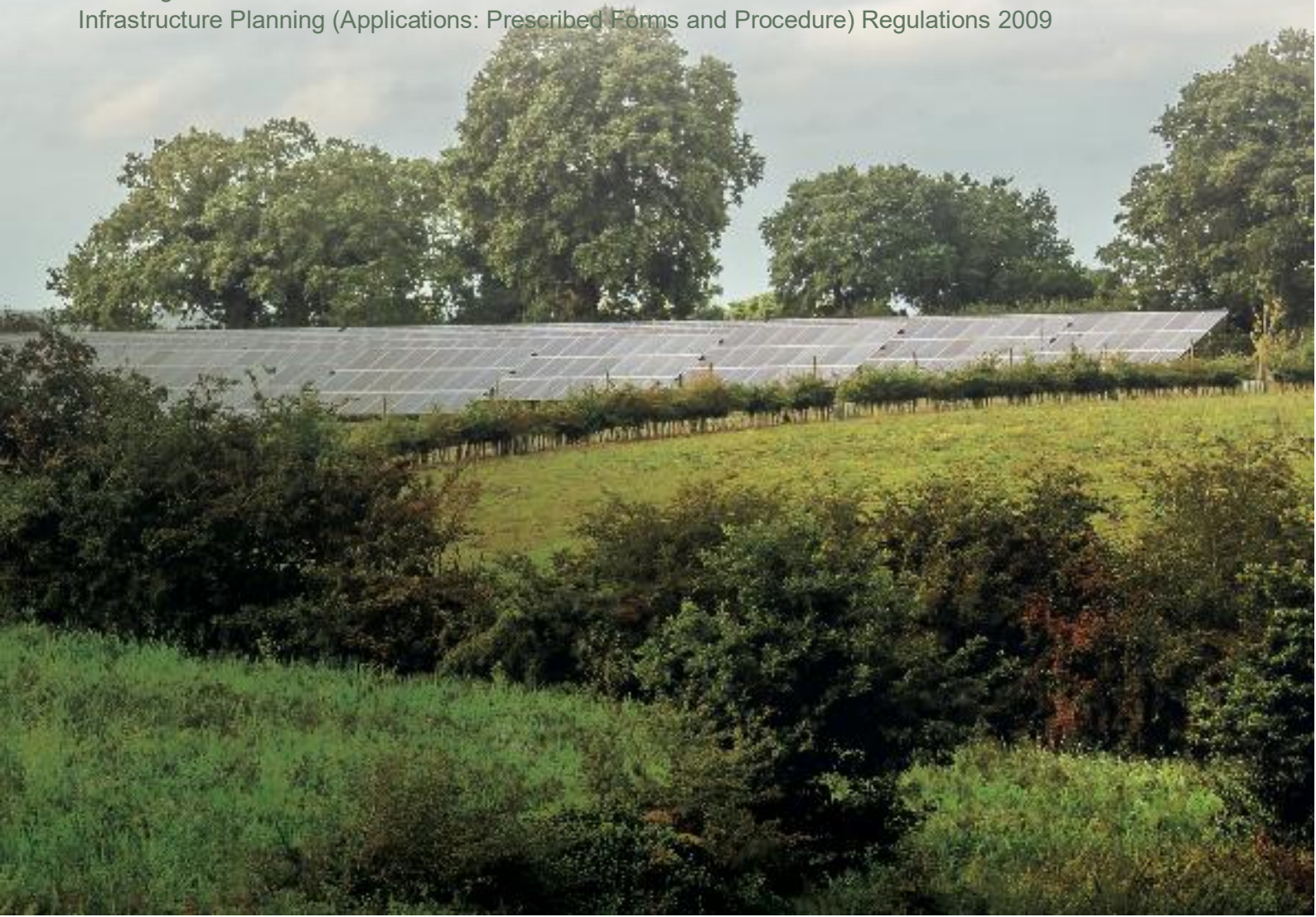
THE DROVES
SOLAR FARM

The Droves Solar Farm

Appendix 12.1: Consultation and Legislation, Planning Policy and Guidance

Prepared by: Raincloud Consulting
Date: November 2025
PINS reference: EN0110013
Document reference: APP/6.4 (Original)
APFP Regulation Reg 5(2)(a)
Planning Act 2008
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



List of Contents

List of Tables

12 Consultation, Legislation, Planning Policy and Guidance

12.1 Consultation

Scoping Opinion

12.1.1 A request for an EIA Scoping Opinion was sought from the Secretary of State (SoS) through the Planning Inspectorate (PINS) in November 2024. PINS subsequently issued the Scoping Opinion in December 2024.

12.1.2 The issues raised in the Scoping Opinion relating to water resources are summarised and responded to within Table 12-1 which demonstrates how the matters raised in the Scoping Opinion are addressed in this ES.

Table 12-1 Relevant Scoping Opinion Comments from Statutory Bodies relating to Water Resources

Consultee and Date	Comment and Scoping Opinion ID No.	How has the comment been addressed in the ES chapter	Location of response in ES Chapter
Planning Inspectorate (on behalf of the Secretary of State) Scoping Opinion 18/12/2024	3.8.1: As the Proposed Development is not located within 6 km of a tidally influenced stretch of the River Nar the risk of flooding from tidal sources will be scoped out of the ES and accompanying Flood Risk Assessment (FRA). The Inspectorate is content for this matter to be scoped out of the assessment on this basis.	Noted. The risk of flooding from tidal sources has been scoped out of the ES and Flood Risk Assessment (FRA), see **ES Appendix 12.2: Flood Risk Assessment [APP/6.4].**	Not applicable, scoped out.
	3.8.2: Potential effects from historic landfill sites will be scoped out of the assessment, due to the absence of landfill sites within 3km of the CSA. The Inspectorate is content for this matter to be scoped out of the assessment on this basis.	Noted. Potential effects from historic landfill sites have been scoped out of the ES.	Not applicable, scoped out.
	3.8.4: The ES should assess the potential flood risk to and from the Proposed Development and describe suitable mitigation measures and flood resilient construction techniques that will allow the development to remain operational throughout its proposed lifespan.	The built aspects of the Scheme are located entirely in Flood Zone 1. Only a small section of the mitigation area (approximately 1.1 ha) for skylark is located in Flood Zones 2 and 3 and is an appropriate land use in these zones, as per Annex 3: Flood risk vulnerability classification of the NPPF. The FRA **[APP/6.4]** assess flood risk from all sources and identified measures, such as raising	See **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

		infrastructure above pluvial flood depths, to ensure the Scheme would remain safe for its operational lifespan.	
	3.8.4: The ES should be supported with a surface water drainage plan to demonstrate there is no increase in flood risk during the construction phase, and an outline drainage design for all phases of the Proposed Development.	Measures to manage surface water are included in the **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**. Measures include Rural Sustainable Drainage Systems (RSuDS) such as grassland and wildflower for the Solar PV Site. As the Scheme does not have a detailed design at this stage there is a commitment in the FRA to have a formal drainage system for the BESS Customer Substation and National Grid Substation designed to the 1% AEP + 40% climate change allowance. This is secured through a requirement of the **draft Development Consent Order (draft DCO) [APP/3.1]**. Infiltration testing has confirmed that surface water for the Scheme can be disposed of via infiltration and concept infiltration basin design, based on worst-case parameters (such as a fully impermeable Work Nos. 2 to 4), is provided in Section 12.4 of the FRA **[APP/6.4]**.	See **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	3.8.6: The ES should assess impacts to groundwater during all phases of the Proposed Development where significant effects are likely to occur or demonstrate absence of any likely	Noted.	**ES Chapter 12: Water Resources [APP/6.2]** outlines measures to protect the groundwater resource during all phases of the Scheme.

	significant effects, with evidence of agreement to the approach from statutory consultation bodies.		
	3.8.5: The Applicant proposes that an infiltration-based SuDS for the Substation and BESS would be investigated and that disposal of water to Anglian Water assets is to be considered. Flood risk from surface water directed to public sewer systems should be fully assessed in the FRA and the proposed SuDS should be consulted on and agreed with Anglian Water and the Lead Local Flood Authority (LLFA).	Infiltration testing has confirmed that disposal of surface water via infiltration is feasible for the Scheme and is proposed in the FRA **[APP/6.4]**. Disposal of surface water via other means has now been discounted, as discussed with the LLFA in a meeting in September 2025.	See **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	3.8.7: Details on how contaminated water produced through fire management procedures or routine runoff at the BESS should be provided in the ES with an assessment of likely significant effects from pollution of surface or groundwater. Detailed information should be provided on how contaminated water will be managed and contained at the BESS and the Substation.	The FRA **[APP/6.4]** 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 228m^3 plus the 1% AEP event. This is secured through a requirement of the **draft DCO [APP/3.1]**.	See **ES Chapter 12: Water Resources [APP/6.2]**and the **FRA [APP/6.4]**. and **the outline Battery Safety Management Plan (oBSMP) [APP/7.14]** which is secured via requirement of the Development Consent Order (DCO) Application.
	3.8.8: The consumption of water during the construction, operation or decommissioning phases should be considered in the assessment. The	**ES Chapter 12: Water Resources [APP/6.2]** outlines the construction and operational activities which require water, such as welfare facilities and dust suppression, and the source of	See **ES Chapter 12: Water Resources [APP/6.2**

	ES should provide details relating to water supply and demand requirements during construction, operation (in the context of BESS fire risk for example) and decommissioning as necessary.	the water is likely to be from an offsite provider and not via groundwater abstraction. Decommissioning requirements for water demand are likely to be similar to the construction phase, as the need for dust suppression and welfare facilities is likely to be similar. There will be two dedicated water supply tanks onsite for use within a firefighting event.	
Anglian Water - Response to Scoping Opinion Request 04/12/2024	Given the potential location and extent of the proposed development area (including proposed highway improvements at the Swaffham A47 junction), there will be existing AWS assets below ground, which serve the surrounding businesses and community. For instance, there are existing AWS assets including water mains and rising mains within the project area such as within the highway or its verges which link to surrounding settlements. Utilities searches should, therefore, be undertaken to establish the extent of AWS's assets within the scheme's application boundary. We note that the applicant has already submitted land investigation questionnaires relating to AWS's above ground assets and formal easements, and no assets have	Utilities searches have been undertaken and no Anglian Water Services (AWS) supply infrastructure is located within the CSA. Initial searches show that a foul water sewer runs parallel to the A1065 in the eastern section of the CSA. An **outline Construction Environmental Management Plan (oCEMP) [APP/7.6]** outlines, where works are carried out within proximity to water distribution infrastructure e.g. highways works, a 'Watching Brief' will be conducted during works by a Hydrologist or Engineer. This is secured through a requirement of the **draft DCO [APP/3.1]**. The AWS comment is noted and the WRZ informs the sensitivity of the groundwater resource within the Wider Study Area. As outlined in **ES Chapter 12: Water Resources**	See Section 3.8 of the **oCEMP [APP/7.6]** which is secured via requirement of the Development Consent Order (DCO) Application.

	been identified within the core site area (CSA). The Droves Solar Farm is located within the Norfolk Bradenham Water Resource Zone (WRZ) where water is supplied from groundwater abstractions from the Norfolk Chalk aquifer. The Anglian Water region is also identified as 'seriously water stressed' in the Environment Agency's 2021 classification of water stressed areas. In view of the potential impacts on water resources, the Applicant is advised to consider the published Water Resources East Regional Plan which sets out the collective water companies position, and our Water Resource Management Plan 2025-2050 (WRMP24), which is available on our website.	**[APP/6.2]**, water abstractions are not proposed as part of the Scheme. Details on water consumption is provided in Section 12.8 of **ES Chapter 12: Water Resources [APP/6.2].**	
Environment Agency (EA) – Response to Scoping Opinion request 05/12/2025	The majority of the CSA is located within a Drinking Water Protected Area (Nar upstream of Abbey Farm – EA ID GB105033047791). This should be included when determining the sensitivity of surface water receptors.	Drinking Water Protected areas have been included in the framework for determining sensitivity of receptors in the assessment of water resources in **ES Chapter 12: Water Resources [APP/6.2]**.	See **ES Chapter 12: Water Resources [APP/6.2]**.
	Table 13.5 indicates that change in WFD status is proposed to be used as an indicator for the magnitude of an impact. Care should be taken	The criteria for assigning magnitude based on Water Framework Directive (WFD) degradation is a well-established method for EIA assessment, and has been utilised on several	See Table 12-3 of **ES Chapter 12: Water Resources [APP/6.2].**

	when using this approach as it risks misrepresenting pollution impacts which can detrimentally affect local ecology without impacting the WFD status of the overall waterbody. This could be due to the duration of the change or the location of the impact in relation to the WFD monitoring location. Consideration should be given to the duration, extent and severity of any water quality impact when determining their magnitude.	DCO solar sites, including Cleve Hill Solar Park, Mallard Pass Solar Farm (both consented) and Great North Road Solar and Biodiversity Park. Both High and Medium magnitude of effects are significant in EIA terms. No degradation of chemical or ecological status of water receptors would be acceptable in EIA terms therefore schemes which would constitute a downgrading of WFD status would not be permitted. The Scheme has sought to minimise the potential risks to the water environment through embedded design and measures within the **oCEMP [APP/7.6]**. This is secured through a requirement of the **draft DCO [APP/3.1]**. Change in WFD status is only one indicator or a High or Moderate effect on watercourses, as outlined in the sensitivity table of this ES.	
	Even though pollution pathways to the River Nar (WFD waterbody) are more likely to be groundwater based, the possibility of a WFD assessment should be considered in order to account for any potential surface water and sediment inputs to the Nar from ephemeral streams and runoff directed along roads situated in “dry” valleys, e.g. Fincham Drove.	The assessment set out in **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** has considered dry valleys and ephemeral watercourses determined by Strahler analysis. Observations from the September 2025 site walkover, undertaken following a heavy rainfall event, indicate that whilst there is potential for Fincham Drove and ‘dry valleys’ to convey overland flows, the sediment wash out onto the highway was not evident.	**ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**. and Section 3.8 of the **oCEMP [APP/7.6]** which is secured via requirement of the Development Consent Order (DCO) Application.
	The proposed development is located 900 metres from the River Nar SSSI, which is a Chalk River	Good construction practice measures to control runoff rates and limit the potential for	**ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**. and Section 3.8 of the **oCEMP**

	habitat. The chalk streams are highly sensitive habitat whose ecology are known to be heavily impacted and negatively affected by sedimentation. It should be ensured that during all phases of development, but particularly during construction, a strong approach is taken to mitigate against the loss of sediment and to reduce runoff.	sedimentation are outlined in the **oCEMP [APP/7.6]** and **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4].** This is secured through a requirement of the **draft DCO [APP/3.1]**. SuDS measures will be designed to accommodate the 1% AEP plus a 40% allowance for climate change. The ground beneath the Solar PV Arrays will be vegetated with a suitable grass mix. This will reduce the potential for runoff to be concentrated in certain areas and limit the potential for gullies / rills to form.	**[APP/7.6** which is secured via requirement of the Development Consent Order (DCO) Application.
	The EA recommends pollution prevention measures should be included in the oCEMP that could withstand significant heavy rainfall events to prevent potential pollution events caused by intense rainfall draining off the solar models. It could cause increased soil compaction and the formation of ruts and gullies during the temporary period between installation and vegetation establishment.	Pollution prevention measures and good construction practice are outlined in the **oCEMP [APP/7.6]**. These measures include a commitment to silt traps and appropriately sized settlement lagoons to reduce the potential for sediment transfer from the Scheme. The **oCEMP [APP/7.6]** also commits to the establishment of vegetation cover at the Scheme prior to the construction phase, which would act to bind soils and limit the potential for transfer of sediment offsite. The **outline Soil Management Plan** (**oSMP) [APP/7.13]** outlines measures to limit soil compaction during the construction phase of the Scheme. These measures are secured through a requirement of the **draft DCO [APP/3.1]**.	The **oSMP [APP/7.13]** and Section 3.8 of the **oCEMP [APP/7.6]** secured via requirement of the Development Consent Order (DCO) Application.

	Too little information has been provided regarding mitigation to prevent surface water from causing pollution at the Battery Energy Storage Systems (BESS) and the substation compound. We would expect to see how the applicant will ensure that routine runoff from the area is free of contaminants.	As outlined in **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** drainage measures to serve the BESS will be designed to accommodate the 1% AEP plus an allowance for climate change and the volume required by the National Fire Chiefs Council (NFCC) guidance for a firefighting event (228m^3). The dedicated containment tank(s) will have automatic penstock fitted which will be closed in the event of firefighting substantially limiting the potential for firefighting water to enter infiltration components of the SuDS network and therefore the hydrological environment. This is secured through a requirement of the **draft DCO [APP/3.1]**.	The **FRA [APP/6.4]** and Section 3.8 of the **oCEMP [APP/7.6]** which is secured via requirement of the Development Consent Order (DCO) Application.
	We are pleased to see Table 19.1 indicates that a surface water drainage system to manage fire water run-off in the event of a fire will be included in the oCEMP. Failure to plan for the fate of firewater produced because of fire management procedure at the BESS could result in pollution of surface or groundwater. Detailed information should be provided on how firewater will be managed and contained at the BESS and the substation compound.	As outlined in **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4],** SuDS measures to serve the BESS will be designed to accommodate the greater of either the 1% AEP plus an allowance for climate change or the volume required by NFCC guidance for a firefighting event, limiting the potential for firefighting water to enter the hydrological environment. This is secured through a requirement of the **draft DCO [APP/3.1]**.	The **FRA [APP/6.4]** and Section 3.8 of the **oCEMP [APP/7.6],** secured via requirement of the Development Consent Order (DCO) Application.
	The applicant mentioned the use of a temporary construction compound. However, the scoping report does not identify the likely fate	As outlined in the **oCEMP [APP/7.6]**, sewage generated during construction would be dealt with via 'Porta-a-loo' type facilities.	Section 3.8 of the **oCEMP [APP/7.6]** which is secured via requirement of the Development Consent Order (DCO) Application.

	of sewage produced during construction.	As the Scheme is not a routinely manned facility, sewage generated during operation would be minimal. The disposal of sewage during operation will be agreed with AW and the EA prior to the construction phase and will depend on the number of construction staff. Sewage will either be contained within a cesspit and tankered offsite, contained within Portaloo style toilets or connected to AW's assets.	
	Surface water abstraction subject to conditions which restrict access to water to periods of high flow may therefore need to consider on site storage to meet demand outside of these periods.	Details of the water demands of the Scheme are outlined in **ES Chapter 5: The Scheme [APP/6.1]**.	See **ES Chapter 12: Water Resources [APP/6.2]**.
Borough Council of King's Lynn & West Norfolk (KLWN) – data request response 22/01/2025	Provided partial information on Private Water Supplies (PWS) within the Wider Study Area.	PWS have been assessed based on the records provided by KLWN.	An assessment of potential effects on PWS is provided in of **ES Chapter 12: Water Resources [APP/6.2]**.
Breckland Council (BC) – data request response 05/02/2025	Provided information on PWS within the Wider Study Area.	PWS have been assessed based on the records provided by BC and checked against anecdotal evidence and British Geological Survey (BGS) borehole records.	An assessment of potential effects on PWS is provided in **ES Chapter 12: Water Resources [APP/6.2]**.

LLFA Response to Scoping Opinion	There are a number of associated infrastructure elements that are required to facilitate the connection of the solar arrays to the wider grid along with the BESS elements, such as inverters, transformers, switchgears, substations, ancillary buildings, etc. These components will have an associated impermeable area that will require surface water management measures to support this infrastructure.	As discussed with the LLFA in September 2025, the Scheme has Work Nos. and does not have a detailed design at this stage, therefore the **FRA [APP/6.4]** proposes drainage principles which will be secured through a requirement in the **draft DCO [APP/3.1]**. The detailed design of the SuDS network for the Scheme will be provided to the LLFA following granting of the DCO. **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** outlines that a formal SuDS, designed to the 1 % AEP event plus a 40% uplift for climate change, would serve Work Nos. 2 to 4.	See **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	There is no indication of what drainage solution would be provided and how much space would be required. Therefore, it would not be possible to ascertain whether there would be an increase in flood risk or not due to the proposed development. An outline drainage design for the operational and construction phases will be required to support the development consent.	As discussed with the LLFA, the Scheme has Work Nos. and does not have a detailed design at this stage, therefore **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** proposes drainage principles which will be secured through a requirement in the **draft DCO [APP/3.1]**. The detailed design of the SuDS network for the Scheme will be provided to the LLFA upon granting of the DCO. **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** outlines that a formal SuDS, designed to the 1 % AEP event plus a 40% uplift for climate change, would serve Work Nos. 2 to 4.	See **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	In section 3.4.1, the applicant identifies that “temporary construction compound(s)” and “the upgrade of existing tracks and construction of new Access Tracks” would be provided to facilitate the proposed development. The LLFA	The **oCEMP [APP/7.6]** and **FRA [APP/6.4]** commits to having trackside drainage for Access Tracks, which will include check dams to reduce the potential for rapid transfer of runoff downslope.	See the **oCEMP [APP/7.6]** and **FRA [APP/6.4],** secured via requirement of the Development Consent Order (DCO) Application.

	reminds the applicant that compacted material is considered impermeable and sustainable surface water management will be required for these temporary compound areas and new or improved temporary and permanent access track.		
	As this development covers a large area, a phasing plan supported by a construction phase surface water drainage plan will also be required to demonstrate there is no increase in flood risk in the construction phase (further information is provided in the LLFA's Developer Guidance). Otherwise, the proposed development could be considered not in accordance with the principles of NPPF and sustainable drainage.	A phasing plan will be provided as part of the detailed design of the Scheme following granting of the DCO, once a construction contractor has been appointed.	N/A
	Please note, if there are any works proposed as part of this application that are likely to affect flows in a river or watercourse, then the applicant is likely to need the approval of either Norfolk County Council, the Environment Agency or the local Internal Drainage Board. In line with good practice, these organisations seek to avoid culverting where possible. For Norfolk County Council, the consent for such works will not normally be granted except	Regarding watercourse crossings, the design of the Scheme does not have sufficient detail to confirm the exact locations of crossings at this stage. However, it is anticipated that the Scheme will require two crossings of a 'blind' / dead end ditch, which is not classed as an Ordinary Watercourse or Main River and which falls outside of the EA or LLFA remit for approval or issuing of consent. In any event, the **draft DCO [APP/3.1]** contains protective provisions for the benefit of the EA and drainage authorities.	Figure 12-2 of **ES Chapter 12: Water Resources [APP/6.2]**.

	as a means of access. It should be noted that this approval is separate from planning.	The crossing locations are shown on Figure 12-2.	
	The LLFA notes the requirement for construction compounds however, there is no indication of the approximate location and number of them to support the development of the proposed site. Furthermore, the LLFA notes that as the site is to have a lifespan of 60 years, yet the design life of the PV panels is approximately 25-40 years and the batteries are 15 to 20 years, these structures are likely to be replaced at least once but more likely twice during the scheme's lifetime. The LLFA queries whether the permanent maintenance compounds to facilitate these maintenance activities will be provided with an associated impermeable area. The LLFA will require clarification on the location, duration and the surface water drainage arrangements for each of these construction compounds is requested to be included in the submission.	Maintenance compounds are not required for the operational phase of the Scheme. The **oCEMP [APP/7.6]** outlines how SuDS will serve Temporary Construction Compounds.	See section 3.8 of the **oCEMP [APP/7.6]**, which is secured via requirement of the Development Consent Order (DCO) Application.
	The LLFA notes that in section 3.6 on the decommissioning of the site, the applicant has indicated the decommissioning of the site would	Any infrastructure which remains onsite following the decommissioning of the wider	See **ES Appendix 12.2: FRA [APP/6.4]**.

	only be partial decommissioning as the substation would not be under the control of the applicant at the time of decommissioning. The proposed access tracks may or may not be retained. This adds further uncertainty to the proposed lifetime of the development as at present the decommissioning appears to only relate to the removal of the solar panels and some of the local cables. Further clarification of the proposed development lifetime for the various assets in the different locations will be necessary to support the application. In addition, the decommissioning will need to confirm whether the site will be returned to its previous use and condition as it is not clear in the current information. The potential retention of access tracks beyond the existing proposed lifetime would increase the design requirement of the surface water management.	Scheme will also retain the drainage infrastructure which serves it. For example, should tracks be retained for use by the landowner then the trackside drainage committed to in **ES Appendix 12.2 FRA [APP/6.4]** will be retained ensuring runoff is controlled.	
	The Commitment Register shows that ponds will have a buffer of 10m and ditches will have a buffer of 6m. The LLFA would suggest that the buffer for ditches should be 10m to match the ponds commitment.	Ditches have been buffered to 10m, as outlined in **ES Chapter 5: The Scheme [APP/6.1]**.	

	In section 13.3.6, the LLFA notes that "an assessment of the introduction of new hardstanding and impermeable ground areas on the greenfield run-off rates using InfoDrainage software". The LLFA considers this work to contribute towards the surface water drainage strategy and design. The LLFA confirms that a drainage strategy and FRA for the proposed development will be required.	As discussed with the LLFA on 9 September 2025, the Scheme has Work Nos. and does not have a detailed design at this stage, therefore **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** proposes drainage principles which will be secured through a requirement in the **draft DCO [APP/3.1]**. A detailed drainage plan will be provided once the detailed design of the Scheme has been developed, following the issue of the DCO and this approach is consistent with other consented solar DCO applications such as Mallard Pass Solar Farm, West Burton Solar Project, Cottam Solar Project and Byers Gill Solar. The detailed design of the SuDS network for the Scheme will be provided to the LLFA upon granting of the DCO.	See **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	The current version of NPPF includes the requirement for all sources of flood risk to be fully assessed. In addition, NPPF requires the application of the sequential test for all sources of flood risk rather than relying upon only the flood zones. While the LLFA acknowledge the flood risk identified so far affecting the site, the LLFA takes the opportunity to remind the applicant that the LLFA expects all sources of flood risk (including surface water (pluvial) and groundwater) to be fully assessed in	All sources of flooding, including pluvial and groundwater are assessed in **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4],** which also includes commentary on how the Scheme passes the Sequential Test.	See **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

	the FRA and the sequential test for this scheme.		
	The LLFA reminds the applicant to obtain the sewer records to ensure that all sources of flood risk are considered.	Sewer records do not indicate the presence of surface water drains in the Core Study Area (CSA). Whilst there is a foul sewer running north to south within the CSA, immediately adjacent to the A1065, no inspection chambers were observed within the CSA or along the A1065.	See **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	This supporting information would assess the potential for the development to increase the risk of flooding from the proposal or how surface water runoff through the addition of hard surfaces will be managed. It will show how this will be managed to ensure that the development does not increase flood risk on the site or elsewhere, in line with National Planning Policy Framework (NPPF) (Paragraph 173 and 175) and the subsequent EN-1 and EN-5. In this particular case this would include appropriate information on: • Sustainable Drainage Systems (SuDS) proposals in accordance with appropriate guidance including "non-statutory technical standards for sustainable drainage systems" March 2015 by Department for	As discussed with the LLFA, the Scheme has Work Nos. and does not have a detailed design at this stage, therefore **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** proposes drainage principles which will be secured through a requirement in the **draft DCO [APP/3.1]**. The detailed design of the SuDS network for the Scheme will be provided to the LLFA upon granting of the DCO. The FRA outlines that a formal SuDS, designed to the 1% AEP event plus a 40% uplift for climate change, would serve Work Nos. 2 to 4. **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** provides details on the surface water modelling undertaken for the Scheme and how the Scheme will be made safe for its lifetime.	See **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

	Environment, Food and Rural Affairs. • Appropriate assessment and mitigation of all sources of surface water flooding onsite/originating from offsite that may affect the development, in addition to risk of groundwater flooding. • Provision of surface water modelling of overland flow routes and mitigation provided to show how flood risk will not be increased elsewhere. This may include temporary culverts sized for the 1% Annual Exceedance Probability (AEP) plus climate change allowance.		
	A surface water drainage system must be provided for the construction, operation and decommissioning of the project, including any temporary construction works.	As discussed with the LLFA, the Scheme has Work Nos. and does not have a detailed design at this stage, therefore the FRA proposes drainage principles which will be secured through a requirement in the **draft DCO [APP/3.1]**. The detailed design of the SuDS network for the Scheme will be provided to the LLFA upon granting of the DCO. Measures to manage surface water runoff during the construction phase are outlined in the **oCEMP [APP/7.6]** and includes measures such as perimeter drains, cross drains and trackside drains, check dams and settlement lagoons.	See section 3.8 in the **oCEMP [APP/7.6]** which is secured via requirement of the Development Consent Order (DCO) Application.

		This will be secured through a requirement of the DCO.	
	The drainage strategy should also contain a maintenance and management plan detailing the activities required and details of who will adopt and maintain all the surface water drainage features for the lifetime of the development.	A maintenance plan is committed to in **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** and is therefore secured through a requirement in the **draft DCO [APP/3.1]**.	See **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4].**

Statutory Consultation and Preliminary Environmental Information Report (PEIR)

12.1.3 Statutory consultation was held between May 21st 2025 and 9th July 2025. Relevant responses to the PEIR relating to water resources and how these have been addressed through the ES are set out in Table 12-2 are set out below.

Table 12-2 Responses to the PEIR relating to Water Resources

Consultee and Date	Comment	How has the comment been addressed in the ES chapter	Location of response in ES Chapter
Norfolk County Council (NCC) - LLFA, June 2025 Norfolk County Council have reviewed the PEIR and have the following comments that will be addressed in this ES Chapter.	The LLFA is aware the applicant is still developing their design approach. The LLFA notes in section 5.2.7, the potential need to use ballast slabs in some areas where driving the mounting pole into the ground is not possible. The LLFA notes that should the ballast slabs be required then the surface water runoff from the ballast slabs would need to be attenuated due to the increase in impermeable area that is associated with them. Further information is likely to be required.	Should there be a requirement to use concrete feet for the Mounting Structures then these would be localised. Measures to limit runoff in these areas would include targeted measures such as berms, bunds and shallow depression to provide the required attenuation. **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** commits the Scheme to implementing berms etc. to slow flows if concrete feet are used in Work No. 1.This will be secured through a requirement of the **draft DCO [APP/3.1]**.	See Section 12.3 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	In sections 5.2.8 to 5.2.15, the LLFA notes the increase in impermeable area associated with the invertor units and the switch rooms. However, there is no mention of sustainable surface water management from these structures. The LLFA in accordance with NPPF requires there to be no increase in flood risk from the proposed development on site or elsewhere. Further information is required on the proposed surface water management for these units.	Conversion Units / 33kV Sub-distribution Switch Rooms constitute approximately 0.15% of the Order limits and therefore represents a relatively small footprint. Regardless, **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** commits the Scheme to implementing a SuDS network designed to the 1% AEP plus 40% climate change allowance event for Work Nos. 2 to 4. SuDS measures for these aspects of the Scheme are	See Section 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4].**

		outlined in **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.	
	The LLFA notes that in the description of both the Customer Substation (sections 5.2.18 to 5.2.20) and the National Grid Substation (5.2.20 to 5.2.31), the management surface water runoff has not been discussed. In Table 5.2, the applicant further notes that the base is likely to consist of hardcore over substrate. Due to the nature of this construction, it is understood to be an impermeable area that would have an increased rate of surface water runoff. The LLFA in accordance with NPPF requires there to be no increase in flood risk from the proposed development on site or elsewhere. Further information is required on the proposed surface water management for these units.	**ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** outlines that a formal SuDS, designed to the 1% AEP event plus a 40% uplift for climate change, would serve Work Nos. 2 to 4.	See Section 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4].**
	Section 5.2.36 to 5.2.43 provides a description of the proposed BESS facility. However, there is no discussion on the required surface water runoff management. The LLFA notes that both on this component and the other previous components there has been no mention of surface water drainage and attenuation to prevent an increase in surface water flood risk. In Table 5.2, the applicant further notes that the base is likely to consist of hardcore over substrate with concrete bases for the BESS equipment. Due to the nature of this construction, it is understood to be an impermeable area that would have an increased rate of surface water runoff. While it is appreciated by the LLFA that the proposed development is at an early stage in the design process, there should some acknowledgement and commitment to the management of surface water flood risk and the provision of suitable space for appropriate drainage features to demonstrate there are measures in place to	The management of surface water for all aspects of the Scheme is outlined in **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**, which commits to a formal SuDS, designed to the 1% AEP event plus a 40% uplift for climate change, would serve Work Nos. 2 to 4 and will therefore prevent an increase in flood risk both onsite and offsite.	See Section 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

	prevent an increase in flood risk. Further information is required.		
	Again, in relation to the proposed site access (sections 5.2.50 to 5.2.52), there has been no mention of the surface water management arrangements to ensure there is no increase in flood to the existing road or elsewhere. Further information is required.	The **oCEMP [APP/7.6]** outlines that drainage features such as cross drains, will be installed at the site access points to limit the potential for surface water to be transferred to the A1065.	See Section 3.8 of the **oCEMP [APP/7.6]**.
	In sections 5.2.53 to 5.2.54, the LLFA welcomes the commitment to include surface water drainage features alongside the proposed access tracks. The LLFA requires commitments similar to this on other components of the proposed scheme as stated in previous comments.	Noted, and drainage commitments for other aspects of the Scheme are outlined in **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.	See Sections 12.3 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	In relation to the construction phase of the development described in section 5.5, the LLFA notes the potential for significant areas of hardstanding and impermeable surfacing during the estimated 3 year construction period between 2031 and 2033. However, there is no consideration or commitment to attenuating and managing the surface water runoff from the temporary construction works. The LLFA in accordance with NPPF requires there to be no increase in flood risk from the proposed development on site or elsewhere for the lifetime of the proposed development. This includes the construction phase of the development. Further information and commitment is required.	Measures to manage surface water runoff during the construction phase are outlined in the **oCEMP [APP/7.6]** and includes measures such as perimeter drains, cross drains and trackside drains, check dams and settlement lagoons. This will be secured through a requirement of the **draft DCO [APP/3.1]**.	Section 3.8 of the **oCEMP [APP/7.6]**.
	Informative - In relation to section 5.5.12, the applicant should note that surface water drainage systems in the operational and construction phases will require maintenance.	The Scheme, as with most solar DCO applications, is not a fixed design and the final design, including buffer strips, will be presented following the granting of the DCO. Maintenance requirements,	See Section 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

	The LLFA notes the applicant's comments in sections 5.5.13 to 5.5.17 regarding the type of vehicles expected for the maintenance of the operation phase. In relation to the maintenance access for sustainable drainage systems and ordinary watercourses, the LLFA Developer guidance is clear that access or buffer strip should be at 3.5m wide. The LLFA requires commitment to be required to this minimum maintenance buffer strip width. Further information is required.	including the need for a 3.5m width buffer strip for SuDS, is outlined in Section 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** and will be secured through a requirement of the **draft DCO [APP/3.1]**.	
	In section 12.2.14 in Table 12.2, the applicant defines the framework for determining the sensitivity of receptors in each of the categories. The previous sections of the chapter defined the technical areas that were scoped in and out of the PEIR. The surface water flood risk and runoff management was scoped in. However, the LLFA notes that in Table 12.2 and Table 12.3, there is no consideration of how to determine the sensitivity of receptors and magnitude of the effect to surface water floor risk and drainage. Therefore, it is difficult to determine whether or there has been appropriate assessment and consideration in relation to this aspect at this time. Further information is required.	Non-environmental receptors such as residential, commercial and energy transmission sites, in close proximity to the floodplain or pluvial flow pathways, have been included in the Sensitivity Table as High sensitivity receptors.	Table 12-2 of **ES Chapter 12: Water Resources [APP/6.2]**.
	As noted in the LLFA's comments on climate change allowances in the FRA section. The proposed development straddles both the North West Norfolk Management Catchment and the Cam and Ely Ouse Management Catchment for the peak rainfall allowance climate change catchments map. Therefore, in section 12.4.39 the applicant states the proposed development is "within the primary catchment of the River Nar." This implies there is a secondary catchment that is not identified in the PEIR or supporting documents. This would be supported by the peak rainfall allowance climate change catchments map which show the site is within two different management	Both the North West Norfolk Management Catchment and the Cam and Ely Ouse Management Catchments have the same climate change allowances for the corresponding epochs. As such, the assessments within the PEIR utilise the correct climate change allowance for peak rainfall.	See **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

	catchments. The LLFA requires this to be considered appropriately in the development of the surface water drainage strategy for the lifetime of the proposed development. Further information is required.		
	Applicant has indicated that there are no watercourses on site but that there are some ditches. The LLFA highlights that under the legal definition of watercourses, ditches are watercourses. The LLFA further notes the applicant has not identified where the ditches are on and around the site. This means it is difficult for the LLFA and other risk management authorities to consider whether the PEIR's assessment is appropriate when baseline information has not been provided. Further information is required.	The two ephemeral ditches in Fields 29 and 30 of the CSA are shown on **Figure 12-1**Photographs of the ditches are provided as Images 12-8 and 12-9 in **ES Chapter 12: Water Resources [APP/6.2]**. Site observations have confirmed that they are not connected to the wider hydrological network as there are no outlets at the ends of the ditches. As discussed with the LLFA in September 2025, these ditches are not classed as Ordinary Watercourses.	See Section 12.6 of **ES Chapter 12: Water Resources [APP/6.2]**.
	In section 12.5, the applicant states "The Scheme will utilise existing access road and tracks already in place where practicable, and this will help to minimise ground disturbance and requirement for further drain crossings." It is not clear to the LLFA what access tracks and watercourse crossing are existing and what are proposed as this information is not provided at this time. Furthermore, in paragraph 12.6.30 the applicant states "No drainage ditch diversions are proposed as part of the Scheme." This is not possible to determine as the location of the ditches or some of the significant elements of the proposed scheme have not been confirmed. Further information is required.	The design of the Scheme is not fixed and as such the final crossing locations cannot be confirmed at this stage. The Concept Masterplan (See **ES Figure 5.1: Concept Masterplan [APP6/4**]) shows the Access Track has the potential to cross ephemeral ditches at two locations within Field 29 and 30 and these are indicative locations, however the final number will be confirmed at the detailed design stage, and the culvert design principles are outlined in Section 3.8 of the **oCEMP [APP/7.6]**.	See Section 12.6 of **ES Chapter 12: Water Resources [APP/6.2]**.

	In section 12.6.6 the applicant states "there are a number of 'dry channel' pathways, such as Fincham Drove and the fluvial 'gulleys' to the east of the CSA." There are no plans which show where these features are located across the site. In Paragraph 12.4.44 the applicant states "the EA identified that a minor section in the east of the CSA shows small fluvial 'gulleys' within the crops of Field 26." The LLFA notes that these are soil erosion features from pluvial events, which demonstrate that surface water runoff significant enough to carry sediment occurs frequently. As it relates to surface water runoff, it is not clear to the LLFA why they are referred to as fluvial (fluvial means it is associated with rivers) when it clearly is not. These sections require correction and further information.	Two ephemeral ditches and dry channels are shown on Figure 12-1 of **ES Chapter 12: Water Resources [APP/6.2]**. The term 'fluvial 'gulleys'' was used by the EA in their response to scoping and as such the same terminology was used in the PEIR chapter for ease of identification. The term has been updated to 'pluvial 'gulleys'' to reflect the Hortonian nature of the features.	See Section 12.6 of **ES Chapter 12: Water Resources [APP/6.2]**.
	The LLFA notes that in paragraph 12.6.15, the applicant indicates that pre-cast concrete feet could be required for isolated areas. The LLFA reiterates a previous point that a concrete base or foot would be considered as an impermeable area that would require appropriate surface water management to prevent an increase in surface water runoff. Further information maybe required in the future on this matter.	As outlined in **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** should there be a requirement to use concrete feet for the Mounting Structures then these would be localised. Measures to limit runoff in these areas would include targeted measures such as berms, bunds and shallow depressions to provide the required attenuation. This will be secured through a requirement of the **draft DCO [APP/3.1]**.	See Section 12.3 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** and **draft DCO [APP/3.1]**.
	In paragraphs 12.6.20 to 12.6.41, the LLFA notes there is a discussion on the embedded mitigation for surface hydrology. The LLFA notes that this is the first mention of some of the mitigation measures proposed and it is not clear what they are mitigating. Furthermore, some of these embedded mitigation measures were not identified in the FRA or the scheme description of works. Therefore, it is not	Section 3.8 of the **oCEMP [APP/7.6]** provides clear embedded mitigation, based on construction good practice, which was not provided at the PEIR stage, such as swales, settlement	See Section 3.8 of the **oCEMP [APP/7.6]**.

	possible to determine whether these relate to the site or not. In addition, the baseline of the assessment and the method for the assessment (as previously discussed) do not effectively identify and define what and how is going to be assessed. Frequently the issue that is meant to be covered in one section focuses on a different issue. This adds a further layer of complexity to understanding what is being assessed and the mitigation that is being proposed. Overall, it is leading to confusion and lack of clarity over what the proposed scheme is, what the impacts could be and what the mitigation (embedded or not) is addressing. Further work and information is required to address the gaps and lack of consistency in the scheme and this PEIR. Some sentences appear to be missing key words. For example, in paragraph 12.6.39 the applicant states "such as plastic spanning under the Access Tracks to ensure conveyance of flows." Clarification and correction is required.	lagoons, silt traps, and impermeable membranes Regarding the statement "*such as plastic spanning under the Access Tracks to ensure conveyance of flows*.", this is not incomplete and refers to the practice of using plastic pipes to convey flows under tracks should they be located in a pluvial flow pathway.	
	In paragraphs 12.6.83 to 12.6.86, the LLFA notes the applicant is discussing the mitigation for the increase in surface water runoff associated with the PV arrays. However, there is no discussion or consideration of other elements of the proposed development such as the substations, BESS and other supporting infrastructure which form a significant part of the development and enable the scheme to operate. Therefore, the LLFA considers the PEIR assessment to be incomplete at this time. Further work is required.	Runoff from the BESS is discussed in **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**. SuDS measures to serve the National Grid Substation and other built structures such as the Conversion Units / 33kV Sub-distribution Switch Rooms is discussed in Section 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**. It should be noted that the drainage design will be secured through a requirement of the **draft DCO [APP/3.1]**.	See Section 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	In paragraphs 12.6.92 to 12.6.94, the LLFA notes that PEIR is stating that in the decommissioning phase further	As per the recently published national standards for SuDS guidance, the	See Section 12.4 of **ES Appendix 12.2: Flood Risk**

	infrastructure will remain in place, in addition to the infrastructure previously identified in early chapters of the PEIR. The applicant has stated "Where infrastructure would be left in place e.g. foundations for onsite buildings, drainage features would also remain where this is compatible with the OCEMP." Therefore, it is indicated that other than the PV arrays and some of the attached units, a significant amount of infrastructure would remain in place after decommissioning. This further increases the amount of permanent structures on site and would increase the associated design life and design requirements such as applying a higher climate change to additional elements of the proposed design. Further work and information is required.	Higher End climate change allowance for the 2070s i.e. +40% uplift would be used to calculate the volume of storage required aspects of the Scheme such as Conversion Units / 33kV Sub-distribution Switch Rooms, Access Tracks, Customer Substation, National Grid Substation, and BESS etc. It should be noted that the drainage design will be secured through a requirement of the **draft DCO [APP/3.1]**.	**Assessment (FRA) [APP/6.4]**.
	Appendix 12.1 - Consultation and Legislation The LLFA notes that in Appendix 12.1, the applicant identified that consultation with PINS was undertaken. The applicant has indicated they have provided further information regarding the surface water drainage arrangements to PINS than that which has been provided to the LLFA. Further information is required.	The same information provided to PINS has been supplied to the LLFA.	N/A
	In addition, the LLFA did not observe any consultation summarised from the Norfolk County Council Consultations. The Appendix records the Planning Inspectorate, Anglian Water, the Environment Agency, Kings Lynn and West Norfolk Borough Council and Breckland District Council. Further work and information is required.	Consultation with NCC has been included in the **Consultation Report [APP/5.1]**.	See **Consultation Report [APP/5.1]**.
	Appendix 12.2 - Flood Risk Assessment (FRA)	For aspects of the Scheme which will remain beyond the 60 year lifespan of the Scheme, being the Work No. 4:	See Section 12.1 of **ES Appendix 12.2: Flood Risk**

	The LLFA notes that section 1.2.2, discusses the application of climate change into the proposed design considerations for the proposed development. The LLFA notes that again, the applicant has assessed based on the assumption of all aspects of the proposed development being decommissioned after 60 years of service. However, in section 5.5.25 of the PEIR a number of elements (including access tracks and site access points, the national grid substation, pylons, overhead lines or sealing end compound) are considered to be permanent with a design life that would extend beyond 2100. The LLFA notes there continues to be an inconsistency through the assessment and the supporting evidence base relating to the expected lifetime of the proposed development and its various elements. Therefore, two climate change allowances for the surface water runoff are to be considered. All features that are proposed to be removed after 60 years of operational life (estimated to start decommissioning in 2093) should be assessed with the central allowance for the 2070s epoch. While those with a permanent lifetime should be considered with a development lifetime of beyond 2100 and have the upper end allowances for the 1% and 3.3% AEP events for the 2070s epoch applied. Where there is uncertainty or potential overlap between the proposed design and the surface water discharge, a precautionary approach is advised and the LLFA suggests as a minimum a sensitivity test using the upper end allowance is undertaken that may lead to further mitigation and management measures being required. In addition, there has been no acknowledgment that the proposed development straddles both the North West Norfolk Management Catchment and the Cam and Ely Ouse Management Catchment for the peak rainfall allowance. The applicant should be aware that their proposed development is located in two different	National Grid Substation and Work No. 5: Grid Connection Infrastructure, the Upper End climate change allowance of 57% will be applied to the watercourses within the catchment. Whilst the LLFA note that a small section of the Scheme is located within the Cam and Ely Ouse Management Catchment, the nearest watercourse with modelled flood risk to the Order limits is approximately 3km east and will not impact the Scheme.	**Assessment (FRA) [APP/6.4]**.

	management catchments and therefore two different river catchments. The LLFA requires this to be considered appropriately in the development of the surface water drainage strategy for the lifetime of the proposed development. Further information is required to resolve this inconsistency on the proposed lifetime of the development before the LLFA can fully assess whether the proposed climate change allowances are appropriate.		
	The FRA has included the Lidar data for the proposed site. The LLFA notes the applicant is proposing to locate (subject to NGET's agreement) the national grid substation, the customer substation and BESS in the lowest areas of the proposed sites topography. The Lidar topography shows a clear valley in the landscape. The LLFA is concerned that potentially positioning the substations across or within a valley would alter the behaviour of local surface water flow routes naturally associated with the topography. The LLFA requires consideration of the potential hydrological impacts in more detail the location of the proposed substations and BESS facilities may have. Further information is required.	Annex F of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** provides detail on the 2D direct rainfall modelling in the location of the National Grid Substation and BESS, which shows that the Works Areas for these aspects of the Scheme are located outside the pluvial flood pathways. A SuDS system designed to the 1% AEP +40% climate change event, will serve these aspects of the Scheme, meaning there will not be an increase in surface water runoff rates outside the Order limits. Conversely, due to the use of attenuation and infiltration, there will be a reduction in the volume of water leaving the Site. It should be noted that the drainage design will be secured through a requirement of the **draft DCO [APP/3.1]**.	See Sections 12.3 and Annex F of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	Informative - The topography (Plate 2) along with the 1% AEP surface water mapping (Plate 6) and the OS mapping indicate there is likely to be an ordinary watercourse in the	This is noted and a description of this ephemeral linear drainage ditch is	See Section 12.6 of **ES Chapter 12: Water Resources [APP/6.2]**.

	north eastern area of the site while highlighting a potential drainage path.	provided in Section 12.6 of **ES Chapter 12: Water Resources [APP/6.2]**.	
	In section 30 the applicant highlights that some initial surface water modelling has been undertaken and some of the high level details of the hydraulic model are provided in Table 1 and the high level results are shown in Plate 7. However, no detailed hydraulic modelling report has been provided to support the modelling undertaken. Therefore, it is not possible for the LLFA to comment on the suitability of the evidence base or the results at this time. Table 1 also shows that an inappropriate climate change allowance of 25% has been applied to the hydraulic modelling. This is the central allowance and as previously discussed as the substations, access tracks and other infrastructures that is proposed to be located within the valley of the ordinary watercourses, the hydraulic model should be applying a 40% allowance to the surface water model. The LLFA require a hydraulic modelling report with a suitable amount of detail to be provided. Further information is required.	A Hydraulic Modelling Report is provided as Annex F of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** and includes all relevant information relating to the 2D pluvial flood model.	See Annex F of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	In section 2.2.1 of the FRA, the applicant states that "The CSA is in agricultural (arable and pastoral) use and is free draining, however it has been observed that some areas in the north of the CSA are prone to generating surface water run-off during extreme or prolonged rainfall events and these area are associated compaction from pig and poultry farming, as shown in Plate 9." The LLFA notes that without infiltration testing it is not possible for the infiltration rate to be determined. Furthermore, Plate 9 only shows the areas of pig paddocks and there is not comparable photos provided for arable areas. Therefore, the assumption in the FRA is based on incomplete information. Further information is required to demonstrate the infiltration rates.	Infiltration testing was undertaken at nine test locations in July 2025. All test pits, with the exception of one location, showed the underlying geology to permit drainage at a rate which is suitable for infiltration SuDS. Infiltration testing results are presented in Annex B of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.	See Annex B of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

	In paragraph 53 to 54 the applicant states that "Solar PV Arrays will avoid areas of modelled pluvial flood risk." The LLFA notes that while this is true the applicant is proposing to place the substations and BESS potential within and adjacent to the areas of surface water flood risk. Further information is required.	The Scheme, as with most solar DCO applications, is not a fixed design and the final design will be presented following the granting of the DCO. As such, the Design Principles are secured through the recommendations of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**, which is informed by the 2D rainfall modelling. The drainage design will be secured through a requirement of the **draft DCO [APP/3.1]**.	See Section 12.3-12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	The LLFA note the comments in paragraphs 56 to 57 that states "Areas of cable trench excavations will not be left open for considerable periods of time therefore limiting the potential interaction with surface water." At present the location of the cable trench is not defined and therefore it is not possible to assess. In addition, while a cable trench might be anticipated to be open for a limited time during construction, the considerations leading to the assumption that it will be negligible have not been laid out. For example, how long will a trench be open, where and at what time of year. While in section 2.2.3 the BESS units and the flood risk is discussed, there is no discussion on the substations. The location of these features is yet to be determined. As the location of each of these features interacts with the others, it is difficult for the flood risk to these features to be assessed with confidence at this time. At present the flood risk assessment is trying to assess some of the individual elements of the site. However, as there is only vague information and not all elements are discussed the LLFA has limited confidence in the incomplete assessment based	Cabling locations are not defined at this stage, however it is anticipated that Cabling will be laid immediately adjacent to Access Tracks. Indicative crossing locations are shown on **Figure 12-2**. Overlap of the potential areas for individual aspects of the Scheme, such as the BESS and the National Grid Substation was presented at the PEIR stage. Whilst there is still some overall with the Work Nos. they present a theoretical maximum extent of each aspect of the Scheme and would not overlap during the detailed design. The areas have now been defined and an assessment of the risk of flooding to these areas is presented in **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.	See **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

	on incomplete scheme information. Further information is required.		
	The LLFA notes that in section 2.2.3 in paragraph 60 the applicant indicates that each of the modular buildings that contain the BESS units are proposed to be placed 100mm above the ground level. The LLFA Developer Guidance is clear that the finished floor levels for building and key infrastructure should be at least 150mm above the finished ground level. Therefore, these modular buildings will need to be raised a further 50mm to achieve the 150mm freeboard. Further work is required.	The EA have requested that if BESS units are located within the modelled 1% AEP flood event +40% CC allowance during the detailed design stage, then they should be raised 300 mm above the flood level. As this is a more conservative design scenario, the suggestion from the EA has been incorporated into **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.	See Section 12.2 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	In section 2.4.2, the applicant states that "a small footprint of the Scheme is located within a pluvial flow pathway." The applicant goes on to state that "the BESS units and Customer substation area has a minor section located within a pluvial flow pathway which has a modelled depth of less than 0.3m." The LLFA is [sic] concerns about the potential impact the development would have on the flood risk should the current flood flow path and its associated storage be reduced or disrupted. There is concern that should this site block or reduce the flood flow path there would be an increase in surface water flood risk both on site and disruption to the existing flow patterns in the sub-catchment. Further information is required to demonstrate there is no increase in flood risk to the proposed development and elsewhere.	As outlined during discussions with the LLFA in September 2025, there is a shallow pluvial flow pathway modelled to drain through Work No. 2: BESS and Work No. 3: Customer Substation. The detailed design of the Scheme will take account of this pluvial pathway seeking to avoid placing infrastructure within it. It should be noted that there is a commitment to a SuDS system for Work Nos. 2 to 4 which will be designed to the 1% AEP +40% climate change allowance event, meaning that the current pluvial pathway would enter the drainage system, rather than flow across the surface of the Scheme. Additionally, the indicative siting zone for the National Grid Substation has	See Section 12.2 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

		been refined since PIER (now Work No. 4) and only marginally located within the modelled pluvial flow pathway and the detailed design of the Scheme should be able to avoid the pathway for aboveground infrastructure. This is shown on Figures A12-1-8 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.	
	In section 2.4.2 the applicant states "Hardstanding areas will be served by surface water drainage infrastructure (SuDS) to limit surface water runoff to greenfield (baseline) rate up to the 1% AEP + 40% CC event." The LLFA has seen no information or evidence prior to this statement to support this statement. There has been a consistent lack of information about the surface water management features. In section 4 paragraph 141, the applicant indicates that a surface water drainage scheme will be developed at the ES stage. However, in paragraph 143 the applicant then states "Discharge will be throttled using a Hydro-Brake or similar flow restriction device" with no explanation of the proposed surface water drainage system. Further information is required.	As outlined in **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**, the SuDS strategy at PEIR presented two cases, in the event that infiltration testing showed that disposal to ground was not viable. Infiltration testing was undertaken at nine locations onsite and confirmed that infiltration is a viable disposal route for surface water. As such, **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** has been updated to confirm the intention to attenuate surface water for the 1% AEP +40% CC event. A detailed drainage plan will be provided once the detailed design of the Scheme has been developed, following the issue of the DCO and this approach is consistent with other consented solar DCO applications such as Mallard Pass Solar Farm, West Burton Solar Project,	See Section 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

		Cottam Solar Project and Byers Gill Solar. The detailed drainage design will be secured by a requirement of the **draft DCO [APP/3.1]**.	
	In section 3.1 in paragraph 116 indicates that the compaction of the ground from the construction activities will be outlined in the Soil Management Plan. However, as this is an issue for surface water management it should also be covered in both the construction surface water management plan and the operational maintenance plan (to ensure there is no increase in the compaction resulting in an increase in surface water runoff). Further information is required.	The measures set out in the outline Soil Management Plan **oSMP [APP/7.13]** will effectively manage compaction of soils and therefore runoff. As such, the **oSMP [APP/7.13]** is the most appropriate place to outline measures to avoid soil compaction during the construction phase and will be secured by a requirement of the **draft DCO [APP/3.1]**.	See the **oSMP [APP/7.13]**.
	Informative - In relation to section 4 paragraph 139, the LLFA remind the applicant of the NPPF policy requirement for no increase in flood risk onsite or elsewhere for the lifetime of the proposed development.	Due to the design of the Scheme incorporating SuDS and RSuDS, flood risk will not increase onsite or offsite, as outlined in **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** and this is secured through a requirement of the **draft DCO [APP/3.1]**.	See Section 12.3 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	The LLFA notes in section 4 paragraph 138, the applicant lists the NCC - Lead Local Flood Authority Statutory Consultee for Planning Guidance Document (Version 7.1, June 2024). However, the LLFA notes the latest version of the LLFA Developer Guidance is version 7.3 dated April 2025, which is freely available on the Norfolk County	Version 7.3 of the LLFA guidance was published after the FRA, which accompanied the PEIR was authored. Given the confirmation that the Scheme will utilise infiltration to dispose of	See Section 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

	Council Water and Water Management web pages. Furthermore, while the applicant indicates the scheme will be designed to meet the requirements including the LLFA Developer Guidance. It is therefore not clear to the LLFA, why in paragraph 140 and Plate 19 the applicant has not calculated the greenfield runoff rate in accordance with the LLFA's Developer Guidance. The LLFA guidance clearly states the requirement to use either the FEH or ReFH2 methods for calculating greenfield runoff rates (section 12.1.6). However, the applicant has used the older ICP SUDS/IH124 method with no robust technical justification for the applied approach. Further work and information is required.	surface water rather than discharge to a watercourse / drain, the use of Q_{BAR} / greenfield rates is no longer applicable to the Scheme.	
	In section 4 paragraph 142, the applicant discusses the need to contain firewater and prevent its release into the environment. However, in paragraph 143 the applicant states that "Discharge will be throttled using a Hydro-Brake or similar flow restriction device." This is contradictory as while a hydrobrake does control the flow it does not act as a pollution control point without further control structures being included into the chamber design. It is not until paragraph 153 in a different section of the report that a penstock control is mentioned. At present the discussion on these aspects in these sections of the report are unclear and require better structuring and further information to improve them. Further work and information is required.	**ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** states that in the unlikely event of a battery fire then a penstock would be used to stop firewater from being discharged from the Site – not the Hydro-Brake. Given the confirmation that the Scheme will utilise infiltration to dispose of surface water rather than discharge to a watercourse / drain, the use of flow restriction devices, such as vortex controls, is no longer applicable to the Scheme. Given the confirmation that the Scheme will utilise infiltration to dispose of surface water rather than discharge to a watercourse / drain, the use of Q_{BAR} / greenfield rates is no longer applicable to the Scheme.	See Section 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

	In section 4.1, there is some initial information about fire suppression for the BESS facility. However, there is no information about the fire suppression for either of the substations, both of which will have transformers and other infrastructure included onsite with specific fire control and drainage requirements. As this has not been considered, further information is required.	**ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** commits the containment of fire suppressant for Work No. 3: Customer Substation and Work No. 4: National Grid Substation via dedicated sumps and tanks.	See Section 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	The LLFA also notes the Environment Agency Flood Product Data is dated 2nd September 2024. However, in the main body of the FRA in section 1.5 and 1.7 the applicant has indicated that a different data set from the NaFRA2 work available on the website has been used. Therefore, the applicant has inferred the Environment Agency information in the appendix is not relevant and does not support the FRA. Further information is required.	There is no inference that the River Nar modelling presented in both the main body of text and the Appendix to **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** is not relevant. The NaFRA2 data has simply been used as a source of information to validate the River Nar modelling.	See Section 12.2 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	The LLFA notes there is no schedule of ordinary watercourses provided within the PEIR and the support appendices. The LLFA requires further information to be provided.	A schedule of potential watercourse crossings is provided in **Figure 12-2: Indicative Watercourse Crossing** of **ES Chapter 12: Water Resources [APP/6.2]**. It should be noted that the crossings would be over 'blind' ditches that are not connected to the wider hydrological network and are therefore not classed as ordinary watercourses.	See **Figure 12-2: Indicative Watercourse Crossing** of **ES Chapter 12: Water Resources [APP/6.2]**.
	Informative - The LLFA notes there has been no mention of the need for ordinary watercourse consents that could be required for any permanent or temporary access track crossing. These would be needed for crossing on ditches as well as rivers. Further information is required.	Should the Access Tracks or Cabling cross an Ordinary Watercourse then consents would be sought from the LLFA prior to the construction phase, once the detailed design has been confirmed. This is secured through a	See Section 3.8 of the **oCEMP [APP/7.6]**.

		requirement of the **draft DCO [APP/3.1]**. However, it is anticipated that the Scheme will require two crossings of a 'blind' / dead end ditch, which is not classed as an Ordinary Watercourse and would therefore not require Ordinary Watercourse consent.	
EA, June 2025	Advice for applicant Groundwater and Contaminated Land Section 4.3.9 references environmental constraints which have been considered in the site selection process. The list is not presented as exhaustive but notably does not include groundwater Source Protection Zones (SPZs) - these are however discussed in Chapter 12. The site lies wholly within a groundwater SPZ, with the westernmost portion falling within SPZ 1 (Inner) and the remainder within SPZ 2 (Outer) designations. With superficial deposits largely absent across the site and bedrock across the site comprising Chalk, these are particularly vulnerable to pollution.	Groundwater Source Protection Zones were considered at an early stage in the Site selection and design process, whereby the BESS, Customer Substation, and National Grid Substation were sited to avoid SPZ 1. This is shown on Figure 12-5 of **ES Chapter 12: Water Resources [APP/6.2]**.	See **Figure 12-5** of **ES Chapter 12: Water Resources [APP/6.2]**.
	The report states that "the metal frames upon which the PV panels will be mounted will be pile driven or screw mounted into the ground to a maximum depth of 4m, subject to ground conditions and further environmental assessment". This is greater than the maximum depth of 3.5m stated in the Scoping Report. Increasing the maximum depth of the PV panel mounting frame foundation means the 'worst case scenario' used for the Scoping report is inaccurate and raises the possibility that there may be other deviations from the previously stated 'worst case' design parameters. Any design changes which may result in increased likelihood	The assessment presented at PEIR assumed a 4m depth of pile for the Mounting Structure. This assessment also assumes a 4m depth of pile for the Mounting Structures, as described in **ES Chapter 5: The Scheme [APP/6.1]**.	See **ES Chapter 5: The Scheme [APP/6.1]**.

	or severity of impact as the design of the proposed development is progressed toward DCO application should be clearly identified.		
	It does not appear that groundwater level monitoring infrastructure has been installed across the site or provided groundwater level information from the site or surrounding area beyond that available in BGS records. We would expect level data in the form of hydrographs covering a sufficient period to show seasonal groundwater level trends. Knowing the levels in and around the perimeter of the site would aid in determining if dewatering would be required, and whether an abstraction licence is likely to be needed.	Due to the availability of groundwater level data from DEFRA's Hydrology Data Explorer across a spatial region which the Scheme is located, new groundwater monitoring locations were not installed, as there are long-term records of groundwater levels. Section 12.6.35 of **ES Chapter 12: Water Resources [APP/6.2]**.provides triangulated analysis of long-term maximum and minimum groundwater levels compared to surface elevation at the Order limits.	See Section 12.6 of **ES Chapter 12: Water Resources [APP/6.2]**.
	The report states that the search area buffer used for the Water Supplies Study Area (WSSA) is set at 1km based on Paragraph 2.15 of guidance issued by the Scottish Environmental Protection Agency (SEPA) in the absence of equivalent guidance from the Environment Agency or British Geological Survey. The SEPA guidance document is not identified in the chapter text or reference section, making it difficult to confirm that the cited guidance is accurate.	Chapter references have been updated to include the SEPA guidance.	Section 12.3 of **ES Chapter 12: Water Resources [APP/6.2]**.

	The Core Study Area (CSA) for the Water Resources chapter is defined as the Order Limits area. Section 12.4.37 and 12.4.38 state that only the CSA has been considered regarding potential land contamination sources, principally authorised and historic landfill sites. Landfill sites have the potential to cause contaminative impact via migration of leachate and hazardous ground gases significantly beyond their defined boundaries. To consider only the Order Limits area poses a risk of viable off-site contamination sources being discounted. In the case of the Proposed Development site however, we do not hold any records of historic or authorised landfill sites within 250m of the CSA.	The closest historical landfill site to the Order limits is approximately 1km south west of the Highway Works to the north of Swaffham. Similarly, there are no Permitted Waste Sites within 1km of the Order limits. As such, it is highly unlikely that leachate will be present in proximity to the Scheme.	See Section 12.6 **ES Chapter 12: Water Resources [APP/6.2]**
	The Applicant should be aware that although there are no currently designated Priority Habitat Chalk Rivers present within the draft Order Limits, the River Nar, situated within 1km of the northern Order Limits, and an unnamed tributary of the River Nar located approximately 150m north-east of the site are designated as Priority Habitat Chalk Rivers: Chalk Rivers (England).	The Designations section of **ES Chapter 12: Water Resources [APP/6.2]** has been updated to reflect that the River Nar is a Priority Habitat Chalk river. Additionally, due to the updates to the Order limits, the unnamed tributary of the River Nar now runs parallel to Work No. 11: Skylark and Curlew Mitigation Area, which is not proposed for development and allow continued agricultural use and associated access.	See Section 12.6 of **ES Chapter 12: Water Resources [APP/6.2]**.
	A comprehensive Water Features Survey does not appear to have been undertaken. Although designated conservation areas such as the River Nar SSSI have been considered, protected rights such as licenced abstractions, GWDTEs and other surface water features such as ponds have not been taken into account.	Images and descriptions of water features, based on site observations, are provided in Section 12.6 of **ES Chapter 12: Water Resources [APP/6.2]**.	See Section 12.6 of **ES Chapter 12: Water Resources [APP/6.2]**.

		Ponds within former Marl Pits have been buffered to a distance of 10m as set out in **ES Chapter 5: The Scheme [APP/6.1]**. Whilst the River Nar SSSI is classed as a GWDTE, no aspect of the CSA is located in an areas classed as a GWDTE. Regardless, sensitivity tables have been updated to reflect the sensitivity of receptors. As outlined in **ES Chapter 7: Ecology and Biodiversity [APP/6.2]**, no Groundwater Dependent Terrestrial Ecosystems (GWDTE) communities have been identified during the Phase 1 survey. Licenced groundwater abstractions were requested from the EA and are outlined in Section 12.6.51 of **ES Chapter 12: Water Resources [APP/6.2]**.	
	The report states that water used for the Scheme will not be sourced through a new abstraction and will be sourced offsite. The Applicant should consider the source of supply for emergency firefighting purposes in the event of a fire at the BESS compound.	The supply of water for firefighting would be from two tanks onsite. Should firefighting appliances require additional water then this would be provided as a combination of water tankered into the Scheme, the existing landowner's supply, and Anglian Water Supply.	Section 12.8 of **ES Chapter 12: Water Resources [APP/6.2]**.

	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 https://www.gov.uk/government/publications/apply-for-consent-to-investigate-agroundwater-source/apply-for-consent-to-investigate-a-groundwater-source for further information.	Based on the water consumption of the Scheme it is not anticipated that an abstraction licence will be required.	Section 12.8 of **ES Chapter 12: Water Resources [APP/6.2]**.
	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.	Chapter 12 of the PEIR outlined that even in the event of PV modules becoming damaged there is limited potential to transfer chemicals to the hydrological environment. This is supported by the Solar Energy Industries Association (SEIA) who conclude that even in the event of the glass breaking and being left unrepaired, it would take years to extract any type of substance from the broken panels. Additionally, a NREL (Ref 12-1) study suggests that only microcracks are created when exposing warm or hot PV modules to water of colder temperature, further suggesting that there would be limited potential for transfer of	See Section 12.8 **ES Chapter 12: Water Resources [APP/6.2]**.

		chemicals from the Scheme to the hydrological environment in the absence of measures outlined in the **outline Operational Environmental Management Plan (oOEMP) [APP/7.8]**, such as restricting the cleaning of the PV Panels when temperatures exceed the limit which could give rise to thermal shock. The final choice of PV array will consider the composition to exclude Per- and polyfluoroalkyl substances (PFAS) coating.	
	Water Quality Table 12.2 Framework for Determining Sensitivity of Receptors. 'High' sensitivity receptors previously included 'A watercourse or water body with a Water Framework Directive (WFD) Overall Water Body classification of 'High' and 'Good' in the EIA scoping report. However, in the PEIR, Water body with WFD classification of 'High' is missing. This could lead to highly sensitive watercourses being insufficiently assessed, please reinstate Water body of 'High' WFD classification as part of the 'High' sensitivity receptors.	Sensitivity tables have been updated in **ES Chapter 12: Water Resources [APP/6.2]** to include watercourses of 'High' Overall Water Body classification.	Section 12.5 of **ES Chapter 12: Water Resources [APP/6.2]**.
	Section 12.6.33. The potential requirement of Environmental Permitting Regulations (EPR) permits for the discharge activities of construction dewatering to watercourses or ground was not mentioned. This could lead to breach of the Environmental Permit Regulation 2018, pollution of the receiving environment and may	If the volume of dewatering is likely to exceed the limit outlined in RPS 261 then permits for dewatering will be applied for by the construction contractor.	Section 3.8 of the **oCEMP [APP/7.6]**.

	cause delays during the construction. A bespoke EPR permit maybe required, unless the activity could meet the criteria of the Regulatory Position Statement (RPS) 261 (construction dewatering of uncontaminated water for less than 3 months) or a Standard Permit.		
	Section 12.6.33. Insufficient silt removal prior to discharge. It is stated that "Silty water generated during the construction phase will be subject to a settlement process through drainage mitigation measures such as silt traps, silt fencing etc and channelled into vegetated area to allow the settlement of solids." This could lead to silt blinding of the ground at the discharge location and cause water to runoff along the surface of the ground and entering watercourses or drainage ditches nearby. It may cause pollution of the watercourses. Silt fencing should not be used as primary settlement method for construction dewatering. It should be considered as last line of defence against silt mobilisation. Instead, settlement ponds/lagoons, mechanical removal, such as the use of Siltbuster, should be used prior to discharging to ground. This should sufficiently prevent silt blinding of the discharge location.	The process for silt removal, should dewatering be required, is outlined in Section 3.8 of the **oCEMP [APP/7.6]** and includes the use of lined settlement lagoons and Siltbuster (or similar manufacturer) units prior to discharging to vegetated ground.	Section 3.8 of the **oCEMP [APP7.6]**.
	Section 12.6.58. The regular placement and signposting of spillage/absorbent kit around the construction site was not mentioned. This could lead to potential seepage of any accidental spill into the ground and polluting the groundwater. Spillage kits should be regularly placed and clearly signposted around the construction site to clean up any accidental spillage. The refuelling points and bunds	Signposting of spill kits and the procedure for refuelling in designated areas, which are lined with impermeable membranes, is outlined in the **oCEMP [APP/7.6]**.	Section 3.8 of the **oCEMP [APP/7.6]**.

	for storage should be impermeably lined for containment to prevent discharge of pollutant to groundwater.		
	Watercourses, Hydrology and Flood risk EAGWCL001 – Significant groundwater receptors PEIR Volume I, Chapter 12: Water Resources. Table 12.2 Issue: Potentially significant groundwater receptors have been excluded from the list of sensitive receptors. Impact: Impacts to these receptors may be overlooked. Solution: Amend the table to ensure that all potentially relevant groundwater receptors are considered. Additional comments: The following receptor types should be considered and assigned sensitivity values: Groundwater Source Protection Zones; Principal and Secondary aquifer designations; Private groundwater abstractions known or potentially used for potable purposes; and Groundwater Dependent Terrestrial Ecosystems; and Surface water features such as ponds, springs, etc.	The sensitivity tables have been updated to reflect the attributes of the receptors identified by the EA. It should be noted that no GWDTE communities were identified during the Phase 1 habitat survey. Whilst the River Nar SSSI is classed as a GWDTE, no aspect of the CSA is located in an area classed as a GWDTE. Regardless, sensitivity tables have been updated to reflect the sensitivity of receptors.	Section 12.5 of **ES Chapter 12: Water Resources [APP/6.2]**.

	EAGWCL002 – Impact magnitude classification PEIR Volume I, Chapter 12: Water Resources. Table 12.3. Issue: The degree of change to an EA water quality classification used in the table to define 'high' and 'medium' impact magnitude is greater than we consider appropriate and differs from best practice methods seen in similar applications. Impact: The magnitude of change required to qualify as 'high' impact is unacceptably high. Solution: You should provide justification for adopting a less conservative impact magnitude than that established in best practice. Additional comments: In impact assessments for similar development types, any reduction in water body WFD classification is typically assessed as a 'major adverse' impact.	The criteria for assigning magnitude based on WFD degradation is a well-established method for EIA assessment and has been used on several consented DCO solar sites, including Cleve Hill and Mallard Pass, in which both the Examining Authority and Secretary of State were content with the approach adopted in the assessment methodology. Both High and Medium magnitude of effects are significant in EIA terms and therefore would be an unacceptable effect. Therefore, no degradation of chemical or ecological status of water receptors should occur which would constitute a downgrading of WFD status.	N/A
	EAGWCL002 – Impact magnitude classification PEIR Volume I, Chapter 12: Water Resources. Table 12.4. Issue: The values assigned in the impact significance matrix represent a less conservative approach than that used for similar schemes and presented in best practice guidance. Impact: Impact magnitudes could be underestimated for sensitive groundwater receptors.	Significance tables have been updated to reflect the approach taken on the Cleve Hill Solar Park DCO, in which both the Examining Authority and Secretary of State were content with the approach adopted in the assessment methodology. The approach is also similar to but more conservative than the Steeple Renewables Project DCO.	See **Table 12-5** of **ES Chapter 12: Water Resources [APP/6.2]**.

	Solution: You should review the impact significance values presented in the matrix and provide suitable justification if these are proposed to be retained as is. Note that this may affect the determination of impact significance throughout Chapter 12. Additional comments: In the table a 'High' magnitude impact on a 'Medium' sensitivity receptor or 'Medium magnitude impact on a 'High' sensitivity receptor is determined to have a 'Moderate' significance. This differs from the typical, more conservative, approach we see in similar reports for equivalent schemes, whereby this combination is assessed as having a 'Major' significance. Given the high value and sensitivity of groundwater resources on this site, it is of particular importance that a suitably precautionary approach to assessing risks is adopted. You should provide suitable justification for adopting a less conservative approach to impact assessment than is presented in best practice guidance and adopted for similar developments. Please also consider whether the correct approach has been taken in other chapters.		
	EAGWCL003 – Private water abstractions PEIR Volume I, Chapter 12: Water Resources. Table 12.5. Issue: Private water abstractions are assessed as being of 'Medium' sensitivity. Impact: The sensitivity of private potable water supply boreholes may be underestimated.	The assignation of Medium sensitivity to Private Water Supplies is consistent with the methodology and approach of the EIA for the Cleve Hill Solar Park DCO in which both the Examining Authority and Secretary of State were content with the approach adopted in the assessment methodology and the Great North Road DCO, for which the	See **Table 12-3** of **ES Chapter 12: Water Resources [APP/6.2] and** Section 3.8 of the **oCEMP [APP/7.6]**.

	Solution: You should consider all potable water supply abstractions to be of 'High' sensitivity and duly reassess impact significance. Additional comments: Private water abstraction boreholes known or potentially for potable use are assigned a nominative 50m Source Protection Zone 1 (SPZ1), which defines an area considered highly vulnerable to pollution. Potential impacts to public water supply and private water supply boreholes during the construction and operational phases should be considered. There are currently no mitigation measures in place for potentially derogated protected rights, or for groundwater contamination. The principal chalk aquifer is unconfined in large parts of the site and can be highly sensitive to contamination. We would want to see mitigation measures outlined regarding these points.	EA were content with the approach adopted in the assessment methodology. It should be noted that all PWS identified within the Water Supplies Study Area are supplied by boreholes which abstract from groundwater, which is assigned a High level of sensitivity, and therefore the correct level of sensitivity is assessed in **ES Chapter 12: Water Resources [APP/6.2]**. Measure to protect the groundwater resource underlying the Scheme are outlined in Section 3.8 of the **oCEMP [APP/7.6]**.	
	EAGWCL003 – Private groundwater abstractions PEIR Volume I, Chapter 12: Water Resources. Tables 12.7 and 12.8. Issue: Potential for aspects of the development to lie within Source Protection Zone 1 areas protecting private groundwater abstractions if these are located sufficiently close to the Proposed Development boundary, as accurate records not obtained. Impact private groundwater abstractions. Solution: More accurate positional information for these private abstractions should be made available if possible. If	KLWN were contacted to provide more accurate locations of PWS records provided at the PEIR stage. KLWN responded stating "*I can confirm that the Council holds this information. This information is exempt under Section [sic] Section 40 of the Freedom of Information Act 2000. This is because provision of more detailed information, could identify a property and potentially an individual.*	See Section 12.5 of **ES Chapter 12: Water Resources [APP/6.2]**.

	not, the Applicant should seek confirmation from Borough Council of King's Lynn & West Norfolk of whether any of the identified abstractions fall within 50m of the Core Study Area. Additional comments: Table 12.7 shows three private water supplies (springs and a borehole) for single domestic use at Pentney and West Acre and one borehole for large/commercial use at Castle Acre. No positional information is given beyond a partial postcode and presumed closest population centre. Assuming as a worst-case scenario that these are all used for potable water supply, these would be assigned a 50m SPZ1. Table 12.8 presents a list of abstractions identified to the Applicant by Breckland Council. Many of these are stated to have identical reference numbers despite being indicated to be different distances from the Core Study Area. This discrepancy should be resolved.	*Having considered the public interest, the Council's decision is to withhold the information*." As such, the partial postcodes provided at PEIR have been used within this assessment. It should be noted that due to the partial postcodes given, none will be within 50m of the CSA.	
	EAGWCL004 - Potential sources of land contamination PEIR Volume 1, Chapter 12: Water Resources. Paragraphs 12.4.37 and 12.4.38. Issue: Not all anticipated potential sources of land contamination have been accounted for. Impact: Sources of land contamination may not be identified and suitably managed by mitigation proposals. Solution: Include potential infill materials in historic mineral extraction pits as a potential localised source of contamination.	Marl Pits have been buffered by 10m in the design of the Scheme and as such, there should be sufficient distance between works and any local migration of contaminants (if contaminants are indeed present in the infill material). Visual inspection of the Marl Pits is discussed in Section 12.6 of **ES Chapter 12: Water Resources [APP/6.2]**. An updated assessment of the potential for contaminated land to be transferred	See Section 12.6 and 12.8 of **ES Chapter 12: Water Resources [APP/6.2]**.

	Additional comments: The Desk Based Assessment has established that there are numerous historic mineral extraction pits, primarily marl pits, across the CSA. These are reported mainly to be filled with water, but the potential remains that some may have been infilled with materials from an unknown source, and as such could act as a localised source of mobile contamination. As stated in our EIA Scoping Consultation response, we recommend that the site walkover (also referred to as Site Reconnaissance) is carried out in accordance with our LCRM guidance and BS10175:2011+A2:2017, in particular to establish any visible evidence of infilling of historic mineral extraction pits.	to the hydrological environment is presented in **ES Chapter 12: Water Resources [APP/6.2]**, which includes the provision for testing in proximity to the marl pits and appropriate action taken (if required) in accordance with The Environmental Protection Act 1990.	
	PEIR Volume 1, Chapter 12: Water Resources. Paragraph 12.4.47 Issue: This section contradicts paragraphs 12.4.48 and 12.4.50 regarding the Flood Zones. Impact: Minor impact. Minor reporting error. Solution: In the final Environmental Statement please ensure that the Flood Zone classification within the core study area refers to the latest Flood Map for Planning dataset. Additional comments: This section notes that the core study area (CSA) is located entirely within Flood Zone 1. Paragraphs 12.4.48 and 12.4.50 then go on to note that there are areas of Flood Zone 2 and 3 in the eastern section of the CSA. We note that in the latest updated Flood Map for Planning (March 2025) the CSA is within Flood Zone 1.	The Core Study Area includes some land classed as Flood Zones 2 and 3. This area is demarcated for skylark mitigation only and no infrastructure development is proposed. Updated figures showing flood zones and the Scheme are provided in Section Annex E of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.	See Annex E of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

	EAGWCL005 – Potential piling impacts PEIR Volume 1, Chapter 12: Water Resources. Paragraph 12.6.13. PEIR Volume 3, Chapter 12: Water Resources. Appendix 12.3: Water Framework Directive Assessment. Table 4. Issue: It is stated within the PEIR that "the Mounting Structure poles for the solar PV modules will be piled into the ground at a superficial level". The WFD assessment incorrectly states that subsurface infrastructure depth (i.e. PV racking depth and foundations for above ground structures) will be too shallow to interact with groundwater. Impact: The depth of potential piling impact is ambiguous and potentially misleading. Potential for residual effects on groundwater supply to have been underestimated. Solution: You should clearly describe the maximum anticipated extent of piling - this is stated to be 1-4m bgl elsewhere in the report. The WFD Assessment should include consideration of the impact of potential piled foundations at the BESS and Substation Compounds. Additional comments: The Applicant states that there will be limited potential for pollutants to be released into groundwater as the groundwater levels in the underlying Lewes Nodular, Seaford, Newhaven and Culver Chalk Formations rests at approximately 40m below ground level (m bgl).	As discussed with the EA in September 2025, triangulation of the long-term regional groundwater levels, derived from hydrometric monitoring data available on Hydrology Data Explorer has been undertaken to inform the assessment of potential effects from the Scheme on the groundwater resource, rather than sink new boreholes. The WFD assessment has been updated to confirm the maximum depth of 4m for piled Mounting Structures and the potential for piled foundations to be used at Work No 2: BESS compound at a maximum depth of 12m. Section 12.6 of **ES Chapter 12: Water Resources [APP/6.2]** provides triangulated analysis of long-term maximum and minimum groundwater levels compared to surface elevation at the Order limits and informs the assessment of potential effects from foundations on the hydrogeological resource.	**ES Appendix 12.3: Water Framework Directive Assessment [APP/6.4]** and **ES Chapter 12: Water Resources [APP/6.2]**.

	We have reviewed the following British Geological Survey borehole logs within the CSA and surrounding area (https://mapapps2.bgs.ac.uk/geoindex/home): • TF81SW2 • TF81SW12 • TF81SW1 • TF71SE3 • TF71SE2 • TF71SE68 • TF71SE69 • TF7SE74 • TF71SE1 These show a variety of groundwater rest levels within the Chalk deposits, with reported groundwater rest levels ranging from approximately 9.7m bgl to 41.34 m bgl. Although these logs do not indicate groundwater rest levels are likely to be encountered within the proposed 4m maximum PV support frame pile penetration depth, they do not show a consistent groundwater rest level of approximately 40m bgl as stated in the report and we do not consider that there is sufficient evidence currently available to conclude that these structures would not interact with groundwater. We would expect monitoring to be carried out across the		

	CSA over a period of time sufficient to account for seasonal variation, and groundwater contour maps to be produced showing the maximum groundwater levels. If dewatering is required, equations / calculations showing the derivation of dewatering volumes should be provided. The foundations for the BESS Compound, Customer Substation and National Grid Substation could potentially be piled to depths of up to 12m below ground level (m bgl), greater than the minimum recorded groundwater depth of 9.7m bgl. Cable installation by horizontal directional drilling (HDD) methods may also extend locally into groundwater.		
	EAGWCL006 – Groundwater impact matrix PEIR Volume 1, Chapter 12: Water Resources. Sections 12.6.16 to 12.6.19, 12.6.51 to 12.6.55 & 12.6.56 to 12.6.60. Issue: The report concludes that impact of pollutants from the Scheme on groundwater, groundwater abstractions and associated SPZs, and to private and public water supplies, are of negligible magnitude and anticipated to have a negligible significance of impact and thus not significant. We are concerned that sufficient evidence to support this assessment has not been provided, which has been based on a potentially flawed impact matrix. The potential for significant groundwater quality impacts to occur from trenchless cable installation activities has not been suitably considered. Impact: Potential that the assessed impact significance has	ES Chapter 12 has been updated to include infrastructure identified in the EA response. Groundwater levels have been updated following triangulation of long term records surrounding the CSA. The **oCEMP [APP/7.6]** includes a section on breakout fluid containment in the event that HDD is used as a method for cable installation. A Foundation Works Risk Assessment will likely be required once the detailed design of the Scheme has been undertaken to ensure piled foundations, do not create additional contaminant pathways and any potential impacts on the underlying aquifers, such as	See Section 3.8 of the **oCEMP [APP/7.6]**.

	been underestimated, and thus potentially significant impacts have been discounted. Solution: The Applicant should revise the impact assessment matrix used for impacts to groundwater quality and consider potential impacts from piled foundation construction and trenchless cable installation methods. Additional comments: The report does not consider impacts from any trenchless cable installation activities, which may extend into groundwater, or from potential impacts from piling at the National Grid Substation, Customer Substation or BESS compound developments. The Applicant states that "The National Grid Substation and Customer Substation and the BESS are the only Scheme infrastructure during the Construction Phase which has any potential to impact the groundwater resource…". Should areas of contamination associated with infilled historic ground workings or other (likely highly localised) sources of existing contamination such as spills or leaks from agricultural equipment, these could potentially be mobilised via piling of PV foundations and / or cable installation activities. In Section 12.6.17 the report states that "Due to the underlying groundwater at depths likely to be greater than 2m…groundwater is unlikely to be present near the surface…" This appears to be stated in the context of the potential for groundwater to be impacted by concrete foundation construction at the BESS, National Grid Substation and Customer Substation developments, however Table 5.2 of the PEIR indicates that piled foundations to 12m bgl may be required for these structures. Based on available BGS records, these could potentially encounter groundwater within the Chalk	turbidity, are managed. This should be completed once construction methods are confirmed and ground investigation (GI) data are available.	

	bedrock. Section 12.6.52 states that "…the borehole is anticipated to abstract from a depth of between 9 and 40 m bgl associated with groundwater from the chalk units…" In the absence of a significant low permeability confining layer and on the basis of the information available we do not consider that impact to existing groundwater abstractions from the Chalk Principal aquifer can be discounted. We note that this also contradicts a statement in 12.6.13 where the Applicant indicates groundwater is present at over 40m depth. Section 5.2.34 states that "There may be a requirement for trenchless technology such as horizontal directional drilling (HDD) within the Site, for example to cross beneath existing underground utilities". This could potentially extend to depths at which groundwater would be encountered. Due to the high sensitivity of groundwater across the Proposed Development, a Foundation Works Risk Assessment should be carried out for all foundation structures. Any trenchless crossings should be supported by a hydrogeological risk 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 unlicenced abstractions by carrying out a Water Feature Survey.		

	Battery Energy Storage System Safety **Watercourses, Hydrology, and Flood risk** EAGWCL007 – Impact from BESS PEIR Volume 1.Chapter 12 Water Resources. Volume III Appendix 12.2 & Appendix 12.3. Issue: The impact magnitude on watercourses, drainage ditches from chemical pollution arising from a battery fire at the BESS compound has been assessed as not significant. We do not agree with this conclusion based on the information currently available. The report is considering the use of an infiltration SuDS drainage solution for surface water management at the BESS. The WFD report states that fire suppressant at the BESS would be captured in a SuDS system at the BESS in the event of a fire, resulting in negligible potential for contaminants to interact with groundwater. The report does not detail the proposed pollution mitigation measures to be incorporated into the drainage system for the Customer Substation and National Grid Substations, either for typical operational conditions or if fire suppression is needed. Impact: We consider that the significance of impact from BESS fires has been underestimated. The use of an infiltration SuDS system at the BESS poses	**ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** identified that in the event that infiltration testing showed that disposal of surface water to ground was viable then a SuDS system would need to have the ability to drain to a sealed tank to contain potentially contaminated water in the unlikely event of a battery fire, and not drain to the infiltration component of the SuDS system. As infiltration testing has confirmed that infiltration at the BESS is possible, **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** clarifies that a dedicated contaminated water tank will be incorporated in the final drainage design, with an automated penstock fitted on the upstream manhole of the detention basin. As such, there is limited potential for contaminants to reach the infiltration aspects of the SuDS network. The WFD assessment considers the potential effects of a BESS or substation fire with dedicated containment tanks i.e. a sealed drainage system, which can be automatically isolated from the infiltration components of the SuDS network and a compound using impermeable membranes. As such, the WFD assessment concludes no	See Section 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** and **oBSMP [APP/7.14]**.

	a potentially significant risk of pollution to the underlying Principal aquifer, Source Protection Zone and public water supply abstraction as this could result in potentially contaminated water entering groundwater from spills and leaks within the BESS compound. Solution: The proposals should revisit the impact matrix used to inform the impact assessment. The proposed use of an infiltration drainage solution would introduce a potential direct migration pathway for firefighting run-off and other operational pollution releases from the BESS to impact the underlying SPZs. Additional information about the proposed surface water drainage strategy at the BESS compound, National Grid Substation and Customer Substation developments is required to demonstrate that firefighting water and operational drainage would not pose a significant risk to groundwater quality and groundwater-dependent receptors. The WFD Assessment should consider the risk from infiltration of potentially contaminated operational runoff from the BESS Compound, and from the proposed National Grid Substation and Customer Substations. Additional comments: We are pleased to see that an outline Fire Safety Management Plan (oFSMP) and outline Battery Safety Management Plan (oBSMP) will be submitted in support of the DCO Application. The Applicant notes that contact between cooling water for adjacent BESS units and battery fire smoke could create hydrochloric acid. The Applicant should note that firefighting run-off from BESS fires can contain a range of other pollutants including elevated concentrations of heavy metals.	deteriorati0n in the WFD status of the groundwater unit. Work Nos. 2 to 4 are located outside of SPZ1, as shown on Figure 12-5: Source Protection Zones.	

	Section 12.6.75 states that spent firefighting water will be captured within a dedicated contaminated water tank or, if infiltration is not feasible at the BESS area the SuDS attenuation structures for surface water runoff will be sized to accommodate the anticipated runoff volumes. The report indicates in Section 12.2.9 that an infiltration-based Sustainable Drainage System (SuDS) solution for surface water drainage for the Customer Substation and BESS are being investigated for the potential for causing dissolution of the underlying chalk bedrock. Sections 141 and 153 of the FRA state that a contaminated water tank sealed with an automative penstock valve would be used to hold runoff in the event of a fire suppression event if an infiltration drainage solution were in place. This would remain closed until captured water had been sampled pending off-site removal or discharge subject to Environment Agency agreement. This would not prevent contaminants released during normal operation, e.g. from spills and leaks, from infiltrating into the Principal Aquifer. We would recommend objecting to a BESS in this development unless there is 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, Customer Substation and National Grid Substation would not be acceptable. The BESS compound and Substation compounds should furthermore be preferentially sited away from sensitive controlled water receptors, including areas of high		

	groundwater vulnerability. The site is underlain by a Principal aquifer used to supply public water abstraction (with the entire site and surrounding area comprising SPZ 1 or 2). BGS mapping and borehole records indicate this to directly underlie the site or be covered by a 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 BESS away from SPZ1 and preferably on the relatively low permeability Lowestoft Formation deposits present in the central and north-eastern parts of the site.		
	Section 36 of the Flood Risk Assessment identifies that although most of the CSA is located outside areas classified as at risk of groundwater flooding, parts of the indicative siting zone for the Customer Substation and BESS (Field 35) have a <25% risk of groundwater flooding. Section 2.2.3 of the FRA also indicates that sections of the BESS Compound are located within an area modelled to be at risk of pluvial flooding for the 1% AEP + CC to a depth of 0.15m. Confirmation is therefore also requested that the mitigation proposed to be implemented at the BESS would be sufficient to prevent impacts on groundwater quality in the reasonable worst-case event of a combined flood event and catastrophic BESS fire. See also the following Guidance from National Fire Chief's Council (NFCC) Grid Scale Battery Energy Storage System planning –Guidance for FRS.	As confirmed in a meeting with the EA in September 2025, Work No. 2: BESS, Work No. 3: Customer Substation and Work No. 4: National Grid substation are not located in SPZ 1 and this is shown in **Figure 12-5** of **ES Chapter 12: Water Resources [APP/6.2]**. **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** outlines that the containment volume for fire suppressant has headroom for the 1% AEP event plus the NFCC volume. Therefore, the mitigation proposed to be implemented at the BESS would be sufficient to prevent impacts on groundwater quality in the reasonable	See Section 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** and **oBSMP [APP/7.14]**.

	Overcoming our objection The applicant should submit a proposed development plan confirming that the BESS compound, customer Substation and National Grid Substation 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 Marnham public water supply abstraction. A figure showing the indicative siting zones for the Customer Substation, National Grid Substation 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.	worst-case event of a combined flood event and BESS fire.	
	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. 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	The Scheme has Work Nos. and does not have a detailed design at this stage, therefore the **FRA [APP/6.4]** proposes drainage principles. The detailed design of the SuDS network for the Scheme will be provided to the LLFA following granting of the DCO. **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** outlines that a formal SuDS, designed to the 1 % AEP event plus a 40% uplift for climate change, would serve Work Nos. 2 to 4, which includes a sentinel water pollution monitoring system. A detailed drainage plan will be provided once the detailed design of the Scheme has been developed, following the issue of the DCO and this approach is consistent with other consented solar	See Sections 12.3 to 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** and the **oCEMP [APP/7.6]**.

	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.	DCO applications, such as Mallard Pass Solar Farm, West Burton Solar Project, Cottam Solar Project and Byers Gill Solar. This is secured by a requirement of the **draft DCO [APP/3.1]**.	
	Watercourses, Hydrology, and Flood risk EAGWCL008 – Cables left in-situ PEIR Volume 1.Chapter 12 Water Resources: Sections 12.6.92 to 12.6.94 Issue: The report indicates that decommissioning would involve the removal of ground mounted PV Modules, possible foundations and hardstanding. The report does not discuss the fate of buried cables. Impact: Potential for buried cables left in-situ following decommissioning to pose an ongoing pollution risk to Controlled Waters. Solution: Confirmation of whether buried cables would be removed as part of the decommissioning activities and, if these are to be retained, demonstrate that they would not pose a significant risk to Controlled Waters via degradation	As outlined in **ES Chapter 5: The Scheme [APP/6.1]**, the cables will either be removed and recycled/disposed of (depending on technology at the time) or be left in situ. Due to the composition of modern cables (XLPE (cross-linked polyethylene with no fluids or hydrocarbons) should cables be left in situ the risk to the hydrogeological environment through degradation is minimal. Cabling will be installed to a depth of up to 1.2m and therefore should not	See Section 12.8 of **ES Chapter 12: Water Resources [APP/6.2] and ES Chapter 5: The Scheme [APP/6.1]**,

	and/or damage from future agricultural activities. Additional comments: Following decommissioning, any electrical cables present within potential ploughing depth on future agricultural land would be at risk of mechanical damage. This could result in the accelerated release of pollutants including microplastics into the environment from these cables and may cause damage to agricultural equipment.	interact with typical ploughing techniques.	
	EAGWCL009 – Unexpected contamination PEIR Volume V. Commitments Register: Table 1-1 Issue: The report does not currently commit to incorporating an unexpected contamination discovery protocol into the outline CEMP and DEMP. The Commitments Register also does not clearly commit to the production of a DEMP (or equivalent). Impact: There is limited potential for unexpected contamination to be encountered associated with historic infilling of mineral extraction pits and/or agricultural land use. There is currently no clear mechanism to secure the production of a DEMP (or equivalent). Solution: Commitment to be made to the preparation of an unexpected contamination protocol in the outline CEMP and DEMP (or equivalent). Additional comments: Where possible, temporary construction compounds should be located outside Source	The **oCEMP [APP/7.6]** commits to a procedure for dealing with suspected contaminated land in accordance with the requirement s of the Environmental Protection Act 1990. Temporary compounds will be sited outside SPZ 1, where possible.	The **oCEMP [APP/7.6]**.

	Protection Zones to limit the potential for spills and leaks of stored fuels, oils and chemicals from impacting potable groundwater abstractions. As the entire site lies within SPZ 1 and SPZ 2, we encourage the Applicant to avoid siting any temporary construction compounds within an SPZ1. Preferably these should be sited on low permeability superficial strata as far from the abstraction point as possible.		
	Contamination EAGWCL010 - Unidentified contamination PEIR Volume 1. Chapter 12: Section 12.4.1 Issue: The report refers to a desk-based study undertaken in September 2024 and updated in February 2025 to provide an overview of the Baseline Conditions for water resources and ground conditions within the CSA, and the undertaking of site walkovers on the CSA on 1st October 2024. This report has not been made available for review at either the Scoping or PEIR stages, and the information sources used to define the baseline conditions are unclear. Impact: Potential for sources of current and historic land contamination within the Proposed Development to remain unidentified. Solution: The Applicant should present the Desk-Based Study used to define the Baseline Condition of the CSA and clearly identify the information sources used. Additional comments: We expect land contamination assessments to follow the tiered approach laid out in our Land Contamination Risk Management (LCRM) guidance.	The 'desk study' refers to the process of obtaining baseline environmental information from various sources to inform the assessment of effects and is not a standalone document. An Envirocheck report, detailing potential sources of historical contamination is provided in Annex G of See Sections 12.3 to 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4],** which does not indicate the presence of contaminated land with areas requiring excavation for deeper foundations i.e. Work Nos. 2 to 4. As outlined in Section 12.6 of **ES Chapter 12: Water Resources [APP/6.2]**, the current and previous land use do not indicate the presence of contaminated land within the CSA.	Section 12.6 of **ES Chapter 12: Water Resources [APP/6.2]**.

	The preliminary risk assessment (PRA) should include historical plans of the site, an appraisal of the environmental setting (including geology, hydrogeology, groundwater and surface water receptors, potential contaminants of concern and source areas), an initial conceptual site model (CSM) describing possible pollutant linkages for controlled waters, and identification of potentially unacceptable risks. Land contamination investigations should be undertaken by suitably qualified and experienced professionals and in accordance with BS 5930: Code of practice for ground investigations and BS 10175: Investigation of potentially contaminated sites – code of practice. Soil and water analysis should be fully MCERTS accredited. Investigation, demolition, remediation, or construction works must not create new pathways or linkages to controlled waters. Clean drilling techniques may be required for boreholes that penetrate contaminated ground.	Observations from site walkovers note that the Marl Pits have not been infilled and BGS reports do not indicate the disposal of waste water into the pits. Additionally, the design of the Scheme has incorporated a 10m buffer from the marl pits from the siting of infrastructure, meaning there is limited potential for the Scheme to interact with material from the marl pits.	
	Watercourses, Hydrology, and Flood risk **Contamination** PEIR Volume 1. Chapter 12: Section 12.2.13. Issue: Although the report states that "the sensitivity of the Baseline Conditions…will be assessed in line with best practice guidance, legislation, statutory designations and/or professional judgment, these are not directly identified or cited. Impact: Potential for aspects of the proposed site investigation and assessment methods to fall outside current guidance and best practice.	A list of the Guidance and Legislation which informed the PEIR assessment has been updated to reflect the EA's recommendations.	**ES Appendix 12.1: Consultation and Legislation, Planning Policy and Guidance [APP/6.4]**.

	Solution: The report should clearly identify that existing groundwater land contamination risks would be determined in accordance with legislation and current best practice guidance, including BS5930, BS10175 and the Environment Agency's Land Contamination Risk Management (LCRM) guidance.		
	Watercourses, Hydrology, and Flood risk Flood Risk EAFR001 – BESS flood design PEIR Volume 1, Chapter 12: Water Resources. Paragraph 60. Issue: The FRA confirms 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. Impact: As currently proposed, BESS units may remain at risk of flooding where pluvial flood depths exceed 0.1m. Solution: Flood mitigation design for the BESS units should be confirmed to include appropriate raising above ground level. We would require raising to a minimum 300mm above localised flood depths.	It should be noted that the design of the Scheme has been refined since the submission of the FRA at the PEIR stage and the maximum depth of pluvial flooding within the revised indicative zone for the BESS is 0.19m. Should BESS Units be located within this area at the detailed design stage then the units will be raised 300mm from above the localised flood depth, as outlined in **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**. It should be noted that there is a commitment in **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** to a SuDS system for Work Nos. 2 to 4 which will be designed to the 1% AEP plus 40% climate change allowance event, meaning that the current pluvial pathway would enter the drainage system, rather than flow across the surface of the Scheme.	See Section 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

	EAFR002 – Culverts PEIR Volume 1, Chapter 12: Water Resources. Paragraphs 12.6.28 and 12.6.29. Issue: Mitigation measures such as wide box or arch culverts are likely to prevent impediments to flow. Impact: Flood risk could be increased if crossings are not designed appropriately. Solution: Please note we would object to any culverting of Main Rivers and would recommend against culverts for crossings over other Ordinary Watercourses. We prefer the use of open-span structures such as bridges. Any proposed crossings should be designed so that the soffit level of any bridges sits above the design flood level. The design flood level for permanent crossings in this case would be the 1% (1 in 100) annual exceedance probability (AEP) plus higher central climate change scenario. For temporary crossings as part of the construction phase of the scheme the present day (without climate change) 1% (1 in 100) AEP scenario can be used. Additional comments: The direct rainfall hydraulic modelling may be helpful in determining sizing of any new crossings (particularly soffit levels) such that they do not impede flows. If the direct rainfall model grid resolution limits the degree to which crossing size can be informed for smaller channels, then simple hand calculations, for example using the Mannings equation, could be used in the case of open span crossings. Where culverts are used the CIRIA Culvert Screen and outfall manual (C786) may be a useful reference to help determine appropriate sizing. For crossings over ephemeral watercourses and agricultural	No culverting of Main Rivers is proposed as part of the Scheme. Should Access Tracks cross the ephemeral drainage ditches onsite then culverts will be designed to convey the 1% AEP event plus 40% climate change, as outlined in Section 3.8 of the **oCEMP [APP/7.6]**, and this is secured through a requirement of the **draft DCO [APP/3.1]**.	See the **oCEMP [APP/7.6]**.

	drainage ditches more qualitative methods might be appropriate.		
	PEIR Volume 1, Chapter 12: Water Resources. Paragraph 12.4.47 Issue: It is noted that the core study area (CSA) is located entirely within Flood Zone 1. Paragraph 12.4.48 and 12.4.50 then go on to note that there are areas of Flood Zone 2 and 3 in the eastern section of the CSA. These statements appear contradictory. We note that in the latest updated Flood Map for Planning (March 2025) the CSA is within Flood Zone 1. Impact: Minor impact. Minor reporting error. Solution: In the final Environmental Statement documentation please make sure that the Flood Zone classification within the core study area refers to the latest Flood Map for Planning Dataset.	The Order limits which forms the CSA have evolved since the PIER submission. There is a small section in the north of the CSA which is within Flood Zone 2 and 3 and is allocated for Skylark Mitigation only (Work No. 11), which will be retained as grassland. No infrastructure is located in this area, as shown on **Figure A12-1-1** of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.	See Section 12.3 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4].**
	EAFR003 - Climate change allowance PEIR Volume 1, Chapter 12: Water Resources. Appendix 12.2, Section 1.2.2.1. Issue: Paragraph 11 states that as the development is classed as Essential Infrastructure a higher central allowance will be used for climate change. The 33% allowance which reflects the 2080's epoch higher central	Flows used within the River Nar model are 56% higher for the 0.1% AEP than the 1% AEP and, therefore, in the absence of a scenario showing the 57% AEP of CC required for the 2080's Upper allowance for the North West Norfolk Management Catchment peak river flow, the 0.1% AEP has been used as a proxy.	See Section 12.1 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

	allowance for the North Norfolk management catchment is being taken forward. This is reasonable and reflective of the fluvial design event although a Credible Maximum Scenario has not been considered. Impact: Sensitive infrastructure could be at risk if climate change exceeds higher central estimates. Solution: Please note that as the development is classed as essential infrastructure it will also be important to understand the impact of an upper climate change scenario on the development site in line with guidance on climate change allowances for flood risk assessment available online at: Flood risk assessments: climate change allowances - GOV.UK. For the North West Norfolk management catchment the upper climate change allowance is 57%. Additional comments: It may be possible to refer to the existing River Nar 0.1% (1 in 1000) annual exceedance probability extent as a suitable proxy for the Credible Maximum scenario given the scaling between the 1% (1 in 100) and 0.1% (1 in 1000) Annual Exceedance Probability(AEP) scenarios for this watercourse. For the Ordinary Watercourses and drains which run near to or bisect the development area, the Credible Maximum scenario could be determined by applying an uplift of 40% to the rainfall within the direct rainfall modelling.	The extents of the 0.1% AEP event do not encroach upon the areas allocated for above ground infrastructure, such a Work Nos. 1 to 4. The only aspect of the Scheme within the 0.1% AEP event outline is an area allocated for skylark mitigation, which will be agricultural land.	

	EAFR004 – Rainfall modelling PEIR Volume 1, Chapter 12: Water Resources. Appendix 12.2, Table 1. Issue: This table includes some of the model parameters used for the direct rainfall modelling. These are useful however there are some parameters which are missing which would be important to include within the final Flood Risk Assessment. Impact: It is difficult to appraise the direct rainfall modelling approach without additional details. Solution: In the final Flood Risk Assessment please confirm the grid reference of the catchment outlet or point which was used to generate the rainfall hyetograph data. Please also confirm the approach which was taken for rainfall losses (for example ReFH2 losses model or losses based on land use) and whether the FEH13 or FEH22 rainfall depth duration frequency (DDF) model was used in the assessment. FEH22 data should be used unless FEH13 provides more conservative rainfall depths or can be shown to be similar to FEH22 rainfall depth data. In addition, please test the impact of a Credible Maximum scenario (+40%) on model results. This is particularly important given the presence of the substation and Battery Energy Storage System (BESS) near the areas shown to be at risk of flooding in the design event as illustrated in plate 12. Depending on the placement of above ground infrastructure with respect to the design flood extent it may be necessary to undertake “with development” modelling to understand the impact of any impediment to flow or loss of floodplain storage, particularly for the Battery Energy Storage System	Full details, including active areas, rainfall profiles and losses of the direct rainfall model are provided in Annex Fof **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.	See Annex F of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

	(BESS) and substation. Additional comments: In section 1.7 paragraph 29 on page 1-7 it is stated that the Environment Agency pluvial flood depth datasets do not apply climate change. For reference, the updated Risk of Flooding from Surface Water mapping (January 2025) does also include the effects of climate change for the 2050's epoch. This won't affect the outcomes of this assessment as more detailed direct rainfall modelling has been undertaken but please bear this is mind for future reference.		
Norfolk Rivers Internal Drainage Board (NRIDB)	**Overview:** Thank you for consulting Norfolk Rivers Internal Drainage Board on this proposal. The proposed development site is near to the Internal Drainage District (IDD) of the Norfolk Rivers Internal Drainage Board (IDB) and is within the Board's Watershed Catchment (meaning water from the site will eventually enter the IDD). Maps are available on the Board's webpages showing the Internal Drainage District (https://www.wlma.org.uk/uploads/179-NRIDB_Index.pdf) as well as the wider watershed catchment (https://www.wlma.org.uk/uploads/NRIDB_Watershed.pdf).	This is noted by the Applicant.	N/A
	I note that the developer has not provided a drainage strategy for the development at this consultation stage although it is stated that (i) "surface water runoff from the solar PV array will be managed through	Infiltration testing, presented in Appendix B of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]** has confirmed that the	See Section 12.3 of **ES Appendix 12.2: Flood Risk**

	RSuDS and NFM techniques such as grassland / wildflower, which will act to bind soils, slow surface water and increase water quality compared to the baseline scenario"; and (ii) "the outline Construction Environmental Management Plan will describe water management measures to control surface water runoff and drain hardstanding and other structures during the construction, operation and decommissioning phases". We recommend that a drainage strategy is supplied, which has been considered in line with the Planning Practice Guidance SuDS discharge location hierarchy. The Board would request to be consulted on the drainage strategy.	underlying strata will promote infiltration as the proposed surface water disposal route. The principles of the drainage strategy are presented within **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**. The detail of the drainage strategy is secured through a requirement of the **draft DCO [APP/3.1]**.	**Assessment (FRA) [APP/6.4]**.
	If it is proposed that the site disposes of surface water via infiltration, we recommend that the viability of this proposal is evidenced. We would therefore recommend that the proposed strategy is supported by ground investigation to determine the infiltration potential of the site and the depth to groundwater. If on-site material were to be considered favourable then we would advise infiltration testing in line with BRE Digest 365 (or equivalent) to be undertaken to determine its efficiency.	Infiltration testing was undertaken to BRE365 standard in July 2024, as outlined in Annex B of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**. Testing confirmed that infiltration is viable and disposal of surface water via other means has been discounted.	See Annex B of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	If (following testing) a strategy wholly reliant on infiltration is not viable and a surface water discharge is proposed to a watercourse within the watershed catchment of the Board's IDD then we request that this be in line with the National standards for sustainable drainage systems (SuDS). Resultantly we	Infiltration testing was undertaken to BRE365 standard in July 2024, as outlined in Annex B of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**. Testing confirmed that infiltration is viable and disposal of	See Annex B of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

	recommend that the discharge from this site is attenuated to the Greenfield Runoff Rates wherever possible.	surface water via other means has been discounted.	
	If the development does propose to discharge water into the internal Drainage District of the IDB, the Board's consent may be required under Byelaw 3 and we would welcome consultation early in the drainage design process.	Infiltration testing was undertaken to BRE365 standard in July 2024, as outlined in Annex B of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**. Testing confirmed that infiltration is viable and disposal of surface water via other means has been discounted.	See Annex B of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.
	The reason for our recommendation is to promote sustainable development within the Board's Watershed Catchment therefore ensuring that flood risk is not increased within the Internal Drainage District (required as per paragraph 167 of the National Planning Policy Framework). For further information regarding the Board's involvement in the planning process please see our Planning and Byelaw Strategy, available online.	As outlined in the **FRA [APP/6.4]**. surface water would be retained in SuDS onsite for the 1% AEP event plus the upper end climate change allowance (+40%) and water could infiltrate, meaning flood risk is not increased elsewhere. The Applicant will engage with the IDB through protective provisions through the examination phase and drafting of the DCO.	See Section 12.4 of **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**.

12.1.4 Further engagement has been undertaken as part of stakeholder engagement specific to water resources this, as detailed in Table 12-3.

Table 12-3 Summary of Further Engagement Undertaken

Consultee and Date	Summary of Matter	Response
EA July 2025	Requested up to date records of licenced groundwater abstraction data.	The EA provided records of licenced groundwater abstractions within the WSSA in August 2025. These have been used to inform this assessment.
KLWN – data request response August 2025	Requested more accurate locations of PWS records provided at PEIR stage.	KLWN responded stating "*I can confirm that the Council holds this information. This information is exempt under Section [sic] Section 40 of the Freedom of Information Act 2000. This is because provision of more detailed information, could identify a property and potentially an individual.* *Having considered the public interest, the Council's decision is to withhold the information."* As such, the partial postcodes provided at PEIR have been used within this assessment.
NCC – LLFA September 2025	Meeting to discuss Section responses, such as the 2D rainfall modelling and SuDS commitments.	Points raised from the meeting have been incorporated into **ES Chapter 12: Water Resources [APP/6.2]** and supporting appendices.
EA September 2025	Meeting to discuss the assessment of groundwater and commitments in the oCEMP.	Points raised from the meeting have been incorporated into **ES Chapter 12: Water Resources [APP/6.2]** and supporting appendices.

12.1.5 A further round of targeted consultation was undertaken between 3 September 2025 and 1 October 2025 following changes to the development boundary area of the Scheme presented in the PEIR and during Stage Two Statutory Consultation. Further detail regarding the targeted consultation is provided in **ES Chapter 1: Introduction [APP/6.1]**.

12.2 Legislation, Planning Policy and Guidance

12.2.1 An overview of the legislation, planning policy and guidance against which the Scheme will be considered for the Water Resources assessment is set out below.

Legislation and Regulations

- The Water Resources Act 1991 (Amendment) (England and Wales) Regulations 2009 (Ref 12-2**);** regulates water resources, water quality and pollution and flood defences, for which new developments may need to take into account.
- Land Drainage Act 1991 as amended 1994 (Ref 12-3): outlines the functions of Internal Drainage Boards and local authorities (acting as a LLFA) in relation to land drainage of Ordinary Watercourses. New developments where works may affect the flow in an Ordinary Watercourse will require a consent from the relevant LLFA.
- Flood and Water Management Act 2010 (Ref 12-4): requires flood management authorities to manage risks from flooding and prepare Strategic Flood Risk Assessments, for which new development must take into account.
- Water Act 2003 as amended by the Water Act 2014 (Ref 12-5): pertains to regulating the impact of water supply on the water environment and the price of water.
- The Water Supply (Water Quality) (Amendment) Regulations 2018 (Ref 12-6): legislation that sets out drinking water standards to ensure water supplied by water undertakers is safe for public consumption.
- The Water Environment (Water Framework Directive 2000/60/EC) (England and Wales) Regulations 2017 (Ref 12-7): aims to improve and integrate the way water bodies are managed throughout the UK for which new developments must be compliant or otherwise be carefully justified and include all necessary mitigation and compensation.
- The Water Resources (Environmental Impact Assessment) (England and Wales) (Amendment) Regulations 2017 (Ref 12-8)
- The Groundwater (England and Wales) Regulations 2009 (Ref 12-9): aims to prevent the entry of any hazardous substances as might be released by new developments to the groundwater environment.
- Groundwater Directive (2006/118/EC) 2006 (Ref 12-10): establishes specific measures as provided for in the Water Framework Directive in order to prevent and control groundwater pollution.
- Anti-Pollution Works Regulations 1999 (Ref 12-11): detail the procedures for anti-pollution works notices, supplementing the Water Resources Act 1991. They specify the required content of these notices for the Environment Agency to serve on individuals or entities responsible for actual or potential pollution of controlled waters.
- The Environmental Damage (Prevention and Remediation) (England) Regulations 2015 **[Ref. 12-12]**: aims to prevent and remediate damage to the environment.
- Conservation of Habitats and Species Regulations 2017 (Ref 12-13**)**: legislation that implements EU directives to protect habitats and species of significant conservation concern in England and Wales. It establishes a framework for the creation and management of Special Areas of Conservation (SACs) for habitats and Special Protection Areas (SPAs).

- Environment Act 1995 (Ref 12-14): an Act to provide for the establishment of a body corporate to be known as the Environment Agency to provide for the transfer of functions, property, rights and liabilities to those bodies and for the conferring of other functions on them; to make provision with respect to contaminated land; to make further provision for the control of pollution, the conservation of natural resources and the conservation or enhancement of the environment.
- The Environmental Permitting (England and Wales) (Amendment) Regulations 2018 (Ref 12-15): aims to refine the legislative system for activities in England and Wales including those for construction activities which may cause an alteration in flood risk. New developments which may need to do works to a Main River or discharge unclean water, trade or process effluent into a controlled water may need to apply for a permit.
- Environment Act (2021) (Ref 12-16): enables better environmental protection to be included into law, includes new binding targets for water, which when set will need to be considered by new development that may affect the water environment.
- Environmental Permitting (England and Wales) Regulations (2016) (Ref 12-17): provide a single, streamlined framework for regulating activities that can harm the environment or human health.
- The Floods Directive (Directive 2007/60/EC) (Ref 12-18) is legislation in the European Parliament on the assessment and management of flood risks. The floods directive basically prescribes a three-step procedure:
  - Preliminary Flood Risk Assessment
  - Risk Assessment; and
  - Flood Risk Management Plans.
- The Nitrates Directive (91/676/EEC) (Ref 12-19) aims to protect water quality from pollution by agricultural sources and to promote the use of good farming practice. All EU Member States are required to prepare National Nitrates Action Programmes (NAP) that outline the rules for the management and application of livestock manures and other fertilisers.

Planning Policy

National Planning Policy

- The National Policy Statements (NPS) are a suite of documents issued by the Secretary of State for Energy Security and Net Zero, setting out the government's policy for delivery of major energy infrastructure and represent the primary policy tests against which this DCO Application for the Scheme will be considered. Listed below are the details of the elements of the NPS considered relevant to the Water Resources assessment
- Overarching National Policy Statement for Energy (EN-1, 2023) (Ref 12-20), Section 5.8: Flood Risk outlines the requirements for a FRA and the promotion of the use of SuDS. Specifically the following paragraphs of EN1 state:

- Paragraph 5.8.9 – "*If, following application of the Sequential Test, it is not possible, (taking into account wider sustainable development objectives), for the project to be located in areas of lower flood risk the Exception Test can be applied, as required by Annex 3 of the Planning Practice Guidance. The test provides a method of allowing necessary development to go ahead in situations where suitable sites at lower risk of flooding are not available*."
- Paragraph 5.8.10 – "*The Exception Test is only appropriate for use where the Sequential Test alone cannot deliver an acceptable site. It would only be appropriate to move onto the Exception Test when the Sequential Test has identified reasonably available, lower risk sites appropriate for the proposed development where, accounting for wider sustainable development objectives, application of relevant policies would provide a clear reason for refusing development in any alternative locations identified. Examples could include alternative site(s) that are subject to national designations such as landscape, heritage and nature conservation designations, for example Areas of Outstanding Natural Beauty (AONBs), Sites of Special Scientific Interest SSSIs and World Heritage Sites (WHS) which would not usually be considered appropriate."*
- Paragraph 5.8.11 – "*Both elements of the Exception Test will have to be satisfied for development to be consented. To pass the Exception Test it should be demonstrated that:*
  - *The project would provide wider sustainability benefits to the community that outweigh flood risk; and*
  - *The project will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible will reduce flood risk overall*."
- Paragraph 5.8.12 "*Development should be designed to ensure there is no increase in flood risk elsewhere, accounting for the predicted impacts of climate change throughout the lifetime of the development. There should be no net loss of floodplain storage, and any deflection or constriction of flood flow routes should be safely managed within the site. Mitigation measures should make as much use as possible of natural flood management techniques."*
- Paragraph 5.8.21 "*The Sequential Test ensures that a sequential, risk-based approach is followed to steer new development to areas with the lowest risk of flooding, taking all sources of flood risk and climate change into account. Where it is not possible to locate development in low-risk areas, the Sequential Test should go on to compare reasonably available sites with medium risk areas and then, only where there are no reasonably available sites in low and medium risk areas, within high-risk areas*."
- Paragraph 5.8.22 "*The technology specific NPSs set out some exceptions to the application of the Sequential Test. However, when seeking development consent on a site allocated in a development plan through the application of the Sequential Test, informed by a strategic flood risk assessment, applicants need not apply the Sequential Test, provided the proposed development is consistent with the use for*

which the site was allocated and there is no new flood risk information that would have affected the outcome of the test."

- Paragraph 5.8.23 "*Consideration of alternative sites should take account of the policy on alternatives set out in Section 4.2 above. All projects should apply the Sequential Test to locating development within the site."*

- NPS for Renewable Energy Infrastructure (EN-3, 2023) (Ref 12-21) provides advice with regards to siting of critical equipment in relation to potential flood risk (Paragraph 2.10.60). It also notes that any development will need to appropriately consider drainage but confirms that as solar arrays "*drain to the existing ground, the impact will not in general be significant*" (Paragraph 2.10.84).
  - Paragraph 2.10.16 states that "*Associated infrastructure may also be proposed and may be treated, on a case by case basis, as associated development, such as energy storage, electrolysers associated with the production of low carbon hydrogen, or security arrangements (which may encompass flood defences, fencing, lighting and surveillance)."*
  - Paragraph 2.10.60 states that "*As set out above applicants will consider several factors when considering the design and layout of sites, including proximity to available grid capacity to accommodate the scale of generation, orientation, topography, previous land–use, and ability to mitigate environmental impacts and flood risk*." (Ref 12-22)
- NPS for Electricity Networks Infrastructure (EN-5, 2023) [Ref. 12-22], Section 2.3 outlines that climate change should be assessed and details of how infrastructure has been designed to be resilient to flooding should be included in the assessment. Section 2.3.2 specifically set out that as climate change is likely to increase risks to the resilience of some of this infrastructure, from flooding for example, or in situations where it is located near the coast or an estuary or is underground, applicants should in particular set out to what extent the proposed development is expected to be vulnerable, and, as appropriate, how it has been designed to be resilient to flooding, particularly for substations that are vital to the network. Section 5.16 outlies that *"Where the project is likely to have effects on the water environment, the applicant should undertake an assessment of the existing status of, and impacts of the proposed project on, water quality, water resources and physical characteristics of the water environment, and how this might change due to the impact of climate change on rainfall patterns and consequently water availability across the water environment, as part of the ES or equivalent*" (Ref 12-23).
- The National Planning Policy Framework (NPPF) [Ref. 12-23], as revised in December 2024, sets out national planning policies that reflect priorities of the Government for operation of the planning system and the economic, social, and environmental aspects of the development and use of land. The NPPF has a strong emphasis on sustainable development, with a presumption in favour of such development. The NPPF has the potential to be considered important and relevant to the Secretary of State's (SoS) consideration of the Scheme. Listed below provides

details of the elements of the NPPF that are relevant to this Chapter, and how and where they are covered in the ES:

- NPPF Paragraphs 170 to 182 state that for development comprising one hectare or above, the vulnerability to flooding, or the potential to add to flooding elsewhere should be assessed in an FRA.

- National Planning Practice Guidance (Ref 12-24) Flood risk and coastal change advises how to take account of and address the risks associated with flooding and coastal change in the planning process and was last updated in 2025. It outlines a number of steps to be followed, which are designed to ensure that if there are better sites in terms of flood risk, or if a proposed development cannot be made safe, it should not be permitted. These steps include: assess flood risk; avoid flood risk; and manage and mitigate flood risk. The guidance states that developers and applicants needs to consider flood risk to and from the development site and it is likely to be in their own best interests to do this as early as possible. In addition, the guidance provides detail on the application of the Sequential Test and the Exception Test, which has been considered in **ES Appendix 12.2: Flood Risk Assessment (FRA) [APP/6.4]**. In applying paragraph 175 of the NPPF, a proportionate approach should be taken as outlined in Paragraph 20 (ID: 7-026-20220825) the NPPG. Where a site-specific flood risk assessment demonstrates clearly that the proposed layout, design, and mitigation measures would ensure that occupiers and users would remain safe from current and future surface water flood risk for the lifetime of the development (therefore addressing the risks identified e.g. by Environment Agency flood risk mapping), without increasing flood risk elsewhere, then the sequential test need not be applied.

Local Planning Policy

12.2.2 The Scheme is located within the administrative areas of Norfolk County Council (NCC) and Breckland Council (BC), who are the host authorities. Local planning policies which are relevant to Water Resources and have informed the Water Resources assessment are detailed below.

- BC – Breckland Local Plan (Adopted September 2023) (Ref 12-25)**:**
  - Policy ENV 09 Flood Risk & Surface Water Drainage states that all new *development will:*
  - *"be located to minimise the risk of flooding, mitigating any such risk through design and implementing sustainable drainage (SuDS) principles; and*
  - *incorporate appropriate surface water drainage mitigation measures to minimise its own risk of flooding and should not materially increase the flood risk to other areas. Particular care will be required in relation to habitats designated as being of international importance in the area and beyond which are water sensitive, as well as habitats designated of regional or local importance.*
- *Developers will be required to show that the proposed development would:*

- *not increase green field run off rates and vulnerability of the site, or the wider catchment, to flooding from surface water run-off from existing or predicted water flows;*
- *wherever practicable, have a positive impact on the risk of surface water flooding in the surrounding area adjacent to the development; and*
- *address potential impact of infiltration upon groundwater Source Protection Zones and/or Critical Drainage Catchments.*

- *This will be minimised through the installation of infiltration and attenuation measures to dispose of surface water in accordance with sustainable drainage system (SuDS) principles and the refinements to, and evolution of, the technical evidence base and guidance (as may be updated and superseded over the life of this Plan).*
- *Proposals for vulnerable development in medium (zone 2) and higher flood risk areas (zones 3a and 3b) must be accompanied by a site-specific flood risk assessment, clearly identifying whether the development will be safe for its lifetime, taking account of the vulnerability of its users, and whether there may be any potential increase or reduction in flood risk elsewhere. In line with the sequential test, areas of functional floodplain should be protected from development. Where possible, through proposals for re-development, opportunities to reinstate areas of functional flood plain should be taken (e.g. reducing building footprints or relocating to lower flood risk zones).*
- *Consideration should be given to assessing opportunities to undertake river restoration and enhancement as part of a development to make space for water. Enhancement opportunities for renewing assets will be encouraged, where viable (e.g de-converting, the use of bio-engineered river walls, raising bridge so fits to take into account climate change). Any proposals for enhancement and restoration of the river corridor should be subject to consultation with Norfolk County Council as Lead Local Flood Authority, and in relevant cases with neighbouring authorities.*
- *In the case of major development on unallocated sites, if the sequential test shows that it isn't possible to use an alternative site, the applicant will need to submit an additional exception test in line with national policy on Flood Risk Assessments."*

All applications should reflect best practice and the Lead Local Flood Authority (LLFA) guidance, and any updated version (currently April 2017) providing the appropriate information required to assist in the determination of such application as issued by the LLFA. This includes the requirement to provide details of means of adoption and maintenance of the systems over the lifetime of the development at the pre-application stage. In adherence with this guidance, drainage strategies must also consider the potential increase in the volume of run-off from a development as a result of increases in the area of impermeable surfaces. Although run-off rates may be restricted to equivalent greenfield rates, the duration over which the site could discharge at this rate is likely to increase."

National Guidance

12.2.3 The assessment has been carried out in accordance with the following national guidance documents:

- The EA – Accounting for residual uncertainty: an update to the fluvial freeboard guide (Ref 12-26)
- The EA's approach to groundwater protection (2018 v1.2) (Ref 12-27)
- EA – Pollution Prevention Guidelines (PPG) Controlled Burn: PPG28 (archived but still relevant) (Ref 12-28)
- EA – Flood risk activities: environmental permits (Ref 12-29)
- EA – Land contamination risk management (LCRM) (Ref 12-30)
- British Standard (BS) 5930 Code of Practice for Ground Investigations (GI) (Ref 12-31)
- BS 10175 – Investigation of potentially contaminated sites – Code of practice (Ref 12-32)
- SEPA – Guidance on Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems (2024) (Ref 12-33)
- SEPA Land Use Planning System Guidance Note 31 (Ref 12-34)
- Construction Industry Research and Information Association (CIRIA) – Containment systems for the prevention of pollution. Secondary, tertiary and other measures for industrial and commercial premises (C736) (Ref 12-35)
- National Fire Chiefs Council (NFCC) – Grid Scale Battery Energy Storage System planning – Guidance for FRS – July 2024 Draft Update (Ref 12-36)
- The National Fire Protection Association (NFPA) 855 Standard for the Installation of Stationary Energy Storage Systems (Ref 12-37)
- Good Practice Guide for Environmental Impact Assessment (EIA), 2006 (withdrawn but still considered relevant in the absence of superseding guidance) (Ref 12-38)
- Department for Environment, Food and Rural Affairs (DEFRA) – National standards for sustainable drainage systems (SuDS) (July 2025) (Ref 12-39)
- CIRIA C753 'The SuDS Manual' (CIRIA, 2015) (Ref 12-40); and
- Environmental good practice on site guide (5th edition) C811 (CIRIA, 2023) (Ref 12-41).

Other Guidance

12.2.4 The assessment has been carried out in accordance with the following other guidance documents:

- Norfolk Rivers and East of the Ouse, Polver & Nar Internal Drainage Boards (IDB) Byelaws (Ref. 12-42)
- Breckland Council Water Cycle Study Update (2017) (Ref. 12-43)
- Anglian Water – Water Resource Management Plan 2025-2050 (WRMP24) (Ref. 12-44).

References

Ref 12-1 NREL (2008) Solar Thermal Reactor Materials Characterization

Ref 12-2 Water Resources Act 1991 (Amendment) (England and Wales) Regulations 2009

Ref 12-3 Land Drainage Act 1991 as amended 1994

Ref 12-4 Flood and Water Management Act 2010

Ref 12-5 Water Act 2003 as amended 2014

Ref 12-6 Water Supply Regulations 2016 as amended 2018

Ref 12-7 The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

Ref 12-8 The Water Resources (Environmental Impact Assessment) (England and Wales) (Amendment) Regulations 2017

Ref 12-9 The Groundwater (England and Wales) Regulations 2009

Ref 12-10 Groundwater Directive (2006/118/EC) 2006

Ref 12-11 Anti-Pollution Works Regulations 1999

Ref 12-12 The Environmental Damage (Prevention and Remediation) (England) Regulations 2015

Ref 12-13 Conservation of Habitats and Species Regulations 2017

Ref 12-14 Environment Act 1995

Ref 12-15 The Environmental Permitting (England and Wales) (Amendment) Regulations 2018

Ref 12-16 Environment Act 2021

Ref 12-17 Environmental Permitting (England and Wales) Regulations (2016)

Ref 12-18 The Floods Directive (Directive 2007/60/EC)

Ref 12-19 The Nitrates Directive (91/676/EEC)

Ref 12-20 National Policy Statement (NPS): Overarching National Policy Statement for Energy (EN-1, November 2023)

Ref 12-21 NPS for Renewable Energy Infrastructure (EN-3, November 2023)

Ref 12-22 NPS for Electricity Networks Infrastructure (EN-5, November 2023)

Ref 12-23 National Planning Policy Framework

Ref 12-24 Planning Practice guidance

Ref 12-25 BC - Breckland Local Plan (Adopted September 2023)

Ref 12-26 Environment Agency (2017) Accounting for residual uncertainty: an update to the fluvial freeboard guide

Ref 12-27 Environment Agency (2018) The Environment Agency's approach to groundwater protection

Ref 12-28 Environment Agency (2007) Pollution Prevention Guidelines (PPG) Controlled Burn: PPG28

Ref 12-29 Environment Agency (2016) Flood risk activities: environmental permits

Ref 12-30 Environment Agency (2020) Land contamination risk management (LCRM)

Ref 12-31 British Standard (BS) 5930 Code of Practice for Ground Investigations

Ref 12-32 BS 10175 Investigation of potentially contaminated sites – Code of Practice

Ref 12-33 SEPA (2024) Guidance on Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems

Ref 12-34 SEPA (2014) Land Use Planning System Guidance Note 31

Ref 12-35 Construction Industry Research and Information Association (CIRIA) (2014) Containment systems for the prevention of pollution. Secondary, tertiary and other measures for industrial and commercial premises (C736)

Ref 12-36 National Fire Chiefs Council (NFCC) (2024) Grid Scale Battery Energy Storage System planning - Guidance for FRS

Ref 12-37 The National Fire Protection Association (NFPA) (2025) 855 Standard for the Installation of Stationary Energy Storage Systems

Ref 12-38 Good Practice Guide for Environmental Impact Assessment (EIA) (2006)

Ref 12-39 Department for Environment, Food and Rural Affairs (DEFRA) (2025) National standards for sustainable drainage systems (SuDS)

Ref 12-40 CIRIA (2015) C753 'The SuDS Manual'

Ref 12-41 CIRIA (2023) Environmental good practice on site guide (5th edition) C811

Ref 12-42 Norfolk Rivers and East of the Ouse, Polver & Nar Internal Drainage Boards (IDB) Byelaws

Ref 12-43 Breckland Council (2017) Water Cycle Study Update

Ref 12-44 Anglian Water (2023) Water Resource Management Plan 2025-2050 (WRMP24)

THE DROVES

SOLAR FARM