One Earth Solar Farm

Volume 9.0: Other Post-Submission Documents [EN010159]

Sequential and Exception Test Assessment

Document Reference: EN010159/APP/9.15

August 2025

Revision 01

One Earth Solar Farm Ltd

1. Introduction

1.1 Purpose of this Report

1.1.1. This Sequential and Exception Test Assessment ('the Assessment') has been prepared on behalf of One Earth Solar Farm Limited ('the Applicant') in relation to the Development Consent Order (DCO) Application for the construction, operation (including maintenance), and decommissioning of One Earth Solar Farm (hereafter referred to as the 'Proposed Development').

1.1.2. The Proposed Development is a Nationally Significant Infrastructure Project (NSIP) for the construction, operation (including maintenance), and decommissioning of solar photovoltaic ('PV') development and energy storage, together with associated infrastructure and an underground cable connection to the National Grid High Marnham Substation.

1.1.3. The Proposed Development would include a generating station with a total exporting capacity exceeding 50 megawatts ('MW').

1.1.4. The Applicant has provided an explanation of the site selection process in Appendix 1 of the Planning Statement [APP-168], and an assessment of compliance with the Sequential Test and Exception Test within the Planning Statement [APP-168] paragraphs 10.1.13 – 10.1.52. This detailed Sequential and Exception Test assessment has been prepared to provide further evidence to demonstrate how the Sequential Test has been applied and satisfied as part of site selection, arising from discussions during Issue Specific Hearing 1 (ISH1), Examining Authority (ExA) Questions 1 (ExAQ1), and within the Local Impact Reports (LIR). The Assessment also provides further evidence to justify the 10km search area, and a sensitivity test has also been undertaken to extend this search area to 15km to address comments raised during ISH1 and in the Lincolnshire County Council (LCC) LIR.

1.1.5. The information within this Assessment provides additional information to corroborate the work already undertaken at submission stage. As explained in Appendix 1 of the Planning Statement [APP-168], the Applicant carried out a comprehensive analysis of the search area to consider whether there were suitable and available sites to accommodate a utility scale solar farm and selected the Site because it performed well against a number of the site selection criteria. It did not identify specific alternative sites at this time, rather is focussed on areas of land where a potential site could be sited. Therefore, the alternative sites considered and assessed in Table 1 in Section 5 are presented as a back-check to further demonstrate compliance with the Sequential Test.

1.1.6. The remainder of this Assessment is structured as follows:

- **Section 2** establishes the Policy and Guidance which outlines how the Sequential and Exception Tests are to be applied;
- **Section 3** summarises a number of relevant considerations from recent solar NSIP recommendation reports and appealed Town and Country Planning applications, to help inform the decision-making process for this DCO Application;
- **Section 4** outlines the Site Selection Principles and explains the consideration of flood risk and its context within the Search Area;
- **Section 5** summarises the Proposed Development's compliance with the Sequential Test, including a back-check against potentially suitable and available alternative sites;
- **Section 6** explains why elements of the Proposed Development can acceptably be located in Flood Zone areas through the passing of the Exception Test;
- **Section 7** concludes how both the Sequential and Exception Tests have been applied and passed.

1.1.7. Supporting Appendices comprise

- Appendix A: Detailed Site Assessment (Sites AP1-AP5)
- Appendix B: Detailed Site Assessment (Sites AP6-AP12)
- Appendix C: Assessment Mapping Results

2. Policy and Guidance

2.1.1. This Section provides an overview of the planning policy context for the Proposed Development in relation to flood risk and the application of the Sequential and Exception Tests, as already set out in the Planning Statement [APP-168].

2.1.2. The Overarching National Policy Statement for Energy (NPS EN-1) and National Policy Statement for Renewable Energy Infrastructure (NPS EN-3) provides the primary flood risk planning policy context for deciding this DCO Application, although the majority of policy on flood risk specifically is in NPS EN-1. The National Planning Policy Framework (NPPF) also contains relevant policy through the cross-reference in NPS EN-1. The National Planning Practice Guidance (NPPG), the Newark and Sherwood Local Development Framework Core Strategy & Allocations, Amended Core Strategy (Adopted March 2019), the Central Lincolnshire Local Plan – Adopted April 2023 and the Bassetlaw Local Plan 2020-2038 (Adopted May 2024) also contain relevant planning policy and guidance in relation to the application of the Sequential and Exception Tests.

Overarching National Policy Statement for Energy (NPS EN-1)

2.1.3. Section 5.8 of NPS EN-1 provides the planning policy in relation to flood risk.

2.1.4. Paragraph 5.8.1 recognises that flooding is a natural process which, as well as playing an important role in shaping the natural environment, can threaten life and cause substantial disruption and damage to property.

2.1.5. Paragraph 5.8.2 goes on to note the importance of resilient energy infrastructure and how resilience not only reduces the risk of flood damage to the infrastructure but also reduces disruptive impacts on homes and businesses that rely on that same infrastructure.

2.1.6. With the above in mind, Paragraph 5.8.6 recognises that the aim of planning policy with regard to development and flood risk is to ensure that flood risks from all flooding sources (i.e., pluvial and fluvial factoring climate change) is taken account of at all stages of the planning process in order to steer new development to areas with the lowest risk of flooding.

2.1.7. Paragraph 5.8.7 contains the key test for energy infrastructure covered by the NPS, which is then expanded upon in subsequent paragraphs, and provides that should new energy infrastructure be, exceptionally, "*necessary in flood risk areas (for example where there are no reasonably available sites in areas at lower risk)"* (i.e. if the Sequential Test is passed), policy aims to make it safe for its lifetime without increasing flood risk elsewhere while, and where possible, seeking to reduce flood risk overall (i.e. then you need to proceed to demonstrate that the Exception Test can be passed). Paragraph 5.8.7 also

requires that new energy infrastructure should be designed and constructed to remain operational in times of flood.

2.1.8. Paragraph 5.8.9 explains that if, following the application of the Sequential Test (as outlined in the NPPG section below), it is not possible for a project to be located in areas of lower flood risk, the Exception Test (as also outlined in the NPPG) can be applied. The Exception Test provides an assessment framework which allows necessary development to go ahead where suitable alternative sites at lower risk from flooding are not available to facilitate the development.

2.1.9. It is made clear, through Paragraph 5.8.10, that the application of the Exception Test is only appropriate where the Sequential Test alone cannot deliver an acceptable site.

2.1.10. Where the Exception Test is applied, Paragraph 5.8.11 confirms that two elements of the Exception Test must be satisfied in order for consent to be granted. These are:

> *"the project would provide wider sustainability benefits to the community that outweigh flood risk; and*
>
> *the project 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."*

2.1.11. Further, Paragraph 5.8.12 makes clear that, as a result of development in flood zone areas, there should be no net loss of floodplain storage and any deflection or constriction of flood flow routes should be safely managed within the Site.

2.1.12. Under the Applicant Assessment section of NPS EN-1 Section 5.8, Paragraph 5.8.21 builds on Paragraph 5.8.6 and makes clear that the Sequential Test should first seek reasonably available sites at a low-risk of flooding before considering medium-risk areas and then, only where there are no available sites in low and medium-risk areas, consider high-risk areas.

2.1.13. Importantly, Paragraph 5.8.23 states that, at the site level, all projects should apply the Sequential Test in locating the development.

2.1.14. It is also important to establish the parameters within which alternative sites can be considered 'reasonably available' in 'areas at lower risk' under the application of the Sequential Test. Paragraph 4.3.22 of NPS EN-1 outlines that, given the level and urgency of need for new energy infrastructure, the Secretary of State should be guided by two key principles when deciding what weight to apply to the consideration of alternatives. These are:

> That the consideration of alternatives, in compliance with policy, is carried out in a proportionate manner; and

Only alternatives that can meet the objectives of the proposed development need to be considered.

2.1.15. Further, Paragraph 4.3.23 of NPS EN-1 makes clear that, in considering alternative proposals, there needs to be a realistic prospect that the alternative delivers the same capacity in the same timescale as that of the proposed development.

2.1.16. Paragraph 5.8.29 builds on Paragraph 5.8.23 by noting that, from the lens of flood risk mitigation, the sequential approach should be applied to the layout and design of the project with vulnerable aspects of a development being located in parts of a site at lower risk and residual risk of flooding.

2.1.17. Under Paragraph 5.8.36, a number of flood-related criteria must be met in order for the Secretary of State, in decision making, to grant consent. The important criteria for the Secretary of State to consider under this assessment are whether:

"the Sequential Test has been applied and satisfied 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"; and

"in flood risk areas the project is designed and constructed to remain safe and operational during its lifetime, without increasing flood risk elsewhere".

2.1.18. Paragraph 5.8.41 establishes that "*Energy projects should not normally be consented within Flood Zone 3b*". However, Paragraph 5.8.41 makes exception to this in that where "*essential energy infrastructure has to be located in such areas, for operational reasons, they should only be consented if the development would not result in a net loss of flood plain storage, and would not impede water flows*".

2.1.19. Finally, at Paragraph 5.8.42, EN-1 provides that exceptionally, where an increase in flood risk cannot be avoided or wholly mitigated, the Secretary of State may grant consent if they are satisfied that "*the increase in present and future flood risk can be mitigated to an acceptable and safe level and taking account of the benefits of, including the need for, nationally significant energy infrastructure*" as established through Part 3 of NPS EN-1.

National Policy Statement for Renewable Energy Infrastructure (NPS EN-3)

2.1.20. NPS EN-3 contains limited planning policy in relation to flood risk and generally points back to Section 5.8 of NPS EN-1.

2.1.21. Notwithstanding the above, Paragraph 2.10.60 recognises that applicants will consider several factors when considering the design and layout of sites which includes, among other considerations, flood risk.

2.1.22. It is also recognised, through Paragraph 2.10.84, that since Solar PV panels drain to existing ground, the impact of flooding impacts will not, in general, be significant.

National Policy Statement for Electricity Networks Infrastructure (NPS EN-5)

2.1.23. NPS EN-5, like NPS EN-3, contains limited planning policy in relation to flood risk and points back towards Section 4.10 of NPS EN-1.

2.1.24. However, Paragraph 2.3.2 is important to note as, in relation to electricity network infrastructure, applicants should set out the extent to which a proposed development is expected to be vulnerable to and, as appropriate, has been designed to be resilient to flooding; particularly for substations.

National Planning Policy Framework (NPPF)

2.1.25. Similarly to Paragraph 5.8.7 of NPS EN-1, Paragraph 170 confirms that inappropriate development in areas at risk of flooding should be avoided. However, should development be necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere (i.e., demonstrate compliance with the Exception Test).

2.1.26. Paragraph 174 is reflective of Paragraph 5.8.6 of NPS EN-1 in that it outlines that the aim of the Sequential Test is to steer new development to areas with the lowest risk of flooding from any source and that development is not to be permitted if there are reasonably available sites at lower risk of flooding.

2.1.27. Paragraph 177 shares the sentiment of Paragraph 5.8.9 of NPS EN-1 but importantly builds on it by noting that 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 of the NPPF.

2.1.28. Annex 3 of the NPPF, to the extent that it is relevant to the Proposed Development, has been reproduced below. Annex 3 confirms that ‘solar farms’ are classified as ‘essential infrastructure’. It is noted, that to qualify as “essential infrastructure” (which is then subject to the Exception Test in order to be acceptable in areas of flood risk), other types of energy infrastructure are required to justify the location for operational reasons, whereas for solar and wind turbines, there is not the same requirement, reflecting that they will have less impact in area of flood risk than the type of infrastructure covered by the second bullet point. Whilst not directly relevant given the NPS tests are the primary policy, this is consistent with Paragraph 2.10.84 of EN-3 in recognising that solar has less impact on flood risk than other energy infrastructure covered by the NPSs.

2.1.29. Figure 1.1: Annex 3 of the NPPF

Annex 3: Flood risk vulnerability classification

ESSENTIAL INFRASTRUCTURE

- Essential transport infrastructure (including mass evacuation routes) which has to cross the area at risk.
- Essential utility infrastructure which has to be located in a flood risk area for operational reasons, including infrastructure for electricity supply including generation, storage and distribution systems; and water treatment works that need to remain operational in times of flood.
- Wind turbines.
- Solar farms

National Planning Practice Guidance: Flood risk and coastal change (NPPG)

2.1.30. As outlined in Paragraph 5.8.9 of NPS EN-1, the NPPG's Flood risk and coastal change guidance section captures how the Sequential and Exception Tests are to be applied.

2.1.31. Paragraph 023 outlines the purpose of applying the sequential approach which is that, in summary, areas at little or no risk of flooding from any source should be developed in preference to areas at higher risk. This sequential approach is considered the most effective way of addressing flood risk as it places the least reliance on flood measures. Applicants are advised to apply the sequential approach to locating development to make sure resources are not wasted in promoting developments that fail to meet the Sequential Test (Reference ID: 7-023-20220825) (Note, the PPG references the "sequential approach" as reported in this paragraph, however it is clear that this is referencing the Sequential Test in terms of location of the development)

2.1.32. Paragraph 024 (Reference ID: 7-024-20220825) reaffirms the position taken in Paragraph 5.8.21 of NPS EN-1 and builds on it by considering the presence of existing flood risk management infrastructure. This Paragraph is not considered further as it is not relevant to the context of the Proposed Development.

2.1.33. In applying the Sequential Test, consideration is to be given to 'reasonably available' sites, particularly where these are in areas of lowest flood risk. Paragraph 028 defines 'reasonably available' sites as being "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" (Reference ID: 7-028-20220825).

2.1.34. Paragraph 028 (Reference ID: 7-028-20220825) also makes clear that *"these could include a series of smaller sites and/or part of a larger site if these would be capable of accommodating the proposed development. Such lower-risk sites do not need to be owned by the applicant to be considered 'reasonably available'."* .

2.1.35. Paragraph 031 (Reference ID: 7-031-20220825) reaffirms the wording in Paragraph 5.8.11 of NPS EN-1 and adds that the *"Exception Test is not a tool to justify development in flood risk areas when the Sequential Test has already shown that there are reasonably available, lower risk sites, appropriate for the proposed development".*

2.1.36. Paragraph 036 outlines examples of wider sustainability benefits to evidence one of the two elements that need to be satisfied for the Exception Test to be passed. Benefits include, but are not limited to, the reuse of brownfield land and an overall reduction in flood risk to the wider community (Reference ID: 7-036-20220825).

2.1.37. Finally, Paragraph 079 provides a table titled 'Flood risk vulnerability and flood zone 'incompatibility''. This table has been reproduced below as Figure 1.2. The table confirms that 'essential infrastructure' such as 'solar farms' (as noted in Annex 3 to the NPPF and referenced earlier in this paper) are suitable in Flood Zone 1 and 2 areas but that development proposed in Flood Zones 3a and 3b need to pass and evidence compliance with the Exception Test (Reference ID: 7-079-20220825).

2.1.38. Figure 1.2: 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

2.1.39. Paragraph 079 goes on to confirm '†' means that, in Flood Zone 3a areas, essential infrastructure should be designed and constructed to remain operational and safe in times of flood. Meanwhile, '*' means that, in Flood Zone 3b areas, essential infrastructure that has passed the Exception Test 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.

2.2. Local Planning Policy

2.2.1. Local Planning Policy has also been considered, and the relevant policies are consistent with the NPSs, NPPF and PPG in terms of how the sequential test and exceptions test should apply.

2.2.2. The Newark and Sherwood Local Development Framework Core Strategy & Allocations, Amended Core Strategy (Adopted March 2019) confirms the following in terms of flood risk in Core Policy 10 (Climate Change):

"The District Council is committed to tackling the causes and impacts of climate change and to delivering a reduction in the Districts carbon footprint. The District Council will work with partners and developers to:

> *Steer new development away from those areas at highest risk of flooding, applying the sequential approach to its location detailed in Policy DM5 'Design'. Where appropriate the Authority will seek to secure strategic flood mitigation measures as part of new development;*
>
> *Where appropriate having applied the Sequential Test move on to apply the Exceptions Test, in line with order for the UK government to meet its objectives and commitments as mentioned above. By generating low carbon electricity at a low marginal cost, large-scale solar power reduces the energy generated by more expensive and more carbon intensive forms of generation. The Proposed Development will therefore help to decarbonise the electricity system and lower the market price of electricity. national guidance. In those circumstances where the wider Exceptions Test is not required proposals for new development in flood risk areas will still need to demonstrate that the safety of the development and future occupants from flood risk can be provided for, over the lifetime of the development".*

2.2.3. Bassetlaw Local Plan 2020-2038 (Adopted May 2024) confirms the following in terms of flood risk in Policy ST48 (Reducing Carbon Emissions, Climate Change Mitigation and Adaption):

"All proposals, including the change of use of existing buildings and spaces, should be designed to improve resilience to the anticipated effects of climate change taking into account the design principles in the Bassetlaw Design Quality SPD and the Bassetlaw Design Code. Proposals should incorporate, where appropriate, the following measures that address issues of climate change mitigation and adaptation through:

> *adapting surface materials and drainage design to reduce the risk of flooding to land, property and people as a result of more extreme rainfall in accordance with Policy ST50".*

2.2.4. And at Policy ST50 (Flood Risk and Drainage):

"Proposals are required to consider and, where necessary, mitigate the impacts of the proposed development on flood risk, on-site and off-site, commensurate with the scale and impact of the development. Proposals, including change of use applications, must be accompanied by a Flood Risk Assessment (where appropriate), which demonstrates that the development, including the access and egress, will be safe for its lifetime, without increasing or exacerbating flood risk elsewhere and where possible will reduce flood risk overall.

Where relevant, proposals must demonstrate that they pass the Sequential Test and if necessary the Exceptions Test in Flood Zones 2 and 3 and ensure that where land is required to manage flood risk, it is safeguarded from development."

2.2.5. Central Lincolnshire Local Plan – Adopted April 2023, confirms in Policy S21 (Flood Risk and Water Resources):

"All development proposals will be considered against the NPPF, including application of the sequential and, if necessary, the exception test."

3. Relevant Considerations from Recent Solar Decisions

3.1.1. This Section provides a summary of relevant considerations from recently consented solar NSIPs and successfully appealed Town and Country Planning applications (for development proposed to be located in higher-risk Flood Zone areas).

3.1.2. Key paragraphs from the relevant reports have been captured below with regard to their application of the Sequential Test and, where relevant, the Exception Test.

3.2. Cleve Hill (EN010085): Examining Authority Recommendation Report to the Secretary of State and Decision Letter

3.2.1. Paragraph 8.6.19 of the Recommendation Report establishes that the "*Proposed Development Site lies in Flood Zone 3a, and comprises land assessed as having a 1 in 100 (>1%) annual probability of river flooding or a 1 in 200 (0.5%) annual probability of sea flooding*". The Paragraph goes on to confirm that the site benefits from existing flood defences which protect the site from tidal flooding up to the 1 in 1,000-year event.

3.2.2. Paragraph 8.6.21 confirms that the Examining Authority was informed by the applicant that the design of the proposed development takes account of the possibility of a breach or wave-overtopping existing defences. Therefore, the design of the proposed development provisioned additional flood protection bunds for the critical infrastructure (being the substation and BESS).

3.2.3. Paragraph 8.6.22 outlines that, elsewhere, the *"solar arrays, cabling, inverters and transformers"* were designed to be resilient to a 1 in 1,000-year wave overtopping event. Modelling confirmed a freeboard between the flood depths and lowest edge of solar PV panels meanwhile transformers were to be placed on platforms that would rise and fall with flood waters.

3.2.4. Importantly and with regard for the construction of Cleve Hill, the Cleve Hill Flood Risk Assessment concluded (according to Paragraph 8.6.24 of the Recommendation Report) that there was "*a negligible risk of flooding from fluvial, pluvial or groundwater sources, and it found no significant impacts on any floodplain from the Proposed Development".*

3.2.5. Paragraph 4.142 of the Secretary of State's Decision Letter confirms that "*as far as flood risk is concerned, the ExA concludes that the Applicant's Flood Risk Assessment is appropriate and meets the requirements of National Policy Statement EN-1. The ExA also concludes that the Applicant has designed the proposed Development so as to protect the equipment most at risk of flooding".*

3.2.6. The above position therefore meant that Cleve Hill was considered to have successfully passed both the Sequential and Exception Tests.

3.3. Heckington Fen Solar Park (EN010123) Examining Authority Recommendation Report to the Secretary of State

3.3.1. Paragraph 3.9.9 of the Recommendation Report establishes that *"the Environment Agency flood map indicates that the majority of the Energy Park Site lies within Flood Zone (FZ) 3a (high probability) for fluvial flooding, and it benefits from flood defences offering a 1 in 10 year standard of protection. The Cable Corridor Site and Bicker Fen substation are also within FZ3a".*

3.3.2. Paragraph 3.9.3 sets out the policy expectations in terms of flood risk in the context of EN1 "*The SoS should be satisfied that the application is supported by an appropriate Flood Risk Assessment (FRA), that the sequential test has been properly applied and that sustainable drainage systems are fully considered together with their operation and maintenance for the lifetime of the development. In flood risk areas the project should be designed and constructed to remain safe and operational during its lifetime without increasing flood risk elsewhere".*

3.3.3. The site selection was primarily based on having secured a grid offer from National Grid for a 400 MW export capacity at Bicker Fen substation, and a search area of 15km from the Bicker Fen substation was used which was considered by the applicant to be the maximum distance a development of this scale could economically accommodate (Paragraph 3.2.56). Paragraph 3.2.51 states that the Applicant details *"the identification and assessment of 13 alternative sites as part of a comparative 'back check and review' process which in turn aligns with the Environment Agency's guidance on the sequential test in relation to flood risk. The Applicant concludes in this respect that there are no reasonably available alternative sites appropriate for the Proposed Development which are located in areas with a lower risk of flooding".*

3.3.4. Paragraph 5.2.50 concludes that "*The ExA is content that an appropriate Flood Risk Assessment (FRA), meeting the requirements of 2011 and 2024 NPS EN-1, has been carried out. The information within the FRA together with the Applicant's assessment of alternatives set out in ES Chapter 3 is sufficient for the ExA to conclude that the sequential test and exceptions test have been met."*

3.4. Cottam Solar Project (EN010133): Examining Authority Recommendation Report to the Secretary of State

3.4.1. Paragraph 3.11.11 of the Recommendation Report recognised that *"the majority of the Order Limits for the proposed array sites are located in Flood Zone 1 (low risk). Within Cottam 1, there are areas of Flood Zones 2 (medium risk) and 3 (high risk), and some of the higher risk areas are associated with the River Till.*

Flood Zone 3 also encroaches on the north and eastern boundary of Cottam 2. Both Cottam 3a and 3b are located in Flood Zone 1. There are areas of high surface water flooding across Cottam 1 and some within Cottam 2, although few such areas within Cottam 3a and 3b".

3.4.2. Resultingly, the applicant was required to demonstrate compliance with the Sequential and Exception Tests.

3.4.3. Paragraph 3.11.14 of the Recommendation Report confirmed that the Flood Risk Assessment, Sequential and Exception Test document submitted by the applicant considered "*reasonably available sites within 20km of the Cottam Power Station on the basis this was a viable connection distance".*

3.4.4. With this established, the applicant considered nine sites; of which one was considered equal from a flood-risk perspective to the Cottam Solar Project proposal. However, the equal site was located in proximity to High Marnham Power Station and was ultimately discounted because it was seen as being better suited for an energy generation scheme into the High Marnham Power Station. The Applicant notes that a large amount of the land identified in this alternative site PDA 9 is the now One Earth Solar Farm. The Site was considered through the sequential test, but discounted on the basis that a project here would more suitably connect to High Marnham, which One Earth is proposing. Paragraph 3.11.14 concludes that the applicant therefore considered that the proposed development would be in the most suitable location within the area of search.

3.4.5. Paragraph 3.11.31 of the Recommendation Report makes clear that the Examining Authority was "*content that the sequential and any related exception tests*" had been passed and that the applicant had "*adequately considered alternative sites*" and none were reasonably available.

3.5. West Burton Solar Project (EN010132): Examining Authority Recommendation Report to the Secretary of State

3.5.1. Paragraph 3.12.12 of the Recommendation Report establishes that "*Flood Zone 1 (low risk) comprises the majority of the Order Limit land. Parts of each of WB1, WB2 and WB3 fall within Zones 2 (medium risk) and Flood Zone 3 (high risk)".*

3.5.2. Paragraph 3.12.13 of the Recommendation Report goes on to summarise the Sequential and Exception Tests contained within the applicant's flood risk assessment. It concludes that, within a 15km radius from the point of connection, the proposed site performed better than the four alternative potential development areas based on flood zone status, site selection criteria and proximity to the point of connection.

3.5.3. When assessed against the 2011 NPS EN-1 and the applicable NPPF, the wider sustainability benefits to the community tied to the project were considered to outweigh the flood risk (Paragraph 3.12.15 of the Recommendation Report). Further, the Paragraph confirmed that the proposed development had also "*been subject to a detailed iterative design process which"* had *"resulted in embedded mitigation measures considered to result in a negligible flood risk".*

3.5.4. Ultimately, Paragraph 3.12.51 of the Recommendation Report confirmed that the Examining Authority was "*satisfied that the sequential and related exception test requirements"* had been met. The Paragraph goes on to confirm that the applicant had "*adequately considered alternative sites, none of which could be considered as reasonably available*".

3.6. Old Malton Solar Farm (North Yorkshire Council Application Ref. '23/00046/MFULE' and Appeal Ref. APP/Y2736/W/24/3342002)

3.6.1. Old Malton Solar Farm proposal would produce up to 30.4MW and includes a BESS with a capacity of 12.63MW.

3.6.2. The proposal was refused by North Yorkshire Council on 17 October 2023 and successfully appealed by the applicant with the decision issued on 25 February 2025.

3.6.3. A main issue noted in the appeal decision letter was the acceptability of the proposed development's location with regard, in part, to being located in medium- and high-risk flood areas. In providing the context, Paragraph 7.9 of the appeal decision letter confirms that the "*appeal land lies within Flood Zones 2 and 3".*

3.6.4. Paragraph 15 of the appeal decision letter confirms that, in the context of selecting a site, *"easy and readily available grid connectivity is an important consideration which holds significant weight"* and that, with regard to flood risk, the appeal's evidence demonstrated that there were "*no reasonably preferable alternative sites in areas not prone to flood risk".*

3.6.5. Paragraph 8.8 of the appellant's case outlines that "*as a matter of general principle when considering alternative sites there is plenty of support for the appellant's view that grid connection should be the key locational consideration*" whilst Paragraph 8.14 of the appellant's case goes on to confirm that, overall, *"the 'grid first' approach is consistent with other Inspector's decisions and Government policy. It is realistic – proximity to the PoC enhances the likelihood of deliverability".*

3.6.6. Paragraph 8.15 explains how, according to the appellant, the "*Inspector in the case before him presently does not need to reach a concluded view"* as to what

is an appropriate search area from a point of connection. The Paragraph goes on to note the applicant's search within 2.5km was considered robust.

3.6.7. Within the local context of the applicant's 'grid first' approach, Paragraph 8.16 notes that the question in focus in front of the Inspector was whether 'there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding.' The answer is 'no'".

3.6.8. Moreover, Paragraph 8.17 of the appellant's case recognises that other parties proposed alternative sites to the one being appealed which were much smaller than the appeal site and cannot therefore "*host the proposal*" and that "a *smaller development would be a different project and would not achieve the same benefits"*. Therefore, the appellant concluded that the alternative was "not a genuine alternative". Paragraph 8.18 goes on to note the other constraints (such as agricultural land classification, areas of high landscape value and the built environment) that the applicant had been cognisant of in the site selection process.

3.6.9. Paragraph 8.19 notes that "*all alternative sites which could have an easy grid connection as they are not required to cross or have long sections of cable along the A64 are of equal or greater flood risk*".

3.6.10. Through the Inspector's conclusions, the Inspector outlines that they are "*aware that there is no set requirement for the extent or content of an ASA [Alternative Site Assessment] in local or national policy"*. The Inspector puts this down to "*the sheer number of variables potentially impacting on any given area initial conceptual feasibility scoping exercise onwards".*

3.6.11. The Inspector also concludes that "*readily available connectivity secured by the appellant amounts to a key locational factor"* as "*it would minimise environmental disruption compared to other longer theoretical cable routes".*

3.6.12. Through Paragraph 14.51, the Inspector found that "*the appeal evidence demonstrates that there are no reasonably preferable alternative sites in areas not prone to flood risk. The appellant's site selection justifications are appropriate for responding to known flood risks, as well as avoiding and minimising BMV agricultural land loss as far is as reasonably practicable".*

3.7. Land at Ham Road, Faversham, Kent ME13 7TX (Swale District Council, Appeal Reference: APP/V2255/W/24/3350524)

3.7.1. The site is located close to the coast and therefore tidal flooding, rather than river flooding, is the most relevant consideration (paragraph 12). The decision states that "*it is also necessary to consider future scenarios. In this regard, it is common ground between the main parties and the Environment Agency (EA) that the most appropriate measure to use is the 1 in 200 yrs plus 'higher central' climate change allowance undefended flood event*" and using this approach, "*it*

results in a design tidal flood event depth of 5.83m AOD. In such an event , there would be flooding to the area where some of the proposed built form would be located to the north west corner of main part of site and also to the south east corner, to the access road, and to parts of the proposed areas of open space."

3.7.2. Paragraph 17 confirms that *"Paragraph 175 [of the NPPF] confirms that, where proposed built development is within areas at risk of flooding, the sequential test should be used. This is to establish whether or not there are reasonably available alternative sites*". However as confirmed in paragraph 20 *"A sequential test has not been undertaken by the appellant. This is a clear conflict with the Framework".*

3.7.3. The Applicant proposed various mitigation measures which could be secured by conditions, and the decision confirms this at paragraph 22 "*it has been demonstrated that the entire appeal site could be made safe from flooding by the land changing measures, and by raising the access road, amongst other flood resistance and resilience measures at the detailed design stage, such as small flood barriers, raised services etc8 . It has also been confirmed that the land changing measures have already been accounted for in the visual envelope as used as the baseline for the assessment of landscape character, as considered below. This could be controlled by condition(s)".*

3.7.4. As such, the appeal was allowed by the Inspector who concluded at paragraph 25 that "*Overall, therefore, there is no real world harm from either the failure to undertake a sequential test for tidal flooding or the failure to properly undertake a sequential approach. This is because it has been satisfactorily demonstrated that mitigation measures can make the proposed development safe for its lifetime from tidal flooding. There are also reasons other than flooding that result, although likely only in part, in the land levels changing mitigation measures. There would also be no real world surface water flood risk to the finished and occupied development proposal"*

3.7.5. Paragraph 10 summaries this position and confirms that, even though there is a policy conflict and the sequential test has not been met, this would not ultimately be sufficient to dismiss the appeal, *"Although the proposal has failed to perform the required sequential tests, there would be no real world effects after mitigation is taken into account. A 'strong' reason for refusal based on flooding must, to my mind, go beyond mere technical conflicts, even if they are important. There must be substantive risks and harms that go beyond policy. I do not, therefore, view this as a strong reason for refusing the development proposed".*

3.8. *R (Mead and Redrow) v SoS LUHC [2024] EWHC 279 (Admin)*

3.8.1. The High Court decision of *R (Mead and Redrow) v SoS LUHC [2024] EWHC 279 (Admin)* provides guidance in relation to the application of the sequential

test (in the context of Town and Country Planning Act 1990 applications for residential units and other facilities, and the application of the policy under the NPPF and the PPG).

3.8.2. With respect to the approach to the scope of the examination of alternative sites, being "*reasonably available sites appropriate for the proposed development in areas with lower risk of flooding*", there is a need for "*realism and flexibility*" and is a question of appropriateness left open as a matter for the judgment of the decision maker. The reason for this is that developments will vary as to whether they have particular or intrinsic requirements as to the site, form and scale of development, access and catchment (paragraphs 97 - 99).

3.8.3. The issue of "need" is not wholly irrelevant, and may be relevant in terms of the catchment for the sequential test. At paragraph 103 the judgement states that a need case could be based on a range of factors, such as location, size of the site needed, scale of the development and so on, but the decision maker may also assess whether flexibility has been appropriately considered in undertaking the sequential test. The specific need may be relevant to the appropriate search area and whether other sites in lower flood zones have characteristics making them "appropriate" alternatives (paragraph 104). In contrast (paragraph 105) a more general need for a type of land use across the area was not considered relevant when deciding whether other sites are sequentially preferable and reasonably available alternatives. That general shortfall or need does not help a decision maker to determine whether a particular site, with particular characteristics, qualifies as an "appropriate" alternative to the site selected by the applicant for the proposed development.

3.8.4. At paragraphs 109 - 110, the Court found, in relation to the PPG which states that reasonably available sites may include "*a series of smaller sites and/or part of a larger site if these would be capable of accommodating the proposed development*", that "*whether such an arrangement is so capable depends on the judgments to be made by the decision-maker on such matters as the type and size of development, location, ownership issues, timing and flexibility. Taking into account his assessment of any case advanced by the developer on need and/or market demand, the decisionmaker may consider smaller sites (or disaggregation) if appropriate for accommodating the proposed development*". Further, it was noted that the PPG refers to a "*series of smaller sites*", and that "*The word "series" connotes a relationship between sites appropriate for accommodating the type of development which the decision-maker judges should form the basis for the sequential assessment. This addresses the concern that a proposal should not automatically fail the sequential test because of the availability of multiple, disconnected sites across a local authority's area. The issue is whether they have a relationship which makes them suitable in combination to accommodate any need or demand to which the decision-maker decides to attach weight*".

Summary

3.8.5. As demonstrated above, recently consented solar projects have seen the consistent granting of consent in Flood Zone 2 and 3 areas where applicants have correctly applied the Sequential Test and Exception Test.

3.8.6. It is therefore clear that proposals, such as the Proposed Development, are capable of operating safely without increasing flood risk elsewhere (subject to an appropriate site-specific design solution) when located in medium and high flood risk areas should, following the application of the Sequential and Exception Tests, there be no other reasonably available sites at a lower risk from flooding.

4. Site Selection – additional evidence

4.1.1. The Site Selection Assessment appended to the Planning Statement [APP-168] sets out the Applicant's approach to site selection and provides the explanation on how the Order Limits were chosen. During the ISH1 and in the ExAQ1, the ExA requested further clarity on why a search area of 10km from the High Marnham Substation was chosen, and how this can be justified. As such, this section does not repeat the detailed site selection process, but instead focuses on the criteria used at the start of the site selection process, and justification for the 10km search area chosen.

4.1.2. Notwithstanding the evidence provided below, the Applicant has also carried out a sensitivity test to demonstrate that even if an additional 5km radius is included, there are no reasonably available sites, suitable for the Proposed Development, in a lower flood zone as an alternative to the Order Limits.

4.2. Site Selection Criteria

4.2.1. As set out in the Site Selection Assessment appended to the Planning Statement [APP-168], in determining a suitable location for the Proposed Development, the Applicant sought to develop a single new Nationally Significant Infrastructure Project (NSIP) generating a minimum of 250 – 500 MW which: –

- would contribute to meeting the UK's urgent need for low carbon energy generation;
- would be as close as possible to an available grid connection or part of the transmission network in which capacity exists;
- would avoid impacts on sensitive landscapes and environments as far as practicable;
- would be situated away from densely populated residential receptors and communities;
- would as far as possible be located outside of Best and Most Versatile (BMV) Agricultural Land based on the information known at the time taken from Provisional Agricultural Land Classification (ALC) (England) Map produced by Natural England, noting that this could not always be avoided depending on the overall land quality in the area;
- would not be located wholly within the Flood Zones (meaning Flood Zones 2 and 3), to ensure that more sensitive electrical infrastructure could be located outside of areas at risk of flooding;
- would be readily accessible from existing strategic road network to facilitate construction access; and

- would be delivered on land which could be acquired voluntarily thereby avoiding or minimising the need for large scale compulsory acquisition (and, in the case of BMV Agricultural Land, could potentially help identify the least productive areas of land using local knowledge from farmers).

4.2.2. This approach is set out in Section 3.1 of the Site Selection Report [APP-175].

4.3. Site search radius

4.3.1. As set out in the Site Selection Report appended to the Planning Statement [APP-168], having identified the point of connection and securing a connection agreement at High Marnham in 2021, the Applicant undertook a site search within 10km of the grid connection point for suitable areas of land for NSIP scale solar development ('the search area').

4.3.2. It should be noted that there is relatively limited consistency between the size of search areas adopted for solar NSIPs, due to the significant variability of site and area characteristics, as an example, other consented solar NSIPs have adopted the following search areas:

- Longfield – 5km
- Mallard Pass – No search area adopted – suitable site found within close proximity to National Grid substation
- Cottam – 5km – 20km
- West Burton – 15km
- Gate Burton – 8km search area with constraints mapped to 15km

4.3.3. The initial 10km search area was driven by the desire to be as close to the point of connection as possible, in order to minimise the risk of environmental impacts, disruption to multiple landowners, challenges with crossings and process losses, and the cost and delay of a longer cable route. As requested by the ExA at ISH1 and within the ExAQ1 (Q5.0.2), the Applicant has provided further justification for the 10km search area below.

4.3.4. The 10km search area from the point of connection was proposed as a bespoke radius for the Proposed Development based on a number of technical reasons, which are set out below (and which are aligned with the site selection factors set out in section 2.10 of EN-3, in particular 2.10.21 – 2.10.26 in relation to network connection and maximising existing infrastructure, and minimising disruption).

4.3.5. Firstly, the Applicant wanted to minimise the length of the export cable corridor which limits the financial cost of the infrastructure and construction, but also limits the extent of environmental impacts and disruption which increase as the length of the cable corridor does. These environmental impacts include matters

such as vegetation removal, additional traffic and potential unnecessary archaeological disturbance. There was also a preference to be as close as possible to the point of connection at High Marnham, which was a key driver in the site selection process, and is fixed in location by National Grid.

4.3.6. It is also a strong preference to limit the number of crossings required for National Highways crossings, such as the A1, A57 and A46. Crossing these roads potentially causes disruption to National Highways, members of the public and businesses which could be avoided and, particularly if HDD solutions are required (which would be most likely for these routes) would add further cost and delay to the delivery of critical national priority infrastructure due to additional negotiations and construction work which could impact the delivery programme. Whilst it is accepted that there are A-roads within the 10km search area, by keeping the search area at 10km it limits the number of crossings potentially required as it doesn't include the A46 to the east and south, or the A631 to the north or the A614 to the east. The 10km search area from the point of connection also avoids crossing railway lines, including the East Coast Main line and local line into Lincoln. Whilst agreement can be reached with Network Rail on cable crossings of their railway assets, this adds further complexity to the design and longer, often protracted negotiations with Network Rail, which adds further cost and delay.

4.3.7. Another key reason for limiting the search area to 10km was the proximity to residential receptors, with the 10km search area abutting the A56/A15 ring road that surrounds Lincoln. Increasing the search area beyond this to the east would include Lincoln city limits which would not be an acceptable location for a utility scale solar farm. Similarly, to the north and west the landscape becomes more urban with the towns of Retford and Allerton abutting the 10km boundary, and the larger town of Worksop just beyond. The Applicant's preference in selecting a site was to ensure that it was located away from densely populated areas to mitigate against visual and amenity impact, and noise disturbance (consistent with EN-3 paragraph 2.10.27).

4.3.8. Cumulative impacts with other DCO applications was also considered when deciding the search area for One Earth (consistent with EN-3 paragraph 2.10.26). It is acknowledged that this part of the country is well suited to solar development for a number of reasons, and as such has multiple projects in close proximity to another. As such, the 10km search area was considered wide enough to undertake a robust site selection process, but at the time of site selection, only included one other DCO application (West Burton). If the search area is extended to 15km, it would then include seven additional DCO applications (West Burton, Cottam Solar Project, Tillbridge Solar, Gate Burton Energy Park, Great North Road, Fosse Green and Steeples Renewables Project). As such the 10km was considered appropriate to ensure the Proposed Development was not developed too close to the other projects to limit cumulative impacts.

4.3.9. As such, the 10km search area was carefully considered by the project team based on the above considerations. For the purposes of this information provided to confirm the position already set out in the Applicant's Site Selection Assessment appended to the Planning Statement [APP-168], an extended 15km search area been used to ensure the ExA is confident that alternative sites have been robustly considered and for instance, potentially reasonably available sites just beyond the original 10km search area are not excluded.

5. The Sequential Test

5.1. Site Selection application of the Sequential Test

5.1.1. The methodology for the Sequential Test has sought to identify whether there are any alternative 'reasonably available sites' within a 15km radius of the point of connection at High Marnham Power Station which would be suitable for the Proposed Development. In summary, the process we have followed in order to robustly assess reasonable alternative sites is set out below.

5.1.2. We have taken the extended 15km search radius and:

1) Identified sites (both in terms of size and environmental constraints) that would be in a suitable location and appropriate for development the same type as the Proposed Development;

2) Considered whether any of the sites identified met the requirement as being a site that was reasonably available in terms of land ownership (noting that at site selection stage none of the sites identified has been offered voluntarily to the Applicant – however, as will be shown below, ultimately this factor has not played a determining factor in the sequential test exercise);

3) Considered whether there were any sites meeting both (1) (and ordinarily also (2), however, for reasons explained below, this factor was less relevant in this case) that were entirely within FZ1;

4) Having not identified any sites within step (3), considered whether there were any sites meeting both (1) (and (2) – noting the position as set out above), and entirely within FZ1 and 2;

5) Having not identified any sites within step (4), considered whether there were any sites meeting both (1) and (2) within FZ1, 2 and 3.

5.1.3. The PPG [Paragraph: 028 Reference ID: 7-028-20220825] provides the following in terms of guidance for what is a 'reasonably alternative' site:

'*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.*

These could include a series of smaller sites and/or part of a larger site if these would be capable of accommodating the proposed development. Such lower-risk sites do not need to be owned by the applicant to be considered 'reasonably available'.

5.1.4. It is noted that an initial 10km radius search area was considered suitable by the Applicant as set out in detail above in Section 4. However, as a sensitivity test, the Applicant has undertaken a back check and review of all alternative sites within an extended 15km search area of the High Marnham point of

connection. The back check and review process seek to assess the alternative sites within the search area to confirm that the Order Limits are acceptable in planning terms, and that there are no other sites that are in areas of lower flood risk, suitable for the Proposed Development and reasonably available that could have been proposed instead.

5.1.5. Sites were required to meet the following criteria in order to be considered a 'reasonably available site':

- would contribute to meeting the UK's urgent need for low carbon energy generation;
- would be as close as possible to the grid connection at High Marnham and of a size to deliver 740MW as per the grid connection agreement;
- would avoid impacts on sensitive landscapes and environments as far as practicable;
- would be situated away from densely populated residential receptors and communities;
- would as far as possible be located outside of Best and Most Versatile (BMV) Agricultural Land based on the information known at the time taken from Provisional Agricultural Land Classification (ALC) (England) Map produced by Natural England, noting that this could not always be avoided depending on the overall land quality in the area;
- would be readily accessibly from existing strategic road network to facilitate construction access.

5.1.6. It is noted that the following criteria were also included in the original Site Selection Report (Appendix 1 of the Planning Statement [APP-0168]), as these are factors that would ordinarily form part of the criteria for a suitable site for the Proposed Development, however in the context of the application of the Sequential Test, these factors are instead considered as part of the consideration of areas of lower flood risk and reasonably available land:

- would be delivered on land which could be acquired voluntarily thereby avoiding or minimising the need for large scale compulsory acquisition (and, in the case of BMV Agricultural Land, could potentially help identify the least productive areas of land using local knowledge from farmers); and
- would not be located wholly within the Flood Zones, to ensure that more sensitive electrical infrastructure could be located outside of areas at risk of flooding.

5.2. Methodology

5.2.1. Logika who are the consultants leading on the Environmental Impact Assessment for One Earth Solar Farm have used a GIS platform to map site

constraints including flood zones, to provide the basis for the site selection exercise. The layers include the DEFRA/EA flood datasets, together with wider considerations and constraints (planning, environmental and technical).

5.2.2. As set out in the list above, one of the key criteria to finding alternative sites was the size of the site, which needs to be large enough to accommodate the capacity secured for the grid connection agreement of 740MW. A size of 985 ha has therefore been used as an appropriate size of site, which is the same land take as the solar PV area, and associated infrastructure only. It is considered that this is an overly conservative approach in terms of site size, as realistically, more land would be needed (as evidenced by the Proposed Development which is 1,409 ha) in order to provide mitigation (in particular set backs and planting for landscape and visual and biodiversity) and BNG (in relation to which, despite not being a statutory requirement yet, there is strong precedent for large scale solar to be able to deliver substantial benefits in relation to biodiversity including net gain).

5.2.3. Following this, initially, alternatives sites that are the same size as the solar PV area, and associated infrastructure areas for the Proposed Development have been identified within the 15km search area (985 ha). In addition, whilst there is a strong preference for one contiguous site, smaller sites have also been identified that could be combined to make one single project site the same size of the solar infrastructure area (reflecting the PPG guidance as to what constitutes reasonably available land). In order for the smaller sites to be combined, the parameter applied is that they have to be within 6km of each other because as the sites are split the efficiency in connection strategy is lost, and anything further than 6km requires large cable corridor widths if using 33kV connection requiring wider corridors, with less ability to avoid sensitive environmental receptors and more disturbance. If multiple sites are required further away, additional substations may also be required. It was also considered that if more than two disparate sites were to be proposed, this would significantly add to timescales for delivery and have an impact in the efficient use of land and therefore land that would constitute more than two smaller sites would not represent a realistic alternative to the Site as such sites would not be suitable for the Proposed Development.

5.2.4. As such a single site of 985 ha or two sites of 490 ha within 6km of each other have been assessed in terms of reasonably available, alternative sites. The list of potential sites is set out below in Table 1 (and can be seen on the mapping at Appendix C), which is the sites that meet the above criteria, before the environmental and planning constraints are applied.

Table 1 – List of alternative sites

Alternative Site Reference	Location
985 ha sites	
AP1	To the north of A57/Dunham
AP2	To the north of Lincoln
AP3	Wiglsey
AP4	South Scarle
AP5	To the east of East Markham
480 ha sites	
AP6	West of Skegby
AP7	Stokeham
AP8	South of Cottam
AP9	South Carlton
AP10	Broadholme
AP11	South Hykeham
AP12	Besthorpe Road

5.2.5. A stepped approach to the sequential assessment was taken, with the Applicant initially looking for alternative suitable sites wholly within Flood Zone 1. However, no sites were identified. The Applicant then looked for alternative suitable sites wholly within Flood Zones 1 and 2, however due to the significant amount of Flood Zone 3 within the extended search area, none were identified. As such, all of the alternative suitable site options listed above include a percentage of Flood Zone 3 within them.

5.2.6. Of the alternative sites identified, which were considered as reasonably available alternatives, ten of them (being AP1, AP2, AP3 and AP4, AP7, AP8, AP9, AP10, AP11 and AP12) were discounted as they were located primarily within Flood Zones 2 and 3 (see the Mapping in Appendix C and full assessment of these alternative sites in Appendix A and B) and therefore were not sequentially preferable to the Proposed Development Order Limits (which includes 46% of Flood Zone 1, allowing infrastructure such as the substation and BESS to be located outside of Flood Zones 2 and 3). However, given that all of the alternative sites identified included a percentage of Flood Zone 3, a full technical assessment of these sites was still undertaken to ensure a robust approach was followed in the balancing exercise, and the full assessments are included in Appendix A and B for completeness.

5.2.7. This then left one alternative site (AP5) which was considered large enough to accommodate the Proposed Development, and one alternative site (AP6) which could be combined with other site(s) within 6km to accommodate the development. It is also noted that both sites are also located within Flood Zone 1, 2 and 3 and so would also not be sequentially preferable to the Proposed Development Order Limits. There is no policy steer in terms of the proportion of flood zones across the development site, as such we have continued the assessment of these sites because they have the highest amount of Flood Zone 1, and lowest amount of Flood Zone 2 and 3. For the reasons set out below, both of these sites are deemed not readily available and unsuitable for solar for a number of other reasons (see also the full site assessments in Appendix A and Appendix B, and the Mapping in Appendix C).

5.2.8. A site assessment of the alternative suitable sites was undertaken as summarised in Table 2 below and set out in full in Appendix A (985 ha sites) and Appendix B (480 ha sites).

5.2.9. As can be seen from the table below, no sites were discounted in the application of the Sequential Test based solely on no willing landowners coming forward with available land, however, please see the Applicant's response to ExAQ1 12.1.10 (and paragraph 5.2.10 below) for further details.

Table 2 – Summary of assessment of alternative sites

Site Code	Location	Assessment summary
AP1	To the north of A57/Dunham	Not sequentially preferable due to being located within Flood Zone 2 and 3. In addition, landowners did not come forward with available land for solar development.

AP2	North of Lincoln	Not sequentially preferable due to being located within Flood Zone 2 and 3. In addition, landowners did not come forward with available land for solar development.
AP3	Wiglsey	Not sequentially preferable due to being located within Flood Zone 2 and 3. In addition, landowners did not come forward with available land for solar development.
AP4	South Scarle	Not sequentially preferable due to being located within Flood Zone 2 and 3. In addition, landowners did not come forward with available land for solar development.
AP5	East of East Markham	Not sequentially preferable due to being located within Flood Zone 2 and 3. In addition, landowners did not come forward with available land for solar development. Not suitable due to the site being used by the nearby Darlton Gliding Club, due to open views from the A-roads and railway lines running along, or through the parcels, impacts to heritage assets in proximity, and within the AP5 boundary and the significant impact on the nearby village and town to the east. Landowners also unwilling to engage so timescale constraints.
AP6	West of Skegby	Not sequentially preferable due to being located within Flood Zone 2 and 3. In addition, landowners did not come forward with available land for solar development.

		Not suitable due the site currently being used by the nearby Darlton Gliding Club, due to open views from the railway lines running along, or through the parcels, impacts to heritage assets in proximity, and within the AP6 boundary and impacts on the Darlton Gliding Club.
AP7	Stokeham	Not sequentially preferable due to being located within Flood Zone 2 and 3. In addition, landowners did not come forward with available land for solar development
AP8	South of Cottam	Not sequentially preferable due to being located within Flood Zone 2 and 3. In addition, landowners did not come forward with available land for solar development
AP9	South Carlton	Not sequentially preferable due to being located within Flood Zone 2 and 3. In addition, landowners did not come forward with available land for solar development
AP10	Broadholme	Not sequentially preferable due to being located within Flood Zone 2 and 3. In addition, landowners did not come forward with available land for solar development
AP11	South Hykeham	Not sequentially preferable due to being located within Flood Zone 2 and 3. In addition, landowners did not come forward with available land for solar development

AP12	Besthorpe Road	Not sequentially preferable due to being located within Flood Zone 2 and 3. In addition, landowners did not come forward with available land for solar development

5.2.10. The Applicant undertook a balancing exercise when assessing the above alternatives, and the key considerations were the complexity of multiple site owners, if any willing landowners came forward with available land, the complex nature of certain strategic landowners (such as the Crown Estate), or where landowners cannot be easily identified, timing of delivery and a significant number of different planning and environmental constraints.

5.2.11. As a starting point, the number type and availability of willing landowners[1] was an important consideration because the use of compulsory acquisition powers should be a last resort, for which there are strict legal tests as follows:

- Acquiring authorities should use compulsory purchase powers where it is expedient to do so (which includes consideration of what the alternatives are) and where there is a compelling case in the public interest to make a compulsory purchase order.
- Reasonable efforts need to have been made by the acquiring authority to negotiate the purchase of land by agreement.

5.2.12. It is desirable to assemble a solar site in as few land ownerships as possible to minimise legal complexities, disruption and project costs. It is the case for all of the alternative sites that the landowners did not come forward to volunteer their land for the Proposed Development, and a review of the land ownership information confirms that each large alternative sites has between 100-380 land interests and it is not practicable for the Applicant to identify and approach all of these interests. Some of the land interests will have been approached as part of the initial site selection process, but none of the land interests for the alternative sites came forward with available land. It is however worth confirming that the sites were not immediately discounted just for this reason, as set out above and in Appendix A and B a full assessment all of these sites were undertaken against their suitability for solar development. This was then weighed in the balance of multiple key factors as set out below.

5.2.13. The timing for the 2029 connection date could be at risk if compulsory acquisition powers were used to acquire the land required. It is acknowledged that the draft Development Consent Order retains compulsory acquisition

[1] A willing landowner is considered to be a landowner for the main solar PV part of the development and associated electrical equipment (not cable route) who wishes in principle to put their land forward.

powers to ensure that the Proposed Development can be built should consent be granted, but it is the Applicant's strong preference to acquire all necessary land voluntarily to ensure the connection date is not missed. Including land within a solar NSIP where there is a completely unwilling landowner has a number of issues which increases risk of delivering the project (and indeed any project) by the date of the grid connection agreement, thus delaying the delivery of critical national infrastructure (note that the Applicant did not have to own the land, or even have heads of terms agreed to consider it reasonably available, only that the landowner in principle wanted to put their land forward):

- issues with site access for early survey work, environmental assessments requiring site-access and site visits – this would require the Applicant to use powers to access the site without the owner's permission which adds to time and cost;
- risk of significant objection at consultation stages, with land being included and proposed for development without landowner agreement – despite the compulsory acquisition powers available it is still important to build consensus where possible which is very difficult in a local community if large areas of the proposed site do not have agreement from landowners, who often also live locally;
- the Applicant would need to show that it had taken the necessary steps to acquire the land voluntarily first, which would also add to time and cost compared to a willing landowner.

5.2.14. In this specific situation, should the Applicant seek compulsory acquisition powers to proceed with a different site (one of the alternatives identified within the Assessment, or another one) it would be the case that there was an alternative site (the current One Earth Solar Farm Order Limits) that is suitable and appropriate for the type of development being proposed, with willing landowners who have volunteered their land, which can be designed to have no impact on flood risk or floodplain storage and in fact, would be an efficient use of land that may not have many other viable uses in times of flood. So the Applicant would be needing to persuade the Secretary of State that it would be appropriate and in line with the legal tests for compulsory acquisition, to grant it compulsory acquisition powers in order to deprive an unwilling land owner of its land, purely in order to strictly comply with a policy test, despite there being no real harm, were that policy test not met (i.e. it is not demonstrated that any impact on flood risk or flood plain storage would result). In this context, given the strict legal tests around compulsory acquisition as set out above, it is not "reasonable" to assume that the Applicant would be granted compulsory acquisition powers, and the Applicant does not agree that purely by virtue of being able to seek compulsory acquisition powers in a DCO, that all land becomes "reasonably" available to it.

5.2.15. For these reasons it is considered that having a willing landowner is an important consideration as to whether land is "reasonably available" and one

that has to form part of the site selection process and be carefully balanced alongside other considerations a set out below.

5.2.16. The alternative sites have a large number of landowners, with some parcels having the freehold interest held by the following strategic landowners which would add complexity and time to any voluntary negotiations or compulsory acquisition processes (noting that in the case of Crown interests and statutory undertakers, either due to provisions under the Planning Act 2008 or the need to protect their undertaking, compulsory acquisition would not be available or would only be available in circumstances where the other party has consented to it):

- The Secretary Of State For Environment Food And Rural Affairs
- The Forestry Commission
- Church Commissioners For England
- Severn Trent Water Limited
- Environment Agency
- Western Power Distribution (East Midlands) PLC
- Uniper UK Limited
- Canal & River Trust
- Cadent Gas Limited
- EDF Energy (Thermal Generation) Limited
- Anglian Water Services Limited
- Trent Valley Internal Drainage Board
- The King's Most Excellent Majesty In Right Of His Crown

5.2.17. As set out in detail in Appendix A and B, planning and environmental constraints have also been one of the key factors in site selection, and the alternative sites have not been discounted because of unwilling landowners alone, which would make the sites undeliverable within the same timeframe as the Proposed Development, but there are numerous constraints with each alternative site that would likely make the alternative sites undeliverable in general terms based on the suitability criteria.

5.3. Site Selection Conclusion

5.3.1. As such, the assessment concluded that there are no alternative, suitable, reasonably available sites in areas of lower flood risk when taking into account other factors set out above and in the full assessment. A summary of the

assessment results is set out in Table 2 above, but for the full assessment of each alternative site see Appendix A (985 ha sites) and Appendix B (480 ha sites).

5.3.2. It has not been possible to wholly 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 2029 grid connection date at High Marnham in areas of lower flood risk. The Sequential Test has therefore been applied and not identified any lower risk sites.

5.4. Site-level application of the Sequential Approach

5.4.1. Paragraph 5.8.23 advises that "*all projects should apply the Sequential Test to locating development within the site."* Paragraph 5.8.29 continues on the theme of design, advising that the sequential approach should be applied to layout and design. It states that "*vulnerable aspects of development should be located on parts of the site at lower risk and residual risk of flooding".*

5.4.2. As set out in the Planning Statement [APP-168], following the selection of the Order Limits, the Applicant applied a sequential approach to the layout and design of the Proposed Development. The EA's Flood Map for Planning indicates that large areas of the Site are situated within Flood Zone 2 and 3, indicating a medium to high probability of flooding from fluvial and tidal sources. Flooding from all sources has been further assessed within the ES Volume 2, Chapter 7: Hydrology and Hydrogeology [EN010159/APP/6.7.1] and ES Volume 3, Appendix 7.2 Flood Risk Assessment (FRA) and Outline Drainage Strategy [EN010159/APP/6.21.2]. Flooding in these areas is predominantly associated with the River Trent as well as existing watercourses which are in hydraulic connectivity with the River Trent. An area of land running north to south along either side of the River Trent are situated in the functional floodplain (Flood Zone 3b).

5.4.3. The design process sought to avoid higher risk areas of Flood Zone 3b. Paragraph 5.8.41 of NPS EN-1 states that energy projects should not normally be consented within Flood Zone 3b, however, where essential energy infrastructure has to be located in such areas, for operational reasons, they should only be consented if the development will not result in a net loss of floodplain storage and will not impede water flows. The Government's guidance on flood risk and coastal change provides information on flood vulnerability classification at Annex 3. Annex 3 defines essential infrastructure as:

- Essential transport infrastructure (including mass evacuation routes) which has to cross the area at risk.

- Essential utility infrastructure which has to be located in a flood risk area for operational reasons, including infrastructure for electricity supply including generation, storage and distribution systems; including electricity generating power stations, grid and primary substations storage; and water treatment works that need to remain operational in times of flood.
- Wind turbines.
- Solar farms.

5.4.4. Based on the above definition, the Proposed Development is classified as essential infrastructure. However, there will be no electrical infrastructure located within Flood Zone 3b (functional floodplain), and where land within this area has been included in within the Order Limits, it will only be used for enhancements and/or mitigation (ecological enhancements for example).

5.4.5. On this basis, it is considered that the Proposed Development meets the first part of paragraph 5.8.41 of NPS EN-1, and the second part of the paragraph does not apply, given that there will be no electrical infrastructure located within Flood Zone 3b.

5.4.6. Once the highest risk area of Flood Zone 3b was avoided for all electrical infrastructure, it was then important to consider the most vulnerable uses and how these would be designed within the Order Limits. The BESS and substations have been sited such that their associated sensitive equipment can be located within Flood Zone 1 and no built development is included in Flood Zone 3b.

5.4.7. There are some inverters located in Flood Zones 2 and 3 due to the size of the scheme. Where this is the case, the inverters will be raised above the design flood level on raised platforms, providing a freeboard of 300mm. To ensure that there will only be a negligible impact in floodplain storage, it is proposed that these features will have a voided structure beneath, allowing the flow and storage of floodwater beneath. Furthermore, the Applicant has agreed a technical solution with the Environment Agency which doesn't increase the risk of flooding on or off the site (refer to Statement of Common Ground with the EA [EN010159/APP/8.11]).

5.4.8. With regards to the solar PV arrays, following discussions with the EA, they stated that ideally panels would be raised above the design flood levels, with 300mm freeboard provided to the base of the panel itself. The height to which the panels can be raised is subject to a number of environmental, engineering and maintenance considerations (including visual impact, engineering feasibility, foundation design as well as impacts to archaeology). Through assessing these elements, it is concluded that the maximum height the panels can be raised to is 1.8m (i.e. between ground level and the base of the panel itself) and the assessment made is based on this.

5.4.9. Taking into the account the preference for 300mm freeboard, development within areas where flood depths exceed 1.5m will be avoided wherever possible. There are however, some localised positions where flood depths exceed 1.5m (namely to the far eastern boundary and on the western banks of the River Trent). Although the depth of flooding in these locations will be greater than 1.5m, many of the panels will still be above the flood level but will have a freeboard of less than 300mm. Only a small portion of the solar panels would experience flooding at their base, and the depth of flooding to the panels will be limited. The operational impact should this occur is considered to be acceptable. This approach has been discussed and agreed with the EA.

5.4.10. To this end the Applicant considers that it has demonstrated compliance with the relevant sections of paragraph 5.8.36 in relation to the Sequential Test to site selection and a sequential approach to the site layout and design.

6. Exception Test

6.1.1. Following the completion of the Sequential Test and in accordance with the requirements of paragraph 5.8.9 of EN-1, the Applicant has applied the Exception Test to the proposed Solar PV arrays and infrastructure within Flood Zones 2 and 3. In accordance with paragraph 5.8.10 of EN-1, the Applicant considers it appropriate to apply the Exception Test as the Sequential Test has demonstrated that, at a site specific level taking into account wider sustainable development objectives, there are no reasonably available lower risk sites to locate the required Solar PV arrays and infrastructure that would deliver the same amount of renewable energy to fully utilise the available grid connection within the same time period. ES Volume 3, Appendix 7.2, Flood Risk Assessment (FRA) and Drainage Strategy [AS-051] sets out that in the NPPF the Exception Test needs to be passed in order for essential development to be considered acceptable in Flood Zones 2 and 3. EN-1 paragraph 5.8.11 further replicates the tests set out in Paragraph 178 of the NPPF which state that:

- *"Development that has to be in a flood risk area will provide wider sustainability benefits to the community that outweigh flood risk, and*
- *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."*

6.1.2. In relation to the first bullet point, above, the Applicant considers that the substantial benefits that the Proposed Development would deliver, as set out in Section 3 of the Planning Statement and considered further in the planning balance at Section 9, would clearly outweigh the flood risk. As articulated in the Statement of Need [APP-173], these are considered to be sustainability benefits to the wider community because significant renewable energy schemes at scale are required to be able to meet the legal binding commitment to Net Zero and make energy more affordable and reliable for all.

6.1.3. The Proposed Development also delivers local community benefits through the additional proposed permissive paths, biodiversity net gain and environmental enhancements (see Section 3 of the Planning Statement [APP-168]). Significant socio-economic effects are also anticipated through an investment of approximately £1billion during construction and 4,000 FTE jobs across the whole value chain.

6.1.4. In relation to the second bullet point, the mitigation measures included as part of the Proposed Development, as well as the removal of all electrical infrastructure from Flood Zone 3b, will ensure that the Proposed Development will be safe for its lifetime.

6.1.5. The Proposed Development includes the following mitigation measures:

- Sequentially setting out the Proposed Development, ensuring that sensitive electrical equipment is not located within the Flood Zone 3b floodplain.
- The raising of equipment (both solar panels and inverters where necessary) above the design flood level (with the exception of some small localised areas) on frames and voided structures, to minimise the impact on floodplain storage to acceptable levels or adverse changes in flood flows.
- For the purposes of informing the potential impacts on flood storage capacity and debris impact, a structural assessment to determine a typical design of the panel mounting structures and inverter voided structures (within the design flood extent) has been undertaken. This assessment takes in to account the likely velocity of flood flows and potential debris impact and has been used in assessing flood storage capacity. For clarity, the structural assessment undertaken and details summarised in the updated FRA (submitted at Deadline 2) considers worst case assumptions (in terms of flood depth, velocity and potential debris impact) and is the most robust structure anticipated. However, at detailed design, area specific conditions and likelihood of debris impact will be considered so that efficient sizing of structural features can be undertaken.
- As part of the structural assessment uplift forces due to flooding conditions were also considered and it is confirmed that typical panel connections would be sufficient to withstand flow conditions without detaching.
- No land raising being proposed within the Order Limits, ensuring that there is only a negligible impact on floodplain storage as a result of the panel mounting structures, panels themselves and inverter structures for the areas where there are solar panels within the design flood extent (defined as the 1 in 100 year plus 39% climate change scenario), which the EA has confirmed is acceptable.

6.1.6. As set out in the updated ES Volume 3, Appendix 7.2 Flood Risk Assessment (FRA) and Outline Drainage Strategy [EN010159/APP/6.21.2], the Proposed Development has been designed (and will be constructed) to be operational and safe for all events up to and including the fluvial design flood event (i.e. 1 in 100 year probability plus 39% climate change).

6.1.7. The Proposed Development is designed and constructed to remain operational in times of flooding. The 3% of panels that may be partially submerged in the 1 in 100 year plus 39% allowance for climate change event are designed to be operational during that flood event. It may be that these panels are not utilised during a flood event to take a precautionary approach but they are designed and constructed to remain operational. 3% is considered to be a small proportion of the panel areas and will have a very low to negligible impact on energy generation during a 1 in 100 year flood event. For context, this is not considered to be any worse that the variable nature of weather and its impacts on energy outputs (such as cloud cover). Furthermore, the probability of the

flood event (i.e. 1 in 100 year probability with climate change) is considered low and omitting panels in these areas for this low probability event is not considered proportionate or necessary.

6.1.8. The updated ES Volume 3, Appendix 7.2 Flood Risk Assessment (FRA) and Outline Drainage Strategy [EN010159/APP/6.21.2]. concludes that the Proposed Development has been designed and will be constructed to remain be safe and operational for its lifetime without increasing flood risk elsewhere or having a negligible effect. The Applicant therefore considers that the Proposed Development complies with the Exception Test requirements set out in paragraph 5.8.11 of EN-1. As such, the Applicant considers that its approach to site selection and the design level site selection demonstrates compliance with the requirements of paragraphs 5.8.21, 5.8.23 and 5.8.29 in EN-1.

6.1.9. The Applicant considers that the section above demonstrates the Applicant's compliance with the key policy tests and requirements from EN-1, notably paragraph 5.8.36, in relation to Flood Risk. It is considered that the site selection process has had due regard to the Sequential Test and that the design and layout has taken a sequential approach and considered the flood risk characteristics of the site, with the most vulnerable uses being located in the lowest risk areas. The Applicant considers that the Proposed Development is acceptable in flood risk terms.

7. Conclusions

7.1.1. This Section concludes how both the Sequential and Exception Tests have been applied and passed in accordance with planning policy.

7.1.2. With regard to the Sequential Test, the Applicant confirms that a two-stage sequential approach to selecting the site and designing the selected site has been undertaken, including a back check of potentially reasonably available sites in the study area. This process concluded that firstly, there are no suitable and available sites with lower flood risk within a 15 km search area from the point of connection, and secondly, of the operational elements of the Proposed Development, only Solar PV modules and inverters are proposed to be located in Flood Zone 2 and 3 areas.

7.1.3. It has been evidenced that there are no other reasonably available sites, willing landowner or otherwise, at a lower risk of flooding that could deliver a scheme that is of the same size as the Proposed Development and within the same timeframe (NPS EN-1 4.3.22 and 4.3.23). The Applicant is therefore confident in the site selection level application of the Sequential Test in steering the Proposed Development to an area that is, contextually, at a low risk of flooding.

7.1.4. Additionally, and for the below reasons, it has not been possible to locate all operational elements of the Proposed Development at the site level within Flood Zone 1 areas as:

1. The immediate flood context surrounding the point of connection into the High Marnham Substation to the north, east and south in proximity to the River Trent is heavily constrained; and

2. Other planning and environmental considerations (most notably proximity to settlement, landscape and visual and heritage considerations) had informed the evolution of the Proposed Development and had impacted upon the Proposed Development's ability to fulfil its grid connection agreement and, therefore, the installation of solar PV modules in medium and high-risk flood areas is operationally necessary.

7.1.5. It is therefore concluded that, with the above in mind, the Sequential Test is passed.

7.1.6. In compliance with Paragraphs 5.8.7 and 5.8.41 of NPS EN-1, Paragraph 170 of the NPPF and Paragraph 079 of the NPPG, the Applicant has demonstrated, through the application of the Exception Test in Section 6 of this Assessment, how the Proposed Development is designed and would be constructed to remain operational and safe in times of flooding and throughout its lifetime.

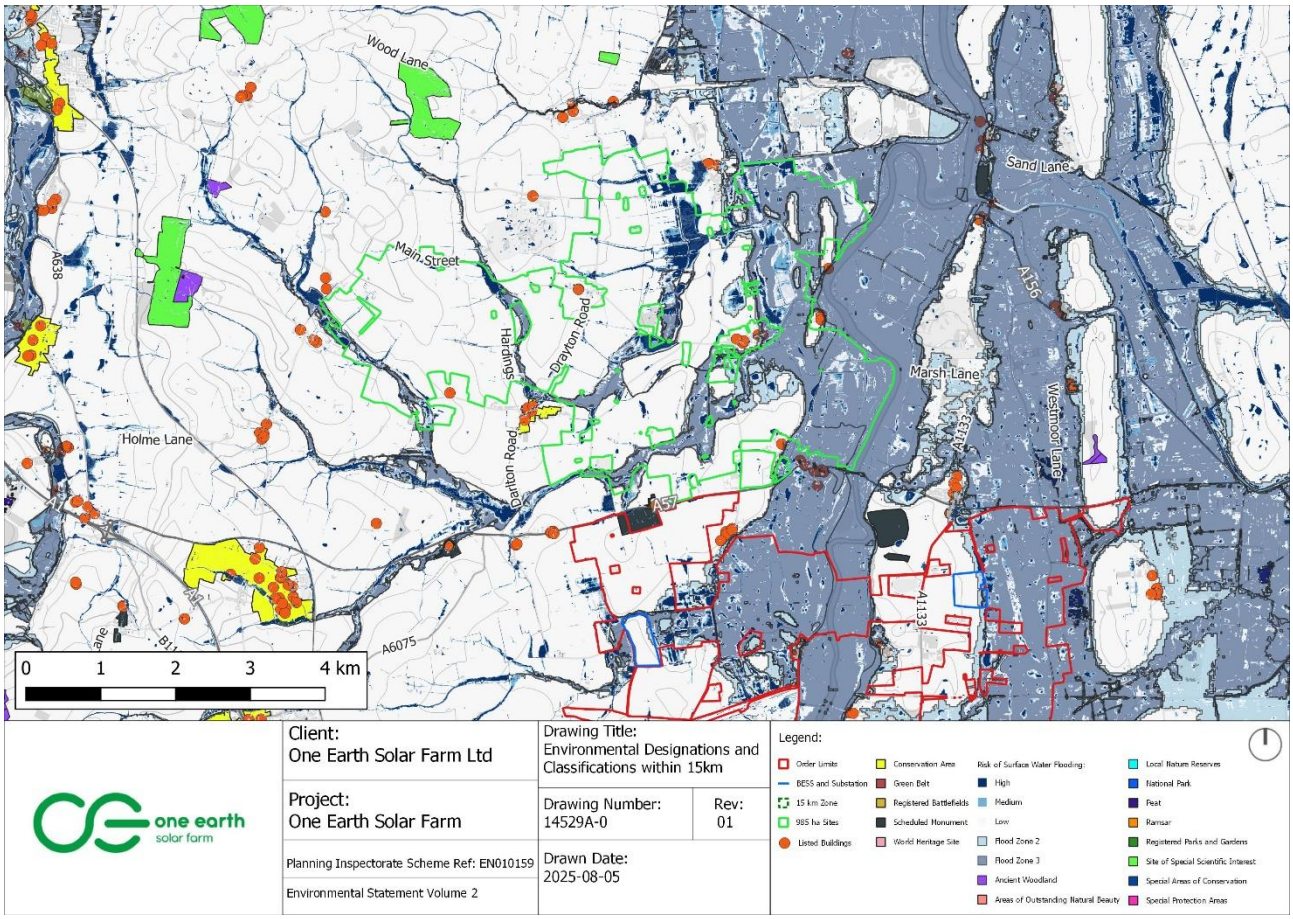
7.1.7. Finally, and with the above in mind, the Applicant concludes that both Sequential and Exception Tests have been passed and that, under Paragraph

5.8.36 of NPS EN-1, the Secretary of State should be satisfied that the flood-related planning policy criteria has been met.

Appendix A Detailed Site Assessments (985 ha Sites AP1-AP5)

Alternative AP1 – 985ha

See Appendix C for full assessment mapping results



Assessment

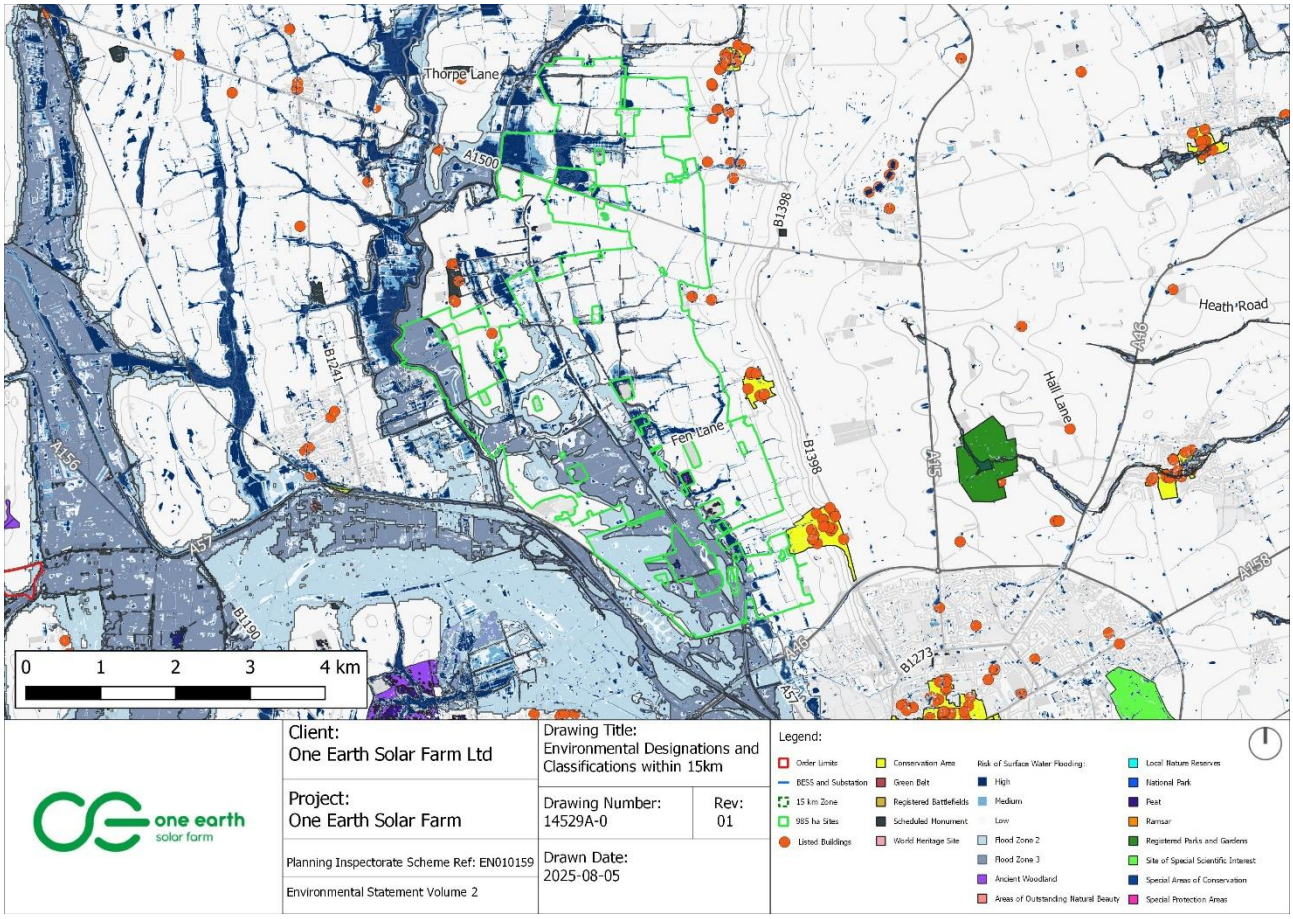
Topic	Assessment
Land Use and Availability	A review of recent aerial imagery indicates that the site is currently in active use for agricultural purposes, primarily grazing. The land appears to have no evidence of built structures. This suggests that the site is presently part of the rural agricultural landscape. In terms of landowners, AP1 has 378 different land titles associated with the parcels, and previously no willing landowners had come forward to volunteer their land for the project.
Grid Connection	AP1 is located approximately 3 km from the point of connection (POC) at High Marnham and the cable route would have to cross the A57

Hydrology and Flood Risk	AP1 is located partially within Flood Zones 2 and 3, which represent areas with a high probability of flooding. Additionally, the site is subject to surface water flooding, with areas being high risk. This suggests that heavy rainfall could lead to localised flooding, further increasing the vulnerability of the site.
Ecology and Biodiversity	There are no ancient woodlands located within the boundary of AP1. The nearest designated ancient woodland lies approximately 1 kilometre to the north-west of the Site. There are no Local Nature Reserves (LNRs) or Sites of Special Scientific Interest (SSSIs) within the site boundary. The closest SSSI is located approximately 1 kilometre to the north-west.
Landscape and Visual	The site is entirely situated within the Trent and Belvoir Vales National Character Area. There are no National Landscapes within or adjacent to the site. As such, the site does not fall within nationally designated landscapes of high scenic or conservation value. The site is located outside of the Green Belt.
Cultural Heritage	There are a number of listed buildings both within and adjacent to the Site boundary. While AP1 is not situated directly within a Conservation Area, there is a conservation area adjacent to the Site by Darlton Road. AP1 has no scheduled monuments within the Site boundary but there are a number directly adjacent.
Residential/Communities	AP1 is located in an area surrounded by many small villages, including East Drayton, Dunham and Rampton. However, the boundary of AP1 surrounds the entire village of Laneham which could be difficult to mitigate.
Access	AP1 is surrounded by local roads and lanes which might require improvements. However, the southern boundary of the site is bound by the A57, which could be used as an access point for AP1.
Agricultural Land Classification	The Site is situated entirely within Grade 3 and Grade 4 land.

	When compared against the current site location for the One Earth Solar Farm, which is Grade 3, AP3 is of a similar grade from a review of publicly available information.
Cumulative Impact	AP1 is to the north of One Earth Solar Farm which is closer to other solar DCO projects Steeples Renewables, West Burton and Gate Burton so on balance is likely to perform worse in terms of cumulative impacts.
Conclusion	AP1 is partially within Flood Zones 2 and 3, with additional areas at high risk of surface water flooding. As such, AP1 is not considered to result in the development being better steered towards areas of lowest flood risk as per the requirements of the sequential test.

Alternative AP2 – 985ha

See Appendix C for full assessment mapping results



Assessment

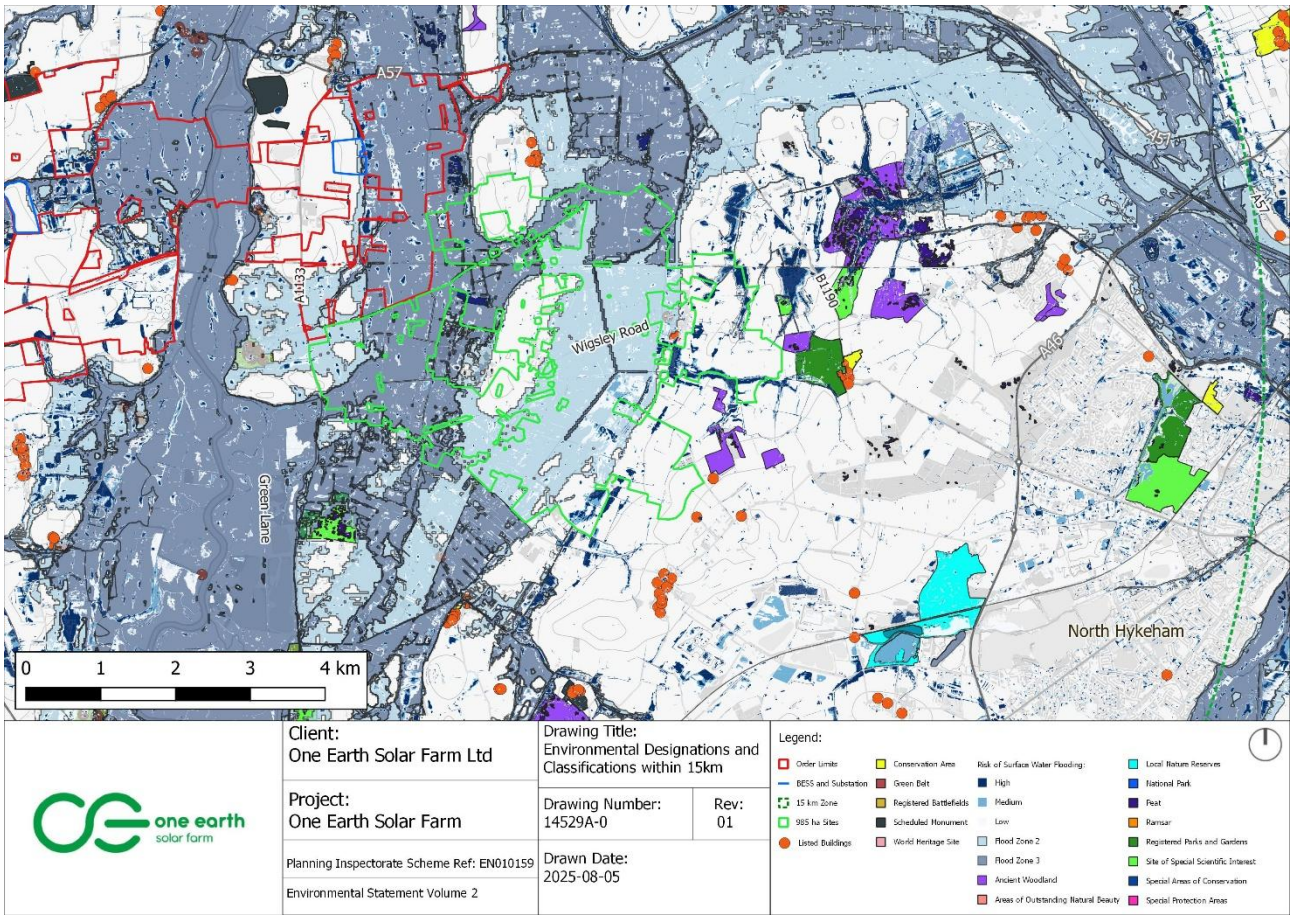
Topic	Assessment
Land Use and Availability	A review of recent aerial imagery indicates that the site is currently in active use for agricultural purposes, primarily grazing. The land appears to have no evidence of built structures. This suggests that the site is presently part of the rural agricultural landscape. In terms of landowners, AP2 has 95 different land titles associated with the parcels, and previously no willing landowners had come forward to volunteer their land for the project.
Grid Connection	AP2 is located approximately 14 km from the point of connection (POC) at High Marnham and the cable route would have to cross the River Trent, the A57, the railway lines and Foss Dyke watercourse.

Hydrology and Flood Risk	AP2 is located largely within Flood Zones 2 and 3, which represent areas with a high probability of flooding. Additionally, the site is subject to surface water flooding, with areas ranging from medium to high risk. This suggests that heavy rainfall could lead to localised flooding, further increasing the vulnerability of the site.
Ecology and Biodiversity	AP2 does not contain or border any designated ancient woodland. There are no LNRs or SSSIs within the site boundary.
Landscape and Visual	AP2 is situated within two National Character Areas. These include Trent and Belvour Vales, and Northern Lincolnshire Edge with Coversands. There are no National Landscapes within or adjacent to the site. As such, the site does not fall within nationally designated landscapes of high scenic or conservation value. The site is located outside of the Green Belt.
Cultural Heritage	There are no listed buildings located within the site boundary. However, several listed buildings are situated immediately adjacent to the site boundary and in the surrounding area. While AP2 itself does not fall within a designated conservation area, there are two conservation areas located adjacent to the south-eastern boundary. These areas contain a number of listed buildings and contribute significantly to the local historic character. Additionally, there are no scheduled monuments within the site boundary. However, a small number of scheduled monuments are located within the wider vicinity. AP2 is located in close proximity to the City of Lincoln and views from the land parcels are expected to impact Grade 1 listed Lincoln Cathedral.
Residential/Communities	AP2 is located north of Lincoln, approximately 2.9km away. However, in terms of local residential properties, Burton Waters sits directly adjacent to the south-western corner of AP2. AP2 also surrounds a number of residential properties along Carlton Lane and Till Bridge Lane in the northern section of AP2.

Access	AP2 is surrounded by a range of local roads, including the A57 and A46 which would deem suitable. Access into the parcels could be taken from the A57.
Agricultural Land Classification	The Site is situated within Grade 3 land but close to areas of Grade 2 land which is comparable to the current Order Limits.
Cumulative Impact	AP2 is to the east of One Earth Solar Farm and abuts Cottam Solar Project and West Burton Solar Project
Conclusion	AP2 is largely located within Flood Zones 2 and 3, with additional areas at high risk of surface water flooding. As such, AP2 is not considered to result in the development being better steered towards areas of lowest flood risk as per the requirements of the sequential test. AP2 is also located in close proximity to Lincoln which for a number of residential and community amenity reasons and heritage reasons would make AP2 unsuitable. In addition, the cumulative impacts deem the site unsuitable.

Alternative AP3 – 985ha

See Appendix C for full assessment mapping results



Assessment

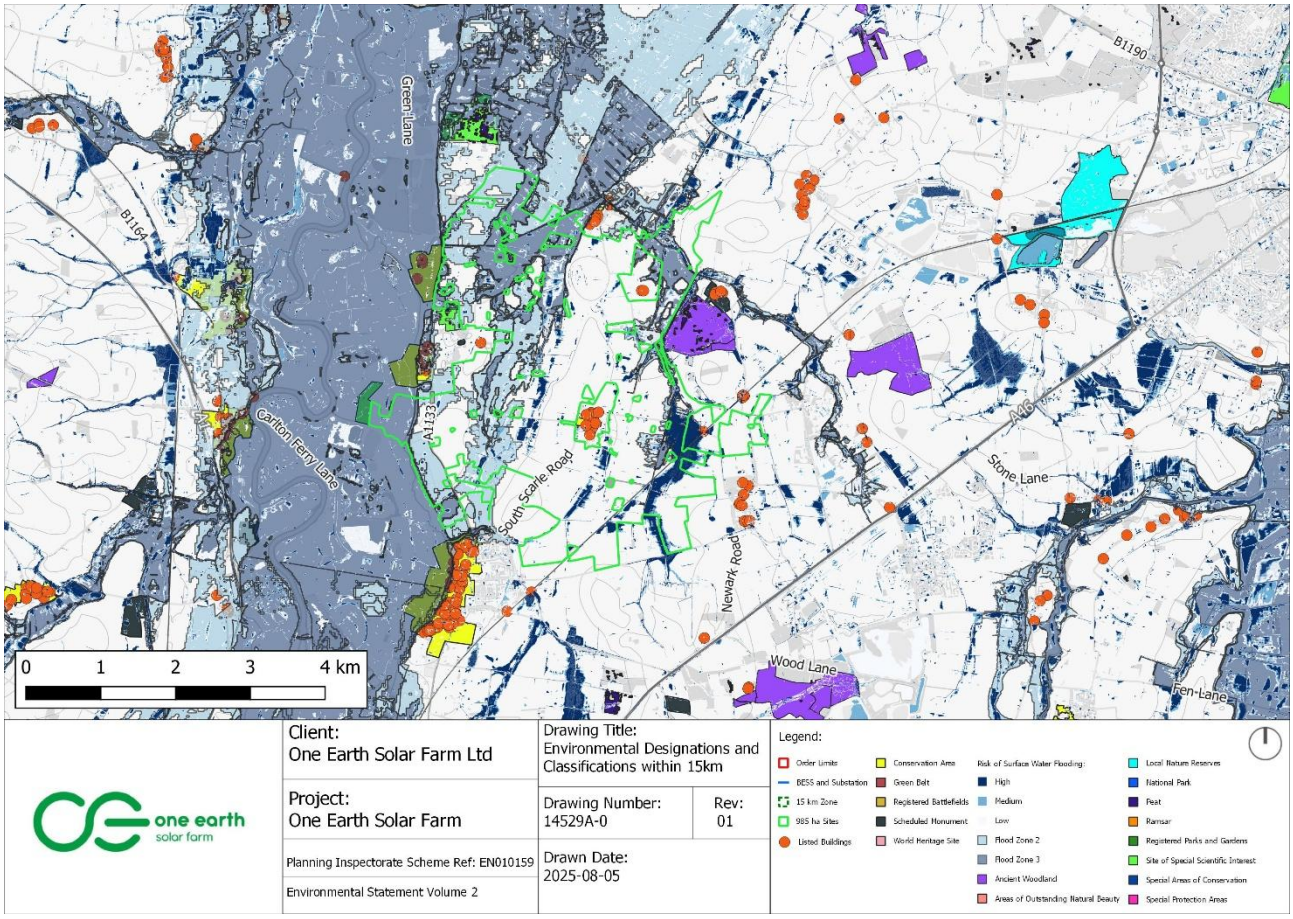
Topic	Assessment
Land Use and Availability	A review of recent aerial imagery indicates that the site is currently in active use for agricultural purposes, primarily grazing. The land appears to have no evidence of built structures. This suggests that the site is presently part of the rural agricultural landscape. In terms of landowners, AP3 has 212 different land titles associated with the parcels, and previously no willing landowners had come forward to volunteer their land for the project.
Grid Connection	AP3 is located approximately 2.5 km from the point of connection (POC) at High Marnham and the cable route would have to cross the River Trent.

Hydrology and Flood Risk	AP3 is located predominantly within Flood Zones 2 and 3, which represent areas with a high probability of flooding. Additionally, the site is subject to surface water flooding, with areas ranging from medium to high risk. This suggests that heavy rainfall could lead to localised flooding, further increasing the vulnerability of the site.
Ecology and Biodiversity	AP3 does not contain any designated ancient woodland, However, there are some parcels of ancient woodland to the east of the Site Boundary. There are no LNRs or SSSIs within or immediately adjacent to AP3. There are however 2 SSSIs within 2km distance from the Site boundary.
Landscape and Visual	AP3 is entirely situated within the Trent and Belvoir Vales national character area. There are no National Landscapes within or adjacent to the site. As such, the site does not fall within nationally designated landscapes of high scenic or conservation value. The site is located outside of the Green Belt.
Heritage	There is a small cluster of listed buildings located in proximity to the northern and southern boundaries of AP3. AP3 does not fall within any conservation areas; however, there is one close to the site boundary to the east.
Residential/Communities	AP3 is located to the west of Lincoln, but the parcel boundaries abut a number of smaller villages, including Swinethorpe and Spalford. Wigsley and Harby are entirely surrounded by AP3 which would impact the majority of the views out of the villages.
Access	AP3 is surrounded by a range of local roads, including the A57 and A1133 which would deem suitable. Access into the parcels could be taken from the A1133, but some improvement might be necessary.
Agricultural Land Classification	The majority of AP3 falls within Grade 3 land, but there are some small parcels of the Site boundary which fall into Grade 4 land.

	When compared against the current site location for the One Earth Solar Farm, which is Grade 3, AP3 is of a similar grade from a review of publicly available information.
Cumulative Impact	AP3 does not abut or sit in close proximity to the other DCO applications/consents in the area which are located to the north, south and west of AP3
Conclusion	AP3 is predominately within Flood Zones 2 and 3, with additional areas at high risk of surface water flooding. As such, AP3 is not considered to result in the development being better steered towards areas of lowest flood risk as per the requirements of the sequential test.

Alternative AP4 – 985ha

See Appendix C for full assessment mapping results



Assessment

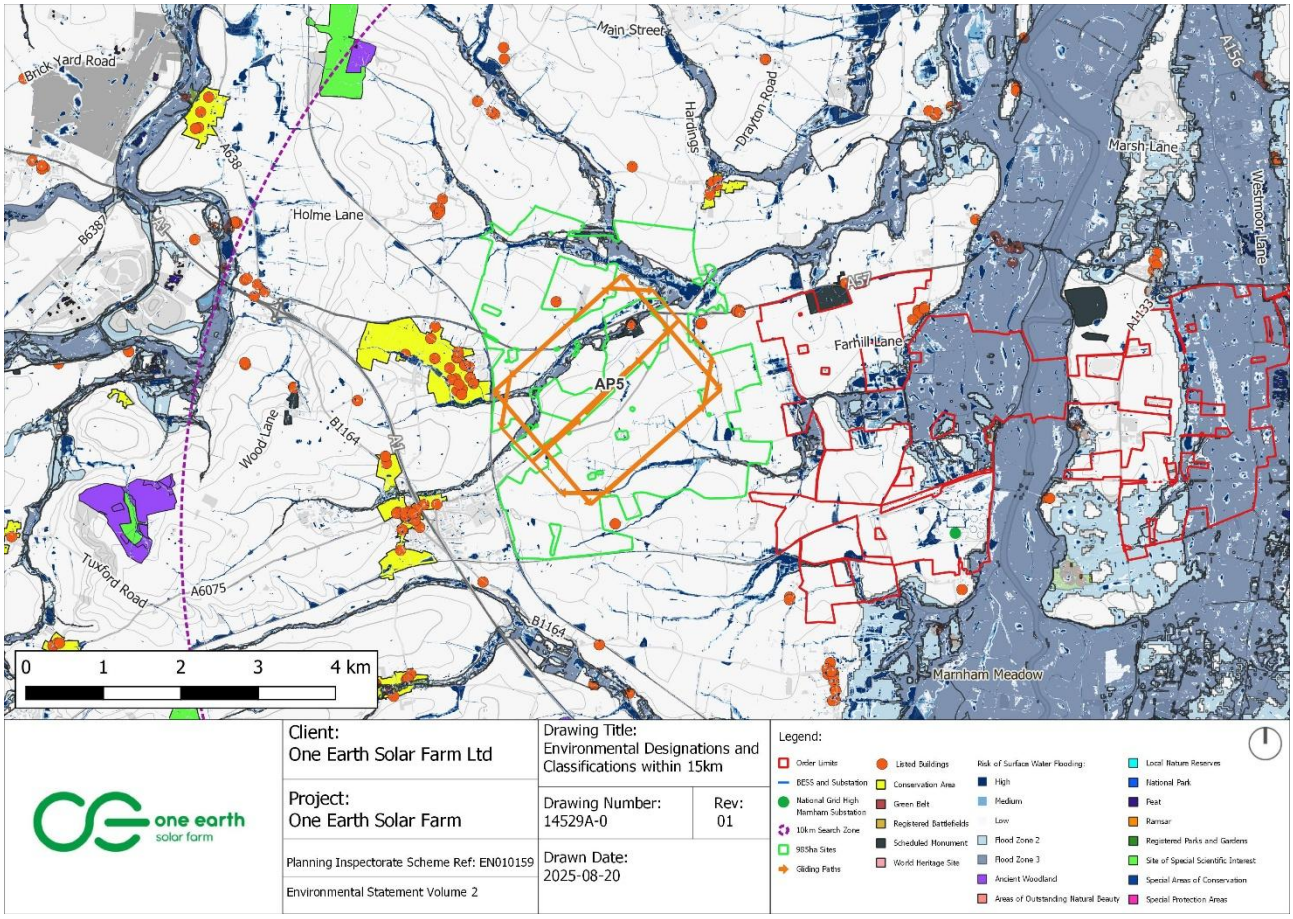
Topic	Assessment
Land Use and Availability	A review of recent aerial imagery indicates that the site is currently in active use for agricultural purposes, primarily grazing. The land appears to have no evidence of built structures. This suggests that the site is presently part of the rural agricultural landscape. In terms of landowners, AP4 has 219 different land titles associated with the parcels, and previously no willing landowners had come forward to volunteer their land for the project.
Grid Connection	AP4 is located approximately 5 km from the point of connection (POC) at High Marnham and the cable route would have to cross the River Trent and the A1133, and the railway line to access the southern parcels.

Hydrology and Flood Risk	AP4 is located within Flood Zones 1, 2 and 3, which represent areas with a high probability of flooding. Additionally, the site is subject to surface water flooding, with areas ranging from low to high risk. This suggests that heavy rainfall could lead to localised flooding, further increasing the vulnerability of the site.
Ecology and Biodiversity	AP4 does not contain any designated ancient woodland, However, there are some parcels of ancient woodland to the east of the Site Boundary. There are no LNRs or SSSIs within or immediately adjacent to AP3. There is however 1 SSSIs within 2km distance from the Site boundary to the north.
Landscape and Visual	AP4 is entirely situated within the Trent and Belvoir Vales national character area. There are no National Landscapes within or adjacent to the site. As such, the site does not fall within nationally designated landscapes of high scenic or conservation value. The site is located outside of the Green Belt.
Cultural Heritage	AP4 is not located within a Conservation Area but there is one within the centre of the search area but outside of the actual boundary. There is also a Conservation Area to the south with a significant number of listed building within it and another 2 to the east. There are also a number of listed buildings situated within and adjacent to the site boundary of AP4. There are no scheduled monuments within the site boundary of AP4.
Residential/Communities	There are a number of small residential villages within close vicinity to the site boundary. These villages include Collingham which is situated within a conservation area and includes a number of listed buildings. In addition, the village of South Scarle is entirely surrounded by AP4, which would significantly impact the views from the village. The railway line also runs through the parcels from Collingham to Swinderby.

Access	AP4 has a number of close transportation routes, including both smaller local roads and also the A46 which would provide a direct access to the AP4.
Agricultural Land Classification Mapping	The majority of AP4 falls within Grade 3 land, but there are some small parcels of the Site boundary which fall into Grade 4 land.
Cumulative Impact	AP4 sits in the middle of two other DCO applications, Great North Road and Steeples Renewable Project creating a full band of DCO sites from east to west, but the sites do not appear to cross over
Conclusion	AP4 is partially located within Flood Zones 2 and 3, with additional areas at high risk of surface water flooding. As such, AP4 is not considered to result in the development being better steered towards areas of lowest flood risk as per the requirements of the sequential test. In addition, AP4 would impact a number of villages and heritage assets in close proximity.

Alternative AP5 – 985ha

See Appendix C for full assessment mapping results



Assessment

Topic	Assessment
Land Use and Availability	A review of recent aerial imagery indicates that the site is currently in active use for agricultural purposes, primarily grazing. The land appears to have no evidence of built structures, however from consultation with the Darlton Gliding Club it is known that large areas within AP5 are located within their takeoff and landing circuits (Runway 27 and Runway 05) (outlined in orange above). As such the land is not reasonably available, and any development on the land would have significant impacts on the Darlton Gliding Club in terms of glint and glare. In terms of landowners, AP5 has 119 different land titles associated with the parcels, and previously no willing landowners had come forward to volunteer their land for the project.

Grid Connection	AP5 is located approximately 3 km from the point of connection (POC) at High Marnham and the cable route would have to cross the A57 and A6075.
Hydrology and Flood Risk	AP5 is located primarily in Flood Zone 1 and partially within Flood Zones 2 and 3, which represent areas with a high probability of flooding. Additionally, the site is subject to surface water flooding, with areas ranging from low to high risk. This suggests that heavy rainfall could lead to localised flooding, further increasing the vulnerability of the site.
Ecology and Biodiversity	AP5 does not contain any designated ancient woodland. There are no LNRs or SSSIs within or in proximity to the site.
Landscape and Visual	AP5 is entirely situated within the Trent and Belvoir Vales national character area. AP4 sits either side of the A57 and the A6075, and the north to south railway line runs along the western boundary and the southern boundary. The area to the west of the River Trent is higher ground with more open landscapes, and the views from either side of the A57, A6075 and railway lines would be significant. There would also be significant impacts to the Darlton Gliding Club whose runways are located within AS6. There are no National Landscapes within or adjacent to the site. As such, the site does not fall within nationally designated landscapes of high scenic or conservation value. The site is located outside of the Green Belt.
Cultural Heritage	There are no conservation areas situated within the site boundary of AP5. However, there is a large conservation area adjacent to the western boundary of the site with a significant number of listed buildings within it. There are also a large number of listed buildings scattered across the parcels, abutting the site boundary. There is a scheduled monument situated within the centre of AP5, but outside of the actual boundary.

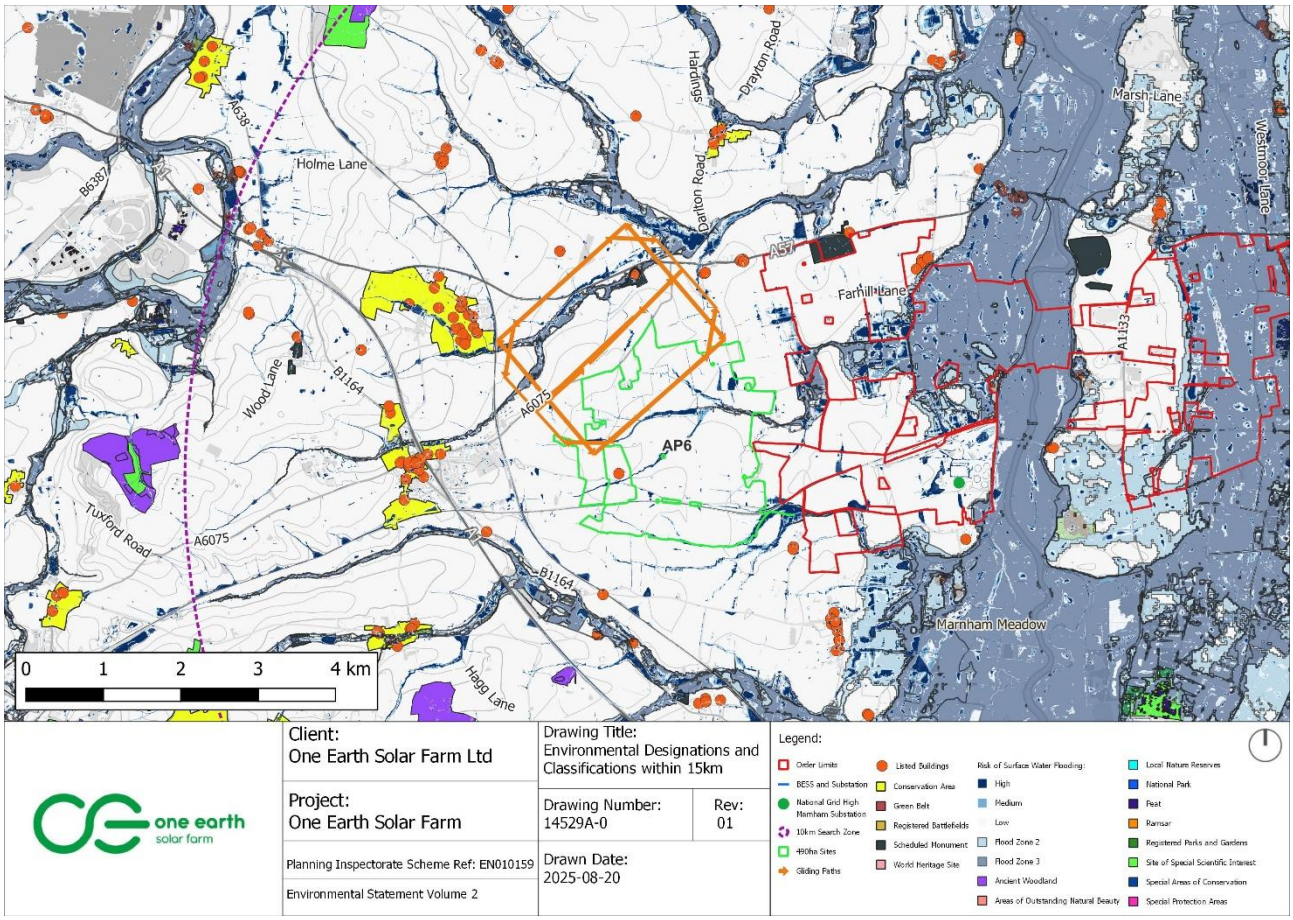
Residential/Communities	AP5 is mainly located within an area with limited residential properties directly within the boundary of the site, however there is one large village to the west of the boundary (East Markham) and also a town, Markham. Together the settlements have a population of approximately 4,500 based on the 2021 Census. The villages are two of the largest within the search area and the parcels of AP5 abut the eastern boundaries of these settlements. The impact on these two settlements would likely be significant. While there are no villages directly situated within the AP5 boundary, there are a number of properties entirely surrounded by the site boundary. These residential properties would become isolated and surrounded by solar development.
Access	AP5 would be able to be accessed from the A6075 which traverses through the centre of the Site from the South-West to North-East. Additionally, the A57 traverses the northern section of AP5 and therefore would be able to be utilised for the transport of infrastructure.
Agricultural Land Classification	The majority of AP5 falls within Grade 3 land, but there is a small section of the Site boundary in Grade 2.
Cumulative Impact	AS6 does not abut or sit in close proximity to the other DCO applications/consents in the area the closest which is Great North Road located to the south
Conclusion	AP5 is partially within Flood Zones 2 and 3, with additional areas at high risk of surface water flooding. It is however noted that there is a lower percentage of Flood Zones 2 and 3 than the chosen Order Limits. AP5 has therefore not been discounted on this basis like AP1-4 and a further balance of constraints and availability has been considered. The site is currently used for agricultural grazing and 2 runways for the nearby Darlton Gliding Club, and has 350 different land titles associated with the parcels, and previously no willing landowners had come forward to volunteer their land for the project. Another key constraint are the views from the A-roads and railway lines running along, or through the parcels, impacts to heritage assets in proximity, and within the AP5 boundary and the significant impact on the nearby village and town.

	As such, on balance AP5 is considered not suitable.

Appendix B Detailed Site Assessments (490 ha Sites AP6-AP12)

Alternative AP6 – 490ha

See Appendix C for full assessment mapping results



Assessment

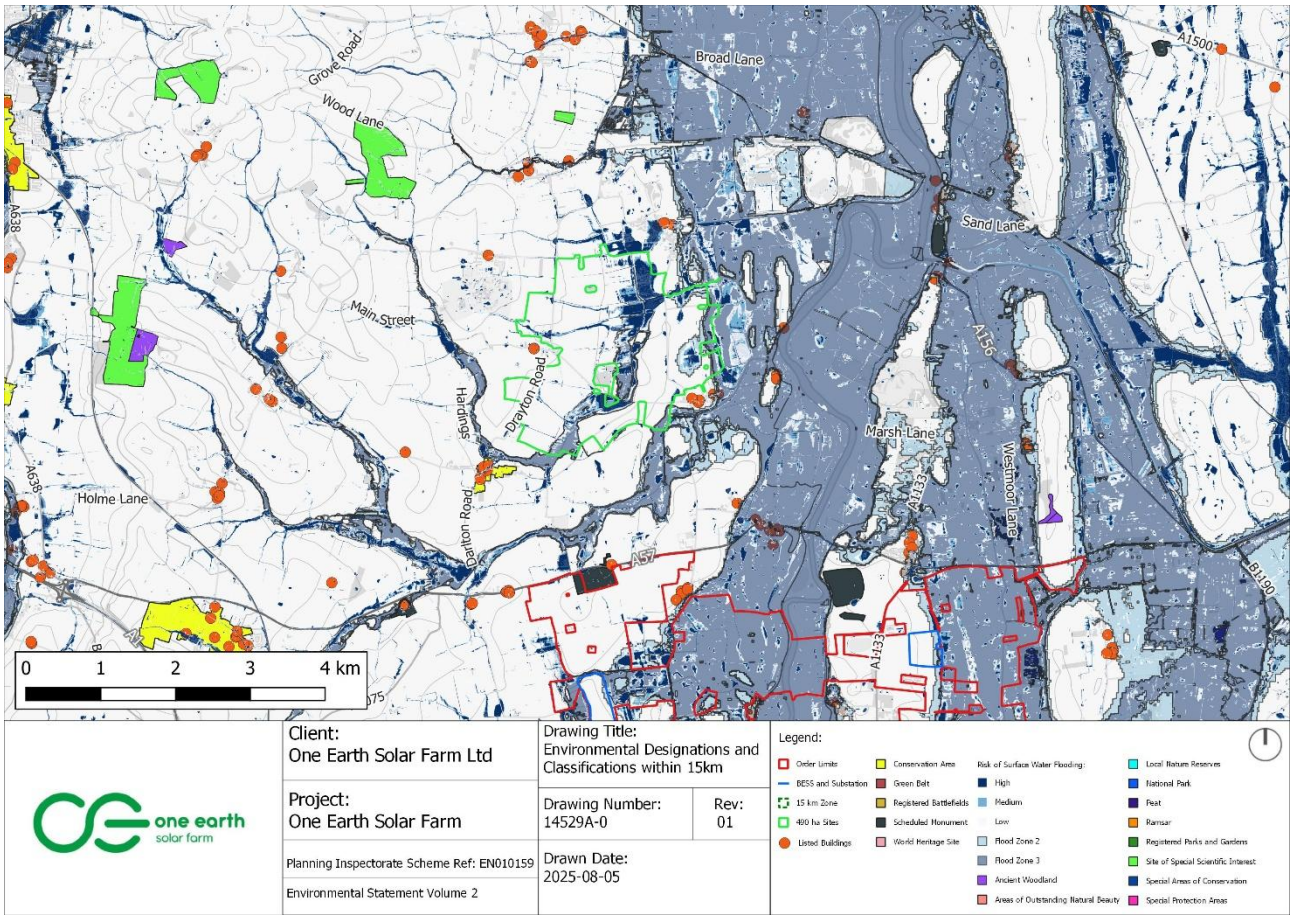
Topic	Assessment
Land Use and Availability	A review of recent aerial imagery indicates that the site is currently in active use for agricultural purposes, primarily grazing. The land appears to have no evidence of built structures, however from consultation with the Darlton Gliding Club it is known that large areas within AP6 are located within their takeoff and landing circuits (Runway 27 and Runway 05) (outlined in orange above). As such the land is not reasonably available, and any development on the land would have significant impacts on the Darlton Gliding Club in terms of glint and glare. In terms of landowners, AP6 has 32 different land titles associated with the parcels, and previously the landowners had been unwilling to volunteer their land for the project.

Grid Connection	AP6 is located approximately 3 km from the point of connection (POC) at High Marnham and the cable route would have to cross the A57 and A6075.
Hydrology and Flood Risk	AP6 is located primarily in Flood Zone 1 and partially within Flood Zones 2 and 3, which represent areas with a high probability of flooding. Additionally, the site is subject to surface water flooding, with areas ranging from low to high risk. This suggests that heavy rainfall could lead to localised flooding, further increasing the vulnerability of the site.
Ecology and Biodiversity	AP6 does not contain any designated ancient woodland. There are no LNRs or SSSIs within or in proximity to the site.
Landscape and Visual	AP6 is entirely situated within the Trent and Belvoir Vales national character area. AP6 sits either side of the railway line east to west near the southern boundary of the site. The area to the west of the River Trent is higher ground with more open landscapes, and the views from the railway lines would be significant. There would also be significant impacts to the Darlton Gliding Club whose taking off and landing circuits are located within AP6.
Cultural Heritage	While AP6 itself does not fall within a designated conservation area, there are three conservation areas located to the west of the site. These areas contain a number of listed buildings and contribute significantly to the local historic character. There are a large number of listed buildings in the wider vicinity of AP6 but there is also a listed building located within a central section of the site boundary. Additionally, there are no scheduled monuments within the site boundary. However, a small number of scheduled monuments are located close to the site boundary.
Residential/Communities	AP6 is mainly located within an area with limited residential properties directly within the boundary of the site, however there is one large village to the west of the boundary (East Markham) and also a town, Markham. The boundary of AP6 is however set back from the settlement boundaries.

	While there are no villages directly situated within the AP6 boundary, there are a number of properties entirely surrounded by the site boundary. These residential properties would become isolated and surrounded by solar development.
Access	AP6 is located within an appropriate distance from both the A57 and A1 that easy transportation of infrastructure to the Site can be made. This would be done via the A6075 which is bound to the northern boundary of the Site and will allow for access to be granted from there.
Agricultural Land Classification	The majority of AP6 falls within Grade 3 land, but there is a small section of the Site boundary in Grade 2.
Cumulative Impact	AP6 does not abut or sit in close proximity to the other DCO applications/consents in the area the closest which is Great North Road located to the south.
Conclusion	AP6 is partially within Flood Zones 2 and 3, with additional areas at high risk of surface water flooding. It is however noted that there is a very low percentage of Flood Zones 2 and 3 compared to all other alternative sites. AP6 has therefore not been discounted on this basis like AS 7-12 and a further balance of constraints and availability has been considered. The site is currently used for agricultural grazing and 2 runways for the nearby Darlton Gliding Club and has 104 different land titles associated with the parcels, and previously no willing landowners had come forward to volunteer their land for the project. Another key constraint are the views from railway lines running along, or through the parcels, impacts to heritage assets in proximity, and within the AP6 boundary and impacts on the Darlton Gliding Club. As such, on balance AP6 is considered not suitable.

Alternative AP7 – 490ha

See Appendix C for full assessment mapping results



Assessment

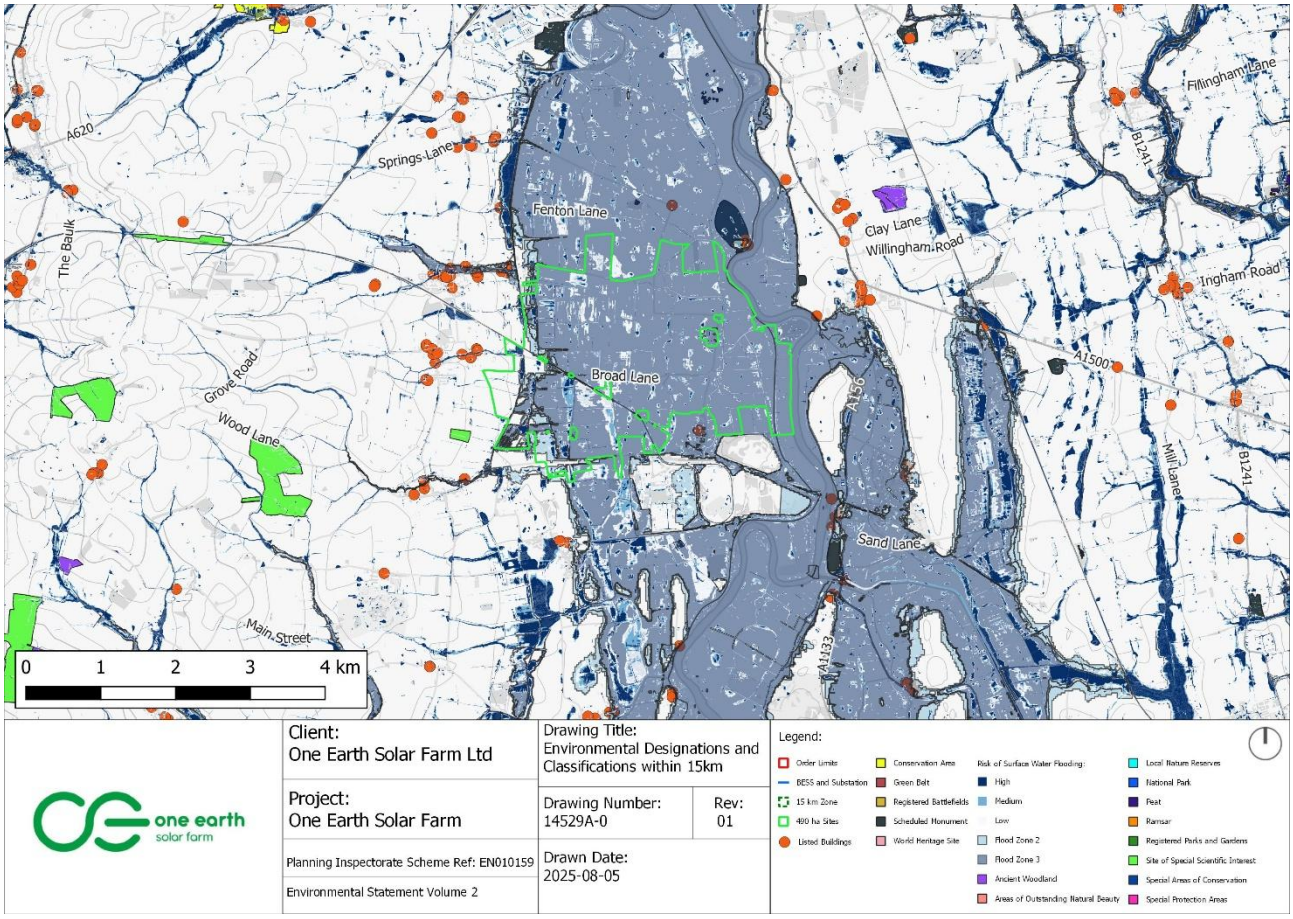
Topic	Assessment
Land Use and Availability	A review of recent aerial imagery indicates that the site is currently in active use for agricultural purposes, primarily grazing. The land appears to have no evidence of built structures. This suggests that the site is presently part of the rural agricultural landscape. In terms of landowners, AP7 has 121 different land titles associated with the parcels, and previously no willing landowners had come forward to volunteer their land for the project.
Grid Connection	AP7 is located approximately 5 km from the point of connection (POC) at High Marnham and the cable route would have to cross the A57

Hydrology and Flood Risk	AP7 is located partially within Flood Zones 2 and 3, which represent areas with a high probability of flooding. There is a large area of Flood Zone3 running through the centre of the site. Additionally, the site is subject to surface water flooding, with areas being high risk. This suggests that heavy rainfall could lead to localised flooding, further increasing the vulnerability of the site.
Ecology and Biodiversity	There are no ancient woodlands located within the boundary of AP7. The nearest designated ancient woodland lies approximately 1 kilometre to the north-west of the Site. There are no Local Nature Reserves (LNRs) or Sites of Special Scientific Interest (SSSIs) within the site boundary. The closest SSSI is located approximately 1 kilometre to the north-west.
Landscape and Visual	The site is entirely situated within the Trent and Belvoir Vales National Character Area.
Cultural Heritage	There are a number of listed buildings adjacent to the Site boundary. While AP7 is not situated directly within a Conservation Area, there is a conservation area in proximity to the Site by Darlton Road. AP7 has no scheduled monuments within the Site boundary but there are a number in proximity.
Residential/Communities	AP7 is located in an area that is surrounded by four villages, including Stokeham, Laneham, Rampton and East Drayton. However, none of these villages are situated directly within or the site boundary, but are in close proximity.
Access	While AP7 is not directly adjacent to the main roads in the area, such as the A57, there are good connections which would allow for the transportation of goods via these roads. Ultimately, access would be able to be maintained via Laneham Road which connects AP7 to the A57.
Agricultural Land Classification	AP7 is situated entirely within Grade 3 land.
Cumulative Impact	AP7 is to the north of One Earth Solar Farm which is closer to other solar DCO projects Steeples Renewables, West Burton and Gate Burton so on balance is likely to perform worse in terms of cumulative impacts

Conclusion	AP7 is largely located within Flood Zones 2 and 3, with additional areas at high risk of surface water flooding. As such, AP7 is not considered to result in the development being better steered towards areas of lowest flood risk as per the requirements of the sequential test.

Alternative AP8– 490ha

See Appendix C for full assessment mapping results



Assessment

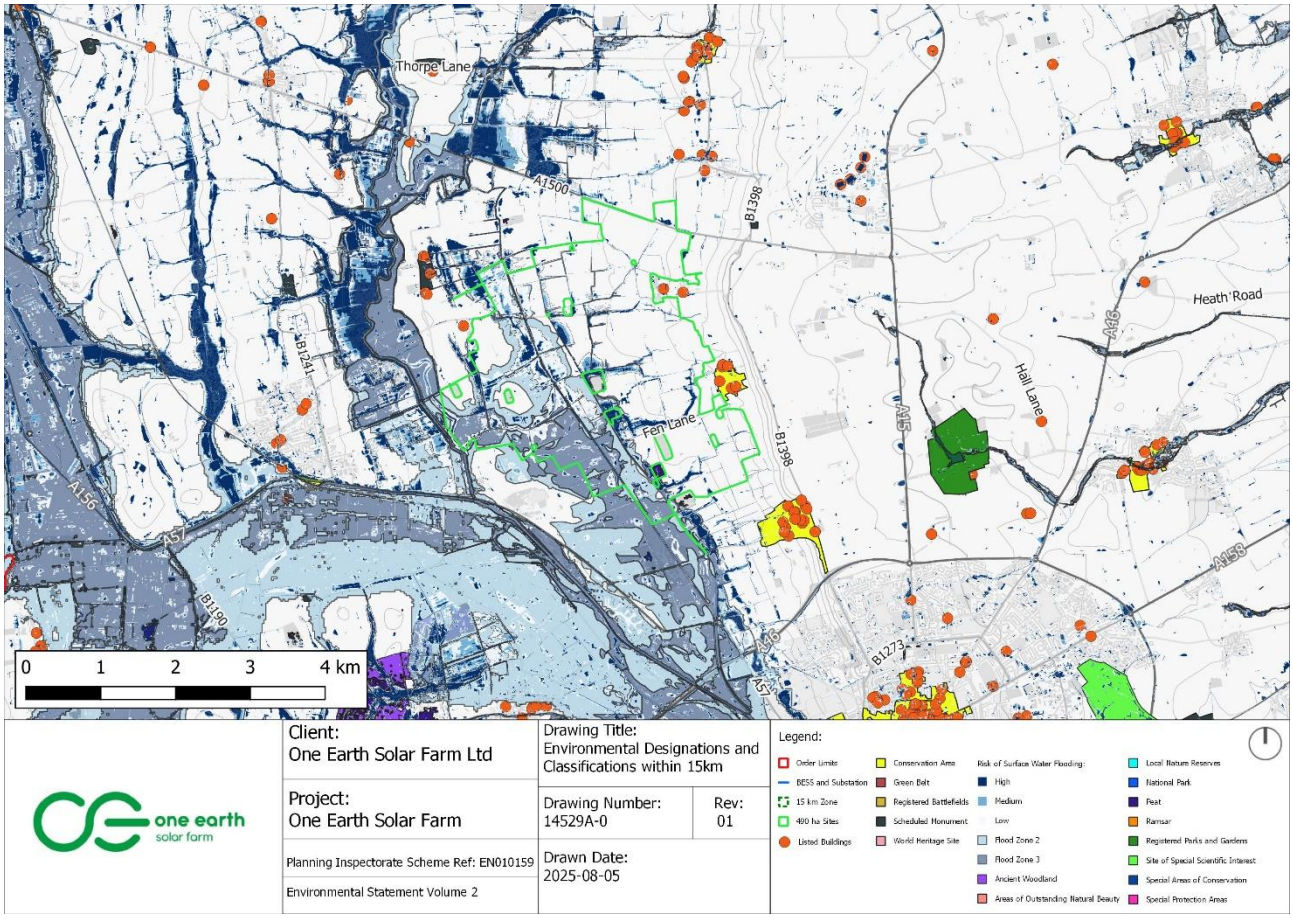
Topic	Assessment
Land Use and Availability	A review of recent aerial imagery indicates that the site is currently in active use for agricultural purposes, primarily grazing. The land appears to have no evidence of built structures. This suggests that the site is presently part of the rural agricultural landscape. In terms of landowners, AP8 has 134 different land titles associated with the parcels, and previously no willing landowners had come forward to volunteer their land for the project.
Grid Connection	AP8 is located approximately 10 km from the point of connection (POC) at High Marnham and the cable route would have to cross the A57 and the railway lines.

Hydrology and Flood Risk	AP8 is predominately within Flood Zone 3, which represent areas with a high probability of flooding. Additionally, the site is subject to surface water flooding, with areas being high risk. This suggests that heavy rainfall could lead to localised flooding, further increasing the vulnerability of the site.
Ecology and Biodiversity	There are no ancient woodlands located within the boundary of AP8. The nearest designated ancient woodland lies approximately 1 kilometre to the north-west of the Site. There are no Local Nature Reserves (LNRs) or Sites of Special Scientific Interest (SSSIs) within the site boundary.
Landscape and Visual	The Site is located entirely within the Trent and Belvoir Vales National Character Area.
Cultural Heritage	There are no listed buildings located within the site boundary. However, several listed buildings are situated immediately adjacent to the site boundary and in the surrounding area. AP8 does not fall within a designated conservation area. Additionally, there are no scheduled monuments within the site boundary. However, a small number of scheduled monuments are located within the wider vicinity to the north east.
Residential/Communities	AP8 is located in an area surrounded by villages, such as Cottam, Treswell, South Leverton and Leverton with Habblesthorpe. However, while there are no villages directly situated within the boundary of AP8, there are a couple of properties to the east of the Site which are cut out of the order limits but surrounded from all angles. This will ultimately impact a range of aspects for them, but particularly their views.
Access	Due to AP8 being located adjacent to the River Trent, there are no direct routes for the delivery of goods to this site. However, vehicles could travel from the A634 to the North of the Site and travel down the smaller roads through Sturton le Steeple and North Leverton with Habblesthorpe. These would however require improvements to the local roads.
Agricultural Land Classification	AP8 is situated entirely within Grade 3 and Grade 4 land.
Cumulative Impacts	AP8 abuts Steeples Renewable Project which is to the north and is in very close proximity to West Burton and Gate Burton Projects.

Conclusion	AP8 is largely located within Flood Zones 1 and 3, with additional areas at high risk of surface water flooding. As such, AP8 is not considered to result in the development being better steered towards areas of lowest flood risk as per the requirements of the sequential test.

Alternative AP9 – 490ha

See Appendix C for full assessment mapping results



Assessment

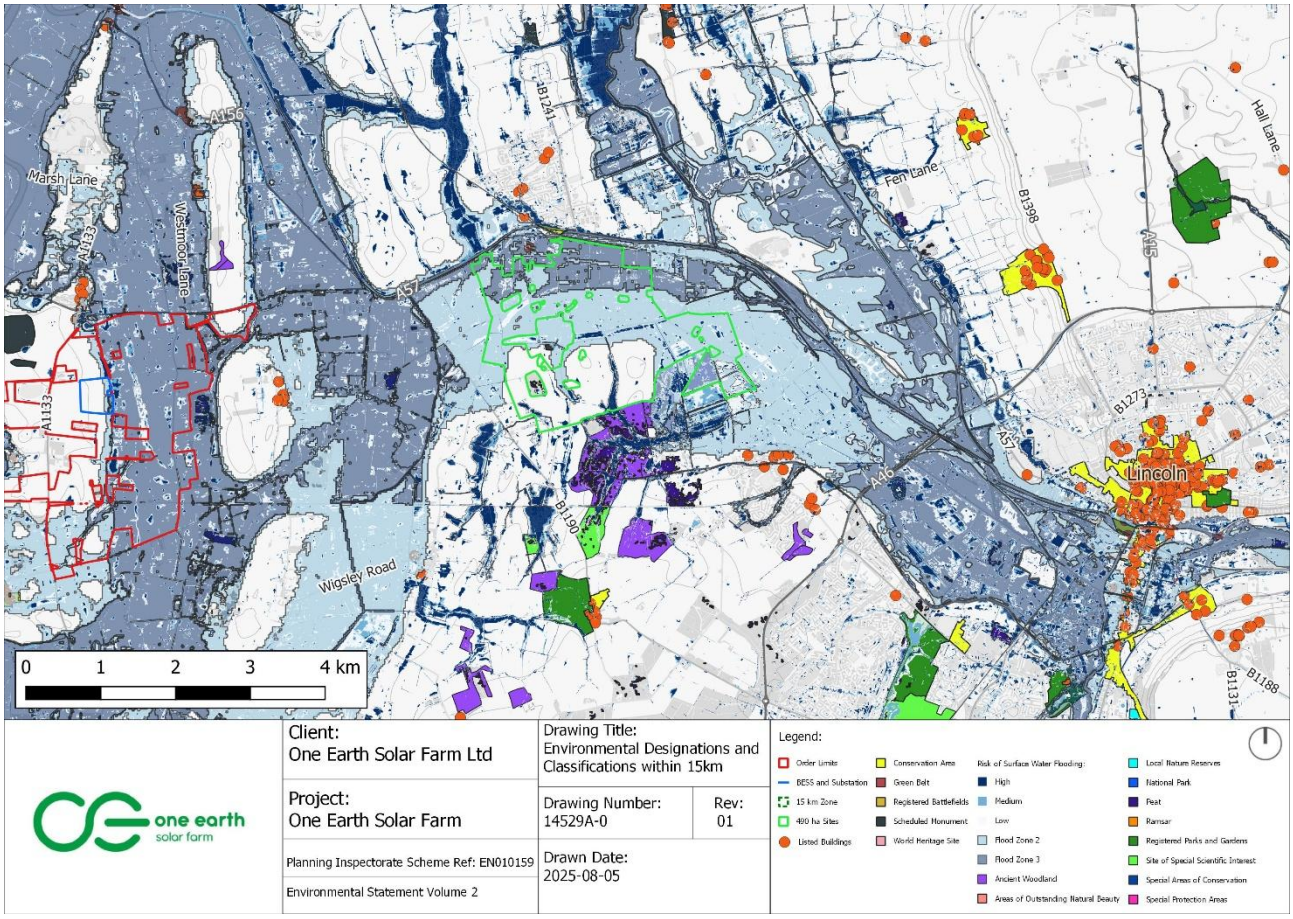
Topic	Assessment
Land Use and Availability	A review of recent aerial imagery indicates that the site is currently in active use for agricultural purposes, primarily grazing. The land appears to have no evidence of built structures. This suggests that the site is presently part of the rural agricultural landscape. In terms of landowners, AP9 has 46 different land titles associated with the parcels, and previously no willing landowners had come forward to volunteer their land for the project.
Grid Connection	AP9 is located approximately 12 km from the point of connection (POC) at High Marnham and the cable route would have to cross the River Trent, the A57, the railway lines and Foss Dyke watercourse
Hydrology and Flood Risk	AP9 is located partially within Flood Zones 1, 2 and 3, which represent areas with a high probability of flooding.

	Additionally, the site is subject to surface water flooding, with areas being high risk. This suggests that heavy rainfall could lead to localised flooding, further increasing the vulnerability of the site.
Ecology and Biodiversity	AP9 does not contain or border any designated ancient woodland. There are no LNRs or SSSIs within the site boundary. However, the nearest designated ancient woodland lies approximately 3 km to the south-west of the Site.
Landscape And Visual	The Site is situated within both the Trent and Belvoir Vales and partially within the Northern Lincolnshire Edge with Coversands National Character Areas.
Cultural Heritage	AP9 does not host any listed buildings within the vicinity of the boundary but there are a number adjacent to both the eastern and western boundaries of the Site. While AP9 itself does not fall within a designated conservation area, there is one conservation areas located adjacent to the eastern boundary. This area contain a number of listed buildings and contribute significantly to the local historic character. Finally, there are no scheduled monuments located within the vicinity of AP9 but there are a couple surrounding the Site along the eastern boundary. AP9 is located in close proximity to the City of Lincoln and views from the land parcels are expected to impact Grade 1 listed Lincoln Cathedral.
Residential/Communities	AP9 is mainly located within an area with limited residential properties directly within the boundary of the Site, however there are two villages to the east of the boundary. These villages include North Carlton and South Carlton. While there are no villages directly situated within the AP9 boundary, there are a number of properties entirely surrounded by the site boundary which would cause significant impacts.
Access	AP9 is surrounded by various different traffic routes which would be deemed as suitable for the transportation of materials for the proposed development. This includes the A1500 to the north of the Site boundary and the A57 to the south.
Agricultural Land Classification	AP9 falls entirely within Grade 3 land, but the western boundary of the Site is in close proximity to an area of Grade 2 land.

Cumulative Impacts	AP9 is to the east of One Earth Solar Farm and is in very close proximity to Cottam Solar Project and West Burton Solar Project.
Conclusion	AP9 is largely located within Flood Zones 2 and 3, with additional areas at high risk of surface water flooding. As such, AP9 is not considered to result in the development being better steered towards areas of lowest flood risk as per the requirements of the sequential test. AP9 is also located in close proximity to Lincoln which for a number of residential and community amenity reasons and heritage reasons would make AP9 unsuitable. In addition the cumulative impacts deem the site unsuitable.

Alternative AP10 – 490ha

See Appendix C for full assessment mapping results



Assessment

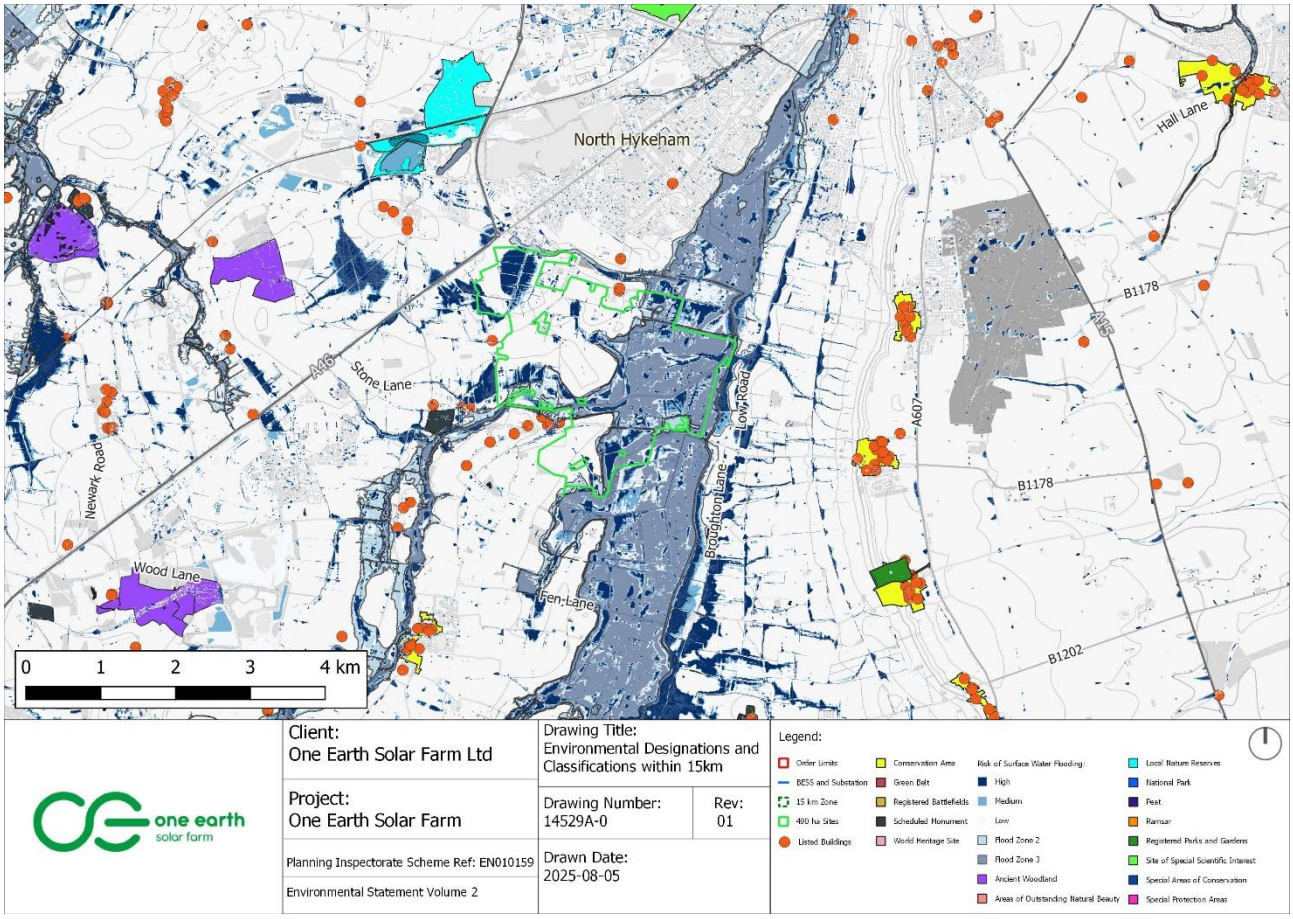
Topic	Assessment
Land Use and Availability	A review of recent aerial imagery indicates that the site is currently in active use for agricultural purposes, primarily grazing. The land appears to have no evidence of built structures. This suggests that the site is presently part of the rural agricultural landscape. In terms of landowners, AP10 has 80 different land titles associated with the parcels, and previously no willing landowners had come forward to volunteer their land for the project.
Grid Connection	AP10 is located approximately 10 km from the point of connection (POC) at High Marnham and the cable route would have to cross the River Trent.

Hydrology and Flood Risk	AP10 is located partially within Flood Zones 1, 2 and 3, which represent areas with a high probability of flooding. Additionally, the site is subject to surface water flooding, with areas ranging from low to high risk. This suggests that heavy rainfall could lead to localised flooding, further increasing the vulnerability of the site.
Ecology and Biodiversity	AP10 does not contain any designated ancient woodland within the vicinity of the site boundary, but the Site is bound to the south by a large section of ancient woodland. There are no LNRs or SSSIs within the site boundary.
Landscape and Visual	AP10 is entirely situated within the Trent and Belvoir Vales national character area.
Cultural Heritage	AP10 is not located within or adjacent to any conservation areas. While there are no listed buildings directly within the site boundary of AP10, there are a number of buildings bordering the norther boundary of the Site. There is a scheduled monument located within the central area of the Site which is not included within the overall site boundary.
Residential/ Communities	AP10 is situated between the two villages of Saxilby to the North and Skellingthorpe to the South. In addition, the village of Broadholme is entirely surrounded by AP10, which cause significant impacts. As well as this village, there are a number of individual residential properties surrounded by the Site but ‘cut-out’ from the site boundary.
Access	AP10 is bound to the north by AP10 which would provide both transportation routes and access points to the site.
Agricultural Land Classification	The majority of AP10 falls into Grade 3 land, but there is a section to the southern boundary of the Site falling within ‘non-agricultural land’.
Cumulative Impacts	AP10 is located to the east of One Earth Solar Farm which is much close to West Burton, which lies just north of the A57.

Conclusion	AP10 is largely located within Flood Zones 2 and 3, with additional areas at high risk of surface water flooding. As such, AP10 is not considered to result in the development being better steered towards areas of lowest flood risk as per the requirements of the sequential test.

Alternative AP11 – 490ha

See Appendix C for full assessment mapping results



Assessment

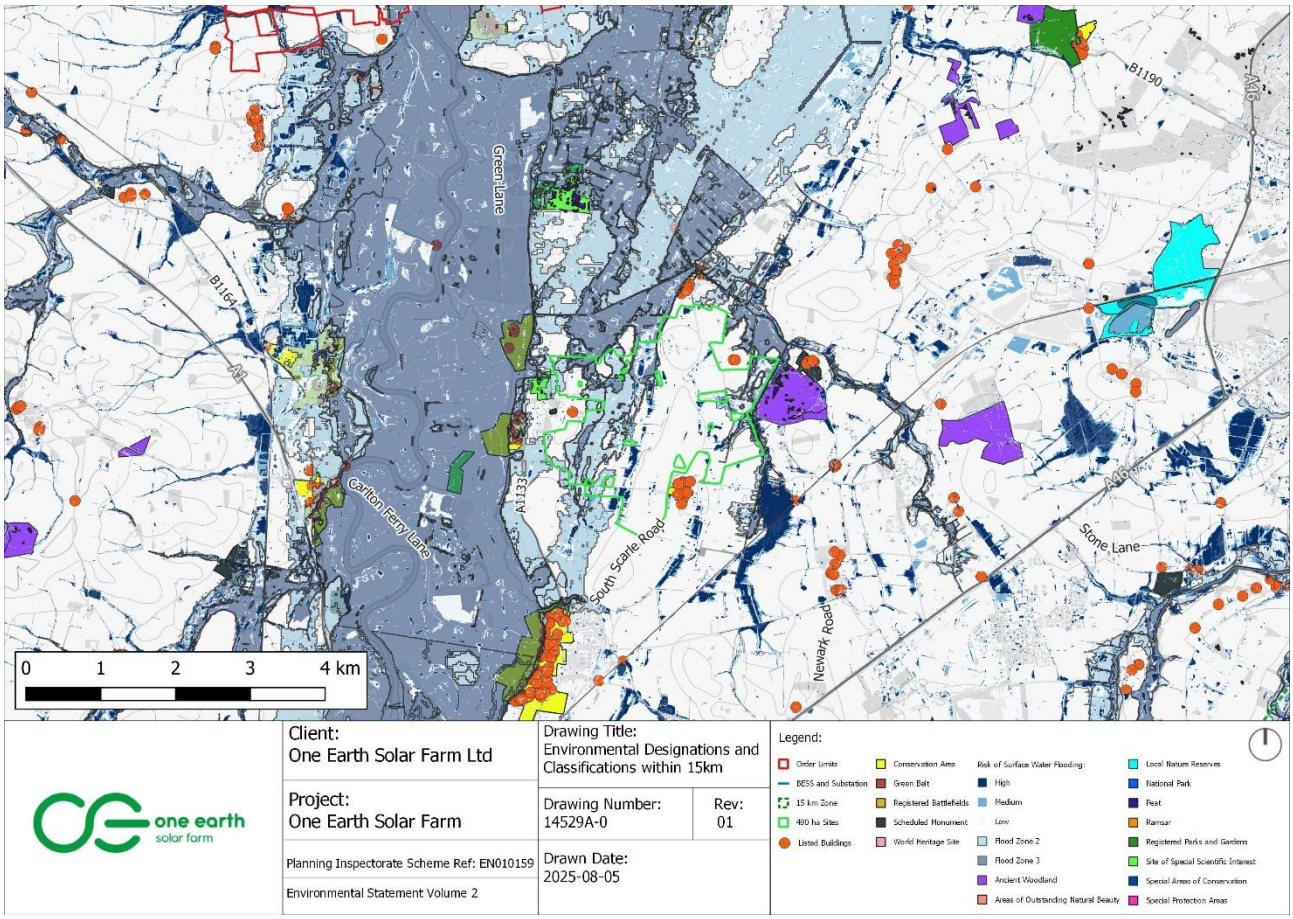
Topic	Assessment
Land Use and Availability	A review of recent aerial imagery indicates that the site is currently in active use for agricultural purposes, primarily grazing. The land appears to have no evidence of built structures. This suggests that the site is presently part of the rural agricultural landscape. In terms of landowners, AP11 has 68 different land titles associated with the parcels, and previously no willing landowners had come forward to volunteer their land for the project.
Grid Connection	AP11 is located approximately 13 km from the point of connection (POC) at High Marnham and the cable route would have to cross the River Trent, the A1133, the railway line and the A47.

Hydrology and Flood Risk	AP11 is located within Flood Zones 1 and 3, which represent areas with a high probability of flooding. Additionally, the site is subject to surface water flooding, with areas ranging from low to high risk. This suggests that heavy rainfall could lead to localised flooding, further increasing the vulnerability of the site.
Ecology and Biodiversity	AP11 does not contain or border any designated ancient woodland. There are no LNRs or SSSIs within the site boundary.
Landscape and Visual	AP11 is entirely situated within the Trent and Belvoir Vales national character area. There are no National Landscapes within or adjacent to the site. As such, the site does not fall within nationally designated landscapes of high scenic or conservation value. The site is located outside of the Green Belt.
Cultural Heritage	There is no conservation area situated within or adjacent to AP11. While there are no listed buildings situated within AP11, there is a large cluster of listed buildings located around both the southern and northern boundaries of the site. There are no scheduled monuments within AP11, but there is a scheduled monument located to the south-west of the Site at approximately 2km away.
Residential/ Communities	AP11 is situated between the two villages of South Hykeham to the North and Aubourn to the South. AP11 is also in close proximity to the large suburban areas of Lincoln to the east which would be significantly impacted. In addition, while there are no villages situated within the order limits of AP11, there are a number of individual residential properties surrounded by the Site but 'cut-out' from the order limits. There is also a Royal Air Force runway in very close proximity to the east.
Access	AP11 is located to the east of the A46 which would provide both key transportation routes and access points to the Site for all construction vehicles.

	While the Site would not be directly accessed via the A46, there are opportunities for smaller roads to be used to cover the small distance between the two.
Agricultural Land Classification	AP11 falls entirely within Grade 3 land. When compared against the current site location for the One Earth Solar Farm, which is Grade 3, AS4 therefore is of a similar grade to the One Earth Solar Farm land.
Cumulative Impact	The parcels to the west abut the Fosse Green Energy Park Scheme.
Conclusion	AP11 is largely located within Flood Zones 1 and 3, with additional areas at high risk of surface water flooding. As such, AP11 is not considered to result in the development being better steered towards areas of lowest flood risk as per the requirements of the sequential test.

Alternative AP12 – 490ha

See Appendix C for full assessment mapping results



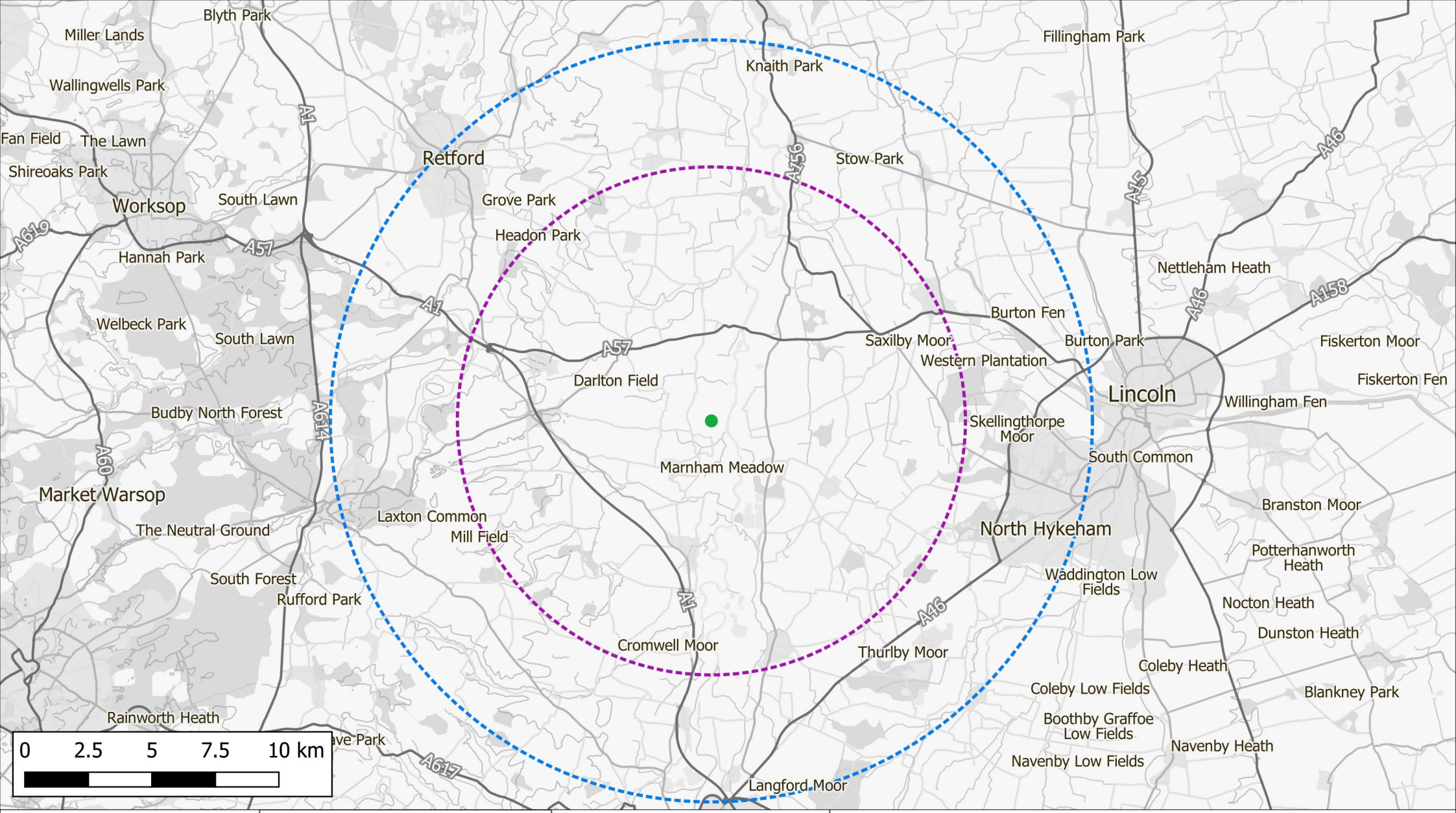
Assessment

Topic	Assessment
Land Use and Availability	A review of recent aerial imagery indicates that the site is currently in active use for agricultural purposes, primarily grazing. The land appears to have no evidence of built structures. This suggests that the site is presently part of the rural agricultural landscape. In terms of landowners, AP12 has 71 different land titles associated with the parcels, and previously no willing landowners had come forward to volunteer their land for the project.

Grid Connection	AP12 is located approximately 6 km from the point of connection (POC) at High Marnham and the cable route would have to cross the River Trent and the A1133, and the railway line to access the southern parcels.
Hydrology and Flood Risk	AP12 is located within Flood Zones 1, 2 and 3, which represent areas with a high probability of flooding. Additionally, the site is subject to surface water flooding, with areas ranging from low to high risk. This suggests that heavy rainfall could lead to localised flooding, further increasing the vulnerability of the site.
Ecology and Biodiversity	AP12 does not contain any designated ancient woodland, However, there are some parcels of ancient woodland to the east of the Site Boundary. There are no LNRs or SSSIs within or immediately adjacent to AS3. There is however 1 SSSIs within 2km distance from the Site boundary to the north.
Landscape and Visual	AP12 is entirely situated within the Trent and Belvoir Vales national character area.
Cultural Heritage	AP12 is not located within a Conservation Area but there are a number of conservation areas adjacent to the southern and western boundaries of the Site. There are no listed buildings within the vicinity of AP12, but there are large clusters located around the boundary of the Site. AP12 does not house any Scheduled Monuments, but there are two within 1km distance from the Sites boundaries.
Residential/ Communities	AP12 is in an area which hosts a number of villages, including South Scarle, North Scarle and Besthorpe. While none of these villages are located within the boundary of AP12, they are in close proximity. In addition, there are a number of residential properties located within ‘cut-out’ sections of the order limits within the centre of AP12. While these are not included in the order limits, they are surrounded from all angles of the proposed development and this would fundamentally impact various aspects of daily life for the residents.
Access	AP12 has a number of close transportation routes, including both smaller local roads and also the A46 which would provide a direct access to the AP12.

Agricultural Land Classification Mapping	The majority of AP12 falls within Grade 3 land, but there are some small parcels of the Site boundary which fall into Grade 4 land.
Cumulative Impact	AP12 sits in the middle of two other DCO applications, Great North Road and Steeples Renewable Project creating a full band of DCO sites from east to west, but the sites do not appear to cross over.
Conclusion	AP12 is largely located within Flood Zones 2 and 3, with additional areas at high risk of surface water flooding. As such, AP12 is not considered to result in the development being better steered towards areas of lowest flood risk as per the requirements of the sequential test.

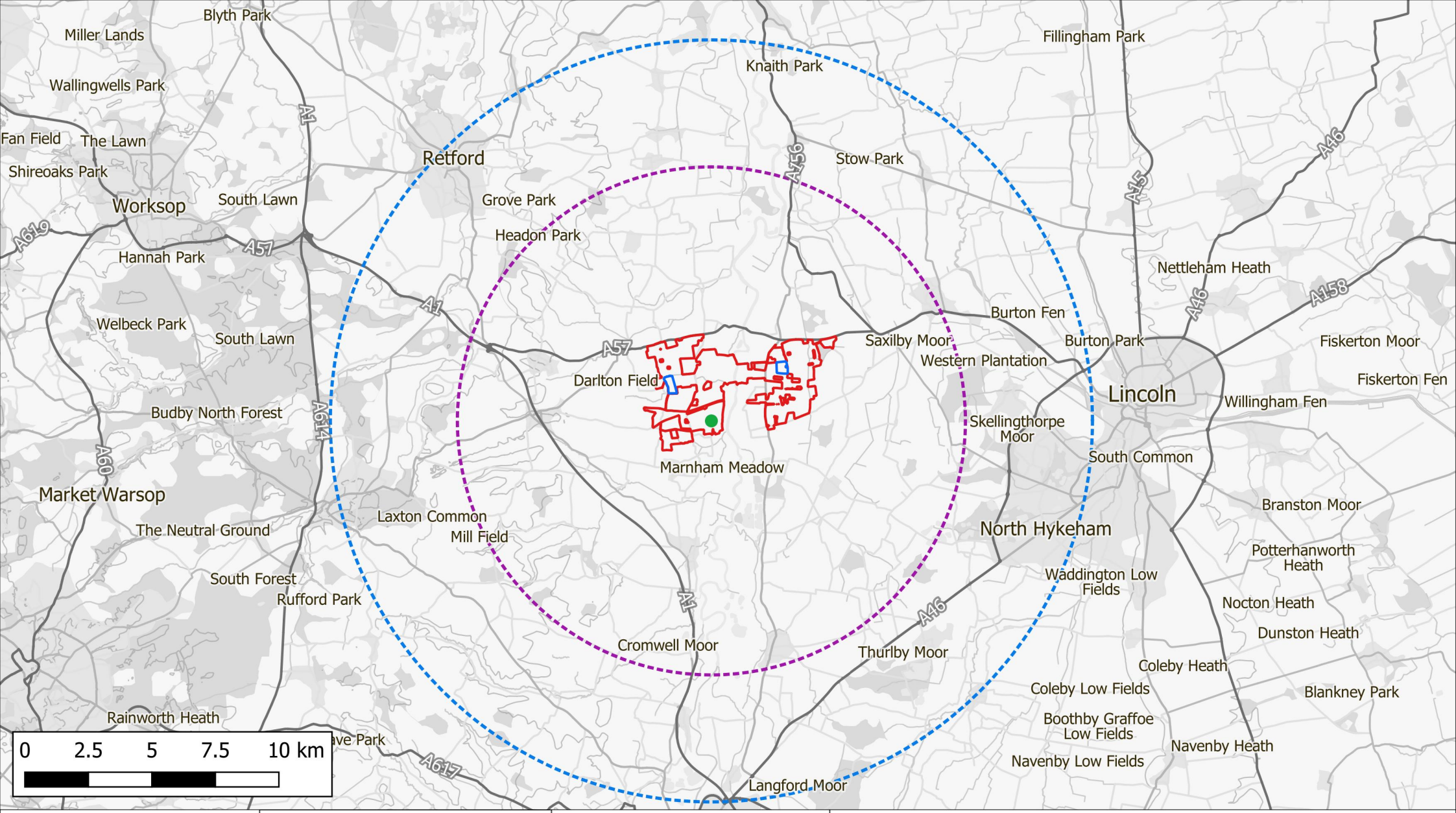
Appendix C Assessment Mapping Results



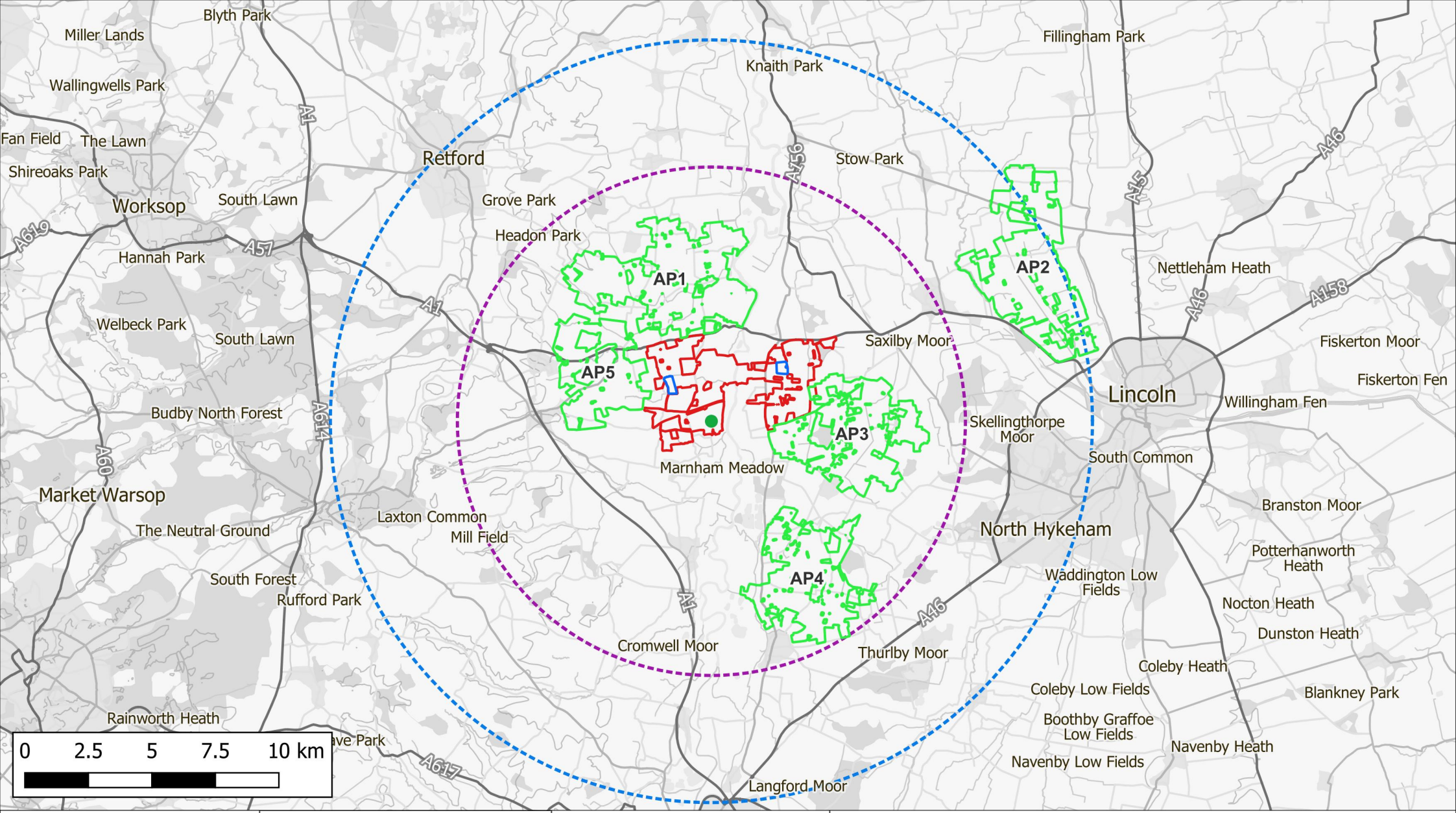
Client: One Earth Solar Farm Ltd	Drawing Title: Search Area Zones	
Project: One Earth Solar Farm	Drawing Number: 14529A-0	Rev: 01
Planning Inspectorate Scheme Ref: EN010159	Drawn Date: 2025-08-19	
Environmental Statement Volume 2		

Legend:

- National Grid High Marnham Substation
- 10km Search Zone
- 15km Search Zone



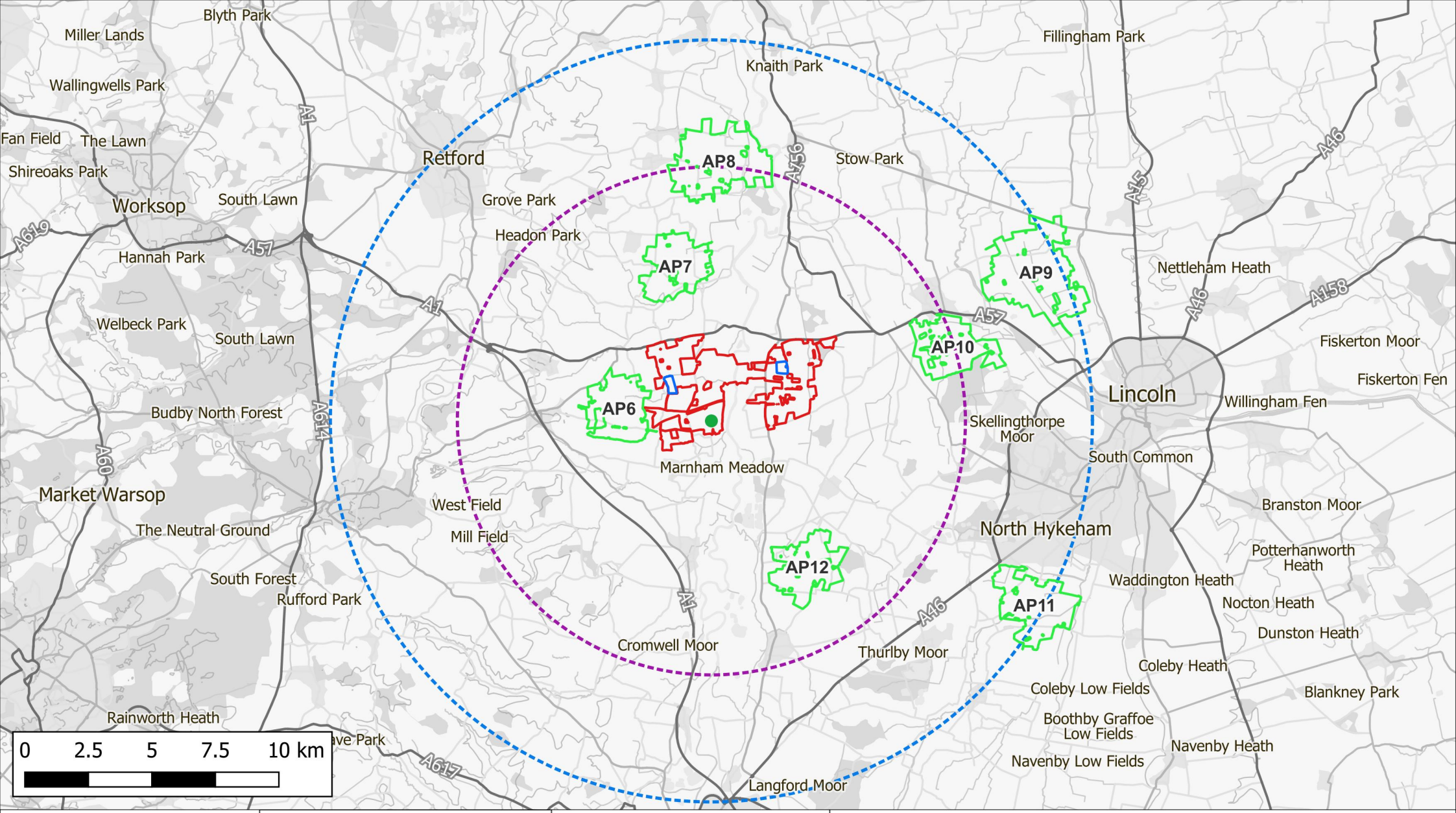
Client: One Earth Solar Farm Ltd	Drawing Title: Search Area Zones	Legend: Order Limits BESS and Substation National Grid High Marnham Substation 10km Search Zone 15km Search Zone
Project: One Earth Solar Farm	Drawing Number: 14529A-0 / Rev: 01	
Planning Inspectorate Scheme Ref: EN010159	Drawn Date: 2025-08-19	
Environmental Statement Volume 2		



Client: One Earth Solar Farm Ltd	Drawing Title: Search Area Zones and Alternative Sites	
Project: One Earth Solar Farm	Drawing Number: 14529A-0	Rev: 01
Planning Inspectorate Scheme Ref: EN010159	Drawn Date: 2025-08-19	
Environmental Statement Volume 2		

Legend:

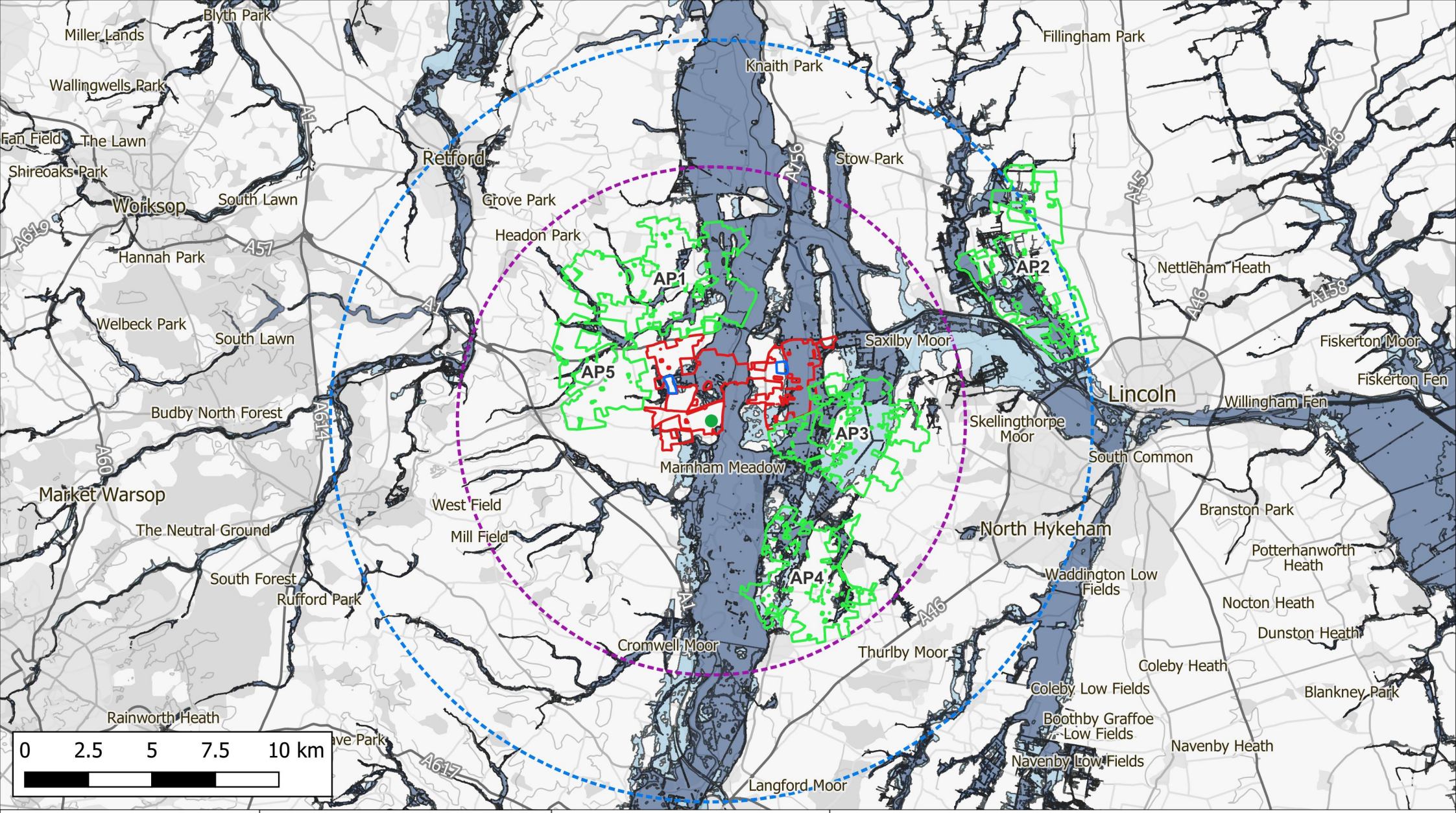
- Order Limits
- BESS and Substation
- National Grid High Marnham Substation
- 10km Search Zone
- 15km Search Zone
- 985ha Sites



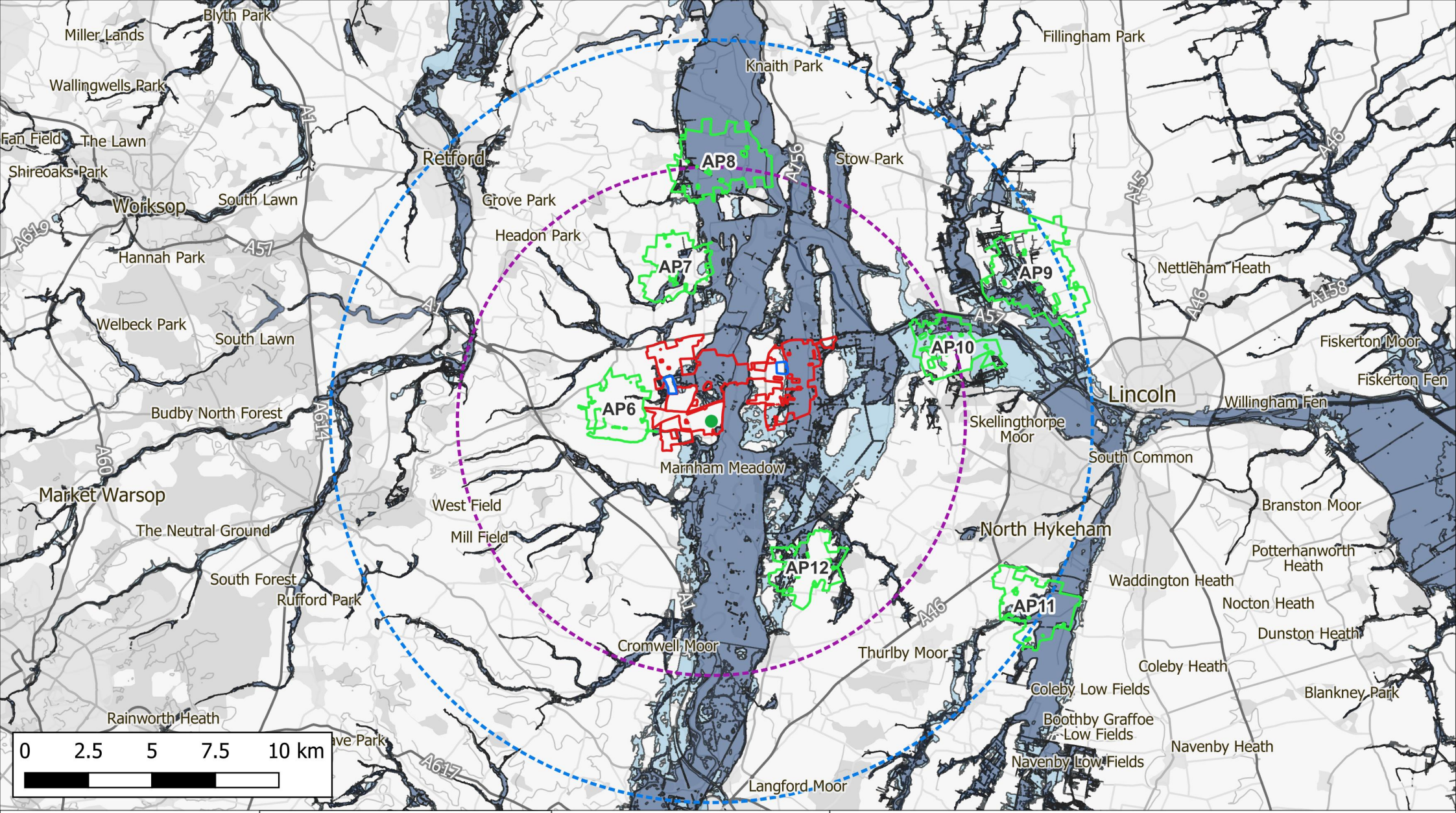
Client: One Earth Solar Farm Ltd	Drawing Title: Search Area Zones and Alternative Sites	
Project: One Earth Solar Farm	Drawing Number: 14529A-0	Rev: 01
Planning Inspectorate Scheme Ref: EN010159	Drawn Date: 2025-08-19	
Environmental Statement Volume 2		

Legend:

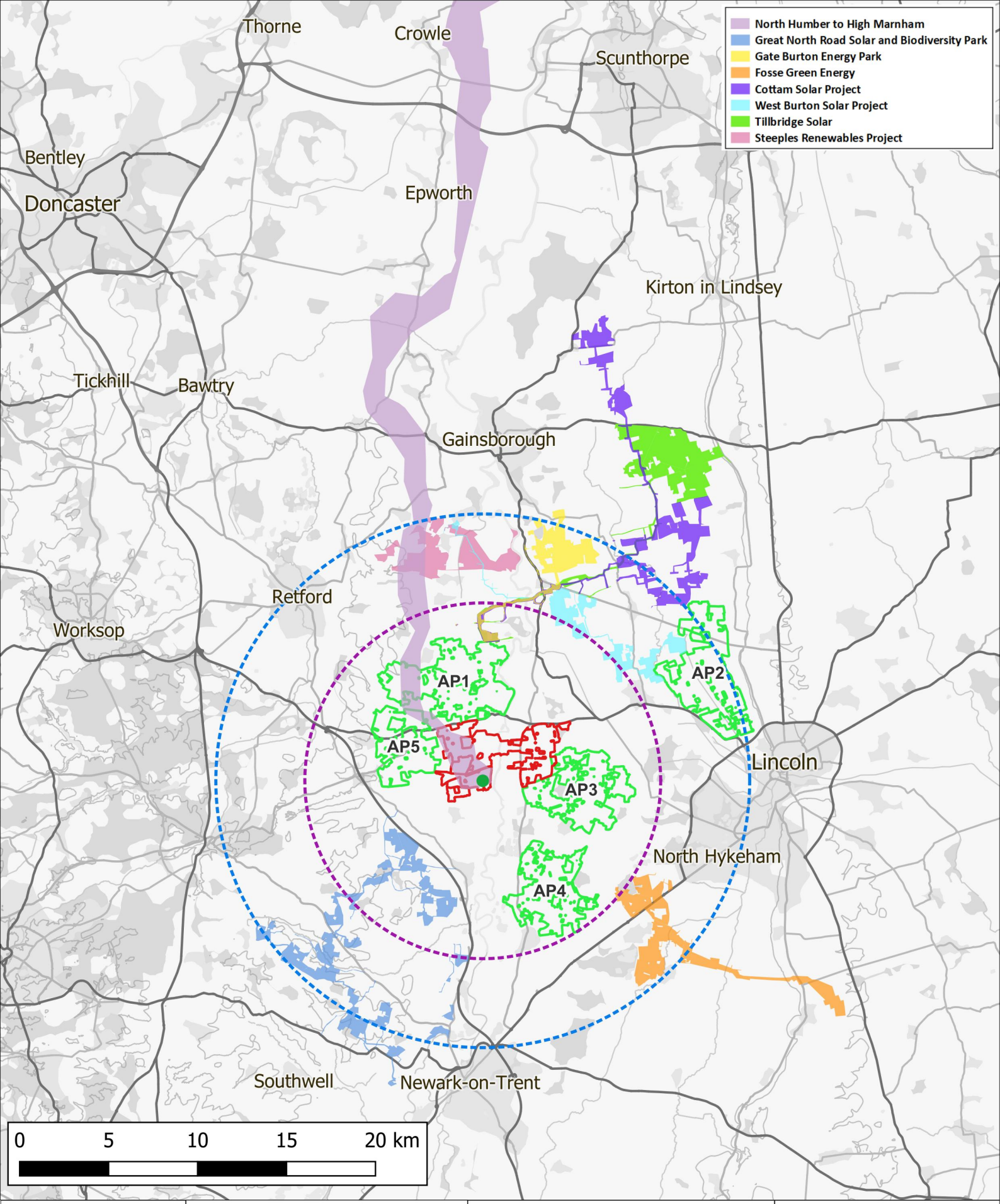
- Order Limits
- BESS and Substation
- National Grid High Marnham Substation
- 10km Search Zone
- 15km Search Zone
- 490ha Sites



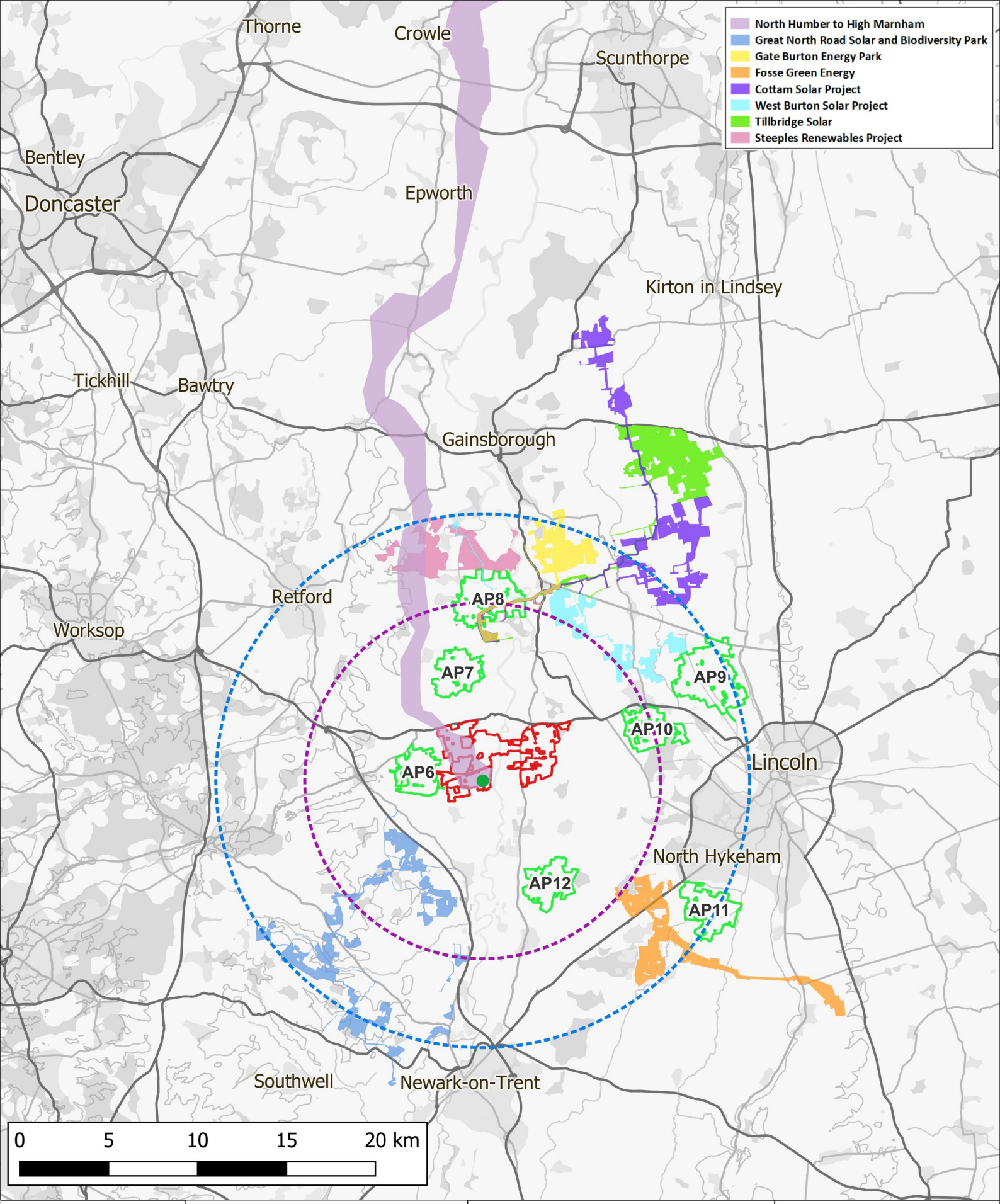
Client: One Earth Solar Farm Ltd	Drawing Title: Search Area Zones, Alternative Sites and Flood Zones		Legend: Order Limits BESS and Substation National Grid High Marnham Substation 10km Search Zone 15km Search Zone 985ha Sites Flood Zone 2 Flood Zone 3
Project: One Earth Solar Farm	Drawing Number: 14529A-0	Rev: 01	
Planning Inspectorate Scheme Ref: EN010159	Drawn Date: 2025-08-19		
Environmental Statement Volume 2			



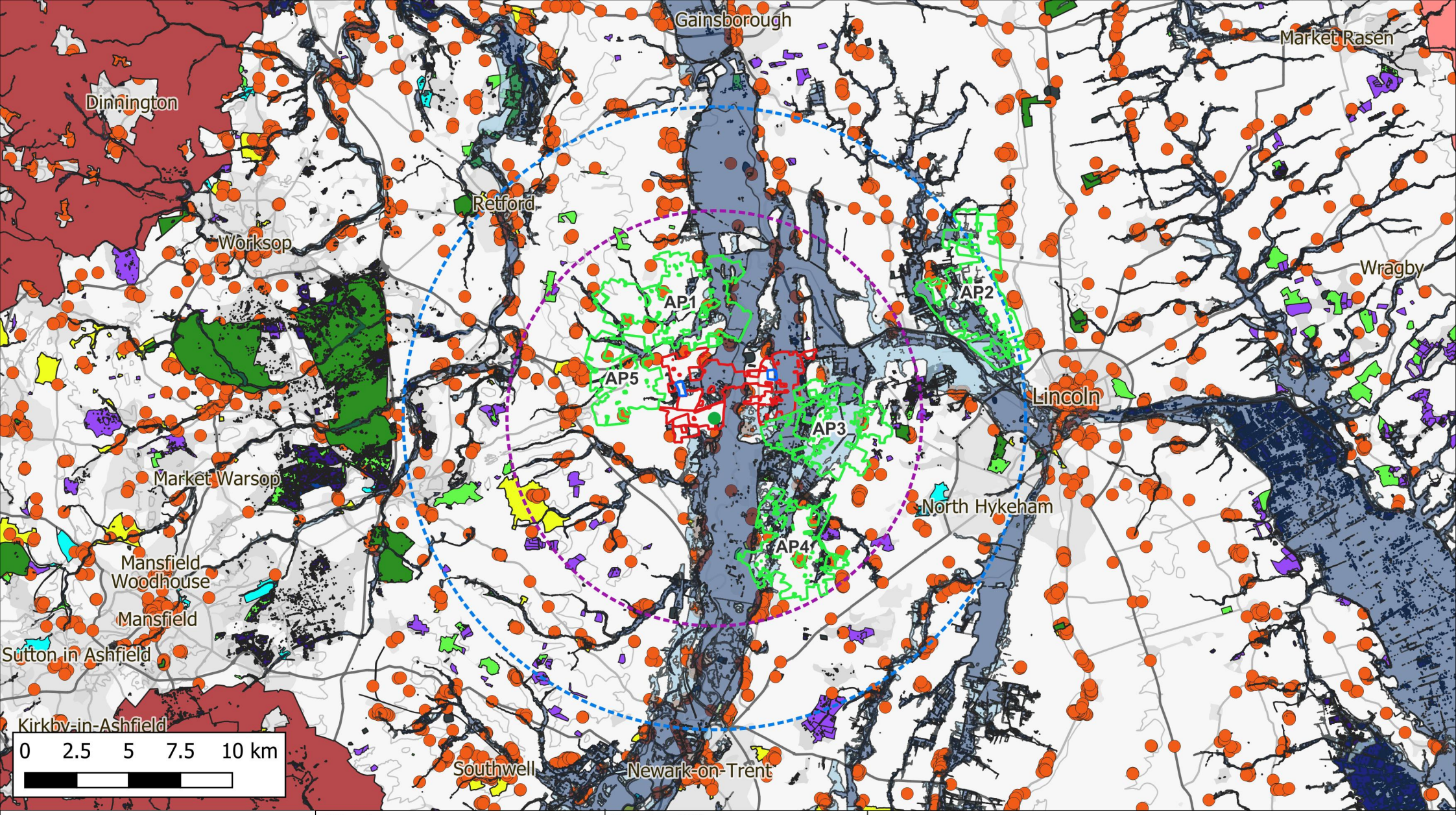
Client: One Earth Solar Farm Ltd	Drawing Title: Search Area Zones, Alternative Sites and Flood Zones	Legend: Order Limits BESS and Substation National Grid High Marnham Substation 10km Search Zone 15km Search Zone 490ha Sites Flood Zone 2 Flood Zone 3
Project: One Earth Solar Farm	Drawing Number: 14529A-0 / Rev: 01	
Planning Inspectorate Scheme Ref: EN010159	Drawn Date: 2025-08-19	
Environmental Statement Volume 2		



one earth solar farm	Client: One Earth Solar Farm Ltd	Drawing Title: Solar DCOs / Alternative Sites	Legend: Order Limits; BESS and Substation; 985 ha Sites; 10km Search Zone; 15km Search Zone; National Grid High Marnham Substation
	Project: One Earth Solar Farm	Drawing Number: 14529A-0 / Rev: 01	
	Planning Inspectorate Scheme Ref: EN010159	Drawn Date: 2025-08-19	
	Environmental Statement Volume 2		



one earth solar farm	Client: One Earth Solar Farm Ltd	Drawing Title: Solar DCOs / Alternative Sites	Legend: Order Limits; BESS and Substation; 490 ha Sites; 10km Search Zone; 15km Search Zone; National Grid High Marnham Substation
	Project: One Earth Solar Farm	Drawing Number: 14529A-0 / Rev: 01	
	Planning Inspectorate Scheme Ref: EN010159	Drawn Date: 2025-08-19	
	Environmental Statement Volume 2		

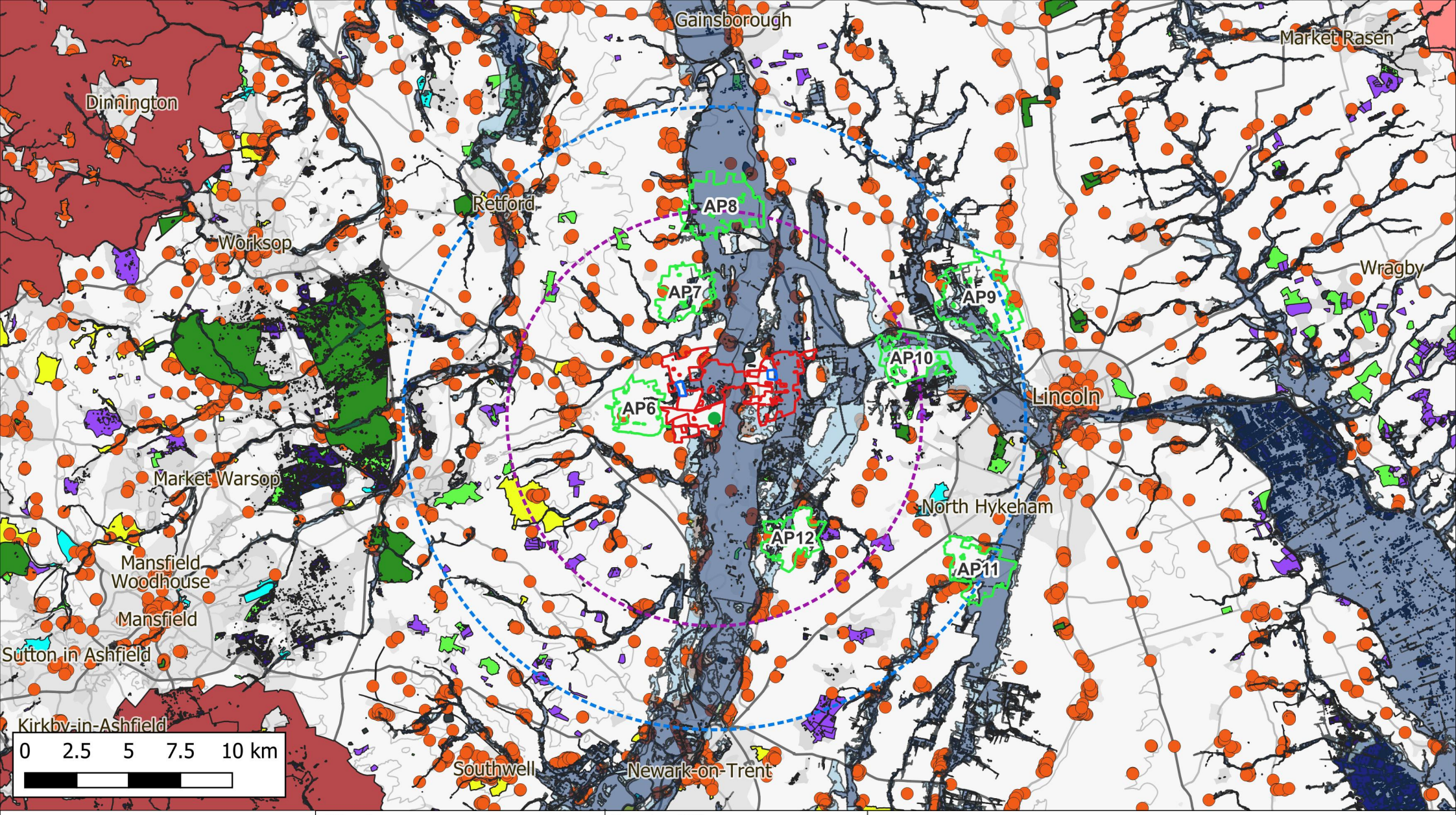


one earth solar farm

Client: One Earth Solar Farm Ltd	Drawing Title: Environmental Designations and Classifications within 15km	
Project: One Earth Solar Farm	Drawing Number: 14529A-0	Rev: 01
Planning Inspectorate Scheme Ref: EN010159	Drawn Date: 2025-08-19	
Environmental Statement Volume 2		

Legend:

- Order Limits
- BESS and Substation
- National Grid High Marnham Substation
- 10km Search Zone
- 15km Search Zone
- 985ha Sites
- Listed Buildings
- Conservation Area
- Green Belt
- Registered Battlefields
- Scheduled Monument
- World Heritage Site
- Flood Zone 2
- Flood Zone 3
- Ancient Woodland
- Areas of Outstanding Natural Beauty
- Local Nature Reserves
- National Park
- Peat
- Ramsar
- Registered Parks and Gardens
- Site of Special Scientific Interest
- Special Areas of Conservation
- Special Protection Areas

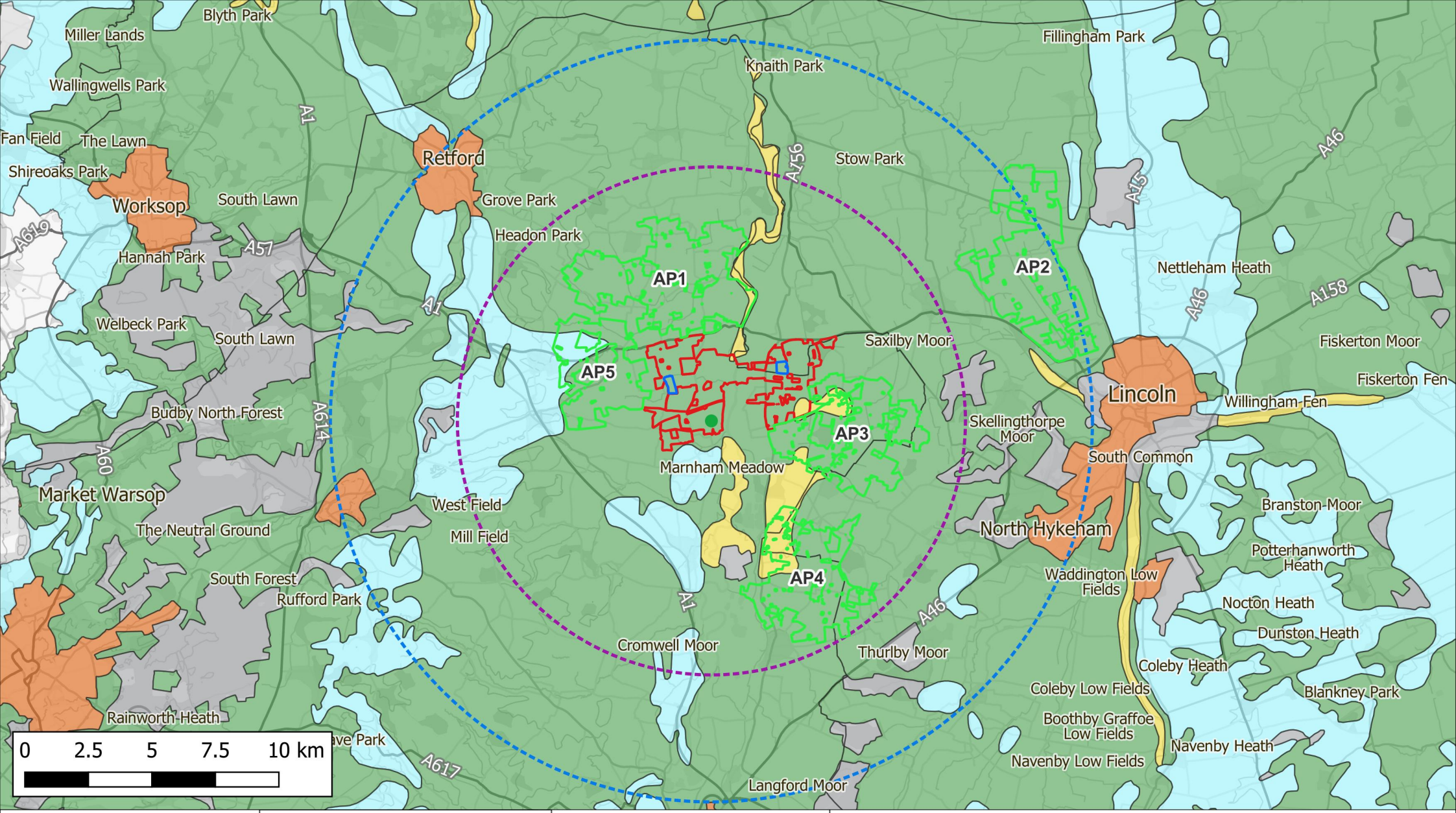


one earth solar farm

Client: One Earth Solar Farm Ltd	Drawing Title: Environmental Designations and Classifications within 15km	
Project: One Earth Solar Farm	Drawing Number: 14529A-0	Rev: 01
Planning Inspectorate Scheme Ref: EN010159	Drawn Date: 2025-08-19	
Environmental Statement Volume 2		

Legend:

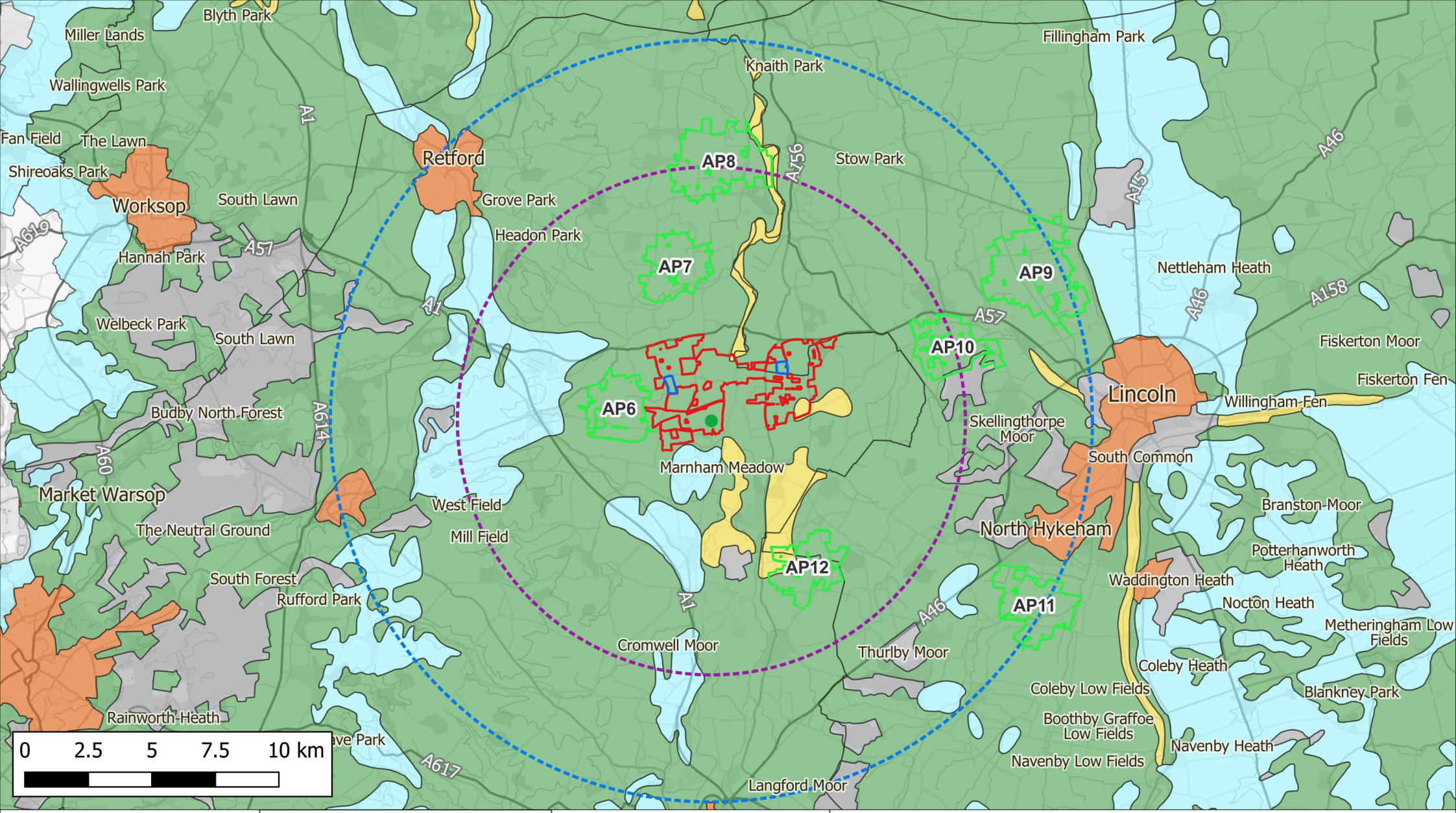
- Order Limits
- BESS and Substation
- National Grid High Marnham Substation
- 10km Search Zone
- 15km Search Zone
- 490ha Sites
- Listed Buildings
- Conservation Area
- Green Belt
- Registered Battlefields
- Scheduled Monument
- World Heritage Site
- Flood Zone 2
- Flood Zone 3
- Ancient Woodland
- Areas of Outstanding Natural Beauty
- Local Nature Reserves
- National Park
- Peat
- Ramsar
- Registered Parks and Gardens
- Site of Special Scientific Interest
- Special Areas of Conservation
- Special Protection Areas



Client: One Earth Solar Farm Ltd	Drawing Title: Search Area Zones, Alternative Sites and ALC	
Project: One Earth Solar Farm	Drawing Number: 14529A-0	Rev: 01
Planning Inspectorate Scheme Ref: EN010159	Drawn Date: 2025-08-19	
Environmental Statement Volume 2		

Legend:

- Order Limits
- BESS and Substation
- National Grid High Marnham Substation
- 10km Search Zone
- 15km Search Zone
- 985ha Sites
- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Non Agricultural
- Urban



Client: One Earth Solar Farm Ltd	Drawing Title: Search Area Zones, Alternative Sites and ALC	
Project: One Earth Solar Farm	Drawing Number: 14529A-0	Rev: 01
Planning Inspectorate Scheme Ref: EN010159	Drawn Date: 2025-08-19	
Environmental Statement Volume 2		

Legend:

- Order Limits
- BESS and Substation
- National Grid High Marnham Substation
- 10km Search Zone
- 15km Search Zone
- 490ha Sites
- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Non Agricultural
- Urban

one earth

solar farm