SUNNICA ENERGY FARM

EN010106

Volume 6

6.2 Appendix 9A Relevant Legislation and Policy for Flood Risk, Drainage and Water Resources

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

18 November 2021
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Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Sunnica Energy Farm

Environmental Statement
Appendix 9A Relevant Legislation and Policy for Flood Risk, Drainage and Water Resources

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1 Introduction

1.1 Purpose of this appendix

1.1.1 This ES appendix identifies and describes the legislation, policy and supporting guidance considered relevant to the assessment of the likely significant effects of the Scheme on flood risk, drainage and water resources.

1.1.2 Legislation and policy are considered at national and local levels. Regional/local guidance is also referenced.

1.1.3 This ES appendix does not assess the Scheme against legislation and policy; instead the purpose of considering legislation and policy in the EIA is twofold:

a. to identify legislation and policy that could influence the sensitivity of receptors (and therefore the significance of effects) and any requirements for mitigation; and

b. to identify legislation and policy that could influence the methodology of the EIA. For example, a policy may require the assessment of an impact or the use of a specific methodology.

1.1.4 The following sections identify and describe the legislation, policy and supporting guidance considered specifically relevant to the water environment assessment.

2 National Legislation, Policy and Guidance

2.1 Legislation

2.1.1 The main legislation relevant to the Scheme includes the following (please note that details of European Directives are not included, just the national legislation that implement them):

a. Water Act 2014 (Ref 1);

b. Floods and Water Management Act 2010 (Ref 2);

c. Environment Act 1995 (Ref 3);

d. Land Drainage Act 1991 (as amended) (Ref 4);

e. Water Resources Act 1991 (as amended) (Ref 5);

f. Environment Protection Act 1990 (Ref 6);

g. Salmon and Freshwater Fisheries Act 1975 (as amended) (Ref 7);

h. Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (Ref 8);

i. Environmental Damage (Prevention and Remediation) Regulations 2017 (Ref 9);

j. Environmental Permitting (England and Wales) Regulations 2016 (as amended 2018) (Ref 10);

k. Groundwater (England and Wales) Regulations 2009 (Ref 11); and

l. Eels (England and Wales) Regulation 2009 (Ref 12).

2.1.2 In respect of the effects of climate change on flood risk, this is assessed within the Flood Risk Assessment (FRA).

2.2 Policy

National Policy Statements

2.2.1 The Scheme's proposed energy generating technology is not currently specifically referenced by a National Policy Statement (NPS) however in lieu of a technology specific NPS, the EIA takes account of the following NPSs, which are considered to be matters that will be important and relevant to the Secretary of State's decision as to whether to grant a DCO for the Scheme:

a. Overarching National Policy Statement for Energy (EN1) (Ref 13),
b. National Policy Statement for Renewable Energy Infrastructure (EN-3) (Ref 14), and
c. National Policy Statement for Electricity Networks Infrastructure (EN-5) (Ref 15).

2.2.2 The NPSs set out the Government's energy policy, the need for new infrastructure, and guidance for determining an application for a DCO. The NPSs include specific criteria and issues which should be covered by applicants' assessments of the effects of their scheme, and how the decision maker should consider these impacts.

2.2.3 The relevant NPS requirements, together with an indication of where in the ES chapter the information provided to address these requirements, are provided in **Table 2-1**.

Table 2-1 Relevant NPS requirements for the flood risk, drainage and water resources assessment

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES is information provided to address this
NPS EN-1		
Paragraph 4.10.3	In considering an application for development consent, the Infrastructure Planning Commission (IPC) [now Planning Inspectorate, with the decision being taken by the Secretary of State] should focus on whether the development itself is an acceptable use of that land, and on the impacts of that use, rather than the control of processes, emissions or discharges themselves. The IPC should work on the assumption that the relevant pollution control regime and other environmental regulatory regimes, including those on land drainage, water abstraction and biodiversity, will be properly applied and enforced.	The operational scheme will comply with all relevant environmental legislation.
Paragraph 4.10.6	Applicants are advised to make early contact with relevant regulators to discuss their requirements for environmental permits and other consents. This will help ensure that applications take account of all relevant environmental considerations and the relevant regulators are able to provide timely advice and assurance to the IPC.	There have been consultation meetings with Environment Agency, Lead Local Flood Authorities, and the Internal Drainage Board.
Paragraph 4.10.7	The IPC should be satisfied that development consent can be granted taking full account of environmental impacts. Working in close cooperation with EA and/or the pollution control authority, and other relevant bodies, such as the MMO, Natural England, the Countryside Council for Wales, Drainage Boards, and water and sewerage undertakers, the IPC should be satisfied, before consenting any potentially polluting developments, that the relevant pollution control authority is satisfied that potential releases can be adequately regulated under the pollution control framework.	There have been consultation meetings with Environment Agency, Lead Local Flood Authorities, and the Internal Drainage Board.
Paragraph 5.7.3	The aims of planning policy on development and flood risk are to ensure that flood risk from all sources of flooding is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas at highest risk. Where new energy infrastructure is, exceptionally, necessary in such areas, policy aims to make it safe without increasing flood risk elsewhere and, where possible, by reducing flood risk overall.	Section 5.3 within the FRA (**Appendix 9C** of the Environmental Statement **[EN010106/APP/6.2])** demonstrates compliance by outlining how the design of the layout of the scheme has followed the sequential approach. Section 7.2 within the FRA (**Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2])** demonstrates resilience and resistance measures to

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES is information provided to address this
		ensure the new infrastructure has been designed to be safe and mitigate increasing flood risk elsewhere.
Paragraph 5.7.4	Applications for energy projects of 1 hectare or greater in Flood Zone 1 in England or Zone A in Wales and all proposals for energy projects located in Flood Zones 2 and 3 in England or Zones B and C in Wales should be accompanied by a flood risk assessment (FRA). An FRA will also be required where an energy project less than 1 hectare may be subject to sources of flooding other than rivers and the sea (for example surface water), or where the EA, Internal Drainage Board or other body have indicated that there may be drainage problems. This should identify and assess the risks of all forms of flooding to and from the project and demonstrate how these flood risks will be managed, taking climate change into account.	An FRA has been provided in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**], which identifies and assesses the risks of all forms of flooding to and from the project and demonstrates how these flood risks will be managed, taking climate change into account.
Paragraph 5.7.5	The minimum requirements for FRAs are that they should: ▪ be proportionate to the risk and appropriate to the scale, nature and location of the project; ▪ consider the risk of flooding arising from the project in addition to the risk of flooding to the project; ▪ take the impacts of climate change into account, clearly stating the development lifetime over which the assessment has been made; ▪ be undertaken by competent people, as early as possible in the process of preparing the proposal; ▪ consider both the potential adverse and beneficial effects of flood risk management infrastructure, including raised defences, flow channels, flood storage areas and other artificial features, together with the consequences of their failure; ▪ consider the vulnerability of those using the site, including arrangements for safe access; ▪ consider and quantify the different types of flooding (whether from natural and human sources and including joint and cumulative effects) and identify flood risk reduction measures, so that assessments are fit for the purpose of the decisions being made; ▪consider the effects of a range of flooding events including extreme events on	Section 2.2 within the FRA (**Appendix 9C** of the Environmental Statement **[EN010106/APP/6.2])** provides the objectives of the report, demonstrating the FRA meets the requirements from paragraph 5.7.5 in NPS EN-1.

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES is information provided to address this
	people, property, the natural and historic environment and river and coastal processes; ▪ include the assessment of the remaining (known as 'residual') risk after risk reduction measures have been taken into account and demonstrate that this is acceptable for the particular project; ▪consider how the ability of water to soak into the ground may change with development, along with how the proposed layout of the project may affect drainage systems; ▪consider if there is a need to be safe and remain operational during a worst case flood event over the development's lifetime; and ▪ be supported by appropriate data	
Paragraph 5.7.7	Applicants for projects which may be affected by, or may add to, flood risk should arrange pre-application discussions with the EA, and, where relevant, other bodies such as Internal Drainage Boards, sewerage undertakers, navigation authorities, highways authorities and reservoir owners and operators. Such discussions should identify the likelihood and possible extent and nature of the flood risk, help scope the FRA, and identify the information that will be required by the IPC [now PINS] to reach a decision on the application when it is submitted. The IPC [now PINS] should advise applicants to undertake these steps where they appear necessary, but have not yet been addressed.	An FRA has been provided in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. The preparation of the FRA, and the ES has included discussions with the EA, LLFAs and IDB.
Paragraph 5.7.9	In determining an application for development consent, the IPC (now PINS) should be satisfied that where relevant: ▪ the application is supported by an appropriate FRA; ▪ the Sequential Test has been applied as part of site selection; ▪a sequential approach has been applied at the site level to minimise risk by directing the most vulnerable uses to areas of lowest flood risk; ▪ the proposal is in line with any relevant national and local flood risk management strategy; ▪ priority has been given to the use of sustainable drainage systems (SuDs) (as required in the next paragraph on National Standards); and ▪ in flood risk areas the project is appropriately flood resilient and resistant, including safe access and escape routes where required, and that any residual risk can be safely managed over the lifetime of the development.	Section 5.3 of the FRA (**Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2]**) demonstrates how the scheme has followed the sequential approach. Section 5 of the FRA (**Appendix 9C** of the Environmental Statement **[EN010106/APP/6.2]**) includes the proposed SuDS features of each site. Section 6 of the FRA (**Appendix 9C** of the Environmental Statement **[EN010106/APP/6.2**]) outlines the existing and proposed surface water drainage arrangements for the scheme.

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES is information provided to address this
		Section 7.3 of the FRA (**Appendix 9C** of the Environmental Statement **[EN010106/APP/6.2**]) indicates how the scheme has been designed to incorporate safe access measures.
Paragraph 5.7.10	For construction work which has drainage implications, approval for the project's drainage system will form part of the development consent issued by the IPC (now PINS). The IPC(now PINS) will therefore need to be satisfied that the proposed drainage system complies with any National Standards published by Ministers under Paragraph 5(1) of Schedule 3 to the Flood and Water Management Act 2010. In addition, the development consent order, or any associated planning obligations, will need to make provision for the adoption and maintenance of any SuDS, including any necessary access rights to property. The IPC (now PINS) should be satisfied that the most appropriate body is being given the responsibility for maintaining any SuDS, taking into account the nature and security of the infrastructure on the proposed site. The responsible body could include, for example, the applicant, the landowner, the relevant local authority, or another body, such as an Internal Drainage Board.	An FRA has been provided in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. The Drainage Strategy appended to the FRA includes the provision of above ground SuDS in the drainage design. The preparation of the Environmental Statement has included discussion with the LLFA, EA and IDB on drainage provisions.
Paragraph 5.7.12	The Secretary of State should not consent development in Flood Zone 2 in England or Zone B in Wales unless it is satisfied that the sequential test requirements have been met. It should not consent development in Flood Zone 3 or Zone C unless it is satisfied that the Sequential and Exception Test requirements have been met. 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, but should apply the sequential approach to locating development within the site	An FRA has been provided in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. Section 5.9 demonstrates the sequential and exception tests have been met.

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES is information provided to address this
Paragraph 5.7.13	Preference should be given to locating projects in Flood Zone 1 in England or Zone A in Wales. If there is no reasonably available site in Flood Zone 1 or Zone A, then projects can be located in Flood Zone 2 or Zone B. If there is no reasonably available site in Flood Zones 1 or 2 or Zones A & B, then nationally significant energy infrastructure projects can be located in Flood Zone 3 or Zone C subject to the Exception Test. Consideration of alternative sites should take account of the policy on alternatives set out in Section 4.4 above	An FRA has been provided in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. Section 4.2 discusses flood risk types and levels for each of the Sites across the scheme.
Paragraph 5.7.14	If, following application of the sequential test, it is not possible, consistent with wider sustainability objectives, for the project to be located in zones of lower probability of flooding than Flood Zone 3 or Zone C, the Exception Test can be applied. The test provides a method of managing flood risk while still allowing necessary development to occur.	An FRA has been provided in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. Section 7 overviews how the residual risks of the scheme are proposed to be managed through resilience and resistance measures.
Paragraph 5.7.16	All three elements of the test will have to be passed for development to be consented. For the Exception Test to be passed: ▪ it must be demonstrated that the project provides wider sustainability benefits to the community that outweigh flood risk; ▪the project should be on developable, previously developed land or, if it is not on previously developed land, that there are no reasonable alternative sites on developable previously developed land subject to any exceptions set out in the technology-specific NPSs; and ▪ a FRA must demonstrate that the project will be safe, without increasing flood risk elsewhere subject to the exception below and, where possible, will reduce flood risk overall.	An FRA has been provided in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. Section 5.3 demonstrates the sequential and exception tests have been met.
Paragraph 5.7.18	To satisfactorily manage flood risk, arrangements are required to manage surface water and the impact of the natural water cycle on people and property	An FRA has been provided in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. Annex F - Drainage Strategy appended to the FRA in section 6, outlines the proposed discharge rates, any surface water runoff generated within the Sites will be disposed of via infiltration to mimic existing conditions.

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES is information provided to address this
Paragraph 5.7.19	In this NPS, the term Sustainable Drainage Systems (SuDS) refers to the whole range of sustainable approaches to surface water drainage management including, where appropriate: ▪ source control measures including rainwater recycling and drainage; ▪ infiltration devices to allow water to soak into the ground, that can include individual soakaways and communal facilities; ▪ filter strips and swales, which are vegetated features that hold and drain water downhill mimicking natural drainage patterns; ▪ filter drains and porous pavements to allow rainwater and run-off to infiltrate into permeable material below ground and provide storage if needed; ▪ basins ponds and tanks to hold excess water after rain and allow controlled discharge that avoids flooding; and ▪ flood routes to carry and direct excess water through developments to minimise the impact of severe rainfall flooding.	An FRA has been provided in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. Annex F Drainage Technical Note appended to the FRA includes the provision of above ground SuDS in the drainage design. The preparation of the Environmental Statement has included discussion with the LLFA, EA and IDB on drainage provisions.
Paragraph 5.7.21	The surface water drainage arrangements for any project should be such that the volumes and peak flow rates of surface water leaving the site are no greater than the rates prior to the proposed project, unless specific off-site arrangements are made and result in the same net effect.	An FRA has been provided in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. Annex F - Drainage Strategy appended to the FRA, outlines the proposed discharge rates, any surface water runoff generated within the Sites will be disposed of via infiltration to mimic existing conditions. The preparation of the Environmental Statement has included discussion with the LLFA, EA and IDB on drainage provisions.
Paragraph 5.7.22	It may be necessary to provide surface water storage and infiltration to limit and reduce both the peak rate of discharge from the site and the total volume discharged from the site. There may be circumstances where it is appropriate for infiltration facilities or attenuation storage to be provided outside the project site, if necessary, through the use of a planning obligation.	An FRA has been provided in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. The Drainage Strategy appended to the FRA in section 6 outlines the proposed attenuation required on site, no off-site attenuation is proposed. The preparation of the Environmental Statement has included discussion with the LLFA, EA and IDB on drainage provisions.

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES is information provided to address this
Paragraph 5.7.23	The sequential approach should be applied to the layout and design of the project. More vulnerable uses should be located on parts of the site at lower probability and residual risk of flooding. Applicants should seek opportunities to use open space for multiple purposes such as amenity, wildlife habitat and flood storage uses. Opportunities should be taken to lower flood risk by reducing the built footprint of previously developed sites and using SuDS.	The Scheme has had regard to this policy requirement and an FRA is included in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**].
Paragraph 5.7.24	Essential energy infrastructure which has to be located in flood risk areas should be designed to remain operational when floods occur. In addition, any energy projects proposed in Flood Zone 3b the Functional Floodplain (where water has to flow or be stored in times of flood), or Zone C2 in Wales, should only be permitted if the development will not result in a net loss of floodplain storage, and will not impede water flows.	An FRA is included in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. Section 5.34 outlines how design of the Scheme aims to locate vulnerable Scheme components in the lowest flood risk zones. Section 5.3.5 outlines how that development proposed in areas of Flood Zone 3a will remain operational in case of flooding events. Permanent above ground development is not proposed in areas classed as functional Floodplain/ Flood Zone 3b.
Paragraph 5.7.25	The receipt of and response to warnings of floods is an essential element in the management of the residual risk of flooding. Flood Warning and evacuation plans should be in place for those areas at an identified risk of flooding. The applicant should take advice from the emergency services when producing an evacuation plan for a manned energy project as part of the FRA. Any emergency planning documents, flood warning and evacuation procedures that are required should be identified in the FRA.	An FRA is included in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. Section 7.3 outlines safe access measures for the Scheme. All compounds for site staff, on-site substations and battery storage units have been located out of flood zones. During a flood event, the affected infrastructure will remain operational and not accessed/ manned until flood waters recede. Emergency response measures for flooding are outlined in **Appendix 16C Framework Construction Environmental Management** of this Environmental Statement **[EN010106/APP/6.2].**
Paragraph 5.15.2	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 as part of the ES or equivalent. (See Section 4.2.)	**Chapter 9** of the Environmental Statement **[EN010106/APP/6.1]** presents the potential for effects on the water environment and their significance.

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES is information provided to address this
Paragraph 5.15.3	The ES should in particular describe: ▪ the existing quality of waters affected by the proposed project and the impacts of the proposed project on water quality, noting any relevant existing discharges, proposed new discharges and proposed changes to discharges; ▪existing water resources affected by the proposed project and the impacts of the proposed project on water resources, noting any relevant existing abstraction rates, proposed new abstraction rates and proposed changes to abstraction rates (including any impact on or use of mains supplies and reference to Catchment Abstraction Management Strategies); ▪ existing physical characteristics of the water environment (including quantity and dynamics of flow) affected by the proposed project and any impact of physical modifications to these characteristics; and ▪ any impacts of the proposed project on water bodies or protected areas under the Water Framework Directive and source protection zones (SPZs) around potable groundwater abstractions.	**Chapter 9** of the Environmental Statement **[EN010106/APP/6.1]** presents the potential for effects on the water environment and their significance. **Appendix 9B** of the Environmental Statement **[EN010106/APP/6.2]** presents a Water Framework Directive Assessment.
Paragraph 5.15.5	The IPC (now PINS) will generally need to give impacts on the water environment more weight where a project would have an adverse effect on the achievement of the environmental objectives established under the Water Framework Directive	**Chapter 9** of the Environmental Statement **[EN010106/APP/6.1]** presents the potential for effects on the water environment and their significance. **Appendix 9B** of the Environmental Statement **[EN010106/APP/6.2]** presents a Water Framework Directive Assessment.
Paragraph 5.15.6	The IPC (now PINS) should satisfy itself that a proposal has regard to the River Basin Management Plans and meets the requirements of the Water Framework Directive (including Article 4.7) and its daughter directives, including those on priority substances and groundwater. The specific objectives for particular river basins are set out in River Basin Management Plans. The IPC (now PINS) should also consider the interactions of the proposed project with other plans such as Water Resources Management Plans and Shoreline/Estuary Management Plans.	**Chapter 9** of the Environmental Statement **[EN010106/APP/6.1]** presents the potential for effects on the water environment and their significance. **Appendix 9B** of the Environmental Statement **[EN010106/APP/6.2]** presents a Water Framework Directive Assessment. The objectives of the River Basin Management Plans are considered in **Appendix 9B** of the Environmental Statement **[EN010106/APP/6.2].**
Paragraph 5.15.8	The IPC (now PINS) should consider whether mitigation measures are needed over and above any which may form part of the project application. (See Sections 4.2 and 5.1.) A construction management plan may help codify mitigation at that stage.	**Chapter 9** of the Environmental Statement **[EN010106/APP/6.1]** presents the potential for effects on the water environment and their significance. No significant residual effects on surface water, groundwater resources or flood risk are anticipated by the Scheme.

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES is information provided to address this
NPS EN-5		
Paragraph 2.4.1	Part 2 of EN-1 provides information regarding the Government's energy and climate change strategy including policies for mitigating climate change. Section 4.8 of EN-1 sets out the generic considerations that applicants and the IPC (now PINS) should take into account to help ensure that electricity networks infrastructure is resilient to climate change. 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 would be resilient to: ▪ flooding, particularly for substations that are vital for the electricity transmission and distribution network; ▪ effects of wind and storms on overhead lines; ▪ higher average temperatures leading to increased transmission losses; and ▪ earth movement or subsidence caused by flooding or drought (for underground cables).	An FRA is included in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. The FRA includes the effects of climate change. Section 7 overviews how the residual risks of the scheme are proposed to be managed through resilience and resistance measures.
Paragraph 2.4.2	Section 4.8 of EN-1 advises that the resilience of the project to climate change should be assessed in the Environmental Statement (ES) accompanying an application. For example, future increased risk of flooding would be covered in any flood risk assessment (see Section 5.7 in EN-1).	An FRA is included in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. The FRA includes the effects of climate change.

Draft National Policy Statements

2.2.4 The Government is currently reviewing and updating the Energy NPSs. It is doing this in order to reflect its policies and strategic approach for the energy system that is set out in the Energy White Paper (December 2020), and to ensure that the planning policy framework enables the delivery of the infrastructure required for the country's transition to net zero carbon emissions. As part of the Energy NPS review process, the Government published a suite of Draft Energy NPSs for consultation on 6 September 2021. These include the following Draft NPSs, which are expected to be important and relevant to the Secretary of State's decision, and have therefore been taken into account by the EIA:

a. Draft Overarching National Policy Statement for Energy (EN-1) (Draft NPS EN-1),

b. Draft National Policy Statement for Renewable Energy (EN-3) (Draft NPS EN-3), and

c. Draft National Policy Statement for Electricity Networks Infrastructure (EN-5).

2.2.5 Where the relevant Draft NPS contain requirements that differ from the requirements of the NPSs, **Table 2-2** indicates where the information to address these requirements is provided within the ES Chapter.

Table 2-2 Relevant Draft NPS requirements for the flood risk, drainage, and water assessment

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES chapter is information provided to address this
Draft NPS EN-1		
Paragraph 5.8.6	A site-specific flood risk assessment should be provided for all energy projects in Flood Zones 2 and 3 in England or Zones B and C in Wales. In Flood Zone 1 in England or Zone A in Wales, an assessment should accompany all proposals involving: • sites of 1 hectare or more • land which has been identified by the EA or NRW as having critical drainage problems • land identified (for example in a local authority strategic flood risk assessment) as being at increased flood risk in future • land that may be subject to other sources of flooding (for example surface water) • where the EA or NRW, Lead Local Flood Authority, Internal Drainage Board or other body have indicated that there may be drainage problems. This should identify and assess the risks of all forms of flooding to and from the project and demonstrate how these flood risks will be managed, taking climate change into account.	An FRA is included in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**].
Paragraph 5.8.7	The minimum requirements for Flood Risk Assessments (FRA) are that they should: • be proportionate to the risk and appropriate to the scale, nature and location of the project • consider the risk of flooding arising from the project in addition to the risk of flooding to the project • take the impacts of climate change into account, across a range of climate scenarios, clearly stating the development lifetime over which the assessment has been made; • be undertaken by competent people, as early as possible in the process of preparing the proposal • consider both the potential adverse and beneficial effects of flood risk management infrastructure, including raised defences, flow channels, flood storage areas and other artificial features, together with the consequences of their failure and exceedance	An FRA is included in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. Section 2.2 sets out the objectives of the FRA. Annex F - Drainage Strategy appended to the FRA summarises existing drainage and outlines how surface water will be managed on the Scheme.

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES chapter is information provided to address this
	• consider the vulnerability of those using the site, including arrangements for safe access and escape • consider and quantify the different types of flooding (whether from natural and human sources and including joint and cumulative effects) and include information on flood likelihood, speed-of-onset, depth, velocity, hazard and duration • identify and secure opportunities to reduce the causes and impacts of flooding overall, making as much use as possible of natural flood management techniques as part of an integrated approach to flood risk management • consider the effects of a range of flooding events including extreme events on people, property, the natural and historic environment and river and coastal processes • include the assessment of the remaining (known as 'residual') risk after risk reduction measures have been taken into account and demonstrate that these risks can be safely managed, ensuring people will not be exposed to hazardous flooding • consider how the ability of water to soak into the ground may change with development, along with how the proposed layout of the project may affect drainage systems. Information should include: i. Describe the existing surface water drainage arrangements for the site ii. Set out (approximately) the existing rates and volumes of surface water run-off generated by the site. Detail the proposals for restricting discharge rates iii. Set out proposals for managing and discharging surface water from the site using sustainable drainage systems and accounting for the predicted impacts of climate change. If sustainable drainage systems have been rejected, present clear evidence of why their inclusion would be inappropriate iv. Demonstrate how the hierarchy of drainage options (refer to PPG Sustainable Drainage Systems section) has been followed. Explain and justify why the types of Sustainable Drainage Systems and method of discharge have been selected and why they are considered appropriate. Where cost is a reason for not including Sustainable Drainage Systems, provide information to enable comparison with the lifetime costs of a conventional public sewer connection v. Explain how sustainable drainage systems have been integrated with other aspects of the development such as open space or green infrastructure, so as to ensure an efficient use of the site vi. Describe the multifunctional benefits the sustainable drainage system will provide	

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES chapter is information provided to address this
	vii. Set out which opportunities to reduce the causes and impacts of flooding have been identified and included as part of the proposed sustainable drainage system viii. Explain how run-off from the completed development will be prevented from causing an impact elsewhere ix. Explain how the sustainable drainage system been designed to facilitate maintenance and, where relevant, adoption. Set out plans for ensuring an acceptable standard of operation and maintenance throughout the lifetime of the development • detail those measures that will be included to ensure the development will be safe and remain operational during a flooding event throughout the development's lifetime without increasing flood risk elsewhere • be supported by appropriate data and information, including historical information on previous events.	
Paragraph 5.8.15	Preference should be given to locating projects in areas of lowest flood risk. The Secretary of State should not consent development in flood risk areas (Flood Zone 2 in England or Zone B in Wales), accounting for all sources of flooding and the predicted impacts of climate change unless they are satisfied that the sequential test requirements have been met. The Secretary of State should not consent development in Flood Zone 3 or Zone C unless they are satisfied that the Sequential and Exception Test requirements have been met. 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. 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 approach to locating development within the site.	An FRA is included in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. Section 5.3 demonstrates compliance by outlining how the design of the layout of the scheme has followed the sequential approach.
Paragraph 5.8.16	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 table 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.	An FRA is included in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. Section 5.3 demonstrates compliance by outlining why the exception test is needed.

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES chapter is information provided to address this
Paragraph 5.8.17	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), SSSIs and World Heritage Sites (WHS) which would not usually be considered appropriate.	An FRA is included in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. Section 5.3 demonstrates compliance by outlining how the sequential test and exception tests have been met.
Paragraph 5.8.18	Both elements of the test will have to be satisfied for development to be consented. To pass the Exception Test it should be demonstrated that: • the project provides wider sustainability benefits to the community that outweigh flood risk • the project reduces flood risk overall, where possible	An FRA is included in **Appendix 9C** of the Environmental Statement [**EN010106/APP/6.2**]. Section 5.3 demonstrates compliance by outlining national need and benefits of renewable energy production.
Paragraph 5.16.3	Where possible, applicants are encouraged to manage surface water during construction by treating surface water runoff from exposed topsoil prior to discharging and to limit the discharge of suspended solids e.g. from car parks or other areas of hard standing, during operation.	Mitigation measures for managing surface water during construction are provided in Section 9.7 of **Chapter 9** this Environmental Statement **[EN010106/APP/6.1]**. These are also listed in **Appendix 16C Framework Construction Environmental Management Plan** of this Environmental Statement **[EN010106/APP/6.2]**.
Paragraph 5.16.4	Applicants are encouraged to consider protective measures to control the risk of pollution to groundwater beyond those outlined in Water Resource Management Plans - this could include, for example, the use of protective barriers.	Mitigation and protection measures to control the risk of pollution to groundwater have been considered in the assessment and are set out in Section 9.7 of **Chapter 9** of this Environmental Statement **[EN010106/APP/6.1]**. They are also set out in **Appendix 16C Framework Construction Environmental Management Plan** of this Environmental Statement **[EN010106/APP/6.2]**.
Paragraph 5.16.5	The ES should in particular describe: • the existing quality of waters affected by the proposed project and the impacts of the proposed project on water quality, noting any relevant existing discharges, proposed new discharges and proposed changes to discharges • existing water resources affected by the proposed project and the impacts of the proposed project on water resources, noting any relevant existing abstraction rates,	The ES section 9.6 which sets out the baseline conditions of water receptors for all the sites. Section 9.8 outlines the assessment of likely impacts and effects to water bodies within the area of the DCO sites.

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES chapter is information provided to address this
	proposed new abstraction rates and proposed changes to abstraction rates (including any impact on or use of mains supplies and reference to Catchment Abstraction Management Strategies) and also demonstrate how proposals minimise the use of water resources and water consumption in the first instance • existing physical characteristics of the water environment (including quantity and dynamics of flow) affected by the proposed project and any impact of physical modifications to these characteristics • any impacts of the proposed project on water bodies or protected areas (including shellfish protected areas) under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 and source protection zones (SPZs) around potable groundwater abstractions	
Draft NPS EN-3		
Paragraph 2.50.7	The applicants assessment may be accompanied by a Flood Risk Assessment. This will need to consider the impact of drainage. As solar PV panels will drain to the existing ground, the impact will not in general be significant. Where access tracks need to be provided, permeable tracks should be used, and localised Sustainable Drainage Systems (SuDS), such as swales and infiltration trenches, should be used to control any run-off where recommended. Given the temporary nature of solar PV farms, sites should be configures or selected to avoid the need to impact on existing drainage systems and watercourses. Culverting existing watercourses/drainage ditches should be avoided. Where culverting for access is unavoidable, it should be demonstrated that not reasonable alternatives exist and where necessary it will only be in place temporarily for the construction period.	An FRA is included in Appendix 9C of the Environmental Statement [**EN010106/APP/6.2**]. The FRA is accompanied by a Drainage Strategy appended to **Appendix 9C: Flood Risk Assessment** of the ES **[EN010106/APP/6.2]** includes details of the provision of above ground SuDS in the drainage design. The use of a culvert for access to the Burwell Substation area is temporary.

National Planning Policy Framework (NPPF)

2.2.6 Section 14 of the NPPF explains the national planning policy with regard to meeting the challenge of climate change, flooding and coastal change and how local planning authorities should determine planning applications with regard to the water environment. The policies set out in the NPPF to a large extent mirror those that are explained in NPS EN-1. The relevant NPPF paragraphs, together with an indication of where in the ES chapter the information is provided to address these requirements, are provided in **Table 2-3**.

Table 2-3 Relevant NPPF requirements for the flood risk, drainage and water resources assessment

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES is information provided to address this
Paragraph 159	Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.	**Appendix 9C: Flood Risk Assessment** of the ES **[EN010106/APP/6.2]**. Through the sequential process and design iterations, all operational compounds and battery storage units have been located out of flood zones. Infrastructure shown to be at flood risk is to be mitigated through a variety of measures including implementing shallow infiltration SuDS, raising foundations and plinths thus increasing the floor level above a predicted flood, flood storage attenuation and land-management based measures and the application of approved proprietary flood protection systems The substation is designed and constructed to remain operational and safe in times of flood.
Paragraph 163	If it is not possible for development to be located in areas with a lower risk of flooding (taking into account wider sustainable development objectives), the exception test may have to be applied. The need for the exception test will depend on the potential vulnerability of the site and of the development proposed, in line with the Flood Risk Vulnerability Classification set out in Annex 3.	**Appendix 9C: Flood Risk Assessment** of the ES **[EN010106/APP/6.2]** demonstrates how the development passes parts a) and b) of the Exception Test.
Paragraph 164	The application of the exception test should be informed by a strategic or site specific flood risk assessment, depending on whether it is being applied during plan production or at the application stage. To pass the exception test it should be demonstrated that: a) the development would provide wider sustainability benefits to the community that outweigh the flood risk; and b) the development 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.	**Appendix 9C: Flood Risk Assessment** of the ES **[EN010106/APP/6.2]**. demonstrates how the development passes parts a) and b) of the Exception Test.
Paragraph 167	When determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment.	**Appendix 9C: Flood Risk Assessment** of the ES **[EN010106/APP/6.2]** demonstrates how the development passes parts a) and b) of the Exception Test.

Relevant NPS paragraph reference	Requirement of the NPS	Where in the ES is information provided to address this
	Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that: a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location; b) the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment; c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate; d) any residual risk can be safely managed; and e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan.	As outlined in **Chapter 9: Water Environment** of the ES **[EN010106/APP/6.1]**, the appointed Contractor would be required to produce an Emergency Response Plan which would provide details of the response to an impending flood, including details of the evacuation and site closedown procedures.
Paragraph 169	Major developments should incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate. The systems used should: a) take account of advice from the lead local flood authority; b) have appropriate proposed minimum operational standards; c) have maintenance arrangements in place to ensure an acceptable standard of operation for the lifetime of the development; and d) where possible, provide multifunctional benefits.	The Drainage Strategy appended to **Appendix 9C: Flood Risk Assessment** of the ES **[EN010106/APP/6.2]** includes details of the provision of above ground SuDS in the drainage design. The preparation of the ES [**EN010106/APP/6.1**] has included discussion with the LLFA, EA and IDB on drainage provisions.
Paragraph 174	Planning policies and decisions should contribute to and enhance the natural and local environment by: …e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and	**Chapter 9: Water Environment** of the ES **[EN010106/APP/6.1]** presents the potential for effects on the water environment during the construction, operation and decommissioning of the Scheme.

2.3 Guidance

2.3.1 Consideration has also been given to:

a. The UK Government's 25 Year Environment Plan (Ref 16);
b. The UK Government's Future Water Strategy (2011) (Ref 17);
c. The Non-statutory technical standards for Sustainable Drainage Systems (SuDS) (Ref 18);
d. The Building Regulations 2010 Approved Document H Drainage and Waste Disposal (Ref 19);
e. The BRE Digest 365: Soakaway Design and Sewers for Adoption (7th Edition, 2012) (Ref 20).

2.3.2 The NPPF (Ref 21) and the Flood Risk and Coastal Change National Planning Policy Guidance (2014) (Ref 22) recommends that Local Plans should be supported by a Strategic Flood Risk Assessment and should develop policies to manage flood risk from all sources taking account of advice from the Environment Agency and other relevant flood risk management bodies, such as Lead Local Flood Authorities (LLFAs) and Internal Drainage Boards.

2.3.3 The Planning Inspectorate has produced Advice Note 18: The Water Framework Directive. This contains advice on the preparation and submission of any separate WFD assessment reports by Applications. This note includes advice of bodies to be consulted, and screening, scoping and impact assessment, together information on Article 4.7 derogations.

2.3.4 At a regional level, water management is coordinated through 10 River Basin Management Plans (RBMPs). Each RBMP is prepared by the Environment Agency for six-year cycles and set out how organisations, stakeholders and communities will work together to improve the water environment. The waterbodies within the study area fall under the Anglian RBMP (Ref 23). The most recent plans for Anglian river basin district were updated in December 2015 and will remain in place until after 2021.

3 Local Legislation, Policy and Guidance

3.1.1 There is no legislation relevant to flood risk, drainage, and water at a regional or local level; it applies nationally.

3.2 Policy

3.2.1 The following local policy is relevant to the assessment of the water environment effects of the Scheme.

Relevant Document	Relevant policies
East Cambridgeshire District Council Local Plan Adopted April 2015.	Policy ENV8: Flood Risk
Forest Heath District Council Core Strategy Adopted 2010	Spatial Objective ENV2

Relevant Document	Relevant policies
	Policy CS4: Reduce Emissions, Mitigate and Adapt to future Climate Change
Forest Heath and St Edmundsbury Local Plan: Joint Development Management Policies Document (last updated February 2015)	Policy DM6: Flooding and Sustainable Drainage Policy DM14: Protecting and Enhancing Natural Resources, Minimising Pollution and Safeguarding from Hazards
Ely Group of Internal Drainage Boards – Policy Statement on Flood Protection and Water Level Management	The Swaffham area policy statement states the aims of the Board in its approach to management of flood risk and water levels in its area. The policy aim is to reduce the risk to people and the developed and natural environment from flooding and coastal erosion by encouraging the provision of technical, environmentally and economically sound and sustainable defence measures.

3.2.2 The above policies identify the need for a site-specific flood risk assessment to inform the assessment of flood risk from all types of flooding to and from the development. They require the assessment to consider the vulnerability of users of the proposed infrastructure, consider the impacts of climate change and confirm whether or not flood risk is increased elsewhere. In addition, local flood risk management strategies and surface water management plans should be considered when assessing local flood risk within a drainage strategy assessment. The policies also identify measures to mitigate flood risk through sustainable surface water management.

3.2.3 With regard to water quality and water resources, the policies above require consideration of the impacts of pollution from development on the water environment by assessing: waterbodies protected areas under the WFD (Ref 8), safeguard zones, water protection zones, source protection zones (SPZ) around potable groundwater abstractions and ecological sites. The policies also encourage mitigation of pollution on the water environment through careful design to facilitate good pollution control practice. A Water Framework Directive Assessment has been completed and is included as Appendix 9B to the Environmental Statement. The potential for impact to safeguard zones, water protection zones, SPZ abstractions and ecological sites is assessed in Chapter 9.

3.3 Guidance

3.3.1 The assessment has considered the following local guidance:

a. East Cambridgeshire District Council Supplementary Planning Documents Cambridgeshire Flood and Water Adopted November 2016 (Ref 24); and

b. East Cambridgeshire District Council Supplementary Planning Document Renewable Energy (Commercial Scale) October 2014 (Ref 25), with particular reference to Policy CS6: Environment, noting opportunities to limit water pollution, improve water quality, and minimised flooding, and Policy EN8: Pollution.

4 References

Ref 1 HMSO (2014) Water Act.

Ref 2 HMSO (2010) Flood and Water Management Act.

Ref 3 HMSO (1995) Environment Act.

Ref 4 HMSO (1991) Land Drainage Act.

Ref 5 HMSO (1991) Water Resources Act.

Ref 6 HMSO (1990) Environment Protection Act.

Ref 7 HMSO (1975) Salmon and Freshwater Fisheries Act 1975.

Ref 8 HMSO (2017) Water Environment (Water Framework Directive) (England and Wales) Regulations.

Ref 9 HMSO (2017) Environmental Damage (Prevention and Remediation) Regulations.

Ref 10 HMSO (2016) Environmental Permitting (England and Wales) Regulations.

Ref 11 HMSO (2009) Groundwater (England and Wales) Regulations.

Ref 12 HMSO (2009) Eels (England and Wales) Regulations.

Ref 13 National Planning Statement (NPS) for Overarching Energy EN-1 (2011).

Ref 14 National Planning Statement (NPS) for Renewable Energy EN-3 (DRAFT 2021).

Ref 15 National Planning Statement (NPS) for Electricity Networks EN-5 (2011).

Ref 16 The UK Government's 25 Year Environment Plan.

Ref 17 The UK Government's Future Water Strategy (2011).

Ref 18 The Non-statutory technical standards for Sustainable Drainage Systems.

Ref 19 The Building Regulations 2010 Approved Document Part H: Drainage and Waste Disposal.

Ref 20 The BRE Digest 365: Soakaway Design and Sewers for Adoption (7th Edition, 2012).

Ref 21 The National Planning Policy Framework 2019.

Ref 22 Flood Risk and Coastal Change National Planning Policy Guidance.

Ref 23 Environment Agency (2015) Anglian River Basin Management Plan.

Ref 24 Cambridgeshire County Council, 14 July 2016, Flood and Water Supplementary Planning Document

Ref 25 East Cambridgeshire District Council SPD Renewable Energy Development (Commercial Scale) October 2014.