

West Burton Solar Project

Environmental Statement Appendix 10.6: Flood Risk Assessment Sequential and Exception Test

Prepared by: Lanpro Services
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Issue Sheet

**Report Prepared for: West Burton Solar Project Ltd.
DCO Submission**

Appendix 10.6 FRA Sequential and Exception Test

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1 Introduction

- 1.1.1 This Sequential and Exception Test Report has been prepared on behalf of West Burton Solar Project Limited (“the Applicant”) for the West Burton Solar Project (hereafter referred to as ‘the Scheme’). The report accompanies an application for a Development Consent Order (DCO) to be submitted under Section 37 of the Planning Act 2008 (the “Act”) to the Secretary of State for the Department for Energy Security and Net Zero (ESNZ).
- 1.1.2 With a total capacity exceeding 50 megawatts (MW), the Scheme is defined as a NSIP under Sections 14(1)(a) and 15(2) of the Planning Act 2008 (Ref.4), as it is an onshore generating station in England with a capacity of more than 50 MW.
- 1.1.3 The Scheme comprises three combined sites (the Site/Sites) connected by a Cable Route Corridor and is accessible from a number of access points **[EN010132/APP/WB2.5]**. The Scheme’s Order limits, which include all land falling within the DCO application, cover an area of 886.42 hectares (ha).
- 1.1.4 The majority of the Scheme is located within Flood Zone 1. Other aspects of the Scheme, specifically the ground mounted solar photovoltaic (PV) generating stations (incorporating the solar arrays) within West Burton 2 and 3, are located within Flood Zone 2 and 3 areas. See ES Appendices 10.2 – 10.5 **[EN010132/APP/WB6.3.10.2 – WB6.3.10.5]** of Environmental Statement Chapter 10: Hydrology, Flood Risk and Drainage **[EN010132/APP/WB6.2.10]**, for the detailed extent of Flood Zone 2 and 3 coverage across each of the Sites and the Cable Route Corridor. Figure 10.6.1 which forms part of this report, indicates areas of Flood Zone 1 within a 15km radius of the Point of Connection (POC) at West Burton Power Station. Figure 10.6.2 details areas of Flood Zone 2 and 3 within a 15km radius of the POC.
- 1.1.5 Under Annex 3 of the National Planning Policy Framework (NPPF) (Ref.1) the Proposed Development of a solar farm is classified as ‘*essential infrastructure*’. The National Policy Statement for Energy (NPS) - EN1 states that ‘*where new energy infrastructure is, exceptionally, necessary in such areas [of highest flood risk], policy aims to make it safe without increasing flood risk elsewhere and, where possible, by reducing flood risk overall*’ (Para. 5.7.3) (Ref.2).
- 1.1.6 NPS EN-1 also states that the Secretary of State should not consent development in Flood Zone 2 in England unless it is satisfied that the Sequential Test requirements have been met and that it should not consent development in Flood Zone 3 unless it is satisfied that the Sequential and Exception Tests requirements have been met. (para. 5.7.12) (Ref.2).
- 1.1.7 The Scheme is therefore subject to both tests given that, as detailed above, the Scheme is located within Flood Zone 2 and 3 areas.

2 Policy and Guidance

2.1.1 In terms of Government policy, the NPS EN-1 (2011), and the draft NPS-EN1 (published September 2021) (Ref.3), relate specifically to nationally significant energy infrastructure projects (NSIP), and in respect of flood risk, signpost the reader to the NPPF and Planning Policy Guidance. The updated NPPF (2021) provides a more up to date perspective on the sequential approach than the 2011 EN-1.

2.2 NPPF

2.2.1 The NPPF is clear that the *'aim of the Sequential Test is to steer new development to areas with the lowest risk of flooding from any source'* (paragraph 162), whilst for a site 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'. (paragraph 164)*

2.2.2 Both of the above elements of the Exception Test should be satisfied for development to pass the test (paragraph 165).

2.2.3 Paragraph 167 of the NPPF states that *'Applications should be supported by a site-specific flood-risk assessment. 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'.*

2.3 NPS- EN1

2.3.1 For the Sequential Test, NPS EN-1 paragraph 5.7.13 confirms that if there is no *'reasonably available site'* in Flood Zone 1 then projects can be located in Flood Zone 2. If there is no reasonably available site in Flood Zones 1 or 2, then nationally significant energy infrastructure projects can be located in Flood Zone 3 subject to the Exception Test.

2.3.2 NPS-EN1 sets out the following in respect of Exception Test, and the wording of this is tweaked in the revised draft NPS but the overall approach remains the same:

- *'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'* (paragraph 5.7.14).
- *The Exception Test is only appropriate for use where the sequential test alone cannot deliver an acceptable site, taking into account the need for energy infrastructure to remain operational during floods. It may also be appropriate to use it where as a result of the alternative site(s) at lower risk of flooding being subject to national designations such as landscape, heritage and nature conservation designations, for example Areas of Outstanding Natural Beauty (AONBs), Sites of Special Scientific Interest (SSSIs) and World Heritage Sites (WHS) it would not be appropriate to require the development to be located on the alternative site(s)* (paragraph 5.7.15).
- *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.* (paragraph 5.7.16).

'Exceptionally, where an increase in flood risk elsewhere cannot be avoided or wholly mitigated, the IPC [now Secretary of State] may grant consent if it is satisfied that the increase in present and future flood risk can be mitigated to an acceptable level and taking account of the benefits of, including the need for, nationally significant energy infrastructure (...). In any such case the IPC [now Secretary of State] should make clear how, in reaching its decision, it has weighed up the increased flood risk against the benefits of the project, taking account of the nature and degree of the risk, the future impacts on climate change, and advice provided by the EA and other relevant bodies' (paragraph 5.7.17).

2.3.3 As captured within Paragraph 5.7.23 of NPS EN-1, a sequential approach ought to be applied to the layout and design of the project, with more vulnerable uses to be located on parts of the site at lower probability and residual risk of flooding.

2.4 NPPF Planning Policy Guidance

The Sequential Approach to the location of development

2.4.1 Para. 024 Reference ID: 7-024-20220825 of the PPG states the following in relation to the Sequential Test:

The Sequential Test ensures that a sequential, risk-based approach is followed to steer new development to areas with the lowest risk of flooding, taking all sources of flood risk and climate change into account. Where it is not possible to locate development in low-risk areas, the Sequential Test should go on to compare reasonably available sites:

- *Within medium risk areas; and*
- *Then, only where there are no reasonably available sites in low and medium risk areas, within high-risk areas.*

Initially, the presence of existing flood risk management infrastructure should be ignored, as the long-term funding, maintenance and renewal of this infrastructure is uncertain. Climate change will also impact upon the level of protection infrastructure will offer throughout the lifetime of development. The Sequential Test should then consider the spatial variation of risk within medium and then high flood risk areas to identify the lowest risk sites in these areas, ignoring the presence of flood risk management infrastructure.

It may then be appropriate to consider the role of flood risk management infrastructure in the variation of risk within high and medium flood risk areas. In doing so, information such as flood depth, velocity, hazard and speed-of-onset in the event of flood risk management infrastructure exceedance and/or failure, should be considered as appropriate. Information on the probability of flood defence failure is unsuitable for planning purposes given the substantial uncertainties involved in such long-term predictions'.

2.4.2 Para. 079 Reference ID: 7-079-20220825 demonstrates Table 2: Flood risk vulnerability and flood zone 'incompatibility' (reproduced overpage) which summarises the position of Para. 024 Reference ID: 7-024-20220825, as follows:

Table 2: Flood risk vulnerability and flood zone ‘incompatibility’

Flood Zones	Flood Risk Vulnerability Classification				
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a †	Exception Test required †	X	Exception Test required	✓	✓
Zone 3b *	Exception Test required *	X	X	X	✓ *

Key:

✓ Exception test is not required

X Development should not be permitted

Notes to table 2:

- This table does not show the application of the [Sequential Test](#) which should be applied first to guide development to the lowest flood risk areas; nor does it reflect the need to avoid flood risk from sources other than rivers and the sea;
- The Sequential and [Exception Tests](#) do not need to be applied to those developments set out in [National Planning Policy Framework footnote 56](#). The Sequential and Exception Tests should be applied to ‘major’ and ‘non major’ development;
- Some developments may contain different elements of vulnerability and the highest vulnerability category should be used, unless the development is considered in its component parts.

“†” In Flood Zone 3a essential infrastructure should be designed and constructed to remain operational and safe in times of flood.

“*” In Flood Zone 3b (functional floodplain) essential infrastructure that has passed the Exception Test, and water-compatible uses, should be designed and constructed to:

- remain operational and safe for users in times of flood;
- result in no net loss of floodplain storage;
- not impede water flows and not increase flood risk elsewhere.

2.4.3

Para. 023 Reference ID: 7-023-20220825 states that *‘even where a flood risk assessment shows the development can be made safe throughout its lifetime without increasing risk elsewhere, the sequential test still needs to be satisfied. Application of the sequential approach in the plan-making and decision-making process will help to ensure that development is steered to the lowest risk areas, where it is compatible with sustainable development objectives to do so, and*

developers do not waste resources promoting proposals which would fail to satisfy the test’.

- 2.4.4 Para. 028 Reference ID: 7-028-20220825 describes that “Reasonably Available Sites” *‘are those in a suitable location for the type of development with a reasonable prospect that the site is available to be developed at the point in time envisaged for the development’.*

The Exception Test

- 2.4.5 Para. 031 Reference ID: 7-031-20220825 reflects paragraph 164 of the NPPF (see above) with regards to a demonstration of wider sustainability benefits and a reduction in overall flood risk.
- 2.4.6 Para. 035 Reference ID: 7-035-20220825 states that *‘the Exception Test should only be applied when following application of the Sequential Test, it has been demonstrated that 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 applicant will need to provide the local planning authority [which would be the Secretary of State in the case of the Scheme] with evidence to demonstrate how both elements of the Exception Test will be satisfied’.*
- 2.4.7 Para. 036 Reference ID: 7-036-20220825 provides guidance and exemplary avenues in which Applicants can look incorporate and ultimately demonstrate that wider sustainability benefits to the community would outweigh flood risk. The paragraph states in full that:

‘Local planning authorities need to set their own criteria for this assessment, having regard to the objectives of their Plan’s Sustainability Appraisal framework, and provide advice which will enable applicants to provide relevant and proportionate evidence.

Examples of wider sustainability benefits to the community could include:

- *The re-use of suitable brownfield land as part of a local regeneration scheme;*
- *An overall reduction in flood risk to the wider community through the provision of, or financial contribution to, flood risk management infrastructure; and*
- *The provision of multifunctional Sustainable Drainage Systems that integrate with green infrastructure, significantly exceeding National Planning Policy Framework policy requirements for Sustainable Drainage Systems.*

Identified sustainability benefits need to be balanced against any associated flood risks, informed by the site-specific flood risk assessment. The impacts of flood risk on social, economic and environmental factors should be considered. Where wider sustainability benefits are absent or where they are outweighed by flood risk, the Exception Test has not been satisfied and the site allocation in the plan should not be made or planning permission should be refused’.

2.4.8 Para. 037 Reference ID: 7-037-20220825 provides guidance on how it can be demonstrated that the proposed development will reduce flood risk overall. The paragraph states:

'Developers should refer to the Strategic Flood Risk Assessments and site-specific Flood Risk Assessments to identify opportunities to reduce flood risk overall and to demonstrate that the measures go beyond just managing the flood risk resulting from the development. Reductions could be achieved, for example by:

- *Incorporating green infrastructure within the layout and form of development to make additional space for the flow and storage of flood water;*
- *Providing Sustainable Drainage Systems, that manage flood risk beyond the proposed site and above the usual standard, such as by removing surface water from existing combined sewers;*
- *Providing or making contributions to flood risk management infrastructure that will provide additional benefits to existing communities and/or by safeguarding the land that would be needed to deliver it'.*

3 The Sequential Test

3.1 Introduction

3.1.1 The methodology for the Sequential Test has sought to identify whether there are any alternative ‘reasonably available sites’ within a 15km radius of the POC at West Burton Power Station. A 15km radius from the POC was considered to be suitable by the Applicant as a viable cable connection distance for a solar project of this scale.

3.1.2 Sites were required to meet the following criteria in order to be considered a ‘reasonably available site’:

- A location within a search area based on a 15km radius from the West Burton Power Station Substation. The Applicant has secured a Grid Connection for a development, of the scale proposed at the West Burton Power Station Substation.
- The National Grid have advised that the grid connection at West Burton Power Station would be available in 2028. Site availability must therefore be compatible with the timings of the construction phase in order to meet the grid export date;
- A geographical extent similar in scale to West Burton Solar Project (circa 1100 hectares in total);
- Potential suitability for large-scale ground mounted solar development when considered against other constraints (excluding sites that are allocated or safeguarded within the Development Plan);
- A location which would reflect a lesser extent of development within areas of Flood Zone 2 and 3; and
- Land holdings being ‘reasonably available’ for such development subject to land agreements.

3.2 Process

3.2.1 Given that the Sites contain land that is identified as Flood Zone 2 and 3, **Figure 10.6.1** (provided at the end of this document) has been produced in order to identify all other sites within a 15km radius of the POC at West Burton Power Station that are located within Flood Zone 1. These identified sites, subject to other constraints and reasonable availability, would result in the preferable location of the Scheme within areas exposed to the lowest risks from flooding (being in Flood Zone 1).

3.2.2 Having identified all sites within a 15km radius of the POC that lie upon preferable Flood Zone 1 land, the other main constraints have been overlayed within the 15km search to reflect whether or not these Flood Zone 1 sites are reasonable alternatives to the Sites selected. **Figure 10.6.2** consolidates these other constraints. The other constraints which have been mapped include:

- Land identified as other cumulative development in the search area (and thus not available);
- Conservation Areas;
- Listed Buildings;
- Scheduled Monuments;
- Registered Parks and Gardens;
- Ancient Woodland;
- Historic Landfill Sites;
- Authorised Landfill Sites;
- Sites of Special Scientific Interest (SSSI), Local Nature Reserves (LNR) and Local Wildlife Sites (LWS);
- Water Bodies and Flood Zone 2 and 3 areas;
- Areas of Great Landscape Value;
- Sites of Interest in Nature Conservation;
- Grade 3 Agricultural Land;
- Adverse Gradients (topography) (over or equal to 3%);
- National Cycle Network; and
- Main and Minor Green Corridors.

3.2.3 This criteria-based approach aligns with Planning Practice Guidance which states that sites should be compared in relation to flood risk as well as Local Plan status; capacity; constraints to delivery including availability, policy restrictions, physical problems or limitations, potential impacts of the development and future environmental conditions that would be experienced by the inhabitants of the development.

3.2.4 Sites marked as 'Land Identified by Land Agent Enquiry' on **Figure 10.6.2** highlight land held by willing landowners. The availability of willing landowners is an important consideration because the use of compulsory acquisition powers should be a last resort. It is desirable to assemble a solar site in as few land ownerships as possible to minimise legal complexities and project costs.

3.2.5 All identified 'Land Identified by land agent enquiry' has been considered through the Site Selection Assessment **[EN010132/APP/WB6.3.5.1]**. The Site Selection Assessment has considered the Site's flood risk vulnerability, other constraints as detailed within paragraph 3.2.2 above, distance from grid connection, construction traffic access and solar array shading. From this assessment, four Potential Development Areas (PDAs) were considered to be reasonably available sites. These are shown on **Figure 10.6.3**, accompanying this report. Table 1.1 below consolidates these four alternative sites and identifies their location.

Table 1.1: List of resulting PDA sites.

Potential Development Areas (PDA)	PDA Location
PDA 1	Gainsborough/Laughton
PDA 2	Wiseton and Clayworth
PDA 3	Sturton Le Steeple
PDA 4	Dunham High Marnham

- 3.2.6 A Brownfield Land and Rooftop Assessment was also undertaken as set out within the Site Selection Assessment **[EN010132/APP/WB6.3.5.1]**. The Brownfield Land and Rooftop Assessment concluded that there were no further reasonably available sites present to accommodate the Scheme given its nature and scale. Resultingly, no further PDAs were identified beyond those listed in Table 1.1.
- 3.2.7 Of the four PDAs which were considered as potentially viable alternatives and reasonably available, two PDAs (being land at Gainsborough/Laughton (PDA 1) and Sturton Le Steeple (PDA 3)) were discounted in the first instance as they were wholly located within Flood Zones 2 and 3. These sites were not considered to result in the development being better ‘steered towards areas of lowest flood risk’ as per the requirements of the sequential test.
- 3.2.8 Resultingly, this left two PDAs which were considered large enough to accommodate the Scheme at Wiseton and Clayworth (PDA2) and Dunham and High Marnham (PDA4). As evident on Figure 10.6.2 (when cross referenced against Figure 10.6.3), both PDA2 and PDA4 include elements of land falling within Flood Zone 2 and 3.
- 3.2.9 A RAG assessment of these two PDAs was undertaken, as set out in the Site Selection Assessment **[EN010132/APP/WB6.3.5.1]**. The RAG assessment concluded that the Sites for the Scheme, holistically, performed better than PDA2 and was equal to that of PDA4.
- 3.2.10 PDA4 was considered primarily for a separate grid connection into High Marnham Power Station before National Grid advised that although there was capacity available at High Marnham, their preference was for a connection at the West Burton POC because fewer upgrade works to National Grid’s transmissions assets would be required at the West Burton POC and it would therefore be more straightforward, quicker to deliver and more economical. A connection into West Burton could be provided from this site, but given its location immediately adjacent to High Marnham POC a connection here would prove more sensible in the longer term because a shorter cable connection could be provided, reducing cost and electricity losses along the length of the cable.
- 3.2.11 PDA4 is adjacent to draft allocation, Policy ST51: Area of Best Fit for Renewable Energy Development’ Bassetlaw Local Plan 2020-2037 Publication Version

Addendum. Policy ST51 offers in principle support to development that generates, shares, transmits and/or stores zero carbon and/or low carbon renewable energy within the area of Best Fit but does not preclude solar development in other parts of the District. The Area of Best Fit would not be large enough to accommodate the Scheme.

- 3.2.12 The majority of the northern land parcel is flood zone 3 with pockets of zone 1 and 2. Approximately a third of the southern land parcel adjacent to High Marnham POC is zone 3 with the remainder primarily in zone 1 with pockets of zone 2. Flooding is associated with the River Trent which is adjacent to both land parcels.
- 3.2.13 On balance it has been considered that PDA4's proximity to the High Marnham Substation would see it better suited for an energy generation scheme with a connection at the High Marnham Substation.

3.3 Limitations of the Sequential Test

- 3.3.1 It is accepted that any ranking and scoring methodology based on the high-level strategic assessment must take into account a number of assumptions, given that:
- It is not always possible to secure a complete and comprehensive understanding of the land ownership position; without which, full technical surveys and detailed design and mitigation assessments cannot be undertaken in the that timeframe (or at all); and
 - As a consequence, this necessitates a high reliance on professional judgement, for example, with regard to views, screening and the impact of site design constraints and potential mitigation measures, which in turn impact on site capacity and viability (and therefore on what may constitute a 'reasonably available site').
- 3.3.2 Nonetheless, it is considered that this Sequential Test and its conclusions represent a sound and transparent approach to the assessment of potentially 'reasonably available sites' within the identified area of search.
- 3.3.3 It has not been possible to steer the development towards an area of lower flood risk given that there are no reasonably available alternate sites which can be developed to facilitate a 2028 grid connection date at West Burton Power Station.

4 The Exception Test

4.1.1 This section applies the relevant test under NPS EN-1 and the NPPF, as outlined above.

4.1.2 In terms of the first limb of the test under paragraph 5.1.16 and paragraph 164 (a) of the NPPF, the Scheme would provide wider sustainability benefits to the community that outweigh the flood risk. These benefits have been identified and consolidated within Section 4 of the Planning Statement **[EN010132/APP/WB7.5]** and the Statement of Need **[EN010132/APP/WB7.11]** submitted with the DCO application. A number of technical assessments supporting the DCO submission and the Environmental Statement as a whole **[EN010132/APP/WB6.2]** also demonstrate the following benefits which can be summarised as follows:

- The primary function of the West Burton Solar Project is to export energy from renewable solar sources to the National Grid via West Burton Power Station. The Scheme is a substantial infrastructure asset, capable of delivering large amounts of low-carbon electricity to help meet the UK's urgent need to decarbonise. Over its 40-year operational lifetime, the Scheme would produce 21,956,988 MWh of electricity with an average operational greenhouse gas intensity of 7.72 grams of carbon dioxide equivalent per kWh (gCO₂e/kWh) which demonstrates very low carbon attributes compared to other non-renewable forms of electricity generation;
- The development will bring in tangible economic benefits. The construction phase will result in a Gross Value Added (GVA) figure of £64,100,000 whilst the GVA figure for the 40-year operation phase is £51,600,000 and decommissioning is estimated at £51,300,000;
- The application has included a Skills, Supply Chain and Employment Plan **[EN010132/APP/WB7.10]** which will be prepared prior to construction. This plan will set out measures that the Applicant will implement to advertise and promote employment and training opportunities associated with the Scheme in construction and operation locally resulting in upskilling of the labour force;
- The development will deliver significant environmental gains in the form of biodiversity enhancement. It has been calculated that the Scheme will result in a biodiversity net gain of 86.80% provided in habitat units, 54.71% gains in hedgerow units and 33.25% gains in river units;
- The soil resource will also benefit from a period of extended fallow during the operational phase of the Scheme. The conversion of the land from intensive arable to grass pasture will enhance the functional capacity of the soil resource for future arable production;
- The development will result in the creation and management of existing and new native hedgerows and hedgerow trees, woodland copses and shelterbelts, scattered trees with a native shrub mix, scattered trees with a native shrub planting, beneath panel habitats, bird habitats and buffer areas.

The creation and management will be secured through a Landscape and Ecological Management Plan [EN010132/APP/WB7.3] which has been secured as part of the DCO application; and

- The Scheme will deliver enhanced opportunities for walkers, through the provision of a permissive footpath to run from the track off Sykes Lane along the Codder Lane Belt and then south and west to re-join Sykes Lane opposite Hardwick Scrub. This will help to enhance the network of routes and accessibility within and across the Order limits.

4.1.3 In terms of flood risk, the Scheme has been subject to a detailed and sensitive iterative design and mitigation process which has resulted in the following embedded mitigation measures. This has taken account of the context and features of the land within the Order limits, nearby sensitive receptors and assets, information emerging from environmental surveys, feedback from stakeholders, and opportunities and constraints in order to develop a good design that balances the need to maximise the energy generation capacity of the Scheme, with the avoidance and mitigation of impacts, and provision of environmental and other enhancements, where practicable. Some of these measures include but are not limited to:

- Works to create and maintain 98.81 hectares of habitat management areas within areas of Flood Zone 3 within West Burton 2 to the west of the River Till;
- Ground mounted solar photovoltaic generating stations have been arranged such as to avoid being located within much of Flood Zone 2 and 3 areas within the Order Limits;
- During construction, a dedicated flood warden will have responsibilities to be prepared for, and manage, the response to flood incidents;
- Critical infrastructure within the Scheme (substation and energy storage compounds) has been sequentially located within Zone 1, an area with a “Low probability of flooding” and therefore in land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1%); and
- The majority of conversion units (sensitive electrical equipment) have been located within Flood Zone 1. Where this is not feasible, the conversion units will be raised 0.6 m above the 1% AEP + CC flood level or where this is not possible as high as practicably possible.

4.1.4 The effect of the above measures is that there is a negligible flood risk as a result of the Scheme. Consequently, the wider sustainability benefits to the community, including those summarised above, outweigh the flood risk. The first aspect of the exception test is therefore satisfied.

4.1.5 The second element of paragraph 5.7.16 of NPS EN-1 is considered to be satisfied as the project is to be located on developable land. A search of previously developed land has been undertaken, as outlined in the Site Selection Assessment

[EN010132/APP/WB6.3.5.1], in which it is concluded that there are no suitable previously developed sites available to accommodate the Scheme.

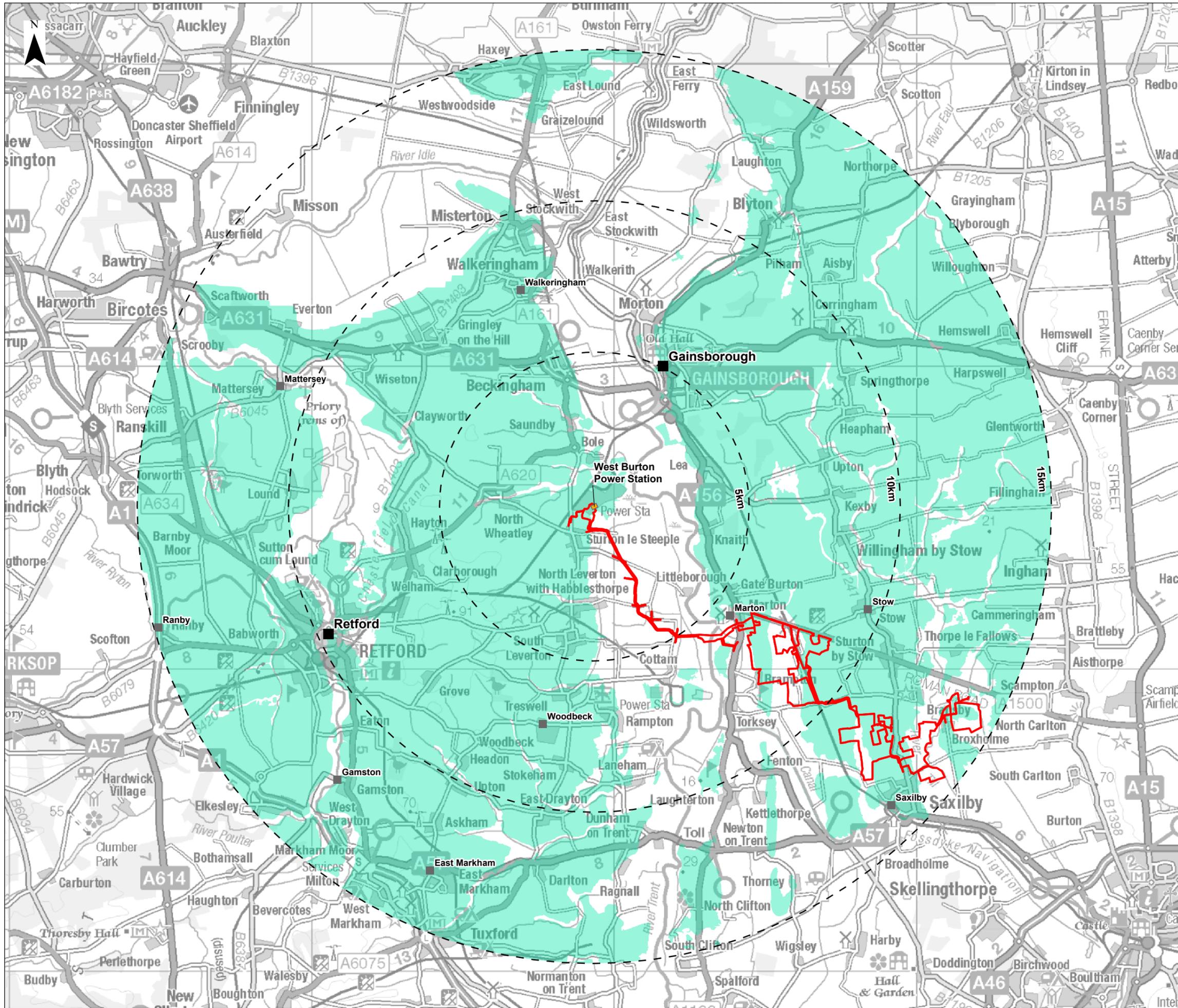
- 4.1.6 Finally, it is important to note that the third element of paragraph 5.7.16 of NPS EN-1 (and also paragraph 164 (b) of the NPPF) is considered to be satisfied through the Flood Risk Assessment which forms part of the submission. The Flood Risk Assessment and Drainage Strategy **[EN010132/APP/WB6.3.10.1]** considers flood risk (from all sources) and sets out mitigation measures to ensure that the development will be safe over its lifetime. It is concluded that the Scheme demonstrates that it will not increase flood risk elsewhere and the ground beneath the panels will remain entirely permeable, draining as existing. The development may reduce existing greenfield run-off rates by replacing intensive agricultural surfaces with a landcover comprising a mixture of wildflowers and grassland.
- 4.1.7 Resultingly, the Scheme is considered to pass the requirements of the Exception Test.
- 4.1.8 Both the Sequential and Exception Tests are considered to be satisfied through the findings of this report. It is therefore concluded that development is permissible within Flood Zones 2 and 3 as all relevant policy requirements have been met.

5 **References**

- Ref.1 Ministry of Housing, Communities & Local Government (2021). National Planning Policy Framework. London: The Stationery Office.
- Ref.2 Department of Energy and Climate Change (2011). Overarching National Policy Statement for Energy (EN-1). London: The Stationery Office.
- Ref.3 Department of Business, Energy & Industrial Strategy (2021). Draft Overarching National Policy Statement for Energy (EN-1). London: The Stationery Office.
- Ref.4 The Planning Act 2008.

6 Figures

Figure 10.6.1 Flood Zone 1 Area



Key

- West Burton Power Station
- Area of Search
- Order Limits
- Flood Zone 1

Layers: Environment Agency, 2023; Lanpro, 2023
Base map: Contains OS data © Crown copyright and database right 2023

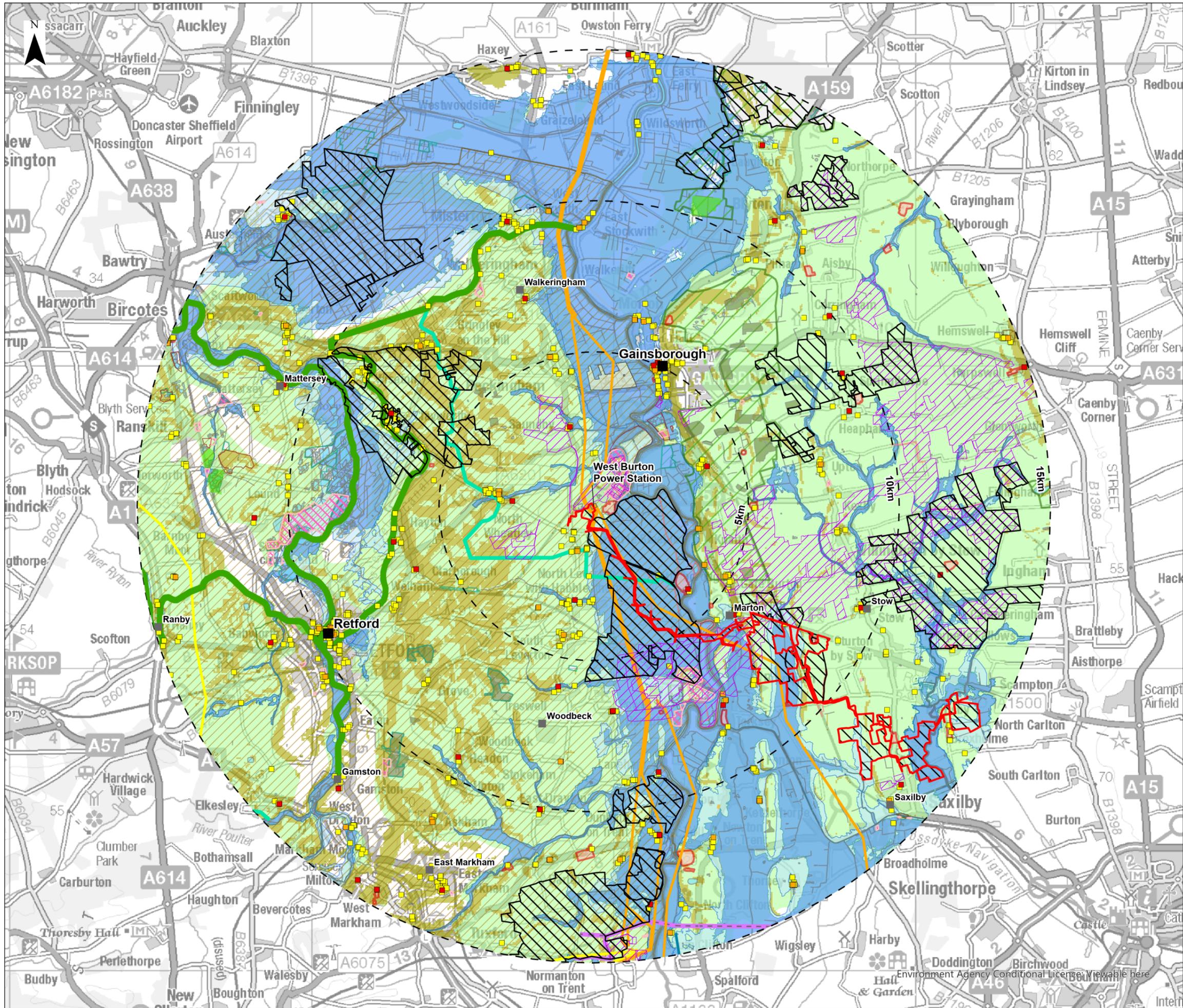


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Figure 10.6.1
West Burton
Flood Zone 1 Area

WEST BURTON SOLAR PROJECT
Flood Risk Assessment Sequential Test
Environmental Statement (ES)

Figure 10.6.2 Overall Constraints



Key

-  West Burton Power Station
-  Area of Search
-  Order Limits
-  Land identified by land agent enquiry
-  Excluded from the scheme as identified as a cumulative development
-  Grade I
-  Grade II*
-  Grade II
-  Conservation Area
-  Scheduled Monument
-  Registered Park and Garden
-  Ancient Woodland
-  Historic Landfill Site
-  Authorised Landfill Site
-  Site of Special Scientific Interest (SSSI)
-  Local Nature Reserve (LNR)
-  Local Wildlife Site (LWS)
-  RSPB Boundary
-  CRoW Conclusive Registered Common Land
-  Water body
-  Flood Zone 3
-  Flood Zone 2
-  Grade 3 Agricultural Land
-  National Cycle Network
-  Area of Great Landscape Value
-  Main Green Corridor
-  Minor Green Corridor
-  Site of Interest in Nature Conservation
- OS Terrain 50 Slope**
-  >=3% Gradient
- National Grid**
-  400kV Overhead Line
-  275kV Overhead Line

Layers: Ordnance Survey, 2023; National Grid, 2023; Lanpro, 2023
 Base map: Contains OS data © Crown copyright and database right 2023

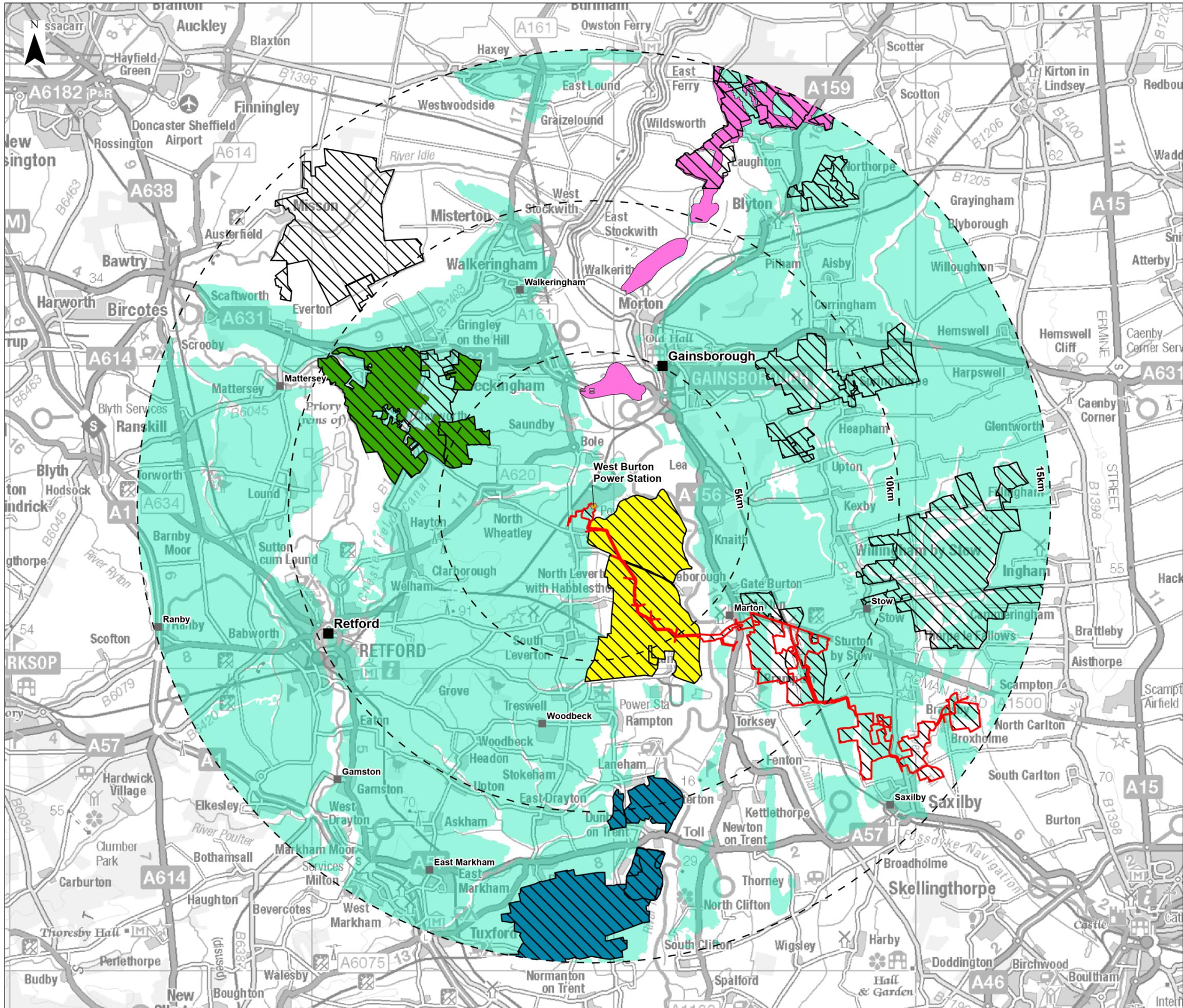
0 2 4 6 km
 Scale: 1:120,000@ A3

APFP Regulation: 5(2)(e)	Application Doc No. WB6.3.10.6.2
Ref: P2983_LPR_ZZ_ON_DR_Z_0267	Date: 15/03/2023
Drawn by: AZ	Checked by: BR

Figure 10.6.2
 West Burton
 Overall Constraints

WEST BURTON SOLAR PROJECT
 Flood Risk Assessment Sequential Test
 Environmental Statement (ES)

Figure 10.6.3 Potential Development Areas



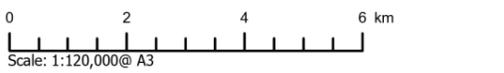
Key

- West Burton Power Station
- Area of Search
- Order Limits
- Flood Zone 1
- Land identified by land agent enquiry

Potential Development Area

- PDA 1 Gainsborough / Laughton
- PDA 2 Wiseton and Clayworth
- PDA 3 Sturton Le Steeple
- PDA 4 Dunham High Marnham

Layers: Environment Agency, 2023; Lanpro, 2023
Base map: Contains OS data © Crown copyright and database right 2023



APFP Regulation: 5(2)(e)	Application Doc No. WB6.3.10.6.3
Ref: P2983_LPR_ZZ_ON_DR_Z_0268	Date: 17/03/2022
Drawn by: AZ	Checked by: BR

Figure 10.6.3
West Burton
Potential Development Areas

WEST BURTON SOLAR PROJECT
Flood Risk Assessment Sequential Test
Environmental Statement (ES)