



**ARCUS**

**ALDEBY SOLAR PARK**

**ENVIRONMENTAL STATEMENT  
NON-TECHNICAL SUMMARY**

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## PREFACE

This Environmental Statement is submitted as part of a planning application made by Infinis Solar Developments Ltd for the installation of a ground mounted solar park with associated infrastructure on land at the closed Aldeby Landfill site, located approximately 1.2 km to the southeast of Aldeby and 400 m south of Burgh St Peter in Norfolk.

The Environmental Statement comprises this document, which includes:

- A Non-Technical Summary;
- Text, with chapters on:
  - Introduction, Methods and Scope;
  - The Development (including Alternatives)
  - Planning Policy Context;
  - Landscape and Visual Impact Assessment;
  - Ecology;
  - Traffic and Access;
  - Hydrology and Hydrogeology;
- Figures; and
- Technical Appendices.

A copy of the Environmental Statement including this Non-Technical Summary can be downloaded via the Norfolk County Council website. A hard copy can also be made available from Arcus Consultancy Services for £150 or on CD for £25.

Any comments on the Development or findings of the Environmental Statement should be directed in writing to Norfolk County Council (at County Hall, Martineau Lane, Norwich NR1 2SG), made online using the Council's Public Access system or by email to [mawp@norfolk.gov.uk](mailto:mawp@norfolk.gov.uk).

In addition, the following documents also accompany the planning application but do not form part of the Environmental Statement:

- Planning, Design and Access Statement, including the following technical reports:
  - Glint and Glare Assessment;
  - Tree Protection Plan.
- Planning Drawings 1-10.

## **1 INTRODUCTION, METHODS AND SCOPE**

This is a Non-Technical Summary (NTS) of an Environmental Statement (ES) that identifies and assesses the likely significant effects of the installation of a ground mounted Solar Park with associated infrastructure (the Development) on the closed Aldeby landfill site in Norfolk (the Site).

The Site is located within the area of South Norfolk District Council as local planning authority and Norfolk County Council (NCC) as Mineral and Waste Authority. Due to the location of the Site on Aldeby Landfill, the application is to be considered by the Minerals and Waste Authority – NCC. The Broads is located adjacent to the south of the Site.

The Development consists of the construction of a solar park which includes the following elements: solar PV modules on ground mounted metal racking, DNO switching station, client switching stations, battery containers, general spares container, access track, fencing, security cameras, cabling and landscaping.

The construction period would be approximately 4 months and planning permission is sought for a temporary operational period of 35 years. The Site would be fully decommissioned and restored at the end of the time period for the temporary planning permission.

The Environmental Statement is the documented outcome of the Environmental Impact Assessment (EIA) process, undertaken to identify and assess the likely significant effects of a proposed development on the environment and to identify measures to mitigate or manage significant adverse effects.

This ES has been prepared in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, following a request for a Screening Opinion from NCC. This Screening Opinion (included in the ES as Technical Appendix 1.1) set out that the Council considered that effects of the Development on The Broads which lie adjacent to the south of the Site had the potential to be significant. Consequently, this ES assesses Landscape and Visual, Ecology, Traffic and Access, Flood Risk Assessment and Hydrogeological effects arising from the Development. Other environmental assessments and sensitivities are detailed within the separate Planning Design and Access Statement and associated technical reports.

The process of gathering environmental information is derived from a systematic process of identification, prediction and evaluation of potential effects, comparing the scenario including the Development to the default scenario, were the Development not to go ahead. The likely effect that the Development may have on each receptor is influenced by a combination of the sensitivity of the receptor and the predicted magnitude of change from the baseline conditions (either positive/beneficial or negative/adverse).

Where significant effects are identified, mitigation is proposed, where possible, to reduce or prevent the likely significant negative effects occurring. Residual effects are the effect that remains after the mitigation has been taken into account.

Cumulative effects have also been assessed, which take into account other developments in the area which could lead to additional effects in combination with the Development.

The ES has been prepared by competent authors, as required by the EIA Regulations.

Interaction and accumulation of effects and transboundary effects are scoped out of the EIA as are effects from major accidents and disasters.

## 2 THE DEVELOPMENT

The Development comprises the following:

### 2.1 Solar PV Array

Rows of solar panels known as strings, which are dark in hue and recessive in the landscape. The panels or modules are composed of photovoltaic cells and are designed to maximise the absorbency of the sun's rays and minimise solar glare. Each string of panels would be mounted on a rack comprising metal poles anchored to the ground via concrete footings of shallow piles. Panels are typically tilted 10 to 25 degrees from the horizontal to face south towards the sun. Moreover, there is usually a distance of 2-6 meters between strings of panels in order to avoid inter-panel shading but this distance is influenced by slope and aspect.

The panels would be mounted at approximately 0.8 m from the ground at the lowest point (the southern edge) rising to approximately 2.6 m at the highest point (the northern edge), although the anticipated maximum height could be up to 3 m to account for variations in slope and aspect at the Site.

### 2.2 Associated Infrastructure

The scale of the associated infrastructure is as follows:

- DNO switching station container - up to 10 m length x 3.5 m height x 2.5 m width;
- Client side switching station – up to 6.1 m length x 3 m height (this includes a plinth of 0.35 m above the ground level) x 2.5 m width;
- Two battery storage containers – 12.2 m length x, 2.6 m height x 2.5 m width;
- One general storage container – 12.2 m length x 2.6 m, height x 2.5 m width;
- 2 m high security fence;
- Gate height 2 m and width 3.1 m;
- CCTV cameras located on 3 m high poles; and
- Access tracks – 3.5 m wide.

### 2.3 Access

Access would be via the existing landfill site access point off Common Road to the west, providing connectivity to Rectory Road and the A143 via Dun Cow Road.

The existing access road within the site boundary has been utilised by HGVs throughout the operation of the landfill site and is therefore suitable for use by construction vehicles. This would minimise the requirement for new tracks. Where necessary, internal stone access tracks will be provided to enable construction and maintenance of the Development.

Full details of the access arrangement, including routing to Site, traffic numbers and construction programme and outline traffic management measures are presented in the Transport Statement that forms part of the planning application.

### 2.4 Landscape and Biodiversity Enhancement Strategy

The landscape proposals for the Site have been designed to preserve and enhance the existing landscape features, to screen views of the solar panels from outside the Site and to enhance the biodiversity and habitat value of the Site.

The Development includes:

- Hedge planting (with a percentage of native evergreens such as native yew and holly) interplanted within existing vegetation to infill gaps and reinforce the existing boundary vegetation and soften and filter the limited views to Site. Planting is

concentrated along the access track in the south west near College Cottages and provides green linkages to the fenland landscape to the south.

- Other measures incorporated with the Development to improve its biodiversity value include:
  - The retention of the existing grassland under the solar panels with a graded edge with scalloped bays to boundary hedgerows; and
  - Logs and brushwood produced during woodland management operations may be used to provide biodiversity enhancements such as log piles and hibernacula.

These measures would also help to improve local biodiversity and landscape character.

## 2.5 Site Selection

The purpose of the Development is to harness solar power to generate electricity. The design of a solar development must also take account of potential environmental effects and so strikes a balance between energy yield and minimising environmental effects.

The Site comprises previously disturbed land which is currently in use for energy generation in the form of Captured Landfill Methane (CLM) extraction, which is to continue for the lifetime of the Development. The Development would therefore complement the existing use of the Site and would maximise the benefits of energy generation at the Site. It utilises existing infrastructure to broaden the electricity generation potential of the closed landfill site. The Applicant has a portfolio of CLM electricity generation sites throughout the UK, and has reviewed the suitability of the landfill sites where these are located for solar development.

Not every site will be suitable for accommodating solar, and therefore the Applicant has been through a thorough feasibility exercise to assess the suitability of the Site. The potential for installing a solar development at the Site has been assessed through feasibility work, which assessed technical and environmental issues to identify development sites and then derive the most appropriate scale and infrastructure layout.

## 2.6 Design Rationale

The use of the former landfill site helps to ensure that the environmental impacts of the Development are minimal. The Development would not interfere with the landfill cap, remaining at surface level. Furthermore, the layout has been designed to avoid impacts on CLM infrastructure which is present on the Site.

The Development makes use of an otherwise sterilised site and results in no loss of agricultural land etc. Given the former use as a landfill site and the current CLM electricity generating station, infrastructure for both access and grid connection are already in place ensuring less disruption in the construction of the Development (compared to a green field site). The Development is also fully reversible and the Site would be reinstated in accordance with the agreed landfill restoration plan following the temporary lifetime of the Development (35 years).

The layout and design process of the Development was an iterative one informed by consideration of a variety of environmental and technical assessments, professional advice from consultants and the pre-application and EIA Screening response received from NCC. This included the layout of the solar arrays but also ancillary infrastructure including switching stations, battery containers and access tracks. The final design of the Development is a careful balance between addressing site constraints, minimising environmental impact and ensuring commercial viability.

## 2.7 Development Design Considerations with Landfill Restoration

The Site is situated on the closed Aldeby landfill site which is subject to an approved restoration plan which is currently in the process of being implemented. The Development would defer the implementation of the affected area of the restoration plan for the lifetime of the Development. Upon decommissioning of the Development, the restoration plan would be re-implemented. The amendment to the timing of the restoration would be implemented via a separate Section 73 application which will be made to vary the restoration scheme (as approved under application C/7/2018/7007, drawing no 601R294) to defer the implementation of the approved restoration plan for the area of the Site.

## 2.8 Need for the Development

The need for the Development is underpinned by national and international commitments on climate change, policy objectives, electricity market reform and industry drivers.

To address these objectives and meet the emissions reduction targets, the electricity being consumed will need to be almost exclusively from low carbon sources. Therefore, a new low carbon energy mix is required which is reliable, secure and affordable.

If consented, the Development would contribute to the delivery of these policy objectives, diversify the energy mix and facilitate the transition to low carbon energy, whilst decreasing the dependency on fossil fuels. Due to rapid advances in technology, solar PV is one of the most cost-effective sources of energy, leading to more affordable and secure energy supply to consumers.

Solar energy generation does not require fossil fuel use during generation, and although there is variability in the amount and timing of sunlight over the day, season and year, a properly sized and configured system can be designed to be highly reliable. In the case of the Development, the proposed array of approximately 7MW would generate approximately 6,633 megawatt hours per year (MWh/yr) which would offset the annual electricity usage of approximately 1,400 homes in South Norfolk<sup>1</sup>.

## 3 PLANNING POLICY CONTEXT

The process for determining the planning application under the Town and Country Planning Act can be defined as:

- Identification and consideration of the key provisions within the Development Plan;
- Clarification of whether the Development is in accordance with the Development Plan;
- Identification and consideration of relevant material considerations; and
- Conclusions on whether planning permission is justified.

The National Planning Policy Framework (NPPF) was first published in March 2012 and has since been revised on two occasions, most recently February 2019. It sets out the UK government's planning policies for England and how these are to be applied. The NPPF reiterates that applications for planning permission must be determined in accordance with the Development Plan, unless material considerations indicate otherwise. The NPPF also identifies that national planning policy is a material consideration when making decisions on planning applications.

Due to the landfill properties of the Site the Development will be determined by the Minerals and Waste Authority – Norfolk County Council and therefore the most relevant

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<sup>1</sup> The equivalent number of homes supplied has been obtained from *Regional and Local Authority Electricity Consumption Statistics* (Department for Business, Energy & Industrial Strategy, Updated 19 Dec 2019) (available online at: <https://www.gov.uk/government/statistical-data-sets/regional-and-local-authority-electricity-consumption-statistics> [accessed 27/11/2020]), using the average household energy use for South Norfolk and annual generation estimate calculated by Infinis.

Development Plan for the Site consists of Core Strategy and Minerals and Waste Development Management Policies Development Plan Document, adopted in September 2011.

At a local level, the Site falls within the jurisdiction of South Norfolk Council. Therefore, although less relevant than the NCC Development Plan, the development plans for the local council are also briefly considered.

## **4 LANDSCAPE AND VISUAL IMPACT ASSESSMENT**

### **4.1 Introduction**

A Landscape and Visual Impact Assessment (LVIA) has been undertaken and is contained in Chapter 4. The LVIA includes the following:

- Baseline surveys and site visits;
- Desk-top analysis and computer modelling;
- Viewpoint photography to inform the assessment;
- Assessment surveys and site visits;
- Residential visual amenity survey and assessment; and
- Written analysis of the landscape and visual impact of the Development.

The LVIA assesses the effects of the Development upon landscape receptors i.e.:

*"...the constituent elements of the landscape, its specific aesthetic or perceptual qualities and the character of the landscape."*

And visual receptors i.e.:

*"...the people who will be affected by changes in views or visual amenity at different places."<sup>2</sup>*

The LVIA uses a structured method that combines both objective assessment and subjective assessment (or professional judgement).

The core study area extends to a 2 km radius from the Site. This is based on potential visibility of the Development, which is likely to be limited due to its low height combined with the landform of the area and screening afforded by hedgerows, trees and wooded areas to the boundaries of the Site and across the wider area.

### **4.2 Nature of Effects**

#### **4.2.1 Construction Effects**

Overall, the effects of construction on landscape resources will be restricted to small geographical areas within the Site and will not result in the removal of any important landscape features such as hedges and hedgerow trees. The effects will be relatively localised.

The visual effects of construction will be limited to visibility of construction activities with such effects being of short duration.

#### **4.2.2 Operational Effects**

Effects on landscape resources during the operation of the Development relate primarily to a change in land-use from former landfill subject to aftercare to grassland with solar panels and ancillary development. This will have a physical effect on the Site which, in turn, will affect the overall character of the Site. The Development will also potentially affect

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<sup>2</sup> Landscape Institute and Institute of Environmental Management and Assessment, 2013, *Guidelines for Landscape and Visual Impact Assessment*, 3<sup>rd</sup> Edition, Routledge, London. Paragraph. 3.21, page 36.



aesthetic and perceptual aspects of landscape character where it is experienced from the surrounding landscape.

The effects of operation are assessed at Year 1 and Year 15 when the landscape enhancement measures will have become established. These measures will help to soften the appearance of the Development and integrate it with the wider landscape.

#### **4.2.3 Decommissioning Effects**

Potential effects arising from the decommissioning of the Development at the end of its operational phase will be limited to construction activities required to dismantle the solar panels, inverters, substations and other above ground features.

### **4.3 Assessment of Effects**

The assessment has set out the landscape and visual impact of the Development, and key landscape and visual attributes and sensitivities. Landscape proposals are suggested which in combination with the existing approved embedded landscape restoration proposal may mitigate these impacts. The previous use of the Site combined with the limited height of the Development and the very high degree of containment afforded by boundary vegetation ensure that effects are small in magnitude and restricted to the Site and its immediate setting.

#### **4.3.1 Landscape Effects**

The Site is of low sensitivity, but the surrounding local landscape is assessed as being of high to moderately sensitive to development due to its location within the immediate setting of The Broads. There would be a perceived change to the National Character Area (NCA)/ Local Landscape Character Area (LLCA), but the magnitude of this would be barely discernible as an indirect landscape effect. Impact on the landscape characters of the Thurlton Tributary Farmland with Parkland has been evaluated as negligible adverse and the Aldeby to Burgh St Peter LLCA is assessed as minor adverse reducing to negligible with mitigation.

The Development would not detract from the existing high value landscape quality, features and characteristics of The Broads National Park. The magnitude of change arising from the Development within The Broads National Park would be minor adverse reducing to negligible within the designated area in comparison to the current baseline situation.

#### **4.3.2 Visual Effects**

The nature, scale, and form of the Development would inevitably result in some minor adverse effects on landscape character and on visual amenity. However, the previous use of the Site combined with the limited height of the Development and the high degree of containment afforded by existing boundary vegetation and in the surrounding area, ensure that effects are relatively small in magnitude and restricted to the Site and a small number of receptors.

The Development would introduce a new element into the landscape but is not deemed inappropriate in terms of scale or massing for this location. There is farming infrastructure within the Sites environs and the Site itself should be viewed in the context of its previous industrial use as a landfill site following quarrying activity. The Development would form an incidental component of glimpsed and filtered views from minor lanes and a few isolated properties. There would be a change in view, but this change, with mitigation, is not harmful in this analysis.

A mitigation strategy has been developed which aims to provide an enhanced interim restoration to the existing approved landfill restoration scheme. This will visually integrate

the Development into the wider landscape and provide a landscape buffer to the limited views from the south.

## **5 ECOLOGY**

### **5.1 Introduction**

Chapter 5 presents the ecological baseline conditions informed from a combination of surveys and desk study information and an assessment of potential ecological impacts from the Development, taking into account relevant planning policy and legislation.

### **5.2 Nature of Effects**

The Site is located 800 m north of a number of nationally and internationally designated ecological sites, including Broadland Special Protection Area (SPA) and Ramsar, The Broads Special Area of Conservation (SAC) and Barnby Broad and Marches Site of Special Scientific Interest (SSSI). The Site is also adjacent to the west of Boons Heath County Wildlife Site.

The majority of the Site comprised bare ground with small sections of short ephemeral/perennial vegetation. Species-poor semi-improved grassland was present in the south and east of the ESA with a hardstanding compound and associated buildings in the far western extent. The surrounding landscape is predominately agricultural and distinctively flat. Given the majority of the Site was bare it classed as being of less than local value and had little potential to support protected species.

Assessment of effects on ecologically designated sites is the focus of the assessment with consideration also given to mitigation for other ecological receptors to ensure legal compliance.

### **5.3 Assessment of Effects**

The survey, desk studies and subsequent assessment that have been carried out confirmed the following:

- There are several designated sites in the surrounding area, including the internationally important Broads SAC and Broadlands SPA and Ramsar.
- The Site has a limited range of low value habitats, all of which are the result of recent and ongoing landfill operations.
- The Site had limited potential to support protected and priority species; specifically, reptiles, Great Crested Newt (GCN), badger and bats.

Boon's Heath is designated due to its bracken-dominated heath on sandy soils, a habitat that is not present within the Site. Additionally, Boon's Heath is open for recreational use so experiences a baseline level of disturbance. Given the restricted and relatively low magnitude impacts arising from the construction of the Development, combined with the lack of clear ecological connectivity between the Site and Boon's Heath, no significant adverse effects are anticipated and no mitigation is required.

All other designated sites are sufficiently distant from, or lack ecological connectivity with, the Site, or are designated due to habitats and species not present within the Site and thus significant adverse impacts are extremely unlikely. Further details on potential impacts to statutory designated sites are detailed in Table 5.6 of Chapter 5.

An extended Phase 1 Habitat Survey was carried out of the Site which identified there were no additional protected species surveys required. In the absence of mitigation, the construction phase of the development has the potential to adversely affect some sensitive ecological features. These effects would be not significant but may, in some cases, constitute legal offences. Mitigation measures have been proposed for habitats, bats, great crested newts, reptiles, badgers and birds. Following the implementation of mitigation, no

significant adverse ecological impacts or legal offences are predicted during construction. The habitat management prescriptions will compensate for the minor effects of habitat loss/disturbance and, in the long term, provide benefits to the ecological features considered in the assessment, which will constitute a net gain in biodiversity.

No significant effects, in terms of the EIA Regulations, are predicted.

## **6 TRAFFIC AND ACCESS**

### **6.1 Introduction**

Construction of the Development will involve the installation of ground mounted solar PV array and associated infrastructure including inverters, a switching compound as well as fencing, security cameras, cabling, storage containers and access tracks. Vehicle movements to the Site will likely consist of heavy goods vehicles delivering materials and components, light goods vehicles and cars.

Vehicle movements to the site during the operation of the Development will comprise activities associated with inspection, monitoring and general site up-keep. It is anticipated that such visits will occur up to once per week on average and be via van or other similar sized vehicles and as such operational traffic effects are scoped out of the assessment.

In addition to operational traffic the following effects have also been scoped out of the assessment:

- Decommissioning effects
- Visual effects;
- Cyclist Amenity;
- Noise; and
- Air Quality

The proposed construction route to site is:

- Exit A143 onto Hollow Way Hill;
- Follow Hollow Way Hill for approx. 0.5 miles, continuing onto Beccles Road;
- Follow along Beccles Road for approximately 1.2 miles, continuing onto Rectory Road north of Aldeby;
- Continue on Rectory road for 0.2 miles;
- Turn right onto Common Road; and
- Continue along Common Road for approx. 1 mile, turning right at the Dun Cow Road Junction before reaching Site entrance.

All construction vehicles departing the Site will use Common Road before continuing straight onto Dun Cow Road towards Rectory Road.

### **6.2 Nature of Effects**

The key potential effects for the construction phase include:

- Traffic generation;
- Accidents and safety;
- Driver delay;
- Pedestrian and Cyclist amenity;
- Severance;
- Noise and vibration;
- Hazardous loads;
- Pedestrian delay;
- Visual effects; and
- Air quality.

### 6.3 Assessment of Effects

The Transport Statement (Technical Appendix A6.1) provides further details on the construction programme and the anticipated construction traffic associated with the Development. The construction period is expected to run for approximately 4 months. Approximately 7,458 two-way vehicle movements are expected to occur during this period for staff, and to deliver construction materials and components.

During the peak month of construction there are 2,132 two-way movements, which consists of 2,080 car movements and 52 HGV movements. Assuming a 26-day working month, this would equate to a maximum of 82 two-way vehicle movements per day which would consist of 80 car movements and 2 HGV movements on average.

In order to prevent the risk of obstruction of the delivery routes due to construction traffic it is proposed to implement a temporary one-way system. Additionally temporary traffic lights would be installed at the Dun Cow Road/Common Road junction in order to control access to the final section of Common Road towards the site entrance.

Final details of the traffic management procedures will be provided prior to the commencement of construction. These will be developed by the Principal Contractor or their appointed traffic management sub-contractor and would be agreed in consultation with Norfolk County Council Highways department prior to installation. It is anticipated that a number of temporary traffic regulation orders (TTROs) would be required in order to implement the proposed measures.

The following specific measures are provided as an outline of how the route could be managed, although it is anticipated that these will be refined and developed during the consultation process:

- Common Road to temporarily become one-way (southbound) from the Beccles Road Junction to Dun Cow Road Junction;
- Dun Cow Road to become temporarily one-way (northbound) from the Common Road junction to Rectory Road/Beccles Road;
- Temporary traffic lights to be located at the Dun Cow Road/Common Road/ Lily Lane Junction to control traffic on Common Road between this junction and the site entrance junction.

The effect of construction on traffic generation on Dun Cow Road and Common Road is considered to result in a negligible magnitude of change on a receptor of medium sensitivity. Thus, the effect of increased traffic on this route is considered negligible and not significant as per the EIA Regulations.

The roads on the access route are operating within acceptable safety parameters at present and in the absence of identifiable trends in RTCs or known accident hotspots, an increase in overall traffic flow or HGV composition is not sufficient to affect a change in safe operation of the road network. The effect of construction on accidents and safety is considered to result in a negligible magnitude of change on a receptor of high sensitivity. Thus, the effect of increased traffic on accidents and safety is considered minor and not significant as per the EIA Regulations.

## 7 HYDROLOGY AND HYDROGEOLOGY

### 7.1 Introduction

Chapter 7 presents the hydrological and hydrogeological baseline conditions informed from desk study information and an assessment of potential hydrological and hydrogeological impacts from the Development, taking into account relevant planning policy and legislation.

## **7.2 Nature of Effects**

The design of the Development has considered the sensitive nature of the Site, which is located close to The Broads, the River Waveney and on a part of the landfill which is uncapped and known as dilute and disperse.

### **7.2.1 Flood Risk**

The Flood Risk Assessment (FRA) assesses the effect of the Development on flood risk for the following sources:

- Fluvial;
- Pluvial;
- Tidal;
- Groundwater; and
- Reservoirs.

The potential of any increase in surface water runoff and thus potential increase in vulnerability at receptors elsewhere has been considered in the design of the Development. The FRA outlines the implementation of native wildflower mix beneath the base of PV arrays to limit the potential of a concentration of surface water along the base of the racking system.

### **7.2.2 Groundwater Risk**

The Groundwater Risk Assessment was undertaken to assess the impact of the Development on hydrological and hydrogeological receptors. It outlines two design options for the panel foundations (short piled anchor system or ballasted system). The short piled anchor system design option will only be selected where there is sufficient capping depth to ensure that the landfill cap is not penetrated. This consideration will ensure the integrity of the existing landfill cap will not be compromised and no pollutant pathways are created through the proposed infrastructure.

Good practice will be followed in all aspects of construction, operation and decommissioning specifically through a Pollution Prevention Plan (PPP) which will be incorporated into a final Construction Environmental Management Plan (CEMP) as part of any required planning conditions ahead of construction. The PPP will set out measures to be employed to avoid or mitigate potential pollution for all phases of the development, and will also include an Incident Plan to be followed should a pollution event occur. This plan will be produced following consultation and agreement with the Environment Agency and all appropriate personnel working on the construction site to be trained in its use. The Construction Project Manager will have specific responsibility for implementation of the CEMP.

Method statements will also be applied, which will follow the principles laid out in relevant CIRIA guidance and the principles of the archived EA Pollution Prevention Guidelines (PPGs).

## **7.3 Assessment of Effects**

### **7.3.1 Flood Risk**

The Development does not result in an increase in flood risk elsewhere and thus at receptors elsewhere, which are therefore scoped out of the assessment.

The existing landfill Development is a 'More Vulnerable' land use and thus a receptor of Medium sensitivity. The Development sits upon the capped areas of the Site and is classed as 'Essential Infrastructure' which shall be unoccupied, apart from ad-hoc maintenance personnel and is therefore a receptor of Low sensitivity.

The site-specific FRA assesses flood risk from all identified sources as Negligible to Low with no increase in flood risk as a result of the Development. This equates to a Negligible change of magnitude and therefore a Negligible residual effect. This is not significant in terms of the EIA regulations.

### **7.3.2 Groundwater Risk**

The River Waveney is identified as a receptor with a 'Moderate' EA Quality classification and is therefore attributed a Medium sensitivity.

Groundwater underlying the Site is classified as a 'moderately productive aquifer' of the wider Anglian groundwater body, which is therefore classified as High sensitivity.

Potential pollutant pathways to the groundwater from the Development are from the supporting structures for the emplacement of the solar panels creating new routes for leachate to reach offsite receptors. The short pile anchor system requires at least 800 mm of capping soil above the capping layer, while the ballasted system comprises concrete 'shoes' that are at ground level. The short pile anchor system will only be used where the final capping depth is sufficient, which will be determined through a geophysical survey.

Embedded measures to manage chemical and sediment pollution, aligned with good practice, will be followed through construction, operation and decommissioning through a Pollution Prevention Plan (PPP) included within the Construction Environmental Management Plan (CEMP).

As a result of these measures the Development will not create any additional pollutant pathways at Aldeby landfill and will have a Negligible magnitude of change. Given the Medium (surface water) and High (groundwater) sensitivity of receptors, the residual effects are assessed as Negligible and Minor respectively. This is not significant in terms of the EIA regulations.

## **8 SUMMARY OF EFFECTS**

There are no significant effects identified with regards to:

- Ecology
- Traffic and Access; or
- Hydrology or Hydrogeology

The principal landscape sensitivity is the proximity to the Broads, located adjacent to the south of the Site. The nature, scale and form of the Development will inevitably result in some effects on landscape receptors, specifically to the character of the Site which will be altered by the addition of solar panels and associated infrastructure across it.

The LVIA has set out the landscape and visual impact of the Development, and key landscape and visual attributes and sensitivities. Landscape proposals are suggested which in combination with the existing approved embedded landscape restoration proposal may mitigate these impacts. The previous use of the Site combined with the limited height of the Development and the very high degree of containment afforded by boundary vegetation ensure that effects are small in magnitude and restricted to the Site and its immediate setting.

In terms of landscape effects, the Development would not detract from the existing high value landscape quality, features and characteristics of The Broads National Park. The magnitude of change arising from the Development within The Broads National Park would be minor adverse reducing to negligible within the designated area in comparison to the current baseline situation. The Broads are appraised as having the capacity to accept the level of change that a Development of this nature would bring about without harm.

In terms of visual effects, the Development would introduce a new element into the landscape but is not deemed inappropriate in terms of scale or massing for this location. There is farming infrastructure within the Sites environs and the Site itself should be viewed in the context of its previous industrial use as a landfill site following quarrying activity. The Development would form an incidental component of glimpsed and filtered views from minor lanes and a few isolated properties. There would be a change in view, but this change, with mitigation, is not harmful.