanent basis and is not wholly accessible from ground level. Any tank that is partially set in the ground in a secondary containment and is totally accessible and wholly visible will be considered to be an above ground tank.</i></p> <p>Although under normal circumstances the proposed firewater storage tank(s) would not contain hazardous substances, the potential for these to be present in firewater following a BESS fire cannot be fully discounted. The Applicant should therefore satisfactorily demonstrate why a firewater storage solution cannot instead be implemented above ground.</p> <p>The storage tank(s) should be suitably engineered to ensure secure containment over the lifetime of the Proposed Development and should include secondary containment such as double-skinned construction.</p> <p>The Applicant should also ensure that the containment area is sized to be able to hold all firefighting water, during a storm event, and factor in climate change.</p> <p>The Applicant should confirm that the containment area will be fully cleaned prior to any shut-off valves being re-opened.</p>

ID: EA37 (Spills and Leaks – BESS and Substation Drainage Systems)		
Environmental Statement Chapter 12: Water Resources [APP-061], Section 12.8.129 Flood Risk Assessment [APP-170], Section 12.4.19	Issue:	Absence of measures to identify and manage the risk of pollution during normal operation of the BESS and Substation sites, when surface water runoff would directly infiltrate into the underlying Principal aquifer (and SPZ2) and surface watercourses.
	Impact:	Groundwater and surface water quality could be impacted by spills and leaks from normal operation (as distinct from a fire event) entering BESS and/or Substation surface water drainage systems.
	Solution:	Specify mitigation measures to identify and manage these risks. We would suggest installing 'sentinel' monitoring systems at the BESS and Substation drainage system outfalls to quickly identify if pollutants are found to be entering the drainage system and enable remedial action. Hazardous or polluting substances must be stored, handled and disposed of in accordance with applicable regulations, and any plant or equipment containing these should be suitably engineered to avoid loss of these substances to ground.
Additional comments:	Section 12.4.19 of the FRA states that all surface water from the BESS and Substation developments will ultimately drain into an infiltration basin (of worst-case volume 19,845m ³). Any loss of contaminants into the drainage system under normal operational use, such as from spills and leaks) is likely to result in these migrating directly into the Principal aquifer (and SPZ2) via the infiltration basin. All oil-containing plant such as oil-filled transformers should be designed in accordance with appropriate standards including, as applicable, The Control of Pollution (Oil Storage) (England) Regulations 2001 . Measures to prevent hydrocarbons from being discharged from the drainage system, such as oil-water interceptors, should be included and subject to regular cleaning and inspection.	

ID: EA38 (Storage of Waste Batteries)		
Environmental Statement Chapter 12: Water Resources [APP-	Issue:	Absence of mitigation measures relating to the storage of waste batteries.
	Impact:	Potential for contaminant leakage from stored waste batteries prior to disposal which poses a risk to groundwater and surface water quality.

<p>061], Section 12.8.139</p> <p>Outline Operational Environmental Management Plan [APP-188], Section 2.11.2</p>	<p>Solution:</p>	<p>Include measures to ensure that waste and/or damaged BESS batteries are stored and managed such that they do not pose a contamination risk, within the outline BSMP, Chapter 12 and outline OEMP.</p>
<p>Additional comments:</p>	<p>Any waste battery storage arrangements should be designed to ensure that damaged and end-of-life batteries would be protected from precipitation, any leakages would be contained and not enter the BESS drainage system, and these would not pose a fire risk to adjacent infrastructure. The battery storage area must be impermeable, covered and bunded. We strongly recommend that a fire watch is maintained for all waste batteries, stored for any reason.</p>	

<p>ID: EA39 (Fire Suppressant Chemicals)</p>		
<p>Outline Battery Safety Management Plan [APP-194], Appendix A</p>	<p>Issue:</p>	<p>Limited details provided regarding proposed fire suppressant chemicals.</p>
	<p>Impact:</p>	<p>If fire suppressant systems contain polluting or hazardous chemicals, these could potentially impact groundwater quality if discharged to ground.</p>
	<p>Solution:</p>	<p>Commit within the outline BSMP that details of fire suppressant chemicals will be provided in the detailed BSMP.</p>
<p>Additional comments:</p>	<p>The Plan currently indicates that potassium carbonate is under consideration, and is “non-harmful to environment and presents no health and safety concerns to first responders”. The physico-chemical properties of the selected suppressant should be confirmed via supporting documentation such as Material Safety Data Sheets.</p>	

<p>ID: EA40 (Spacing of BESS)</p>		
<p>Outline Battery Safety Management Plan [APP-194], Table 6.1 Item 7</p>	<p>Issue:</p>	<p>BESS units are proposed to be sited close together.</p>
	<p>Impact:</p>	<p>There is a risk that firefighting methods may not be able to prevent propagation of fire along rows of BESS containers.</p>
	<p>Solution:</p>	<p>The Applicant should demonstrate that the proposed spacing of BESS units would be sufficiently protective of groundwater quality in the event of a BESS fire.</p>
<p>Additional comments:</p>	<p>The figure presented within Table 6.1 indicates a proposed BESS minimum unit spacing of 2.5m (Aisle, on the long edge of each container) and 0.15m on the short edge of each container.</p>	

ID: EA41 (Thermal Effects of Buried Cables)		
Environmental Statement Chapter 12: Water Resources [APP-061]	Issue:	Omission of thermal effects of buried cables from potential contaminant sources in the Operational Phase Conceptual Site Hydrogeological Model.
	Impact:	Inadequate consideration of all possible contaminants.
	Solution:	Include these contaminants in future revisions of the model, and any conclusions and mitigation based on this model.
Additional comments:	<p>Underground electrical cables generate heat that dissipates naturally to the surrounding ground during power transmission. The levels of heat loss and dissipation will be dependent on numerous factors including cable design, soil structure, transmission voltage and engineering design. Where underground cables interact with groundwater bodies this could result in local degradation of groundwater quality and negatively impact nearby abstractions via the generation of a heat plume.</p> <p>Heat as a groundwater pollutant was introduced in 2023 via the Environmental Permitting (England and Wales) (Amendment) (England) Regulations 2023.</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 (GSHC) systems, but there is currently no guidance relating to the potential thermal implications of high voltage buried electricity cables. The EA's Chief Scientist's Group has published a report for 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.</p> <p>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.</p> <p>At this stage we are asking applicants to consider the potential thermal implications of buried cables, in relation to risks to groundwater, via desk-based assessment. We recognise that as this an emerging issue, this matter has not been raised previously within the pre-application stages for this project.</p>	

ID: EA42 (Missing Legislation)		
Flood Risk Assessment [APP-170], Section 12.4.1	Issue:	Omission of include The Environment Agency's approach to groundwater protection and National standards for sustainable drainage systems (SuDS) - GOV.UK from the list of guidance and legislation provided in Section 12.4.1 of the FRA.
Outline Construction Environmental Management Plan [APP-186], Tables 7 and 18	Impact:	Risk of the BESS, Customer Substation and National Grid Substation drainage designs not being designed in accordance with all relevant guidance.
	Solution:	Include The Environment Agency's approach to groundwater protection and National standards for sustainable drainage systems (SuDS) - GOV.UK in Section 12.4.1 and confirm the outline drainage proposals have been designed in accordance.
Additional comments:	<p>The Environmental Pollution Act 1995 states "<i>It is an offence to cause or knowingly permit the discharge of poisonous, noxious or polluting matter into relevant waters or into any underground strata</i>". The design of Substation and BESS drainage systems must ensure that spills and leaks from plant and equipment do not result in hazardous or polluting substances discharging to groundwater.</p> <p>Although it is suggested that the BESS Units would be mounted on concrete foundations, it is possible that compacted gravel may also be used. It is unclear if the Applicant is committing to fully sealed drainage. The Applicant should ensure that if compacted gravel is used, an impermeable lining is present underneath so that the BESS drainage is fully sealed. This should be updated in Chapter 12 and the BSMP.</p> <p>Tables 7 and 18 both state that "SuDS will treat runoff, which can reduce sediment and pollutant volumes in runoff before discharging back into natural drainage network". Further details of how the proposed SuDS will treat pollutants should be provided.</p>	

ID: EA43 (Use of Concrete)		
Environmental Statement Chapter 5: The Scheme [APP-054], Section 5.3.53 and Table 5-1	Issue:	The outline CEMP does not currently contain sufficient mitigation measures to protect water quality from the use of concrete.
	Impact:	Risk of negatively impacting water quality. Concrete is a known source of hazardous substances, particularly during the curing phase.
	Solution:	In addition to measures already included in Table 7 of the outline CEMP, include additional mitigation

<p>Outline Construction Environmental Management Plan [APP-186], Table 7</p>		<p>measures to ensure that risks of pollution as a result of concrete are adequately managed. Measures could include:</p> <ul style="list-style-type: none"> • Identify all areas where concrete works are proposed • Specify whether any of these will be cast in-situ or pre-cast and delivered • For in-situ concrete pours, suggest timing, weather conditions, and runoff control. (These construction works should be minimised during heavy precipitation events and carried out during dry months where practicable).
<p>Additional comments:</p>	<p>Concrete will be used in the construction of numerous features of the Proposed Development including: the concrete foundation slab for Integrated Conversion Units and Standalone Conversion Units; reinforced concrete base for the BESS, and concrete pad in the joint bay.</p>	

<p>ID: EA44 (Wheel Washing Facilities)</p>		
<p>Environmental Statement Chapter 5: The Scheme [APP-054], Section 5.3.25</p>	<p>Issue:</p>	<p>It is unclear how any water from wheel washing facilities will be contained and disposed of.</p>
<p>Environmental Statement Chapter 12: Water Resources [APP-061], Sections 12.8.47 and 12.8.83</p>	<p>Impact:</p>	<p>Risks of water containing sediment and contaminants entering watercourses and decreasing water quality, if wash water is not managed correctly.</p>
<p>Additional comments:</p>	<p>Solution:</p>	<p>Include further details relating to the containment and disposal of wheel wash water within Chapters 5 and 12, and ensure there are sufficient mitigation measures included within the outline CEMP.</p> <p>Mitigation measures associated with wheel washing facilities could include:</p> <ul style="list-style-type: none"> • Ensuring these activities will be undertaken within a designated impermeable or lined area and should not be allowed to discharge into a watercourse • Any SuDS incorporated around wheel washing facilities should provide sufficient treatment for suspended sediment, metals and hydrocarbons.
<p>Additional comments:</p>	<p>It is acknowledged that Sections 12.8.47 and 12.8.83 state that vehicle washing will utilise dry wheel wash facilities where possible. This is welcomed, however, where water will be used it must be clarified how this will be managed to pose no risk to the water environment.</p>	

ID: EA45 (Water Quality Monitoring)		
Outline Construction Environmental Management Plan [APP-186] , Tables 7 and 18	Issue:	Insufficient detail provided regarding monitoring for increased sediment in surface water runoff and chemical pollution.
	Impact:	Risk of a monitoring plan not being able to detect relevant trends in water quality, if not suitably designed.
	Solution:	Update the chemical pollution monitoring plan for surface water to provide information regarding suggested methods and quantities, such as in-situ handheld devices or samples being sent off to laboratories. Monitoring requirements for increased sediment in surface water runoff should be updated to be similar to the chemical pollution monitoring requirements.
Additional comments:	It is acknowledged that surface water monitoring will be undertaken at locations on the principal watercourses downstream of the Scheme infrastructure and upstream of other non-natural influences, and the locations and parameters will be agreed with the Environment Agency prior to establishing the hydrochemical baseline.	

Draft Development Consent Order

ID: EA46 (Environment Agency Protective Provisions)		
Draft Development Consent Order [APP-018] Consents and Agreements Position Statement [APP-185]	Issue:	Lack of clarity regarding why Environment Agency Protective Provisions have been included in the draft DCO when disapplication of the Environmental Permitting Regulations has not been included in the application.
	Impact:	If disapplication is sought, further discussions will need to take place between the Environment Agency and the Applicant.
	Solution:	Provide reasoning as to why Environment Agency Protective Provisions have been included in the draft DCO. Confirm what relevant Flood Risk Activities (if any) are proposed and confirm whether disapplication of relevant legislation applicable to these is sought.
Additional comments:	The Consents and Agreements Position Statement refer to the requirements for Flood Risk Activity Permits (FRAPs) but does not indicate where these might be required. No discussions have taken place between the Environment Agency and the Applicant to date regarding FRAPs or disapplication.	

ID: EA47 (Requirement Wording)

Draft Development Consent Order [APP-018], Schedule 2 – Requirements	Issue:	Numerous Requirements state that detailed management plans “must be substantially in accordance with” the outline version of the management plan.
	Impact:	Using the term “substantially” results in a Requirement being unenforceable and is not precise. This is against government policy (National Planning Policy Framework (NPPF)) and the six tests cited in Paragraph 57 of the NPPF.
	Solution:	The Environment Agency requests the removal of the term “substantially” from the affected Requirements, particularly those where we are/wish to be a named consultee: Requirements 6, 11, 13, 14 and 20.
Additional comments:		

ID: EA48 (Permitted Preliminary Works)

Draft Development Consent Order [APP-018], Part 1: Preliminary. Article 2 ‘Interpretation’; Schedule 2 - Requirements	Issue:	The definition of “permitted preliminary works” includes ‘(d) remedial work in respect of any contamination or other adverse ground conditions’, while the definition of “commence” excludes activities defined as “permitted preliminary works”, i.e. it does not include ‘remedial work in respect of any contamination or adverse ground conditions’.
	Impact:	The CEMP secured via Requirement 13, only requires submission of a detailed CEMP prior to commencement. This means that remediation of the site could take place without the CEMP being approved or in place and therefore without the controls and mitigation commitments offered by the CEMP.
	Solution:	We request that either ‘(d) remedial work in respect of any contamination or other adverse ground conditions’ is removed from the “permitted preliminary works” definition, or Requirement 13 is amended to include the following clause, “for the purposes of 13(1) “commence” must include ‘remedial work in respect of any contamination or adverse ground conditions’.
Additional comments:	If the Applicant can point to an alternative satisfactory control to the CEMP then we will consider that.	

ID: EA49 (Requirement 13 – Construction Environmental Management Plan)

Draft Development Consent Order [APP-018],	Issue:	The Environment Agency is not listed as a named consultee for the discharge of Requirement 13 (Construction Environmental Management Plan).
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Schedule 2 – Requirements, 13(1)	Impact:	Increased risk of detrimental impacts to controlled waters if the CEMP does not include sufficient mitigation.
	Solution:	We request to be consulted on the CEMP to be approved under Requirement 13.
Additional comments:		

ID: EA50 (Requirement 14 – Operational Environmental Management Plan)		
Draft Development Consent Order [APP-018] , Schedule 2 – Requirements, 14(1)	Issue:	The Environment Agency is not listed as a named consultee for the discharge of Requirement 14 (Operational Environmental Management Plan).
	Impact:	Increased risk of detrimental impacts to controlled waters if the OEMP does not include sufficient mitigation.
	Solution:	We request to be consulted on the OEMP to be approved under Requirement 14.
Additional comments:		

ID: EA51 (Dedicated Contaminated Water Tanks)		
Draft Development Consent Order [APP-018] Environmental Statement Appendix 12.1: Consultation and Legislation, Planning Policy and Guidance [APP-169] , Table 12-1 Environmental Statement Appendix 12.2: Flood Risk Assessment [APP-170]	Issue:	Item 3.8.7 of Table 12-1 (Appendix 12.1) states that the FRA “commits the detailed design of the Scheme to include dedicated contaminated water tank(s) in a closed system for the BESS and substations sized to accommodate 228m3 plus the 1% AEP event. This is secured through a requirement of the draft DCO”. However, the draft DCO refers to impermeable drainage infrastructure only in relation to the BESS Compound and does not currently commit to a specified storage capacity.
	Impact:	There is a risk that this commitment will not be fully secured by the draft DCO, which could lead to pollution of surface water and groundwater.
	Solution:	Update the draft DCO to clearly secure this commitment via a secured document such as the CEMP.
Additional comments:		

APPENDIX B – INFORMATIVES

Water Supply and Demands

Chapter 12 [APP-061] includes a good appraisal of water demands and potential sources of supply and provides reasonable confidence that a water supply can be found practically and sustainably.

With regards to HDD drilling

Table 12.17 in Chapter 12 [APP-061] states that the maximum total water demand for HDD drilling is given as 25.1 m³/day. If HDD drilling uses an abstraction as a source of supply this may not be exempt from licensing as the maximum water demand is above the de minimus amount exempting an abstraction from licensing. The Applicant should ensure early engagement with the Environment Agency if there is a likely need for an abstraction licence. The Abstraction Licensing Strategy for North West Norfolk is available here: [North West Norfolk Abstraction Licensing Strategy - GOV.UK](#).

With regards to tankering water

Given the initial estimates of volumes calculated, estimates of Heavy Goods Vehicles (HGV) numbers required should be factored into traffic management plans to ensure local authorities are satisfied with the increases this would mean to HGVs on local road networks. Given the heavy reliance on this source of supply, it is important that this does not pose a blocker pre-commencement.

With regards to the use of the landowners (existing) abstraction licence

The Applicant should be familiar with the licence intended to be used and understand what changes are required to make it suitable for purposes not already listed on the licence.

If as suggested in Section 12.6.54 of Chapter 12 [APP-061], the licence intended to be used is 6/33/58/*G/0248, the Applicant should note the low quantities available on the licence (7000m³ at 24m³/day) respective to the quantities specified in the appraisal of construction water demands. Particularly if this water is continued to be used for the purpose of Livestock watering stated in the previous 2023 renewal determination.

Embedded Operation Phase Mitigation

The Embedded Operation Phase Mitigation of Chapter 12 [APP-061] does not mention the outline OEMP, outline BSMP or a Drainage Strategy. These are all essential documents that contain mitigation measures which will help protect the water environment, therefore Chapter 12 should be updated to reflect this.

APPENDIX C – SUMMARY OF EA POSITION

	Agreed / resolved
	Working on a solution / under discussion
	Not agreed

Subject	Work package	Scope	Method and Assumptions	Results of Assessment (i.e Impact)	Mitigation / Enhancements Agreed	Requirement	RR ID
Ecology	Biodiversity Net Gain Strategy						
	Ecological Assessment						EA07, EA08, EA09, EA10
	Water Environment Regulations Compliance						EA08
Water Resources	Water Supply Strategy						
Flood Risk	Flood Risk Assessment						EA12, EA42, EA46, EA51
	Hydraulic Model						
Surface Water Quality	Outline Construction Environmental Management Plan					13	EA28, EA33, EA43, EA44, EA45, EA49
	Outline Operational Environmental Management Plan					14	EA34, EA37, EA50
	Outline Decommissioning Strategy						EA28, EA32
	Outline Battery Safety Management Plan						EA33, EA34

	Water Environment Regulations Compliance						EA08, EA15
Groundwater Protection	Outline Construction Environmental Management Plan					13	EA21, EA24, EA25, EA26, EA27, EA28, EA29, EA30, EA33, EA48, EA49
	Outline Operational Environmental Management Plan					14	EA29, EA34, EA35, EA36, EA37, EA41, EA50
	Outline Decommissioning Strategy						EA28, EA29, EA31, EA32
	Outline Battery Safety Management Plan						EA33, EA34, EA35, EA38, EA39, EA40
	Water Environment Regulations Compliance						EA13, EA17
	Hydrogeological Model and Assessment of Impacts						EA03, EA04, EA05, EA13, EA14, EA15, EA16, EA18, EA19, EA20, EA22, EA23
Waste	Waste Management Strategy						EA11, EA38