

Planning Inspectorate

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Our ref: XA/2025/100441/03 Alt Ref: ENVPAC/1/NIT/00019

**Your Ref**: EN010159

Date: 12 November 2025

Dear Sir/Madam

#### ONE EARTH SOLAR FARM

#### **RESPONSE TO DOCUMENTS SUBMITTED AT DEADLINE 4**

Thank you for consulting us on the additional documents submitted by the applicant on the 20 October 2025. We have reviewed the submissions and have the following comments to make within appendix 1 (response to submitted documentation). It should be noted that comments made at the last deadline have been included within this response if they are yet to have been addressed. We are in discussions with the applicant around the Statement of Common Ground, we have received an updated version which we will consult with the applicant directly.

We have also reviewed the most recently submitted Flood Risk Assessment and have made comments within appendix 2 below. Please also see our views on the wording of Requirements 22. We have also referred to the other actions points from Issue Specific Hearing 3 and highlight these comments in appendix 2.

Please also see a list of key issues as highlighted below in our Work Package Tracker, Appendix 3, we are in regular consultation with the applicant to work through these issues and we are expecting some of these matters to be agreed following the below alterations made to the recommended documentation.

We trust this advice is useful

Yours sincerely

Mr James Cordell
Planning Advisor - National Infrastructure Team

**Appendix 1** – Response to documents submitted at deadline 3

**Appendix 2** – Responses to Action Points from ISH3

**Appendix 3** – Environment Agency Work Package Tracker

# Appendix 1

## Water Quality

EAWQ – Water Quality Monitoring		
Outline Construction Environmental Management Plan Outline	Issue:	Whilst we accept that a water quality monitoring regime has been agreed to, there are still minimal details in Table 3.5 of the CEMP, Table 3.5 of the DEMP and section 5.2 of Appendix 7.4. Furthermore, Table 3-4 of the OEMP says "No water quality monitoring is required during the operational
Operational Environmental Management Plan Outline	Impact:	period", however this is incorrect.  If a monitoring plan is not suitably designed then it may not be able to detect relevant trends, if any, on water quality during the construction and operation phases. There will be some monitoring during the
Decommissioning Environmental		first few months of operation to provide confirmation that there are no residual water quality impacts post-construction.
Management Plan	Solution:	Amend Table 3-4 of the OEMP to acknowledge monitoring will occur during operation.
Appendix 7.4 – Stage 1 WFD Screening Assessment		We recognise that the applicant states that details of monitoring will be set out within the CEMP and DEMP post consent, therefore we will look forward to reviewing the documents and providing further comments at that stage. In the meantime, see below for what we would expect to be included in a monitoring programme.
		As per our REP2-094 response, we recognise that section 5.2 of the WFD Assessment says that the Water Management Plan (WMP), which will be submitted as part of the CEMP, will contain details of pre, during and post-construction water quality monitoring. Therefore, we also look forward to reviewing the WMP.
Additional comments:	upstream and	at there is a commitment to include monitoring downstream of any proposed surface water outfalls ssings and look forward to further details of locations
	plan will include as a result of some frequency of a months prior to the firequency of some first three concrete work construction, a	of frequency, as stated in in REP2-094, the monitoring de enough monitoring samples to detect any variation seasons or weather conditions. We recommend a set least once per month, which should start at least six to construction. During construction, we suggest the sampling should increase, i.e. every two weeks during months of construction, and during any earthworks or and for six months after construction. If a monitoring tably designed then it may not be able to detect

relevant trends, if any, on water quality during the construction and initial operation phases.

Site walkovers, and visual inspections of the drainage water, are also encouraged as a regular frequency to support measurements taken with probes and sample collections.

Any water samples should be sent to a United Kingdom Accreditation Service (UKAS) accredited laboratory and where applicable Monitoring Certification Scheme for Equipment (MCERTs) accredited testing must be carried out. The results of laboratory analysis of water samples should be tabulated and recorded, and be able to be provided to the Environment Agency if requested, or sent automatically in the event of a pollution incident.

EAWQ - Surface	EAWQ – Surface Runoff			
Outline Construction Environmental Management Plan	Issue:	Table 3.5 of the CEMP still contains uncertainty over how surface runoff will be disposed of, i.e. discharged to sewers or under a Water Discharge Activity Permit. Table 4-2 of the FRA and Drainage Strategy also says that Storm water may slowly release to sewers. This is unclear given that there is		
Appendix 7.2 – Flood Risk		going to be no foul connection to the sewers.		
Assessment and Outline Drainage Strategy		We queried this in in REP2-094, but there doesn't appear to updates on this matter to the CEMP or Chapter 7.		
	Impact:	It is hard to assess site drainage until further details are provided especially if it appears to have connectivity that is different from the foul water strategy.		
	Solution:	Provide further information about which points of connections for surface drainage water are being considered (if any), and what discharge permits will be applied for.		
Additional comments:				

EAWQ – Subbase and Lining in BESS and Substations		
Chapter 5 –	Issue:	Table 4-2 of Appendix 7.2 is still titled BESS and
Description of the		Sub-station Sustainable Drainage Systems and
Proposed		contains reference to a number of features that will
Development		be permeable. The conclusion of the Drainage
		Strategy also still says "Additional SuDS in the form
Outline		of permeable sub-base beneath the battery units will
Operational		also be provided." However, this is in contradiction to
Environmental		section 5.4.45 of Chapter 5 and section 4.1.3 of
Management		Appendix 7.4.
Plan		
		Furthermore, no updates on including these lining
		details have been seen in Chapter 7.

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Appendix 7.2 – Flood Risk Assessment		If gravel substrates are deemed to be included in the final design, there should be provision within the post-incident recovery plan that commits to removing the gravel to be cleaned and/or replaced.
Appendix 7.4 – Stage 1 WFD Screening Assessment		Suitable lining and containment should be used in the BESS and Substations drainage systems to prevent any contaminants reaching groundwater or surface waters via runoff.
Outline Battery Safety Management Plan		We accept that the BESS sites will be lined with an impermeable membrane to contain contaminants and note that the substations will likely be managed the same, but will await further details of this to be confirmed in the CEMP post-consent. We expect to see reference made to this without the outline management plans.
		As per our comments in REP2-094 in regard to Table 4-2 of Appendix 7.2, we would still ask for clarification on which SuDS will be impermeably lined when used for the BESS and Substations, and which ones will be used around the rest of the site.
		Details about lining type used in BESS, Substations and surrounding SuDS should be included in Chapter 7.
		We recognise that section 4.8.10 of the BSMP states "Post-incident hazards shall be addressed in the prefire planning and post-incident recovery plan, including consideration of contaminants remaining within the substrate of with the BESS compound of the fire water storage areas." Although we would take this opportunity to remind the applicant that it is our position they should be impermeably lined to prevent contamination reaching groundwater or runoff reaching surface waters, we accept that the gravel could be used provided that there is the commitment to removing the substrate for thorough.
		to removing the substrate for thorough cleaning/replacement. This should be included in the BSMP and post-incident recovery plan. However, as we have not yet been able to review any details of this plan yet we are unable to confirm it's details.
comments:	4 of the OEMF Sustainable D impermeable I with Appendix Assessment, s drainage syste	the update in section 5.4.45 of Chapter 5 and Table 3- which says that "The Substation Compounds and rainage (SuDs) features serving them would include lining to prevent infiltration to the ground." This agrees 7.4: Stage 1 Water Framework Directive Screening section 4.1.3 says that "It is proposed that the em and SuDS features servicing the BESS and Sub- will be impermeably lined".

EAWQ – Firewater Associated with BESS and Substations		
Outline	Issue:	In the oOEMP, firewater is included in Table 3-11
Construction		about ground conditions but is not mentioned in

Management Plan		Table 3-4 about the water environment. Furthermore, neither of these tables references the Battery Safety Management Plan (BSMP).
Operational Environmental		Firewater and other chemicals from BESS will deteriorate water quality unless it is contained and removed sufficiently.
M + DI		Update table 3-4 in the oOEMP to include references to firewater management and the BSMP.  In the event of a fire, we request that methods and frequency of testing of contained surface runoff/ firewater be included in the final OEMP and Battery Safety Management Plan.
	the penstock vertices that any perfect that any perfect the site for treather clarification bunded.  We welcome that table 4-10 in the clarification of the	e updates made to documents to include provision for valve to be automatic and have a manual backup. We polluted runoff will be contained and removed from atment, which we support. Furthermore, we support in that transformers in the substation will all be the update in the Maintenance Regime section and the Drainage Strategy which confirms that the e will also have sufficient maintenance

EAWQ – Septic Tanks		
Chapter 5 – Description of the Proposed Development Section 5.4.44		In each of the Environmental Management Plans, it was confirmed that foul water will be tankered away to an appropriate disposal facility by a licensed waste disposal contractor. However, there is still reference to septic tanks in section 5.4.44.
		Furthermore, in REP2-094, we requested that any foul water strategy is included in Chapter 7: Hydrology and Hydrogeology, as currently the only information associated with this is that there will be "no direct connection to existing foul infrastructure.", however an updated version was not submitted by the applicant at the last deadline.
		There is a requirement to ensure that foul water treatment and disposal is adequate to minimise risk to water quality.
		There should be consistency across documents to ensure there is confidence in the proposed measures.
		Section 5.4.44 needs to be updated to remove mention of possible septic tanks, but please see our response REP2-094 if you require further information on septic tank permits.
		Please add details to Chapter 7.
Cont/d		5

Additional	
comments:	

EAWQ - WFD Ret	EAWQ – WFD References		
Appendix 7.4 – Stage 1 WFD Screening Assessment	Issue:	All Environmental Management Plans for all phases (Construction, Operation and Decommissioning) and the Battery Safety Management Plan (BSMP) should be referenced in the WFD Assessment when providing details of embedded mitigation measures.	
	Impact:	Currently only the CEMP is referenced in the WFD Assessment, and this makes it hard to interpret which measures are included to ensure that there are no negative impacts to the existing watercourses and waterbodies.	
	Solution:	Section 4 of the WFD Assessment must be updated to reference the OEMP and the BSMP for continuity to understand all measures.	
		Please add an additional section to the WFD Assessment titled 'Decommissioning Mitigation' which captures which measures will be implemented during decommissioning so that it can be concluded that the decommissioning will not cause or contribute to deterioration of the existing watercourses or groundwater bodies or jeopardise their potential to achieve good status. This may have similarities to the construction section but should reference the DEMP.	
Additional comments:			

EAWQ – Testing Post Fire Event		
Outline Battery Safety Management Plan	Issue:	Section 5.1.5 states "There shall be no firewater runoff released to the environment before appropriate testing has been carried out". However, it is unclear what 'appropriate testing' means.
	Impact:	Testing is important to provide information around the quality of water that has been contained after a fire and will ascertain if it contains any contaminants and what level of risk to the water environment the contained firewater has.
	Solution:	Please provide details of what testing is proposed in the event of a fire.
		We expect that samples would be taken, when safe to do, which would be sent to a UKAS accredited laboratory for analysis by UKAS and MCERTS (where applicable) accredited methods. The water samples should be checked against the list of surface water specific substances in the surface water pollution risk assessment guide.  Surface water pollution risk assessment for your environmental permit - GOV.UK

Additional	
comments:	

### EAWQ - Construction Mitigation

Outline Construction Environmental Management Plan

Appendix 7.4
Stage 1 WFD
Screening
Assessment

Comments:

We recognise that the requested amendments regarding storage of fuels, oils and chemicals, wash out water management, and concrete management have been updated in the outline CEMP and WFD Assessment. We are satisfied with the mitigation measures that are now included.

We acknowledge that the exact measures to manage wash out water and concrete will be detailed in the CEMP post-consent, and we will look forward to reviewing the document and providing further comments.

We accept that a site specific frac-out risk assessment will be produced and included in the CEMP prior to drilling the cable crossings. Additionally, we identify that the CEMP will also include a bentonite fluid breakout plan and an emergency spill response procedure.

If the Applicant has further drafts of the CEMP and/or bentonite fluid breakout plan ready to be reviewed prior to consent, we would welcome the opportunity to evaluate further details.

Table 3.5 of the DEMP says "Where these containment measures are utilised, an oil separator (interceptor), or other device to remove oil from water, may need to be installed. This will be detailed in the CEMP if required" – We wanted to clarify with the applicant if CEMP was correct, or if it should read DEMP?

within the Landscape and Ecology Management Pan (LEMP), post consent". Whilst we accept that we can

Table 3-4 of the OEMP says that "Should any

#### EAWQ - Herbicides

Outline

Ecology

Operational	herbicide or other spray chemical be needed in small
Environmental	volumes, a method statement, operating procedure or
Management	similar will be prepared prior to the work
Plan	commencing", however there is no reference to the
	oLEMP here. For consistency between documents,
Appendix 7.4	we strongly encourage a reference to be added.
Stage 1 WFD	
Screening	Section 4.1 of Appendix 7.4 says that "It is not
Assessment	proposed that harsh chemicals or pesticides will be
	utilised for vegetation management", which we
Outline	acknowledge. However, it goes on to say that "Full
Landscape and	details of vegetation management will be outlined

Cont/d.. 7

Comments:

Management	review the final LEMP and provide further comments
Plan	at that stage, we would like to note that no specific
	details are currently included in the outline LEMP.
	Sections 5.4.14 and 5.4.25 only say that "chemical
	and mechanical control" may be used to maintain a
	weed free strip either side of the hedgerow.

EAWQ - SuDS M	EAWQ – SuDS Maintenance			
Outline Operational Environmental Management Plan	Comments:	We note that the maintenance of the SuDS features and drainage network may be appointed to third party maintenance contractor, and that some information about SuDS maintenance is included in Table 4-10 of the Drainage Strategy.		
Appendix 7.2 Flood Risk Assessment and Outline Drainage Strategy		We welcome updates to Table 3-4 in the OEMP which says "the OEMP will include a detailed SuDS Maintenance Schedule that sets out maintenance tasks and their frequency." We look forward to reviewing the document and providing further comments when this is finalised.  We believe there is one typo in Table 3-4, where it		
		says "The detailed schedule will be based on the principles set out in Table 4-1" we believe this should actually be Table 4-10.		

EAWQ – Foul Water			
Outline Construction Environmental Management Plan	Comments:	We note that it has been confirmed that foul water will be tankered away to an appropriate disposal facility by a licensed waste disposal contractor during all phases of the development. We support this, and we would like to remind the applicant that if road transport to an offsite disposal facility is required to remove foul water, then there should be regard for this within the waste management procedures. If these procedures are already contained within other documents, then they should be referenced within the CEMP.	

EAWQ – Battery Safety Management Plan			
Outline Battery Safety		We accept the amendments made to the Outline Battery Safety Management Plan (BSMP), however	
Management Plan		there are two typos that should be addressed.  • Section 4.8.9 says  "contamenentscontaminants"  • Section 5.1.3 says "cab me closed maually"	

EAWQ – WFD Screening Assessment			
WFD Screening	Comments:	•	Section 5.1.5 states 'CEMPO' we assume this
Assessment			should read 'CEMP'

Section 5.1.7 is assumed to be referring to the Water
Management Plan (WMP), however this is unclear as
it is not mentioned.

# **Ground Water & Contaminated Land**

GWCL-007 Conta	mination Wat	ching Brief	
Chapter 8 Land and Soils Outline Construction Environmental Management Plan Table 3.10	Issue:	The listed measures do not include a watching brief for sources of contamination in areas where the potential for historic contamination has been identified, such as the former High Marnham Power Station and associated infrastructure and landfilling areas, potentially infilled historic ponds and mineral extraction pits, former railway land, farm developments and historic oil wells.	
	Impact:	Potential for sources of existing contamination to be encountered during construction works without adequate measures in place to manage risks to controlled waters.	
		The Applicant should include a clear commitment to a land and groundwater contamination watching brief during earthworks and confirm that works would be locally halted if unexpected contamination sources are encountered, until the source is adequately investigated and remediation proposals agreed with the Local Authority and Environment Agency.	
Additional comments:	We acknowledge that the area of High Marnham Power Station will be subject to investigation post-consent, and that the findings will be used to determine management of soil and groundwater contamination risks during construction.		
	The purpose of the contamination watching brief would be to ensure that if contamination were unexpectedly encountered areas not previously characterised, the Contractor would halocally and seek specialist advice. We acknowledge that the of action in the event that unexpected contamination is discousis captured in Table 3.10 of the oCECMP. This should be suby ensuring the Principal Contractor provides a suitable brie earthworks personnel on recognising possible evidence of contamination and the unexpected contamination discovery protocol.		
	be locally halt	e 3.10 includes a statement that development would ed should unidentified contamination be encountered, y and clarity this should also be stated in the relevant 3.5.	
	should includ during excav	1 and 5.1.2 of the WFD Screening Assessment de reference to a watching brief for contamination ation activities, and a Discovery Protocol in place nexpected contamination if encountered.	

GWCL-009 Reten	tion of Buried	Cables
	Issue:	Inconsistency between the DEMP and Chapters 5
Outline		and 8 of the ES relating to the proposed retention of
Decommissioning		buried cables following decommissioning.
	Impact:	Potential for cables left in-situ to act as a source of
Management Plan		groundwater contamination.
	Solution:	The Applicant should demonstrate that cables left insitu indefinitely would not pose a potentially
		significant source of contamination to controlled
		waters.
Additional	Chapter 5 of the	ne ES (Section 5.6.2) has been amended to state that
comments:	buried cables	are proposed to be retained in-situ below 0.9m
	•	mmissioning. This is contradicted in part by Section
		oter 8 and the DEMP, which both state that the
		ing approach for underground cables would be
	•	ew prior to decommissioning, in accordance with the
		best practice guidance at that time. The resulting
		nay conclude that retention of cabling is the least
		ly impactful method, or that removal is required. This
		a commitment for the Proposed Development, and d that the developer consider the potential future
		val as part of the detailed design process for
		cabling. Note that Chapter 5 also does not refer to the
	_	ing and burial of cable ends, which is mentioned in
	Chapter 8.	ing and sandrer saste snae, which is mentioned in
		should be designed and installed in accordance with
	,	practice and should have a design lifespan
		e with that of the Proposed Development. We
		Applicant to avoid the use of PFAS compounds in
		naterials where possible, inclusive of buried
		vas referenced in our previous responses (REP2-094
	α REP4-003),	however this has not been addressed yet.

GWCL-013 Firewa	ater Run-off	
Outline Battery Safety Management Plan		The Plan states in Section 4.8.7 "At the time of writing there is no clear consensus on the type or quantity of potentially harmful combustion products. The data from the only BESS fire in the UK indicated that firewater run-off contamination was low"  The report does not cite the source of the data, however this conclusion differs from that in a 2024 paper 'Assessment of Run-Off Waters Resulting from Lithium-Ion Battery Fire-Fighting Operations' published in March 2024, which concluded that runoff water from large-scale lithium-ion battery fire incidents could be potentially hazardous to the environment.
		The statement could potentially be misleading, as there is (non-UK) evidence to suggest that firewater run-off contamination could pose a significant hazard to groundwater.

	Solution:	The Applicant should confirm the source of information cited in the Management Plan and acknowledge that some studies have indicated Lithium-ion battery firefighting water can contain elevated concentrations of ecotoxic contaminants.
Additional	Research pap	er:
comments:	Battery Fire-F The paper def water was sus several heavy hydrocarbons battery electro A second rese Extinguishing Vehicle Fire T focusing on a from petrol an	of Run-Off Waters Resulting from Lithium-Ion ighting Operations termined that lithium-ion battery firefighting run-off sceptible to containing elevated concentrations of metals including Ni, Mn, Co, Li and Al, in addition to and sometimes undecomposed solvents used in the olyte.  Earch paper (Ecotoxicity Evaluation of Fire Water from Large-Scale Battery and Battery Electric fests, Environ. Sci. Technol. 2023, 57, 4821-4830) comparison between firefighting water composition of EV vehicles found higher concentrations of Ni, Co, oride in the lithium-ion vehicle firefighting water.

GWCL - Sentinel Outfall Monitors at BESS			
oOEMP and	Comments:	We encourage the Applicant to employ 'sentinel'	
Outline Battery		monitoring systems at the BESS outfall to enable	
Safety		early detection and management of spills and leaks	
Management		entering surface water drainage system during	
Plan		normal operation.	

GWCL – WFD Screening Assessment			
WFD Screening Assessment	Comments:	If the impermeably lined drainage system is to incorporate a granular drainage layer, the Applicant should also clarify in Section 4.1.3 'BESS and SubStation Areas' that contaminated gravel would be removed and replaced as part of decontamination to prevent subsequent re-release of contaminants following a fire event, prior to resuming operation.	

GWCL – WFD Screening Assessment		
WFD Screening Assessment	Comments:	The embedded measures listed in Section 5.1 of the Assessment should refer to the requirement for Piling Risk Assessments. Although a statement that "Foundations and services will be designed and constructed to prevent the creation of pathways for the migration of contaminants, and would be constructed of materials that are suitable for the ground conditions and designed use" is included, this specific control should also be included.

GWCL – WFD Screening Assessment		
	Comments:	The Assessment references the use of a CEMP to set
Assessment		out construction mitigation measures. The report should similarly reference the key mitigation
		documents for the operation and decommissioning stages (namely the OEMP, OBSMP and DEMP)
		stages (namely the OEMP, OBSMP and DEMP)

GWCL – Battery Fire			
Outline Construction Environmental Management Plan	Comments:	The oCEMP now refers to the firefighting water storage volumes to be held at each BESS area in Section 2.10.3 (emergency response). This infrastructure may not be available during a significant part of the construction phase and thus may not provide mitigation at that time. The Applicant should update the oCEMP to clearly state that BESS firefighting infrastructure and drainage infrastructure (including sealed drainage and penstock valves) will be in place and operable prior to BESS batteries being brought onto site.	
		The oBSMP should specify controls to ensure that a battery fire would not occur during the construction phase prior to the establishment of the full controls outlined in the OBSMP. Details on battery removal during maintenance or post-fire event must be included to ensure these have no adverse effects on the environment.	

GWCL – General	Comments	
	Comments:	The final two bullet points in the unexpected contamination section of Table 3.10 should include the Environment Agency as a consultee for remediation strategy and verification report approval.  The section on Storage of Materials in Table 3.10 should also state that where it is not possible to avoid potential contamination sources away from surface water drains, these will be locally sealed to prevent spills or leaks from entering the drainage system.
		The Sections on Spillage Risk and Watercourse Crossings in Table 3.10 should refer to the production of a Hydrogeological Risk Assessment for trenchless cable crossings, which would include site specific frac-out risk assessment.
		The Section on Fire Water in Table 3.10 should clearly state that the bunds used for transformers in the substation will have a capacity in accordance with the Control of Pollution (Oil Storage)(England) Regulations 2001.

GWCL – Penstock Valve		
Outline Battery Safety Management Plan	Comments:	Section 4.8.9 includes an error 'contamenentscontaminants'. The OBSMP should also state that the penstock valve is not to be reopened until it can be demonstrated that no impacts from residual contamination which may be present in the substrate will occur (see Section

4.8.10). Details of the proposed testing methodology
for firewater should be provided.

GWCL – Extinguishing Agents		
,	Comments:	Section 3.5.31 refers to the potential use of a 'Clean
Safety		agent' extinguishing system. The Applicant should
Management		provide evidence to demonstrate that this agent
Plan		would not act as a source of contamination if
		deployed, such as Material Safety Data Sheets for
		the proposed suppression agent.

GWCL – Damaged Batteries		
Outline Battery	Comments:	Section 4.8.4 describes arrangements for the storage
Safety		of damaged batteries prior to disposal following a
Management		battery fire. We request further details of the
Plan		proposed storage and management arrangements for
		damaged, defective and end-of-life batteries.

GWCL – Firewater Testing			
Outline Battery Safety Management Plan	Comments:	Details of 'appropriate testing' as stated in Section 5.1.5 should be provided. Section 5.1.5 states that "There shall be no firewater runoff released to the environment before appropriate testing has been carried out". This contradicts statements made elsewhere e.g. Table 3.4 of the OOEMP states "Any polluted runoff will be contained and removed from the Site for treatment", and "any runoff generated during a polluting event (e.g. fire) would be isolated before being removed from Site. The outline Drainage Strategy also states on Page 51 in relation to fire water, "Should this occur, contaminated water would be tankered away and would not discharge to any watercourse." The Applicant should confirm that all polluted runoff would be contained and subsequently removed from site and ensure consistency between documentation.	

# **Biodiversity**

EAFBG-001 Fish S	EAFBG-001 Fish Species		
Statement Chapter 6 Section 6.10.4 – 6.1.10		The ES has only assessed river lamprey and sea lamprey.	
	•	There are records in the River Trent of populations of Atlantic salmon ( <i>Salmo salar</i> ), brown/sea trout ( <i>Salmo trutta</i> ), European eel ( <i>Anguilla anguilla</i> ) and notable coarse fish, including barbel ( <i>Barbus barbus</i> ). By not including all fish in the baseline, impact-pathways may cause damage to fish or habitat	
		Include all fish species present in the River Trent in the EIA	

Additional	Atlantic salmon are an Annex II species of the Habitats Directive.
comments:	Brown/sea trout are listed as a S41 Priority Species of the NERC
	(Natural Environment and Rural Communities) Act.
	European eel are listed as critically endangered on the IUCN Red
	List of Threatened Species, they are also listed as a species of
	principal importance under Section 41 of the Natural Environment
	and Rural communities (NERC) Act 2006. They are also protected
	under The Eels (England and Wales) Regulations 2009.
	Barbel are an Annex V species of the Habitats Directive.
	Note that EMF impacts on additional fish species is detailed in
	Appendix 2.4: Electromagnetic Fields Impact Report.

EAFBG-006 Water	EAFBG-006 Watercourse Classifications BNG		
Statement Chapter 6 Appendix 6-10 Biodiversity Net		Fledborough Beck is still classified as a ditch along with other named watercourses within the Biodiversity Net Gain Metric.	
	·	It cannot be demonstrated that the river elements of the site within the red line boundary have been considered.	
		Correctly identify Fledborough Beck as 'other rivers and streams' and reassess the BNG watercourse metric.	
Additional comments:			

EAFBG - Ditch E	nhancement	
REP3-0 Response to D2 Submission	Comments:	Viability of assuming ditches can be assumed to be changed to 'good'. In order to achieve 'good condition' the created habitats will need to secure all of the stated condition criteria.
R2R10		Whilst it is accepted that changed management practices will benefit water quality, presumably there are ditches receiving water from offsite areas outside of the applicant's control, and therefore viability of achieving these is open to question. For example, the condition assessment mentions road run off as an issue.  The applicant's response points to measure (planting aquatic vegetation) not mentioned in the oLEMP or commitments. To achieve good status, control over the water levels is required which again the applicant may not be able to control.  There is no commitment to monitor/control non-native species (accept Mink) in the oLEMP or commitments.  Overall, we would be more confident assuming enhancement of ditches to a moderate condition.

### Appendix 2

#### Flood Risk Assessment Comments

These comments are based on a Flood Risk Assessment the Environment Agency received on the 26 September 2025, we anticipate this version to be submitted by the applicant at deadline 5.

### Submerged panels

The applicant has now committed to removing solar panels that were previously inundated during the design flood event (1 in 100-year scenario plus a 39% allowance for climate change), this has been confirmed on page 27. This has been achieved by either adjusting the tilt angles of the solar panels or be removing the bottom row of panels. Given the removal of inundated panels from the design flood this has also reduced the volume of water displaced by inundated panels. The updated flood level change estimates based on the volumetric assessment are now 2.2mm and 3.5mm respectively for the Western and Eastern floodplains of the Trent (table 3.9 page 36 of the updated FRA) which is within the agreed tolerance to have a negligible impact. We have provided more information on modelling tolerances in later sections of this response. Furthermore, within Figure 3-10 the applicant has demonstrated the difference across raised panels across the site to ensure the panels will be above the design level. In addition to the removal of the inundated solar panels from the design flood event, we are in ongoing discussions with the applicant with regards to the impact of the solar panel mounting structures on flood risk. In addition to the volumetric assessment, we have requested supplementary assessment on the impact that the solar panel mounting structures have on flood flow conveyance within the Tidal Trent hydraulic model. This will provide further spatial clarity on the flood risk impact of the solar panel mounting structures and will help to reduce any uncertainties. We are currently waiting on the outcomes of this modelling assessment from the applicant. We ask that the applicant includes these modelling results in the Flood Risk Assessment once they are available.

#### Voided structures

The applicant has assessed the impact the worst-case scenario of invertor stations being with in the design flood on the floodplain capacity and found that the stilts remove 32m3 Capacity from the floodplain. Additionally, the applicant has provided commentary of why stilts and voids are the best options due to the placement of the invertor stations, section 3.1.5 page 26. The applicant has stated that the area of floodplain which is lost due to the footprint of the invertor stations may be difficult to compensate for on a level for level basis due to the topography of the land and the vast floodplain may mean compensation is not provided within the vicinity of the floodplain lost.

Furthermore, the applicant has added indicative design parameters for the voided structures which show them to be as open span as possible and to minimise the possibility of build-up of materials.

The applicant has committed to reviewing the design of all invertor stations on an invertor by invertor basis at the design stage and minimise the use of voids where possible. Within Requirement 22 the applicant will review the use of voids as flood mitigation for invertor stations and reduce the use of voids where possible. The wording of this requirement is discussed below.

#### Construction Phase and Interactions with Defences

We are satisfied that the applicant has shown sufficient mitigation has been put in place when working near and/or interacting with flood defences. Specifically, the applicant has committed to undertaking surveys of the existing flood defences at the detailed design phase which will provide additional detail to the condition and composition of the embankments which in conjunction with the proposed construction practice and design parameters will mitigate for any adverse impacts which may occur. Specifically, the surveys will inform the applicant as to whether any remedial works need to be undertaken pre-construction to ensure the embankments are in sufficient condition for work to take place and post-works to restore defences to pre-works condition if required. Additionally, the applicant has committed to monitoring the condition of the embankments for the construction phase to ensure any impacts may be identified as soon as possible and remediation undertaken if required to ensure there is no detriment to the respective flood defences. This information can be found in section 3.1.1, page 18.

### Requirement 22

We are not satisfied with the requirement that has been included within the most recent Flood Risk Assessment that is being submitted at Deadline 5 (dated 26 September 2025). We suggest this requirement is reworded as follows:

- 22.-(1) No development shall commence until the detailed design has been submitted to and approved in writing by the local planning authority in consultation with the Environment Agency. Detailed designs to include:
- (a) the layout of the proposed development and any proposed flood risk mitigation
- (b) the layout of solar panel areas and associated updated volumetric loss calculations based on the detailed design;
- (c) details of the lowest leading edge of solar panels and confirmation that solar panels are above the design flood level;

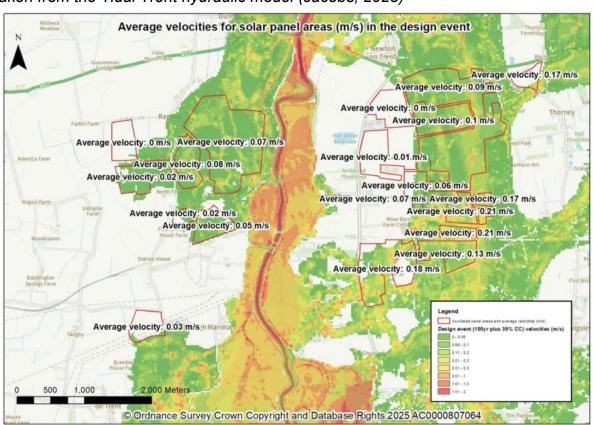
The detailed design must accord with the original Flood Risk Assessment unless it can be demonstrated to the satisfaction of the local planning authority in consultation with the Environment Agency that the approval sought would not give rise to any additional flood risk effects in comparison with those reported in the original Flood Risk Assessment unless evidence of a flood risk betterment can be provided.

#### Modelling Tolerances

There is currently no absolute value given in existing Environment Agency guidance on what an acceptable model tolerance is, as this will vary between models and locations. A figure of +/- 10mm has historically been considered a reasonable "rule-of-thumb" for a calculation tolerance but we have moved away from that in recent guidance. Every model, development, and floodplain are different. We consider this when trying to understand impacts, associated assessment methodologies, and their uncertainties. Assessing the impact of solar panel support columns on flood risk presents some technical challenges and limitations which we have described in further detail below and how these relate to the proposed One Earth development.

There are no prescribed methods in Environment Agency guidance or in wider scientific literature on how to assess the hydraulic impacts of solar panel support frames on flood risk within large floodplains. Volumetric and/or hydraulic modelling approaches can be used but both carry limitations and some uncertainties. We take the view that water should be able to move freely between solar panel column supports and the impact on flood risk would be negligible in most cases. In some cases, panel frames can pose a blockage risk, particularly for larger debris such as trees which could exacerbate any water level impacts, however, in the case of the One Earth proposed development, the solar panel areas only start to become inundated in the 1% (1 in 100 year) annual exceedance probability plus climate change scenarios and the respective velocities in the panel areas during the design event (1 in 100 year plus 39% climate change) are low, generally being around 0.1 metres per second or less (figure 1). On this basis we do not consider that blockage risk is an issue of note for the panel support frames. Large material which could block against the panel support frames is likely to be confined to areas of higher water velocity and depth, for example the functional floodplain and River Trent itself. These areas of higher velocity are shown in figure 1 below.

Figure 1: Average peak velocities for each solar panel area for the design event (1 in 100 year plus 39% climate change) and maximum velocities for the wider floodplain and River Trent. Values presented are in metres per second (m/s). Velocities are taken from the Tidal Trent hydraulic model (Jacobs, 2023)



In the case of hydraulic modelling approaches for assessing impacts, it is difficult to represent solar panel columns explicitly in hydraulic models for floodplains due to their small size. Small scale detailed two dimensional (2d) or three dimensional (3d) hydraulic models can be developed but the run times for such models can become prohibitively long or impractical when such modelling is undertaken for large floodplains. We asked the applicant to undertake a volumetric assessment in the first instance which is a typical approach for helping to understand impacts on water levels from solar panel support columns. Similarly to modelling, such volumetric calculations also carry uncertainties, and we agreed with the applicant that any calculated increases of less than 5 millimetres would likely not be of concern,

particularly noting the conservative assessment parameters that the applicant has used as outlined below.

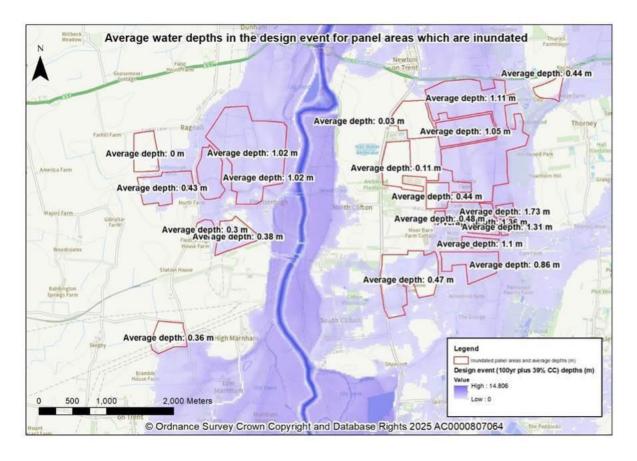
The applicant has undertaken their volumetric assessment using conservative assumptions in terms of inundated water depth (1.8 metres) and panel leg cross section (plan view) support dimensions (0.25 metres by 0.25 metres). The rationale for this approach being firstly simplicity but secondly, as the exact positioning of the solar panel support columns is not yet known it would not be possible for the applicant to determine the actual depths at each column until the detailed design stage. We consider the assumptions that the applicant has made and conservative assessment reasonable for the planning stage.

It should be noted that the average depths across the panel areas are lower than the 1.8 metres used in the applicant's calculations. Water depths are on average 0.5 metres and 0.8 metres (we note a level of 0.7 was described in Issue Specific Hearing 3 on the 6<sup>th</sup> November. This was an error) in the western and eastern floodplains of the River Trent respectively for the design event (figure 2). We expect the true impacts of the panel support frames to be less once this calculation is revisited at the detailed design stage given the outlined conservative assumptions that have been made in the calculations presented within the Flood Risk Assessment by the applicant.

Since the volumetric calculations have been undertaken we have additionally asked the applicant to test the impact of the support frames within the Tidal Trent (2023) hydraulic model. Given the size of the Tidal Trent hydraulic model with respect to the size of the solar panel support frames, it will not be possible to explicitly represent the solar panel column supports themselves, however, we have asked the applicant to represent these by applying a blockage percentage to the floodplain areas which include the solar panels within the hydraulic model. We have asked the applicant to present the outputs of this modelling within the Flood Risk Assessment which we will review once available.

As previously noted, both the volumetric and hydraulic modelling approaches we have requested from the applicant involve some uncertainty, which we consider when reviewing calculations and outputs. We requested that the applicant undertake hydraulic modelling in addition to the volumetric assessment with the aim to strengthen the analysis and reduce uncertainties about how the solar panel support frames may affect flood risk.

Figure 2: Average water depths for the inundated panel areas in the design event (1 in 100 year plus 39% climate change). Peak water depths for the wider Trent floodplain are also shown. Depth values are in metres (m). Depths are taken from the Tidal Trent hydraulic model (Jacobs, 2023)



Why haven't the two level increase estimates for the eastern and western floodplains been added together?

A question was raised in Issue Specific Hearing 3 on November 6<sup>th</sup> 2025 regarding why the two estimated level changes for the eastern and western floodplains have not been combined giving a resultant level increase of 5.7mm. In terms of combining the estimated level increases of 3.5mm and 2.2mm for the eastern and western floodplains respectively, this has not been undertaken because the eastern and western floodplains operate as two distinctive cells. This is evidenced by the peak water levels in metres Above Ordnance Datum (mAOD) that are observed within the respective eastern and western floodplains comparative to the River Trent (figure 3), and the timing of inundation between the eastern and western floodplains (figure 4). During the design flood event, water levels on the eastern Trent floodplain reach their maximum earlier than water levels on the western Trent floodplain. On the eastern floodplain water levels reach their maximum between 82 and 116 hours into the design event simulation and reach a peak level of between 6.2 and 6.9 metres Above Ordnance Datum (mAOD). On the western floodplain maximum levels are reached at around 127 hours and reach a peak level of just over 7 mAOD. The maps in figure 3 and figure 4 below show the difference in maximum peak water levels and differing times of inundation in further detail for the eastern and western floodplains with respect to the design event. Based on this we consider the applicant's approach of separating the volumetric calculations out into respective eastern and western floodplain areas reasonable.

Figure 3: Peak design event (1 in 100 year plus 39% climate change) water levels for the River Trent in the vicinity of the proposed development. Water levels shown are in metres Above Ordnance Datum (mAOD). Levels are taken from the Tidal Trent hydraulic model (Jacobs, 2023)

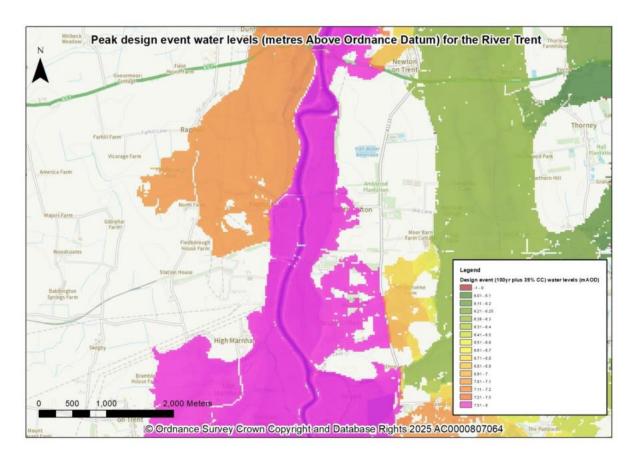
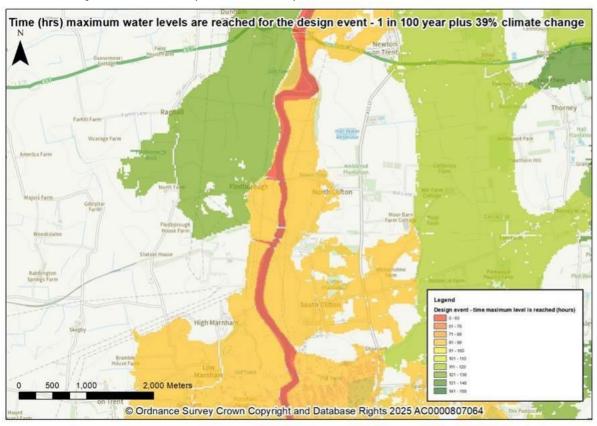


Figure 4: Time (hours) when maximum water level is reached for the eastern and western floodplains on the River Trent in the vicinity of the proposed development for the design event (1 in 100 year plus 39% climate change). Timings are based on the Tidal Trent hydraulic model (Jacobs, 2023)



#### Water Resources Assessment

We can confirm we have now received the Water Resource Assessment from the applicant on the 10 November 2025; Up on review of the Water resources Cont/d..

assessment undertaken for Anglian Water, the Environment Agency is satisfied that demands have been evaluated and supply options appraised. Whilst non-domestic uses of water do exceed 20m3/day as set out by Anglian Water's non-domestic policy, we understand that upon review of the same, AWS have confirmed that they are able to supply all demands assessed. We are generally satisfied therefore that a reliable source of water has been identified but with the following comments:

- Volumes of water required for horizontal directional drilling fluids (bentonite clay mixing) have not been included in the construction demands listed in the Water resources assessment. Can the applicant confirm that this is not required.
- The assessment refers to the use of non-potable water where possible in order to reduce water company demand and in addition to efficiency measures we are pleased to see options considered which include rainwater harvesting.
- The use of existing licences which abstract from the Trent as a potential source of supply has not been evaluated clearly, it is unclear as to which licences this refers to. Licence trading is a viable option for non-potable supply but the applicant should make note of any existing licence conditions which prevent abstraction during periods of low flow in prolonged dry weather when demand for dust suppression is most likely. Construction and permitting programming should also take into account the time required to make changes to any abstraction licences to reflect additional uses if they are not already included on the licence.

#### Lincolnshire Reservoir Cumulative Pollution Impacts

We have been engaging with the Applicant regarding potential contaminant release from the BESS developments in the event of a fire. We are satisfied that the measures which have been committed to by the Applicant in various documents including the Outline Battery Safety Management Plan (OBSMP, REP4-028), Outline Operational Environmental Management Plan (OOEMP, REP3-044), Flood Risk Assessment and Drainage Strategy (REP2-043) and Chapter 8 of the Environmental Assessment (REP3-013/014) will provide sufficient mitigation to avoid the release of firefighting water into the environment in such an event.

Outline measures to manage potential pollution from the Proposed Development during the construction, operation and decommissioning phases are given in the Outline Construction Environmental Management Plan (OCEMP, REP4-022), OOEMP and Outline Decommissioning Environmental Management Plan (ODEMP, REP3-046) respectively. As secured by the Development Consent Order, these will be further developed as the design is developed further, and subject to review and approval by stakeholders including the Environment Agency.

Specific measures to manage water contamination in the event of a BESS fire include:

- The use of impermeable lining to the BESS drainage infrastructure (Section 5.1.3 of REP4-028 and Page 51 of REP2-043);
- The design of BESS drainage will include sufficient impermeably lined storage capacity to hold all anticipated firefighting water. Water would be used for boundary cooling purposes only according to current firefighting procedures (see Table 2.2 of REP4-028) therefore generating less potentially contaminated runoff than from direct application of water;
- Presence of automatic penstock valve with manual override, which would close in the event of a fire, preventing escape of all water entering BESS drainage system (Section 5.1.3 of REP4-028);

- Captured firewater runoff is to be tested and removed by tanker for offsite disposal (Page 51 of REP2-043). This is contradicted in some documents submitted by the Applicant, which we have identified to be resolved.
- Our Deadline 4 representations (REP4-063, EAWQ Subbase and Lining in BESS and Substations) request that the Applicant commit to the decontamination of the drainage system following a fire event to ensure that no residual contamination would be released following tankering away of contaminated water.

## Appendix 3

# Work Package Tracker

Subject	Topics	Assess ment	Impa ct	Soluti on	Agreed require ment/ or updated assess ment	Note:
Ecology and Biodiversi ty	Biodiversity Net Gain	Working on solution	Work ing on soluti on	Worki ng on soluti on	Working on solution	EAFBG-004 - Lack of detail on the creation and management of habitats though BNG processes.  EAFBG-005 - Lacking detail in the BNG map in addition no BNG metric calculator is supplied.  EAFBG-006 - Clarity needed on the watercourses inculded within the metric, some may be missed/classif ied as ditches.  EAFBG-007 - Use of culvert as habitat type in post development scenario is not appropriate.
	Decommissioning Management Plan (DMP)	Working on solution	Work ing on soluti on	Worki ng on soluti on	Working on solution	EAFBG-012 - Post decommissio ning plan needs putting in place to ensure left in situ cables don't have an

	Ecological Assessment	Working on solution	Work ing on soluti on	Worki ng on soluti on	Working on solution	adverse affect on water quality.  EAFBG-001 - Fish species missing from EIA, only river lamprey and sea lamprey have been assessed.  EAFBG-002 - Protected fish species have not been inculded within Table 3-1 Extended Habitat Survey.  EAFBG-003 - No fish species are included within the desk study (appendix 6.2).  EAFBG-008 - Construction phase effects on mammals has not been identified.  EAFBG-009 water vole populations/lo cations need to be considered when undertaking crossings.  EAFBG-010 - a biosecurity plan should be developed inculding an INNS monitoring and INNS monitoring and
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					Water vole survey was undertaken outside of optimal sruvey season
Water Environment Report / WFD	Working on solution	Work ing on soluti on	Worki ng on soluti on	Working on solution	
Flood Risk Assessment	Working on solution	Work ing on soluti on	Worki ng on soluti on	Working on solution	EAFM-02 - Flood flows from areas where the panels sit below the deign flood level could have an effect on flow rates which has not been quantified.
Detailed Flood Modelling (Flood Risk Assessment)	Working on solution	Work ing on soluti on	Worki ng on soluti on	Working on solution	EAFM-02 - Flood flows from areas where the panels sit below the deign flood level could

						have an effect on flow rates which has not been quantified.
Geomoph ology	Water Environment Report / WFD	Working on solution	Work ing on soluti on	Worki ng on soluti on	Working on solution	Referances to the Outline Environmenta I Management Plans and the BSMP to be added
	WFD Assessment	Working on solution	Work ing on soluti on	Worki ng on soluti on	Working on solution	Additonal Monitoring to be added to the WFD Assessment
	Decommissioning Management Plan (DMP)	Working on solution	Work ing on soluti on	Worki ng on soluti on	Working on solution	
Groundwa ter Protection & Contamin ated Land	Hydrogeology Sensitivities	Working on solution	Work ing on soluti on	Worki ng on soluti on	Working on solution	

Surface w Groundwa abstraction pollutions incidents discharge consents	ater ons, and and	Agre ed	Agree d	Agreed	EAGWCL-002 - No reference to private groundwater abstractions has been made and it is unclear what infromation sources have been used to identify the discussed groundwater abstractions.  EAGWCL004 - Figure 8.7 shows additional groundwater abstraction point which may not be considered.
Contamin	ated Working on solution	on	Worki ng on soluti on	Working on solution	EAGWCL-007 - No commitmnt made to mitigate the risk of unexpected contamination being dicovered.  EAGWCL-010 - Drilling fluid breakout plan has not been inculded.  EAGWCL-009 - potential for cables left in situ to cause contamination to groundwater.

	Piling Risk Assessment	Working on solution	Work ing on soluti on	Worki ng on soluti on	Working on solution	EAGWCL-005 - no commitment to producing a Foundation Works Risk Assessment (this could be completed through the oCEMP)
	Battery Safety Management Plan (BSMP)	Working on solution	Work ing on soluti on	Worki ng on soluti on	Working on solution	EASW-001 - Post Fire Event Management
Surface Water Quality	Decommissioning Management Plan (DMP)	Working on solution	Work ing on soluti on	Worki ng on soluti on	Working on solution	
	Modelling	Working on solution	Work ing on soluti on	Worki ng on soluti on	Working on solution	
Water Resource s	Water Supply Strategy	Working on solution	Work ing on soluti on	Worki ng on soluti on	Working on solution	EAWR-001 - Reconmendat ion of a water resources strategy to ensure demands can be met.
	Water Resources Assessment	Working on solution	Work ing on soluti on	Worki ng on soluti on	Working on solution	EAWR-001 - Anglian Water asks for a Water Resources Assessment to be completed to understand water demands.
Permitting	Consents Strategy	Not Agreed	Not Agre ed	Not Agree d	Not Agreed	EAGCC-01 - Delays to the delivery of the scheme where consents and agreements are insufficiently comprehensiv e, to ensure the EA can effectivly deal with permit applications.

End 29