TOWN
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FLOOD RISK ASSESSMENT

For : Installation of a 20-foot equipment storage container

Location : Woodwalton Solar Park, Woodwalton, PE28 5YL

Client : Roc Energy

Reference: 261274 R2

October 2026

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1 Introduction

1.1 This Flood Risk Assessment (FRA) supports a planning application for the installation of a single 20-foot equipment storage container within Woodwalton Solar Park. The container dimensions are confirmed on the submitted elevation plan, which confirms the container is 6.058 metres long, 2.438 metres wide and 2.352 metres high. It has a footprint of 14.8 metres squared.

1.2 The assessment has been prepared in accordance with the National Planning Policy Framework (NPPF), Planning Practice Guidance (PPG), Environment Agency Flood Map for Planning, Huntingdonshire District Council Local Plan, the Strategic Flood Risk Assessment (SFRA), and Middle Level Commissioners (MLC) guidance.

1.3 Given the very small scale of the proposed container and its location within an established solar farm, this FRA is intentionally proportionate, reflecting the minimal risk and operational nature of the development.

2 Site Location

2.1 The site lies within the operational boundary of Woodwalton Solar Park, accessed from the B1090. The submitted location plan identifies the "Proposed Container Location" centrally within the solar farm, set back from the highway and adjacent drains.

2.2 Key contextual features include solar arrays, internal access tracks, drainage channels, and existing electrical substation infrastructure ("El Sub Sta").

2.3 The container will be placed on concrete blocks with no excavation, no foundations, and no change to ground levels.

3 Planning Policy

National Planning Policy Framework

3.1 Section 18 of the NPPF considers Managing Flood Risk and Climate Change. In relation to decision making policies, paragraph F4.1 states:

> *"To inform the assessment of flood risk and, where relevant, appropriate mitigation, a site-specific flood risk assessment should accompany all development proposals in Flood Zones 2, 3a, and 3b as defined in Annex F, table 1."*

3.2 The requirements for Flood Zone 1 are established by paragraph F4.2:

> *"In Flood Zone 1, a site-specific flood risk assessment should inform and accompany all development proposals involving:*
> *a. Sites of one hectare or more;*
> *b. Land which has been identified by the Environment Agency as having critical drainage problems; and*
> *c. Land identified in a strategic flood risk assessment or the Flood Map for Planning as being at risk of flooding from any source, whether now or in the future."*

3.3 Paragraph F4.3 confirms that flood risk assessments should be proportionate to the scale, nature and location of the development.

3.4 Section F5 describes the sequential test, which aims to steer new development to areas with the lowest risk of flooding from any source. Paragraph F5.2

> *"The sequential test should be used in areas known to be at risk now or in the future from any form of flooding, other than for:*
> *a. Sites allocated in the development plan which were subject to the sequential test during plan preparation;*
> *b. Sites where a site-specific flood risk assessment demonstrates clearly that:*
> *i. No built development within the site boundary, including access or escape routes, land raising or other potentially vulnerable elements, would be located on an area that would be at risk of flooding from any source, now and in the future (having regard to potential changes in flood risk); or*
> *ii. Where the site would be at risk of surface water flooding only, the proposed layout, design, and mitigation measures would ensure that occupiers and users would remain safe from current and future surface water flood risk for the lifetime of the development without increasing flood risk elsewhere in accordance with policy F7."*

3.5 Paragraph F7.1 provides advice on how to ensure development is safe from flooding, stating that:

> *"Development proposals should not present a risk from flooding to potential occupiers, users, or visitors, and should not increase flood risk elsewhere."*

3.6 Paragraph F7.2. continues:

> *"Where development is proposed in a location known to be at risk from any form of flooding, now or in the future, it should be refused unless:*
> *a. Within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons which justify a different arrangement;*
> *b. The development will be safe throughout its lifetime taking account of the vulnerability of its users;*
> *c. Any residual risk can be safely managed, and safe access and escape routes are included where appropriate, as part of an agreed emergency plan;*
> *d. 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; and*

e. It can be demonstrated that flood risk will not be increased elsewhere."

3.7 Annex F establishes the flood risk vulnerability classification and lists land uses that would be essential infrastructure, which includes solar farms.

Planning Practice Guidance

3.8 The Planning Practice Guidance advises that:

> *"Within sites, using site layout to locate the most vulnerable aspects of development in areas of lowest flood risk, unless there are overriding reasons to prefer a different location. In addition, measures to avoid flood risk vertically can then be taken, by locating the most vulnerable uses on upper storeys, and by raising finished floor and/or ground levels, where appropriate and that such techniques are suitably designed. Such measures should also account for residual flood risks from flood risk management infrastructure."*

3.9 A site-specific flood risk assessment should:

> *"The assessment should demonstrate to the decisionmaker how flood risk will be managed now and over the development's lifetime, taking climate change into account, and with regard to the vulnerability of its users (see National Planning Policy Framework Annex 3 – Flood Risk Vulnerability)."*

3.10 The objectives of a site-specific flood risk assessment are to establish:

> *"Whether a proposed development is likely to be affected by current or future flooding from any source;*
> *whether it will increase flood risk elsewhere;*
> *whether the measures proposed to deal with these effects and risks are appropriate;*
> *the evidence for the local planning authority to apply (if necessary) the Sequential Test, and;*
> *whether the development will be safe and pass the Exception Test, if applicable."*

Local Plan Policy Assessment

LP5 / LP21 – Managing Flood Risk

3.11 LP5/LP21 requires development to be directed away from areas at risk, to avoid the functional floodplain, and to ensure no increase in flood risk elsewhere.

3.12 Compliance:

- The container is located in Flood Zone 1.
- Flood Zones 2 and 3 affect only a short section of access already in use.
- No development is proposed within areas at risk of flooding.
- No displacement of floodwater or change to drainage occurs.
- The site specific sequential approach to the location of the development is satisfied.

LP15 – Surface Water Management

3.13 LP15 seeks sustainable management of surface water and SuDS where appropriate.

3.14 Compliance:

- No increase in impermeable area
- Rainwater will continue to infiltrate naturally
- Surface water mapping shows no risk at the container location
- SuDS are not proportionate for a 14.8 m² operational container

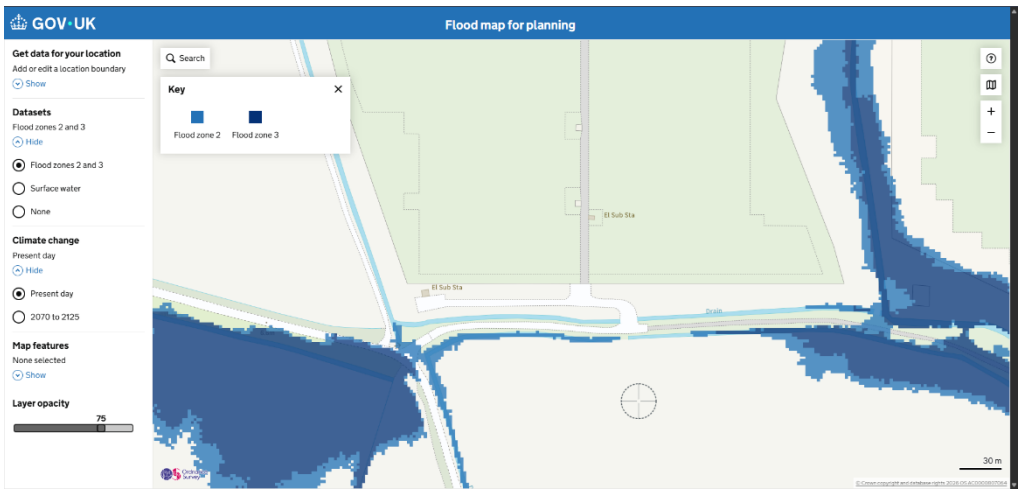
LP6 – Waste Water Management

3.15 Compliance:

- No foul or surface water connections
- No impact on sewer capacity or treatment infrastructure

4 Flood Map for Planning

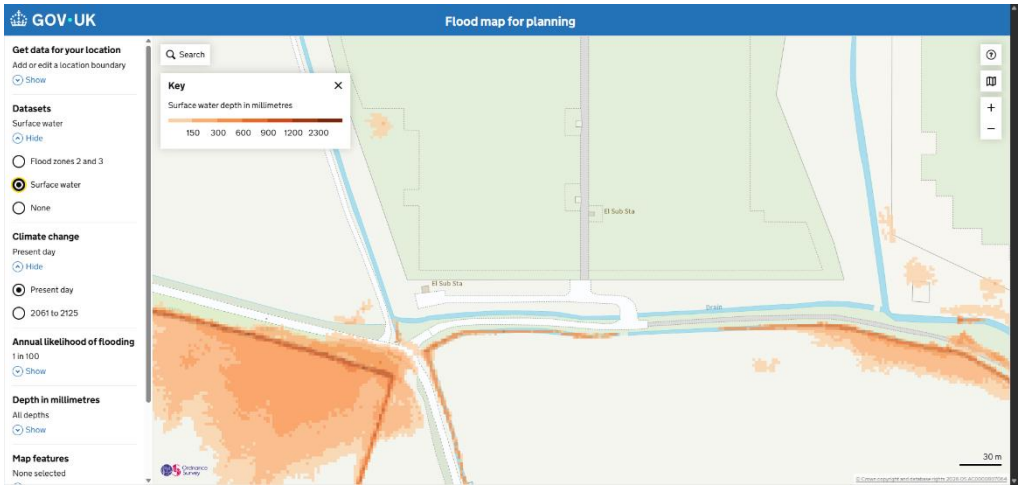
4.1 A review of the Environment Agency Flood Map for Planning (fluvial, surface water, and climate change layers). The Flood Map for Planning extract can be seen below. It demonstrates that the location of the proposed container is within Flood Zone 1.



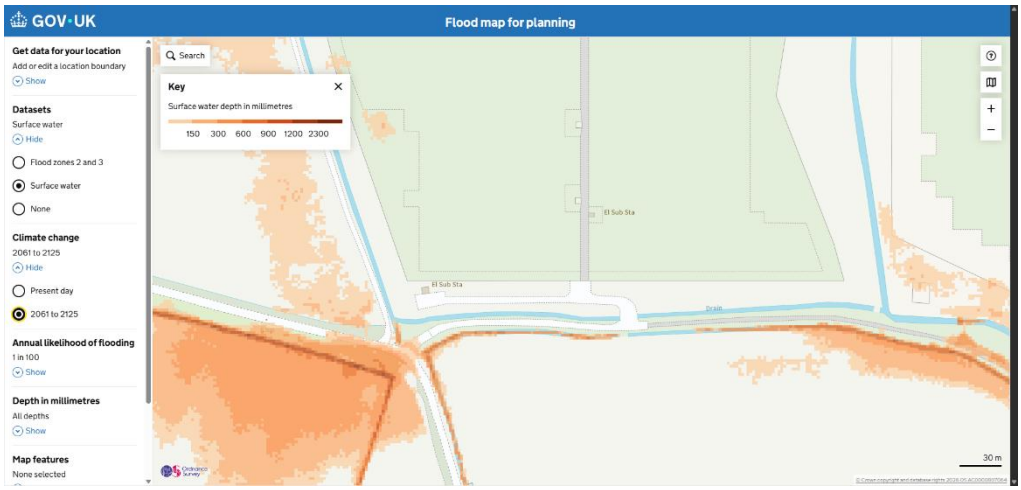
4.2 Making an allowance for climate change, shows that the site remains within Flood Zone 1.



4.3 The surface water flood risk can be seen below, again this does not impact the proposed location of the container.



4.4 Making allowance for climate change demonstrates that the site remains not at risk of surface water flooding.



4.5 demonstrates

- The proposed container location lies entirely within Flood Zone 1 (low probability of flooding).
- Flood Zones 2 and 3 are present only at the western edge of the red line boundary, affecting a short section of the access track adjacent to the B1090.
- These flood zones do not extend into the operational area where the container is proposed.

4.6 This is consistent with the site layout plans, which show the container positioned well within the interior of the solar farm, away from the flood affected road corridor.

5 Strategic Flood Risk Assessment (SFRA)

5.1 The Huntingdonshire SFRA emphasises avoiding development in the functional floodplain, applying the sequential approach, considering all sources of flood risk, and ensuring FRAs are proportionate.

5.2 An extract from the SFRA mapping can be seen below, which is a more detailed assessment taking account of local flood mitigation and protection measures. This demonstrates that the site access is not at risk of flooding.



5.3 Compliance:

- The container is located in Flood Zone 1
- No part of the development lies within the functional floodplain
- Surface water and groundwater risks are negligible
- The FRA is proportionate to the very small scale and low risk nature of the proposal
- The development does not compromise floodplain function or drainage infrastructure.

6 Nature of the Development

6.1 The proposal comprises a single small container with a footprint of approximately 14.8 m² (6.058 metres × 2.438 metres).

6.2 Key characteristics:

- Non habitable, operational storage
- No increase in impermeable area
- No alteration to drainage channels
- No change to ground levels
- Classified as “less vulnerable” under PPG

6.3 The development represents a minor operational addition to an established renewable energy site.

7 Sources of Flood Risk

Fluvial Flooding

7.1 Although the wider solar farm access intersects Flood Zones 2 and 3, the container location itself is in Flood Zone 1. The layout plan confirms the container sits centrally within the site, away from drains and flood affected land.

Surface Water Flooding

7.2 Surface water mapping shows no risk at the container location. The only surface water risk within the red line boundary is the same short section of access near the highway.

Groundwater Flooding

7.3 No excavation is proposed; groundwater interaction is negligible.

Sewer and Reservoir Flooding

7.4 No connections to sewer infrastructure are proposed, and no reservoir flood risk affects the site.

8 Flood Risk to the Development

8.1 The development is low risk:

- The container is non habitable.
- It will be raised slightly on concrete blocks, avoiding minor pooling.

- Contents (maintenance equipment and spare parts) are not sensitive to temporary floodwater exposure.
- The structure does not require safe refuge or emergency access.

9 Flood Risk Impact on Surrounding Land

9.1 The proposal will not displace floodwater, increase runoff, alter drainage channels, impede overland flow, or increase flood risk elsewhere. The footprint is extremely small and sits within a large operational solar farm.

10 Access and Egress During Flood Events

10.1 The only part of the site affected by Flood Zones 2 is a short section of the access track near the B1090. This access is already used for the existing solar farm and will not be altered. The Strategic Flood Risk Assessment confirms that the access is not at risk of flooding, and is based on more detailed local information, so should override the Flood Map for Planning.

10.2 Maintenance visits can be scheduled outside flood conditions. No staff are permanently based on site.

11 Mitigation Measures

11.1 The following mitigation measures are proposed to ensure the development remains safe from flooding and will not increase flood risk elsewhere.

- Container placed on concrete blocks
- No hazardous materials stored
- Maintenance visits avoided during flood warnings
- Equipment stored in sealed units
- Continued adherence to MLC drainage protocols

12 Climate Change Allowances

12.1 Given the small scale and non habitable nature of the development, climate change allowances do not materially affect the proposal. The container does not alter floodplain storage or flow paths.

13 Conclusion

13.1 This FRA demonstrates that:

- The proposed container is located entirely within Flood Zone 1
- The only flood affected land within the red line boundary is a short section of the access track close to the existing site entrance, which is already in use
- The development is very small in scale, non habitable, and operational
- The proposal does not increase flood risk on or off site
- The development complies fully with NPPF, PPG, Huntingdonshire Local Plan policies, SFRA guidance, and MLC requirements

13.2 The proposal is therefore acceptable in flood risk terms.

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