The Droves Solar Farm

Preliminary Environmental Information Report

Volume III, Chapter 12: Water Resources

Prepared by: Raincloud Consulting

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THE DROVES
SOLAR FARM

Appendix 12.1 Consultation and Legislation, Planning Policy and Guidance

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1.1 Consultation

1.1.1 The Planning Inspectorate (PINS) was provided with the Scoping Request in November 2024 (**Volume III, Appendix 2.1**), which included a chapter setting out the proposed scope of water resources assessment and methodology for the Scheme. A Scoping Opinion was subsequently issued in December 2024 by the Planning Inspectorate on behalf of the Secretary of State (**Volume III, Appendix 2.2**). The comments from PINS in respect of the water resources assessment have been summarised in Table 1.1. below, alongside commentary on where the comments have been addressed in **Chapter 12: Water Resources.**

1.1.2 Further consultation has been undertaken throughout the pre-application phase of the Scheme, and a summary of this, as relevant to water resources, is also provided within Table 1.1 below.

1.1.3 The scope and information set out within this chapter has been, and will continue to be, informed by initial scoping and ongoing consultation with a number of relevant bodies. In the first instance, the information set out has been informed by the formal Scoping Opinion provided by the Planning Inspectorate (PINS), with consultees having been contacted and/or providing input into the consultation in relation to water resources.

Table 1.1 Summary of Consultation Undertaken

Consultee	Comments	Response
Planning Inspectorate (on behalf of the Secretary of State) Scoping Opinion	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. 2. Potential effects from historic landfill sites will be scoped out of the assessment, due	1. Noted and agreed with PINS. This has been scoped out of the ES. 2. Noted and agreed with PINS. This has been scoped out of the ES. 3. The ES through the FRA, a preliminary FRA is appended at **Volume III, Appendix 12.2**, will assess flood risk from all sources and identified measures, such as raising infrastructure above pluvial flood depths, to ensure the Scheme would remain safe for its operational lifespan.

	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. 3. 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. 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. 5. 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 significant effects, with evidence of agreement to the approach from statutory consultation bodies. 6. The Applicant proposes that an infiltration-based	4. Measures to manage surface water are included in the FRA which will accompany the ES. Measures include RSuDS for the PV panels and the commitment to have a formal drainage system for the BESS and substation. The ES will be supported by an outline Surface Water Drainage Plan for the Construction Phase and outline Drainage Design for all Phases as the Scheme design progresses. 5. **Volume I, Chapter 12** outlines measures to protect the groundwater resource during all phases of the Scheme thereby demonstrating the absence of significant effects. This approach will be sought agreement on with necessary statutory consultants. 6. Regarding water consumption. 7. **Volume I, Chapter 12** outlines the construction and operational activities which require water, such as welfare facilities and dust suppression, and the source of the water is likely to be from an offsite provider and not via groundwater abstraction.

	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 LLFA. 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. 8. The consumption of water during the construction, operation or decommissioning phases should be considered in the assessment. The 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.	

Anglian Water - Response to Scoping Report 04/12/2024	1. 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 been identified within the core site area (CSA). 2. 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	1. Preliminary utilities searches have been undertaken and no 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 oCEMP will outline, 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. 2. Noted and the WRZ informs the sensitivity of the groundwater resource within the Wider Study Area. As outlined in **Volume I, Chapter 12**, water abstractions are not proposed as art of the Scheme. The Applicant will consider the Water Resources East Regional Plan and if relevant to the assessment make reference to.

	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.	
Environment Agency (EA) – Response to Scoping Report 05/12/2025	1. 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… 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 when using this approach as it risks misrepresenting pollution impacts which can detrimentally affect local ecology without impacting the WFD status of the overall	1. Drinking Water Protected areas have been included in the Framework for Determining Sensitivity of Receptors table. 2. 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. Both High and Medium magnitude of effects are significant in EIA terms. Therefore no degradation of chemical or ecological status of water receptors should occur which would constitute a downgrading of WFD status. 3. The assessment will consider dry valleys and ephemeral

	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. 3. 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. 4. The proposed development is located 900 metres from the River Nar SSSI, which is a Chalk River 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	watercourses determined by Strahler analysis. Points 3 to 5. Good construction practice measures to control runoff rates and limit the potential for sedimentation will be outlined in an oCEMP. SuDS measures will be designed to accommodate the 1 % AEP plus an allowance for climate change. The ground beneath the 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. As outlined in the Scoping Report, 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. 6-7. 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. 8. As will be outlined in the oCEMP, sewage generated during construction would be dealt with via 'Porta-a-loo' type facilities.

	approach is taken to mitigate against the loss of sediment and to reduce runoff. 5. 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. 6. 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. 7. 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	As the Scheme is not a routinely manned facility, sewage generated during operation is minimal. The disposal of sewage during operation will be set out in the ES. 9. Details of the water demands of the Scheme will be set out in the ES.

	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. 8. The applicant mentioned the use of a temporary construction compound. However, the scoping report does not identify the likely fate of sewage produced during construction. 9. 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.	
King's Lynn & West Norfolk Council – 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.
Breckland District Council (BDC) – data request response 05/02/2025	Provided I information on PWS within the Wider Study Area. PWS have been assessed based on the records provided	PWS have been assessed based on the records provided.

1.2 Legislation, Planning Policy and Guidance

1.2.0 The following guidance, legislation and information sources has been considered when carrying out the EIA:

- National Policy Statement (NPS): Overarching National Policy Statement for Energy (EN-1, November 2023), section 5.8: Flood Risk outlines the requirements for a Flood Risk Assessment (FRA) and the promotion of the use of SuDS [Ref 1-1]
- NPS for Renewable Energy Infrastructure (EN-3, November 2023) 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) [Ref 1-2]
- NPS for Electricity Networks Infrastructure (EN-5, November 2023), 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 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 1-3]
- National Planning Policy Framework (NPPF) (December 2024), 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 a FRA [Ref 12-4];
- Water Resources Act 1991 [Ref 1-5]
- Water Resources Act 1991 (Amendment) (England and Wales) Regulations 2009 [Ref 1-6]
- Land Drainage Act 1991 as amended 1994 [Ref 1-7]
- Flood and Water Management Act 2010 [Ref 1-8]
- Water Act 2003 as amended 2014 [Ref 1-9]
- Water Supply Regulations 2016 as amended 2018 [Ref 1-10]
- The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 [Ref 1-11]
- The Water Resources (Environmental Impact Assessment) (England and Wales) (Amendment) Regulations 2017 [Ref 1-12]
- The Groundwater (England and Wales) Regulations 2009 [Ref 1-13]
- Groundwater Daughter Directive (2006/118/EC) 2006 [Ref 1-14]
- Anti-Pollution Works Regulations 1999 [Ref 1-15]
- The Environmental Damage (Prevention and Remediation) (England) Regulations 2015 [Ref 1-16]

- Conservation of Habitats and Species Regulations 2017 [Ref 1-17]
- Environment Act 1995 [Ref 1-18]
- The Environmental Permitting (England and Wales) (Amendment) Regulations 2018 [Ref 1-19]
- Breckland District Council (BDC) Strategic Flood Risk Assessment (SFRA) Update (2017) [Ref 1-20]
- The Norfolk County Council (NCC) Flood Investigation Reports for the Breckland Area (2014-2021) and Countywide (2022) [Ref 1-21]
- NCC - Drainage design standards [Ref 1-22]
- NCC - Lead Local Flood Authority Statutory Consultee for Planning. Guidance Document (Version 7.1, June 2024) [Ref 1-23]
- The EA - Accounting for residual uncertainty: an update to the fluvial freeboard guide [Ref 12-24]
- The EA's approach to groundwater protection (2018 v1.2) [Ref 1-25]
- EA - Pollution Prevention Guidelines (PPG) Controlled Burn: PPG28 (archived but still relevant) [Ref 1-26]
- EA - Flood risk activities: environmental permits [Ref 1-27]
- Norfolk Rivers and East of the Ouse, Polver & Nar Internal Drainage Boards (IDB) Byelaws [Ref 1-28]
- Anglian Water - Water Resource Management Plan 2025-2050 (WRMP24) [Ref 1-29]
- CIRIA - Containment systems for the prevention of pollution. Secondary, tertiary and other measures for industrial and commercial premises (C736) [Ref 1-30]
- National Fire Chiefs Council (NFCC) - Grid Scale Battery Energy Storage System planning - Guidance for FRS - July 2024 Draft Update [Ref 1-31]
- The National Fire Protection Association (NFPA) 855 Standard for the Installation of Stationary Energy Storage Systems [Ref 1-32]
- Good Practice Guide for Environmental Impact Assessment (EIA), 2006 (withdrawn but still considered relevant in the absence of superseding guidance) [Ref 1-33]
- Construction Industry Research and Information Association (CIRIA) C753 'The SuDS Manual' (CIRIA, 2015) [Ref 1-34] and
- Environmental good practice on site guide (5th edition) C811 (CIRIA, 2023) [Ref 1-35].

References

Ref 1-1 https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1#:~:text=This%20version%20of%20the%20overarching,nationally%20significant%20infrastructure%20projects%20(%20NSIPs%20)

Ref 1-2 https://www.gov.uk/government/publications/national-policy-statement-for-renewable-energy-infrastructure-en-3

Ref 1-3 https://www.gov.uk/government/publications/national-policy-statement-for-renewable-energy-infrastructure-en-3Ref 12-3 https://www.gov.uk/government/publications/national-policy-statement-for-electricity-networks-infrastructure-en-5

Ref 1-4 https://www.gov.uk/government/publications/national-planning-policy-framework--2

Ref 1-5 https://www.legislation.gov.uk/ukpga/1991/57/contents

Ref 1-6 https://www.legislation.gov.uk/uksi/2009/3104/contents

Ref 1-7 https://www.legislation.gov.uk/ukpga/1991/59/contents

Ref 1-8 https://www.legislation.gov.uk/ukpga/2010/29/contents

Ref 1-9 https://www.legislation.gov.uk/ukpga/2014/21/contents

Ref 1-10 https://www.legislation.gov.uk/uksi/2016/614/contents

Ref 1-11 https://www.legislation.gov.uk/uksi/2017/407/contents

Ref 1-12 https://www.legislation.gov.uk/uksi/2017/583/contents

Ref 1-13 https://www.legislation.gov.uk/ukdsi/2009/9780111480816

Ref 1-14 https://eur-lex.europa.eu/eli/dir/2006/118/oj/eng

Ref 1-15 https://www.legislation.gov.uk/uksi/1999/1006/contents/made

Ref 1-16 https://www.legislation.gov.uk/uksi/2015/810/contents

Ref 1-17 https://www.legislation.gov.uk/uksi/2017/1012/contents

Ref 1-18 https://www.legislation.gov.uk/ukpga/1995/25/contents

Ref 1-19 https://www.legislation.gov.uk/uksi/2018/110/contents/made

Ref 1-20 https://www.breckland.gov.uk/media/7421/LP-E-6-Strategic-Flood-Risk-Assessment/pdf/LP_E_6_Strategic_Flood_Risk_Assessment.pdf

Ref 1-21 https://www.norfolk.gov.uk/article/38645/Flood-investigations

Ref 1-22 https://www.norfolk.gov.uk/article/38642/Information-for-developers

Ref 1-23 https://www.north-norfolk.gov.uk/media/8990/g7-llfa-guidance-document-v61.pdf

Ref 1-24 https://www.gov.uk/flood-and-coastal-erosion-risk-management-research-reports/accounting-for-residual-uncertainty-an-update-to-the-fluvial-freeboard-guide

Ref 2-25 https://assets.publishing.service.gov.uk/media/5ab38864e5274a3dc898e29b/Envirnment-Agency-approach-to-groundwater-protection.pdf

Ref 2-26 https://www.gov.uk/government/publications/using-controlled-burn-during-fires-ppg28-prevent-pollution

Ref 1-27 https://www.gov.uk/guidance/flood-risk-activities-environmental-permits

Ref 1-28 https://www.ada.org.uk/member_type/idbs/

Ref 1-29 https://www.anglianwater.co.uk/siteassets/household/about-us/wrmp/revised-draft-wrmp24-main-report-v2.pdf

Ref 1-30 https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C736F

Ref1-31 https://nfcc.org.uk/consultation/draft-grid-scale-energy-storage-system-planning-guidance/

Ref 1-32 https://www.nfpa.org/codes-and-standards/nfpa-855-standard-development/855

Ref 1-33 https://www.gov.uk/guidance/environmental-impact-assessment

Ref 1-34 https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C753

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