

# Preliminary Environmental Information Report

## Calderdale Energy Park

7 April 2026

Volume 2, Chapter 23 : Other Environmental Matters

PINS Reference: EN0110023

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations  
2009 – Reg 5 (2) (a).



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## 23 Other Environmental Matters

### 23.1 Introduction

- 23.1.1 This Chapter of the PEIR addresses other environmental matters arising from the Proposed Development. The purpose of this Chapter is to collate the other technical aspects that do not require standalone Chapters, either due to the limited scope of assessment required or the absence of likely significant effects. However, these technical aspects have been included within the PEIR, as requested by the Planning Inspectorate (PINS) in the Scoping Opinion.
- 23.1.2 This Chapter of the PEIR has been prepared by Turnkey Regeneration Ltd on behalf of the Applicant and addresses the following technical aspects:
- Agricultural Land; and
  - Land Contamination
- 23.1.3 These aspects are dealt with in turn below. It is based on the information available to date (which is detailed in this Chapter), as well as the current description of the Proposed Development as set out in **Chapter 4: The Proposed Development**.
- 23.1.4 It is noted that the PINS Scoping Opinion also requested the consideration of materials and waste associated with the Proposed Development. Impacts related to minerals are to be addressed in **Chapter 22: Materials and Waste**.
- 23.1.5 This Chapter concludes that there are no preliminary likely significant environmental effects of the Proposed Development related to agricultural land and land contamination during the construction, operation and maintenance, and decommissioning phases.
- 23.1.6 This Chapter is supported by:
- **Appendix 23-1: Agricultural Land Classification (ALC) Report**; and
  - **Appendix 23-2: Groundsure Report**

### 23.2 Agricultural Land

#### Legislation, Policy and Guidance

- 23.2.1 There is no legislation relevant to agricultural land. Key policy and guidance relating to agricultural land and of relevance to this preliminary assessment comprises the following guidance and policy in **Table 23-1** Table 23-6.

Table 23-1: Policy and Guidance

Type	Name	Relevance to Assessment
National Planning Policy	NPS EN-1 <sup>1</sup>	<p>The following paragraphs of NPS EN-1 are relevant:</p> <ul style="list-style-type: none"> <li>• <i>“5.11.11 - During any pre-application discussions with the applicant, the LPA should identify any concerns it has about the impacts of the application on land use, having regard to the development plan and relevant applications and including, where relevant, whether it agrees with any independent assessment that the land is surplus to requirements.</i></li> <li>• <i>5.11.12 - Applicants should seek to minimise impacts on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land in areas of poorer quality (grades 3b, 4 and 5).</i></li> <li>• <i>5.11.13 - Applicants should also identify any effects and seek to minimise impacts on soil health and protect and improve soil quality, taking into account any mitigation measures proposed.”</i></li> </ul>
	NPS EN-3 <sup>2</sup>	<p>While there is no specific guidance in relation to onshore wind farms, Section 2 requires Soil Management plans to facilitate sustainable management of soils and minimise impacts on soil health and contamination.</p>
	NPS EN-5 <sup>3</sup>	<p>Paragraph 2.9.26 references the mitigation of the potential detrimental effects of undergrounding works on any relevant agricultural land and soils (including peat soils),</p>

<sup>1</sup> DESNZ (2025) Overarching National Policy Statement for energy (EN-1) (2025). Available at: <https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1-2025/overarching-national-policy-statement-for-energy-en-1-2025-accessible-webpage>.

<sup>2</sup> DESNZ (2025) National Policy Statement for renewable energy infrastructure (EN-3) (2025). Available at: <https://www.gov.uk/government/publications/national-policy-statement-for-renewable-energy-infrastructure-en-3>.

<sup>3</sup> DESNZ (2025) National Policy Statement for electricity networks infrastructure (EN-5) (2025). Available at: <https://www.gov.uk/government/publications/national-policy-statement-for-electricity-networks-infrastructure-en-5-2025>.

Type	Name	Relevance to Assessment
		particularly regarding Best and Most Versatile (BMV) agricultural land, including development and implementation of a Soil Resources and Management Plan and use of relevant guidance.
	National Planning Policy Framework (NPPF) <sup>4</sup> and revised consultation draft of the NPPF <sup>5</sup>	The NPPF defines BMV land at Annex 2 as Agricultural Land Classification (ALC) Grades 1, 2 and 3a. The NPPF sets out in Paragraph 187(b) that the economic and other benefits of BMV agricultural land should be recognised in planning decisions and in the context of plan making advises that poorer quality land should be used in preference. The consultation draft of the NPPF reiterates this distinction within policy.
	Planning Practice Guidance, Renewable and Low-carbon energy <sup>6</sup>	The PPG advises that factors a local planning authority will need to consider will include whether the proposed use of agricultural land has been shown to be necessary, poorer quality land has been used in preference and the proposed use allows for continued agricultural use.
Local planning policy	Calderdale Council Local Plan 2018/19 – 2032/33 (adopted March 2023) <sup>7</sup>	Provides a framework for development decisions affecting land quality, including the protection of soil and overall environmental resources. Specific reference to policies GN1 – GN8.

<sup>4</sup> Ministry of Housing, Communities & Local Government (2024). National Planning Policy Framework. [Online]. Available at: [https://assets.publishing.service.gov.uk/media/67aafe8f3b41f783cca46251/NPPF\\_December\\_2024.pdf](https://assets.publishing.service.gov.uk/media/67aafe8f3b41f783cca46251/NPPF_December_2024.pdf).

<sup>5</sup> Ministry of Housing, Communities and Local Government (2025) National Planning Policy Framework: proposed reforms and other changes to the planning system. [Online] Available: <https://www.gov.uk/government/consultations/national-planning-policy-framework-proposed-reforms-and-other-changes-to-the-planning-system>.

<sup>6</sup> Ministry of Housing, Communities and Local Government, Ministry of Housing, Communities & Local Government (2018 to 2021) and Department for Levelling Up, Housing and Communities (2023). Planning Practice Guidance - Renewable and Low-carbon energy. [Online]. Available at: <https://www.gov.uk/guidance/renewable-and-low-carbon-energy>.

<sup>7</sup> <https://new.calderdale.gov.uk/sites/default/files/2023-12/Local-Plan-Written-Statement.pdf>. Accessed 27.02.2026

Type	Name	Relevance to Assessment
	Bradford Council Core Strategy Development Plan Document 2017-2030 <sup>8</sup>	Provides a framework for development decisions affecting land quality, including the protection of soil and overall environmental resources. Specific reference to policy EN2.
	Pendle Council Pendle Local Plan 2011-2030 <sup>9</sup>	Provides a framework for development decisions affecting land quality, including the protection of soil and overall environmental resources. Specific reference to Policy DM15.
National guidance	Defra (2025) Agricultural Land Classification of England and Wales – Guidelines for Grading the Quality of Agricultural Land (the 'DEFRA guidance') <sup>10</sup>	Sets out the classification system for grading agricultural land in England and Wales.
	ISEP (2025) Soil Health in Environmental Assessments and Reports <sup>11</sup>	Provides a structured methodology for assessing soil health within EIA.

<sup>8</sup> Bradford Council (2017) Local Plan for the Bradford District. Core Strategy Development Plan. Available at: <https://www.bradford.gov.uk/Documents/planningStrategy/10/Adopted%20core%20strategy//1%20Core%20Strategy%20full%20document.pdf>.

<sup>9</sup> Pendle Borough Council Local Plan (2025). Pendle Local Plan Fourth Edition (2021-2040). Available at: [https://www.pendle.gov.uk/info/20072/planning\\_policies/273/local\\_plan](https://www.pendle.gov.uk/info/20072/planning_policies/273/local_plan).

<sup>10</sup> Department for Environmental Food & Rural Affairs (2025) Agricultural Land Classification of England and Wales: Guidelines for grading the quality of agricultural land. Available at: <https://publications.naturalengland.org.uk/publication/6257050620264448>

<sup>11</sup> Institute of Sustainability & Environmental Professionals (2025). Soil Health in Environmental Assessments and Reports. Available at: <https://www.isepglobal.org/>

## Scoping and Stakeholder Engagement

### 2025 Scoping Opinion

23.2.2 In September 2025, a request for a Scoping Opinion was submitted alongside a Scoping Report. **Table 23-2** presents the details of the PINS Scoping Opinion relevant to Agricultural Land and confirms how the response is considered within the proposed scope of assessment (as set out below).

*Table 23-2: Consideration of PINS Scoping Comment*

PINS ID	Summary of Scoping Opinion Response	Consideration within Scope of Assessment
3.14.1	<p>PINS notes that further design iterations are required and that it is unlikely to result in permanent BMV land take; however, it is not clear whether the access and cable corridors and construction compounds have been assessed. The Inspectorate is therefore not content to scope this matter out.</p> <p>The Inspectorate notes that further discussions with Natural England should be held.</p> <p>The Inspectorate noted that the ES should provide an assessment of agricultural land or demonstrate that no likely significant effects would occur subject to agreement with relevant consultation bodies.</p>	<p>An ALC Report has been prepared and is included as a technical appendix to this PEIR (<b>Appendix 23-1</b>). It will also be submitted as part of the Environmental Statement (ES) to take account of the latest details to be submitted as part of the Development Consent Order (DCO) Application.</p> <p>Engagement will take place with Natural England prior to finalisation of the ES, regarding the findings of the ALC Report and the proposed soil management measures, as set out in the outline Soil Management Plan (oSMP), to be submitted as part of the DCO Application. This will help demonstrate and ensure that no likely significant adverse effects would occur.</p>

### Stakeholder Engagement

23.2.3 Engagement with Natural England will be undertaken as set out in **Table 23-2** above.

## Assessment Methodology

23.2.4 The preliminary assessment of effects related to agricultural land in this Chapter has been based on the qualitative desktop classification survey as set out in **Appendix 23-1**.

### Study Area

23.2.5 The study area used for the agricultural land assessment is the extent of the PEIR Boundary, which includes the Turbine Area, the Access Routes and the Bradford West Cable Corridor, as these are locations that could be directly impacted by the Proposed Development.

### Data Sources

23.2.6 Baseline conditions within the study area have been informed using the following sources:

- A desk-based digital ALC survey of the PEIR Boundary undertaken in December 2025, following the guidelines and criteria as stated in Department for Environment, Food and Rural Affairs (DEFRA) guidance; and
- A review of publicly available datasets to establish whether any part of the Proposed Development would be located on BMV land. The full list of data sources consulted is provided in Section 2.3 of **Appendix 23-1**.

### Receptors and Receptor Sensitivity

23.2.7 The identified receptor for this assessment is agricultural land and its associated soil resources.

23.2.8 The ALC grading system of soil provides a nationally consistent framework for defining the quality of agricultural land. These guidelines classify land into Grades 1–5, with Grade 3 subdivided into Grade 3a and Grade 3b. Grades 1, 2 and 3a are defined as BMV agricultural land, representing the most productive land capable of sustaining high-quality agricultural outputs. Grades 3b, 4 and 5, are non-BMV and represent poor and very poor agricultural land with severe or very severe limitations, often restricted to grassland or rough grazing. The receptor sensitivity used for the agricultural land assessment, based on the potential production on the agricultural land, is presented in **Table 23-3**.

*Table 23-3: Receptor Sensitivity Criteria*

ALC Grade	Definition	Receptor Sensitivity
Grades 1, 2 and 3a	BMV agricultural land capable of consistently high or moderate–high yields across a wide range of crops.	High
Grade 3b	Moderate-quality land with limitations affecting crop choice, timing of cultivations, or yield consistency.	Medium
Grade 4	Poor-quality land with severe limitations, generally suited only to grass and occasional arable crops.	Low
Grade 5	Very poor-quality land with very severe limitations, typically suitable only for permanent pasture or rough grazing.	Low

**Magnitude of Impact**

23.2.9 The magnitude of impact is based upon the extent, duration, reversibility (the ability to restore the soil resource to its pre-construction condition following reinstatement (such as after installing the cable to the Point of Connection) and scale of soil disturbance as set out in **Table 23-4**.

*Table 23-4: Magnitude of Impact*

Description	Magnitude of Impact
Large-scale, permanent or irreversible loss of agricultural capability; permanent sealing or removal of soils; widespread degradation of soil quality or structure.	High
Partial and potentially permanent reduction in land capability; long-term disturbance to soil profiles; reduced ability for agricultural re-use.	Medium
Localised, temporary disturbance to soils with full recovery achievable through reinstatement.	Low
Very limited or no detectable change in soil quality, land capability or agricultural potential.	Negligible

**Significance of Effects Criteria**

23.2.10 The significance of effects is shown in **Table 23-5** and is determined by the magnitude of impact (as detailed in **Table 23-4**) combined with the receptor

sensitivity (as detailed in **Table 23-3**). This structured approach ensures that the preliminary assessment reflects both the characteristics of the soil resource and the nature of the predicted impact.

*Table 23-5: Significance Matrix*

Magnitude of Impact	Receptor Sensitivity		
	High	Medium	Low
High	Major	Major	Moderate
Medium	Moderate	Moderate	Minor
Low	Minor	Minor	Negligible
Negligible	Negligible	Negligible	Negligible

23.2.11 A significant effect in the context of this assessment is defined as a Moderate or Major effect.

### **Approach and Limitations**

23.2.12 The assessment is based on desk-based research only. However, this approach is considered robust and has been undertaken in accordance with the DEFRA principles. A 100m interval grid was used to assess land characteristics across the PEIR Boundary.

23.2.13 Given the results as presented in **Appendix 23-1**, which show no BMV within the PEIR Boundary coupled with the protection of soil via an outline Soil Management Plan which would be agreed with Natural England and ensure soil is protected, no intrusive soil investigations have been undertaken.

### **Baseline Conditions**

#### **Existing Baseline**

23.2.14 The Turbine Area comprises the large upland moorland plateau. The land is dominated by open moorland vegetation and rough grazing, with elevations rising to over 450m AOD. This area contains extensive peat and peaty soils that are persistently waterlogged, resulting in widespread Grade 5 land with severe wetness.

23.2.15 The Access Routes traverses rough grazing land and enclosed upland fields, with limited pockets of semi-improved and improved grassland. Localised mineral soils (e.g., sandy loams, clay loams, silty loams) occur in small areas, corresponding to Grade 4 land.

23.2.16 The Bradford West Cable Corridor crosses mainly rough grazing and isolated improved grassland fields, again featuring minor pockets of mineral soils but predominantly peat-dominated areas. It is constrained by wetness, shallow rooting depth, and upland climatic limitations, resulting in Grade 5 dominating its length.

23.2.17 As set out in **Appendix 23-1** identifies that all agricultural land within the PEIR Boundary is classified as Grade 4 (21.48%) or Grade 5 (74.83%). The remaining 3.69% is classified as unmapped areas. These unmapped areas simply reflect small locations where national datasets do not contain enough soil or climate information for a desk-based grade to be assigned. This is normal for upland sites and does not affect the assessment, as these parcels are minor, often non-agricultural, and would not reasonably be expected to contain higher-grade land given the surrounding Grade 4 and Grade 5 context. No areas meet the criteria for Grades 1, 2, or Subgrade 3a; therefore, no BMV land is present within the PEIR Boundary.

#### **Further Data Collection**

23.2.18 No further baseline information is required at this stage. However, in line with standard DCO practice for linear infrastructure, the oSMP will include a requirement for pre-construction ALC surveys to be undertaken along the cable route. These surveys will confirm the soil profile and agricultural land quality immediately prior to construction and ensure that appropriate soil handling and protection measures are implemented.

#### **Environmental Measures**

##### **Construction Phase**

23.2.19 The following environmental mitigation measures included within the design of the Proposed Development for the construction phase:

- Implementation of best practice measures for soil handling, storage and reinstatement during earthworks, including the management of soils during cable trench installation.
- Installation of underground cables at sufficient depth to allow agricultural activities to continue unhindered during operational phase.

23.2.20 The above measures will be included in the oCEMP, as detailed in **Appendix 4-2: oCEMP**. In addition, the oSMP will set out the measures to avoid, reduce soils and protect soils during the construction phase, and will be submitted as part of the DCO Application.

### Operation and Maintenance Phase

23.2.21 The environmental measures included within the design of the Proposed Development, during the operation and maintenance phase, include:

- Implementation of best practice measures for soil handling, storage and reinstatement during any earthworks required as part of operational (and maintenance phase activities).

23.2.22 The above measures will be included in the oOEMP, as well as the oSMP, which will set out the measures to avoid, reduce and protect soils during the operation and maintenance phase, which will be submitted as part of the DCO Application.

### Decommissioning Phase

23.2.23 The decommissioning activity is set out in **Chapter 4: The Proposed Development**. The decommissioning phase is anticipated to include removal of above-ground infrastructure, with the exception of turbine foundations, hardstandings and access tracks which are likely to remain in-situ. Underground elements such as cabling is also likely to remain in situ. Decommissioning activities will be confirmed in the ES.

23.2.24 The oDEMP, as well as the oSMP, which will set out the anticipated measures to avoid, reduce and protect soils during the decommissioning based on the latest guidance and legislation at that time, which will be submitted as part of the DCO Application.

### Preliminary Likely Significant Effects

23.2.25 This section defines the effects of the Proposed Development, taking account of the sensitivity of the receptors and the likely preliminary impact of change from the construction, operation including maintenance and decommissioning phases of the Proposed Development. The effects are defined using the significance criteria as presented in **Table 23-5**.

### Construction Phase

23.2.26 The preliminary assessment identifies no likely significant effects on agricultural land during construction. This is due to the absence of BMV land within the PEIR Boundary and the low or negligible magnitude of anticipated impacts.

### Operation and Maintenance Phase

23.2.27 The preliminary assessment identifies no likely significant effects during operation and maintenance because the Proposed Development does not affect any BMV land and only negligible impacts on soil resources are expected.

## Decommissioning Phase

23.2.28 The preliminary assessment identifies no likely significant effects during decommissioning, owing to the absence of BMV land within the PEIR Boundary and the low or negligible magnitude of impacts.

## Cumulative

23.2.29 Given the absence of any impact to BMV land, a cumulative assessment is not necessary. All land within the PEIR Boundary is classified as Grades 4 and 5 (or unmapped), and no higher-quality agricultural land is present; therefore, there is no potential for cumulative effects on BMV resources to arise in combination with other developments. As such, further cumulative assessment would not change the outcome or introduce any additional considerations for agricultural land quality.

## Next Steps

23.2.30 No further surveys or assessment are required as no likely significant effects have been identified on agricultural land.

23.2.31 As above, in line with standard DCO practice for linear infrastructure, the oSMP will include a requirement for pre-construction ALC surveys to be undertaken along the cable route. These surveys will confirm the soil profile and agricultural land quality immediately prior to construction and ensure that appropriate soil handling and protection measures are implemented.

## 23.3 Land Contamination

### Legislation, Policy and Guidance

23.3.1 Key policy, legislation and guidance relating to land contamination and of relevance to this preliminary assessment comprises the following national and local legislation, guidance and policy in **Table 23-6**.

*Table 23-6: Legislation, Policy and Guidance*

Type	Name	Relevance to Assessment
Legislation	Part IIA of the Environmental Protection Act 1990 <sup>12</sup>	Provides a statutory regime for identifying and remediating contaminated land
	The Water Resources Act 1991 (Amendment	Covers the management and protection of water resources. It includes requirements to

<sup>12</sup> Environmental Protection Act 1990 c.43. [Online]. Available at: <https://www.legislation.gov.uk/ukpga/1990/43/contents>.

Type	Name	Relevance to Assessment
	(England and Wales) Regulations 2009 <sup>13</sup>	ensure sustainable use of water, prevent pollution and regulate activities that could affect availability or quality of water.
	The Water Framework Directive 2000/60/EC <sup>14</sup>	Establishes a framework for action relating to water policy.
	The Priority Substances Directive 2008/105/EC <sup>15</sup>	Relates to environmental quality standards for water.
	The Environmental Permitting (England and Wales) Regulations 2016 <sup>16</sup>	Provide a structure for overseeing activities which have the potential to harm human health or the environment.
National planning policy	NPS EN-1 <sup>1</sup>	<p>The following paragraphs of the NPS EN-1 are considered to be relevant to this chapter:</p> <ul style="list-style-type: none"> <li>• <i>5.11.8 - The ES should identify existing and proposed land uses near the project, any effects of replacing an existing development or use of the site with the proposed project or preventing a development or use on a neighbouring site from</i></li> </ul>

<sup>13</sup> The Water Resources Act 1991 (Amendment (England and Wales) Regulations 2009 no. 3104. [Online] Available at: <https://www.legislation.gov.uk/uksi/2009/3104/contents>.

<sup>14</sup> Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy. [Online]. Available at: <https://eur-lex.europa.eu/eli/dir/2000/60/oj/eng>.

<sup>15</sup> Directive 2008/105/EC of the European Parliament and of the Council of 16 December 2008 on environmental quality standards in the field of water policy, amending and subsequently repealing Council Directives 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC and amending Directive 2000/60/EC of the European Parliament and of the Council. [Online]. Available at: <https://eur-lex.europa.eu/eli/dir/2008/105/oj/eng>.

<sup>16</sup> The Environmental Permitting (England and Wales) Regulations 2016 No. 1154. [Online]. Available at: <https://www.legislation.gov.uk/uksi/2016/1154/contents>.

Type	Name	Relevance to Assessment
		<p><i>continuing. Applicants should also assess any effects of precluding a new development or use proposed in the development plan.</i></p> <ul style="list-style-type: none"> <li>• <i>5.11.11 - During any pre-application discussions with the Applicant the LPA (Local Planning Authority) should identify any concerns it has about the impacts of the application on land use, having regard to the development plan and relevant applications and including, where relevant, whether it agrees with any independent assessment that the land is surplus to requirements.</i></li> <li>• <i>5.11.13 - Applicants should also identify any effects and seek to minimise impacts on soil quality taking into account any mitigation measures proposed. For developments on previously developed land, Applicants should ensure that they have considered the risk posed by land contamination.</i></li> </ul>
	NPS EN-3 <sup>2</sup>	<p>The following paragraph is relevant:</p> <ul style="list-style-type: none"> <li>• Section 2 requires Soil Management plans to facilitate sustainable management of soils and minimise impacts on soil health and contamination.</li> </ul>
	NPS EN-5 <sup>3</sup>	<p>The following paragraph is relevant:</p>

Type	Name	Relevance to Assessment
		<ul style="list-style-type: none"> <li>Paragraph 2.9.25 considers the potential impacts on soil and geology and the need for soil resource and management.</li> </ul>
	<p>NPPF<sup>4</sup> and revised consultation draft of the NPPF<sup>5</sup></p>	<p>The NPPF sets out the Government’s objectives for the assessment and remediation of Contaminated Land through the planning system. This replaces Planning Policy Statement (PPS) 23 Planning and Pollution Control (2004) – relevant paragraphs are outlined below:</p> <ul style="list-style-type: none"> <li>Paragraph 196 requires that a site is suitable for its proposed use taking account of ground conditions and risks from land instability and contamination, including mitigation and land remediation and that adequate investigation information from a competent person is provided. The policy further clarifies that land should not be capable of being determined as contaminated land under Part 2A EPA 1990 following remediation, Paragraph 187 requires development to avoid unacceptable risks due to soil pollution and land instability and paragraph 125 supports remediation of contaminated and previously developed land.</li> </ul>

Type	Name	Relevance to Assessment
Local planning policy	Calderdale Council Local Plan 2018/19 – 2032/33 (adopted March 2023) <sup>17</sup>	Provides framework for development decisions affecting land quality including the protection of soil, water and overall environmental resources. Specific reference to policies GN1 – GN8
	Bradford Council Core Strategy Development Plan Document 2017-2030 <sup>18</sup>	Provides framework for development decisions affecting land quality including the protection of soil and overall environmental resources. Specific reference to policy EN2.
	Pendle Council Pendle Local Plan 2011-2030 <sup>9</sup>	Provides a framework for development decisions affecting land quality, including the protection of soil and overall environmental resources. Specific reference to Policy DM15.
National guidance	Environment Agency (2020): Land Contamination Risk Management (LCRM). Updated June 2025 - LCRM <sup>19</sup>	This guidance, which replaced CLR11, has been developed to provide the technical framework for applying a risk management process when dealing with land affected by contamination. The process involves identifying, making decisions and taking appropriate action to deal with land contamination in a way consistent with government

<sup>17</sup> <https://new.calderdale.gov.uk/sites/default/files/2023-12/Local-Plan-Written-Statement.pdf>. Accessed 27.02.2026

<sup>18</sup> Bradford Council (2017) Local Plan for the Bradford District. Core Strategy Development Plan. Available at: <https://www.bradford.gov.uk/Documents/planningStrategy/10/Adopted%20core%20strategy//1%20Core%20Strategy%20full%20document.pdf>.

<sup>19</sup> Environment Agency (2020, updated 2025). Land Contamination Risk Management. Available at: <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>

Type	Name	Relevance to Assessment
		policies and legislation within the UK.
	BS10175:2026 Investigation of potentially contaminated sites <sup>20</sup>	This provides guidance on the investigation of sites where contamination is known or suspected. It sets out best practice for desk studies, site reconnaissance, intrusive investigation, sampling, laboratory testing and reporting. The Standard underpins the risk-based approach to land contamination assessment, ensuring that investigations are planned and executed to provide reliable information for assessing risks to human health, controlled waters, property and the wider environment.
	Environment Agency (2025) Protect groundwater and prevent groundwater pollution <sup>21</sup>	This guidance outlines the Environment Agency’s position on the management and protection of groundwater resources in England. It provides a risk-based framework for decision-making on activities that could impact groundwater, including land contamination, waste management, discharge of pollutants, and the use of soakaways or infiltration systems. The document sets out the principles of

<sup>20</sup> British Standards Institute (2026). Investigation of potentially contaminated sites. Available at: <https://landingpage.bsigroup.com/LandingPage/Undated?UPI=000000000019995822>

<sup>21</sup> Environment Agency (2025) Protect groundwater and prevent groundwater pollution. Available at: <https://www.gov.uk/government/publications/protect-groundwater-and-prevent-groundwater-pollution/protect-groundwater-and-prevent-groundwater-pollution>.

Type	Name	Relevance to Assessment
		groundwater protection, the role of Source Protection Zones, and expectations for sustainable management to prevent pollution and over-abstraction.
	British Standard BS 8485:2015 + A1:2019: Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings <sup>22</sup>	Sets out a risk-based framework for designing gas protection measures in new buildings where methane and/or carbon dioxide may be present.
	British Standard BS 8576:2013: Guidance on investigations for ground gas – permanent gases and volatile organic compounds <sup>23</sup>	Provides technical guidance on the investigation and monitoring of ground gases, including methane, carbon dioxide and volatile organic compounds (VOCs). It outlines best practice for borehole installation, gas monitoring regimes, data interpretation and risk characterisation.
	CIRIA C552 (2001) Contaminated Land Risk Assessment – A Guide to Good Practice <sup>24</sup>	Presents a structured approach to contaminated land risk assessment based on the source–pathway–receptor pollutant linkage model. It supports the phased approach to site investigation (preliminary risk assessment,

<sup>22</sup> British Standards Institute (2019). Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings. Available at:

<https://landingpage.bsigroup.com/LandingPage/Standard?UPI=00000000030377237>

<sup>23</sup> British Standards Institute (2013). Guidance on investigations for ground gas – permanent gases and volatile organic compounds. Available at: <https://landingpage.bsigroup.com/LandingPage/Standard?UPI=00000000030248027>

<sup>24</sup> CIRIA (2001) C552 Contaminated Land Risk Assessment – A Guide to Good Practice

Type	Name	Relevance to Assessment
		generic quantitative risk assessment, and detailed quantitative risk assessment) and aligns with the UK risk-based framework under Part 2A of the Environmental Protection Act.
	CIRIA C665:2007: Assessing risks posed by hazardous ground gases to buildings <sup>25</sup>	Provides detailed guidance on assessing risks from hazardous ground gases, including landfill gas and carbon dioxide, to buildings and occupants. It introduces the Gas Screening Value (GSV) methodology and Characteristic Situation classification system, which are fundamental to UK ground gas risk assessment.
	CIRIA C762:2016: Environmental good practice on site <sup>26</sup>	Offers practical guidance for managing environmental risks during construction, including land contamination, soil handling, pollution prevention and protection of water resources. It sets out best practice measures for site management plans, control of spillages, materials storage and waste management.
	CIRIA C733:2014: Asbestos in soils and made ground <sup>27</sup>	Provides technical guidance on the identification, risk assessment and management of asbestos in soils and made ground. It addresses sampling strategies, laboratory analysis, risk assessment approaches and remediation options to

<sup>25</sup> CIRIA (2007) C665 Assessing risks posed by hazardous ground gases to buildings.

<sup>26</sup> CIRIA (2016) C762 Environmental good practice on site.

<sup>27</sup> CIRIA (2014) C733 Asbestos in soils and made ground.

Type	Name	Relevance to Assessment
		manage risks to construction workers and end users.
	ISEP (formerly IEMA) (2022) A New Perspective on Land and Soil in Environmental Impact Assessment <sup>28</sup> .	The guidance promotes a more holistic and ecosystem-based consideration of land and soil within EIA. The document encourages practitioners to move beyond contamination-only assessments and consider soil health, multifunctionality, carbon storage and natural capital.

## Scoping and Stakeholder Engagement

### 2025 Scoping Opinion

- 23.3.2 In September 2025, a request for a Scoping Opinion was submitted alongside a Scoping Report. **Table 23-7** presents the details of the PINS Scoping Opinion relevant to Land Contamination and confirms how the response is considered within the proposed scope of assessment (as set out below).

<sup>28</sup> ISEP (formerly IEMA) (2022). A New Perspective on Land and Soil in Environmental Impact Assessment. Institute of Environmental Management & Assessment

Table 23-7: Consideration of PINS Scoping

PINS ID	Summary of Scoping Opinion	Consideration within Scope of Assessment
3.14.2	<p>The Scoping Report sets out that the turbine area is partly located in a Sandstone Mineral Safeguarding Area with a historic landfill site adjacent to the north-east of Walshaw Dean Middle Reservoir with further historic landfill sites adjacent to the turbine area.</p> <p>PINS recognises that a number of mitigation measures and controls relating to land contamination have been noted to be secured through the oCEMP, outline Soil Resources Management Plan (oSRMP) outline Decommissioning Environmental Management Plan (oDEMP) and the outline Waste Management Plan (oWMP). However, it also recognises the potential for land contamination in close proximity to the turbine area (such as historic landfill sites and borrow pits) and the potential for unknown significant effects. Based on this, therefore, the Inspectorate did not agree to scope this matter out.</p>	<p>Minerals are to be addressed within <b>Chapter 20: Materials and Waste</b>.</p> <p>Land contamination matters are being considered in the EIA and reported on in this PEIR and will be reported on in the ES.</p> <p>A Phase 1 Desk Study Report, also referred to as a Preliminary Risk Assessment (PRA), will be prepared and included as a technical appendix to support the ES.</p>

### Stakeholder Engagement

- 23.3.3 Engagement with statutory consultees, including the Environment Agency, Pendle Council, Calderdale Council and Bradford Council will be carried out.

### Assessment Methodology

- 23.3.4 The preliminary assessment of effects related to land contamination in this Chapter has been based on the following guidance and standards:
- Environment Agency (2020): Land Contamination Risk Management (LCRM). Updated June 2025; and
  - ISEP (formerly IEMA) (2022). A New Perspective on Land and Soil in Environmental Impact Assessment.

23.3.5 The preliminary assessment is qualitative in nature, drawing upon the baseline data gathered through the sources outlined above.

### Study Area

23.3.6 The study area covered within this Chapter consists of the PEIR Boundary, with a buffer zone of 500m applied where relevant, as this distance is widely used in land contamination assessments to ensure that potential off-site contamination sources and pathways are captured.

### Data Sources

23.3.7 Data has been gathered from a number of sources to inform the baseline conditions within the study area. Sources comprise the following, and are referenced throughout this Chapter, where required:

- British Geological Survey (BGS) Geological mapping (2003) - Solid and Drift Edition, England and Wales Sheet 77 (Huddersfield), 1:50,000;
- DEFRA Open-Source Multi-Agency Geographic Information for the Countryside (MAGIC) mapping database;
- Groundsure® Insights online data report (including historical maps and borehole records provided as **Appendix 23-2: Groundsure Report**); and
- Google Earth® satellite imagery.

### Determining Significance of Effect

#### Receptors and Receptor Sensitivity

23.3.8 Sensitivity criteria are based on both the ability of a receptor to accommodate / tolerate the anticipated impact of the likely changes as well as the importance of the resource under consideration or designated value of the receptor (e.g. a designated area of international or national importance has a higher value and therefore higher sensitivity than other areas of lower status). Evaluation of receptor sensitivity requires a considerable degree of judgement, based on defined characteristics and values and professional experience, and with the benefit of land use / exposure scenarios defined in Environment Agency (2025) Science Report SC050021/SR3 Updated Technical Background to the CLEA Model<sup>29</sup>.

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<sup>29</sup> Environment Agency (2025) Science Report SC050021/SR3 Updated Technical Background to the CLEA Model. Available at: <https://assets.publishing.service.gov.uk/media/5a7ce9eae5274a724f0be48b/scho0508bnqw-e-e.pdf>

23.3.9 Table 23-8 provides receptor sensitivity associated with the study area derived from a review of the data sources listed above. Note this is a preliminary review of available desk-based information and is subject to change. A PRA will be undertaken and presented in the Phase 1 Desk Study report which will be included in the ES. This will be informed by a site reconnaissance survey, also known as a site walkover, which will be carried out to support the forthcoming ES.

*Table 23-8: Receptor Sensitivity Descriptors*

Sensitivity	Receptors
Very High	<ul style="list-style-type: none"> <li>• SSSIs and SACs, including flora and fauna – South Pennine Moors onsite.</li> <li>• SPAs, including flora and fauna – South Pennine Moors Phase 2 onsite.</li> </ul>
High	<ul style="list-style-type: none"> <li>• Controlled waters: surface waters – many on-site watercourses (including man-made and inland rivers) and waterbodies (reservoirs).</li> <li>• Licenced groundwater and surface water abstractions (some of which are for potable abstraction).</li> <li>• Private water abstractions (some of which are for potable abstraction).</li> </ul>
Medium	<ul style="list-style-type: none"> <li>• Controlled waters: groundwater in Secondary A Aquifer. It is noted that there is not an Environment Agency designated groundwater Source Protection Zone (SPZ) in place.</li> </ul>
Low	<ul style="list-style-type: none"> <li>• Current site users (human health) including commercial establishments.</li> <li>• Future site users (human health) – construction, maintenance and decommissioning workers.</li> <li>• Unlicensed water supplies.</li> <li>• Building resources / built environment.</li> </ul>
Negligible	<ul style="list-style-type: none"> <li>• Unproductive Strata.</li> </ul>

#### **Magnitude of Impact**

23.3.10 Magnitude of impact refers to the severity of consequences if a risk event occurs. It describes the degree of change from the identified baseline conditions, considering the timing, scale, size, and duration of a potential impact. It is assessed qualitatively as detailed in **Table 23-9** and focuses on how much the condition of the land and associated risks to receptors are altered because of the Proposed Development. **Table 23-9** has been reproduced from the technical guidance document CIRIA C552 (2001) Contaminated Land Risk Assessment – A Guide to Good Practice and provides definitions of the terms used in the classification of consequence. Hazards are classed according to the magnitude of the potential

consequence (severity) when reaching a receptor. This is known as environmental harm and can be classified as Minor, Mild, Medium or Severe.

*Table 23-9: Magnitude of Impact Descriptors*

Magnitude of Impact	Descriptor
Severe	<ul style="list-style-type: none"> <li>• Short-term (acute) risk to human health likely to result in 'significant harm' as defined by the Environmental Protection Act (EPA) 1990, Part 2a.</li> <li>• Short-term risk of pollution of sensitive water resource.</li> <li>• Catastrophic damage to buildings / property.</li> <li>• Examples of which could include high concentrations of lead at ground level within an informal recreation area or a major spillage of contaminants into controlled waters.</li> </ul>
Medium	<ul style="list-style-type: none"> <li>• Chronic damage to human health.</li> <li>• Pollution of sensitive water resources.</li> <li>• A significant change in a particular ecosystem, or organism forming part of such ecosystem.</li> <li>• Examples of which could include concentrations of a contaminant exceed Generic or Site-Specific Assessment Criteria (GACs or SSACs) or leaching of contaminants from a Site to a Secondary A or B Aquifer.</li> </ul>
Mild	<ul style="list-style-type: none"> <li>• Damage to human health.</li> <li>• Pollution of non-sensitive water resources.</li> <li>• Significant damage to buildings, structures and services.</li> <li>• Damage to sensitive buildings / structures / services or the environment.</li> <li>• An example of which could include the pollution of non-sensitive watercourses during site works.</li> </ul>
Minor	<ul style="list-style-type: none"> <li>• Harm, although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve.</li> <li>• Non-permanent effects to human health (easily prevented by means such as PPE).</li> <li>• Easily repairable effects / damage to buildings, structures and services.</li> <li>• An example of which could include the presence of contaminants at such concentrations that protective equipment is required during site works.</li> </ul>
No change	<ul style="list-style-type: none"> <li>• No changes or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.</li> </ul>

Magnitude of Impact	Descriptor
Minor Beneficial	<ul style="list-style-type: none"> <li>• Reduction of contamination risk to existing structures, nearby waterbodies, underlying perched groundwater and human health receptors.</li> <li>• Overall improvement of baseline conditions.</li> </ul>

**Significance Criteria**

23.3.11 For this preliminary assessment, the likely significant effects on identified receptors are reported based on the information available at the time of writing.

23.3.12 Within this assessment ‘significance’ reflects the relationship between the sensitivity of the affected resource or receptor and the magnitude of an impact. Statutory designations and any potential breaches of environmental law take precedence in determining significance, as the protection afforded to a particular receptor or resource is already established by law, rather than requiring a project or site-specific evaluation. Based on this, the assessment of significance for land contamination effects has been based on a risk-based approach, considering the sensitivity of receptors and the magnitude of impacts arising from the Proposed Development.

23.3.13 Significance is determined using professional judgement and in accordance with standard EIA methodology, set out in CIRIA C552 (2001) Contaminated Land Risk Assessment – A Guide to Good Practice and the Environment Agency (2025) LCRM. The following have been considered in ascribing significance of effect:

- Sensitivity of the receptor;
- Magnitude of the impact;
- Effect duration (whether short, medium or long-term);
- Nature of effect (whether direct or indirect, reversible or irreversible);
- Performance against environmental quality standards; and
- Compatibility with environmental policies.

23.3.14 **Table 23-10** outlines the approach used to determine the scale of effect. Assessing the scale of land contamination effects require professional judgement and experience; therefore, the matrix allows for a degree of flexibility when evaluating the magnitude of an impact in relation to the sensitivity of the receptor. The assessment of impact significance is qualitative and reliant on professional experience, interpretation and judgement. Therefore, the matrix should be viewed

as a framework to aid understanding of how a judgement has been reached, rather than a prescriptive tool.

23.3.15 The significance of effects classified as Moderate or Major are considered ‘Significant’, while those classified as Minor or Negligible are considered ‘Not Significant’. In the context of land contamination, the nature of effect can be adverse or beneficial, as described below:

- Adverse - Detrimental or negative effect to an environmental resource or receptor; or
- Beneficial - Advantageous or positive effect to an environmental resource or receptor.

*Table 23-10: Significance of Effect Matrix*

Sensitivity of Receptor	Magnitude of Impact			
	Severe	Medium	Mild	Minor
Very High	Major	Major	Moderate	Minor
High	Major	Moderate	Minor	Minor
Medium	Moderate	Minor	Minor	Negligible
Low	Minor	Minor	Negligible	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible

**Approach and Limitations**

23.3.16 The following assumptions have informed this preliminary assessment:

- The information provided by third parties, including publicly available information and databases are correct and complete at the time of the publication and have been taken at face value. Therefore, a realistic assumption on ground conditions and impacts have been made based on the data available;
- This PEIR assessment undertaken is based on the current baseline at the time of writing in January 2026 and the description of development as detailed in **Chapter 4: The Proposed Development**; and
- It is assumed that the Proposed Development will be developed in accordance with standard good construction practices and that appropriate environmental controls will be implemented via the phase-specific management plans.

23.3.17 The following limitations have been identified in relation to this preliminary assessment:

- This preliminary assessment has been limited to currently available desktop information;
- The baseline conditions provided are based on limited, currently available desktop information and do not include any site surveys. A PRA and a site walkover have not yet been carried out; and
- No intrusive site survey data (e.g. site-specific borehole information) has been collected or is available at this preliminary stage. This is with exception of the publicly available historical borehole information available within the desktop data.

23.3.18 Despite the above limitations and assumptions, this preliminary assessment is considered a robust process as it is based on available desktop data. This assessment will be both expanded and made more specific as additional survey data is collected and analysed during the preparation of the ES.

## Baseline Conditions

### Existing Baseline

23.3.19 The existing baseline conditions are derived from review of desktop information and data listed above. This included the geology, hydrogeology, hydrology and the historical uses including quarrying, unspecified ground workings and grouse shooting (which is still currently being undertaken). As noted above, the focus of this section is on the Turbine Area only.

23.3.20 The Turbine Area currently consists of approximately 2,227ha of land at Walshaw Moor, located either side of the three Walshaw Dean Reservoirs, in West Yorkshire. The study area experiences recreational disturbance that is primarily confined to the well-defined footpaths along the Pennine Way, with limited evidence of widespread access the surrounding moorland.

23.3.21 BGS mapping indicates the Turbine Area to the west of the Walshaw Dean reservoirs is predominantly underlain by the bedrock geology of the Upper Kinderscout Grit, typically comprising Sandstone and the Millstone Grit Group, typically comprising Mudstone, Siltstone and Sandstone. In the area to the east of the reservoirs, these deposits are overlain by the Woodhouse Flags, typically consisting of Sandstone and the Marsden Formation comprising Mudstone and Siltstone.

23.3.22 The majority of the Turbine Area is underlain by superficial deposits of peat and elsewhere (predominantly in parts of the southern section) superficial deposits are largely absent. Further details are provided in **Chapter 10: Hydrology, Hydrogeology, Geology and Peat**.

- 23.3.23 Historical maps indicate that areas within the vicinity of the Turbine Area were previously quarried for sandstone, with some sections also used as a shooting range. Historical mapping does not indicate the presence of significant commercial or industrial activities within the Turbine Area since mapping records began in the 1840s.
- 23.3.24 The BGS Aquifer designation dataset for England and Wales provided on the MAGIC website indicates that the bedrock underlying the Turbine Area is classified as a Secondary A Aquifer and that the superficial deposits are classified as Unproductive Strata. There is a small part of the southern section in the Turbine Area where the superficial deposits are classified as a Secondary A Aquifer. A Secondary A Aquifer is defined as “*supporting water supplies at a local rather than strategic scale and in some cases forming an important source of base flow to rivers. These are generally formerly classified as minor aquifers*”. Unproductive Strata are defined as “*rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow*”.
- 23.3.25 The Millstone Grit Secondary A Aquifer is known to host springs which are noted on historical mapping records as emerging on slopes that drain to the Alcomden Water and Walshaw Dean Water – both are water bodies recorded to be present within the Turbine Area.
- 23.3.26 The Environment Agency designated surface water bodies present within the Turbine Area, as indicated in the Groundsure Report®, include: Graining Water, the Alcomden Water, Crimsworth Dean Beck and Hebden Water.
- 23.3.27 A series of three reservoirs (the Upper, Middle and Lower Walshaw Dean Reservoirs) were completed in 1913 to provide water to the town of Halifax and are owned and operated by Yorkshire Water. These features are not included within the Turbine Area but are surrounded by it on all sides. These reservoirs are also designated as waterbodies by the Environment Agency. They are recorded as having an ‘active’ status for Potable Water Supply. Widdop reservoir, another water supply reservoir, lies south of the Turbine Area, which has a status of ‘active’ for Potable Water Supply.
- 23.3.28 All identified watercourses are shown in the Groundsure® reports presented in **Appendix 23-2: Groundsure Report**.
- 23.3.29 The Environment Agency’s groundwater vulnerability data indicates that the bedrock geology underlying the Turbine Area is designated as having a mix of low to medium vulnerability. Low vulnerability refers to areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and / or the presence of superficial deposits characterised by a low permeability. Medium vulnerability is defined as the intermediate between high and low.

- 23.3.30 The superficial geology underlying the Turbine Area is recorded as being predominantly unproductive in nature, with only a single area in the Turbine Area recorded as having low vulnerability.
- 23.3.31 Some historic BGS borehole records for the Turbine Area are available. However most relate to ground investigation locations drilled to investigate foundation conditions for the reservoirs and dam wells.
- 23.3.32 The Turbine Area does not lie within an Environment Agency designated groundwater SPZ.
- 23.3.33 There are two historical landfills recorded to be present within the Turbine Area, named 'Disused Quarry' and 'Wellholes Landfill Sites'. There is no evidence to suggest that they are still operational.
- 23.3.34 The Turbine Area lies within a number of overlapping ecological designated areas. Further details are provided in **Chapter 8: Biodiversity** and **Chapter 9: Ornithology**.
- 23.3.35 The baseline will be refined and updated (where necessary) following completion of the PRA.

#### **Further Data Collection**

- 23.3.36 Further baseline data to be collected as part of the assessment to be presented within the ES includes the following:
- Site survey to be undertaken which will comprise of a walkover of the Turbine Area and surrounding areas. This will be undertaken by a Turnkey Regeneration Ltd. representative as part of the PRA once the Order Limits are fixed; and
  - Additional information to be collected from the Local Planning Authorities as part of a period of consultation to inform the baseline conditions presented in the ES.

#### **Environmental Measures**

##### **Construction Phase**

- 23.3.37 The environmental measures included within the design of the Proposed Development, during the construction phase, include:
- Construction workers will be made aware of the possibility of encountering localised contamination through toolbox talks. The implementation of good standards of personal hygiene, provision of welfare facilities on-site, and use of appropriate levels of personal protective equipment (PPE) will be implemented;

- Implementation of pollution prevention measures to protect groundwater and surface watercourses in accordance with DEFRA and Environment Agency guidance (Environment Agency (2025). Protect groundwater and prevent groundwater pollution);
- The implementation of trackside drainage and other drainage measures to reduce surface water run-off;
- A Discovery Strategy which includes a watching brief for contamination during future intrusive works and as required, assessment by a suitably qualified land contamination specialist. This will include, but not be limited to, stopping works in the affected area whilst ensuring the identified contamination does not pose a risk. An assessment will then be undertaken by a land contamination specialist and a method agreed to deal with the identified contamination. If required, the relevant Local Planning Authority will be notified;
- An Emergency Response Plan will be implemented, detailing fire control procedures, measures for pollution prevention and emergency procedures to manage accidental spillages and leaks;
- Specific measures will be put in place for fuel and oil bunding (>110% capacity) and safe chemical storage in line with Control of Substance Hazardous to Health (COSHH) Regulations;
- Outline Construction Environmental Management Plan (oCEMP) that will include:
  - Stockpile management measures including:
    - Dust suppression;
    - Avoidance of over stockpiling to reduce compaction of soil and loss of integrity;
    - Timely removal of soil from the Proposed Development (where applicable) to prevent windblown dust and surface water run-off; and
    - All soil wastes will be disposed of using licenced contractors in accordance with Duty of Care. This will ensure that material handling during construction will not put human health or environmental receptors at risk.
  - Roles and responsibilities;
  - Monitoring and reporting;

- Public communication and engagement; and
- Incident response.

23.3.38 As noted in **Chapter 22: Materials and Waste**, all waste will be classified and pre-treated (e.g. segregation) prior to removal from site. Any form of pre-treatment will be documented in the Site Waste Management Plan (SWMP). The waste will be classified appropriately including waste acceptance criteria (WAC) where required. Waste will be removed from the Proposed Development with a completed Waste Transfer Note (WTN) and, if applicable, hazardous waste consignment notes. Adequate records will be maintained throughout.

23.3.39 The above measures will be included in the oCEMP. The delivery of this management plan will be secured as part of a DCO requirement.

### **Operation and Maintenance Phase**

23.3.40 The environmental measures included within the design of the Proposed Development, during the operation and maintenance phase, include:

- Pollution prevention measures, storage protocols and inspection regimes specific for the protection of land and groundwater;
- As part of the drainage strategy, the integration of long-term Sustainable Drainage System (SuDS) features (e.g. surface water drainage ditches and relief drains) to manage surface water without increasing runoff or risk of infiltration to underlying vulnerable aquifers;
- Installation of impermeable surfacing (e.g. hardstanding) under the substation or equipment housing to prevent downward migration of any spilled fluids into underlying soils;
- Adequate spill response plan including availability of spill kit and trained personnel;
- Suitable containment systems for operational equipment (e.g. transformers); and
- An incident logging and regulatory reporting procedure to be reported to the appropriate regulatory body (e.g. the Environment Agency) will be established with records retained for audit purposes. This also includes a well-structured management procedure to ensure seamless implementation of reporting procedures.

23.3.41 The above measures will be included in the oOEMP. The delivery of this management plan will be secured as part of a DCO requirement.

### **Decommissioning Phase**

23.3.42 The environmental measures included within the design of the Proposed Development, during the decommissioning phase, include:

- A pre-decommissioning baseline survey being undertaken. This will typically include ground investigation prior to decommissioning to identify any areas of concern (e.g. leakage);
- Regular site inspections being undertaken during dismantling of infrastructure to check for leaks from equipment or unexpected contaminated soil; and
- In the event contamination is encountered, implementation of remediation before land is restored or reused.

23.3.43 The above measures will be included in the oDEMP. The delivery of this management plan will be secured as part of a DCO requirement.

### **Preliminary Likely Significant Effects**

23.3.44 All likely significant effects, resulting from the preliminary assessment are outlined below. It should be noted that these effects will be refined as part of the ES and further associated surveys and therefore may be subject to change.

### **Construction Phase**

23.3.45 The following identified effects (without environmental measures) associated with this phase are outlined below:

- Construction activities could lead to localised contamination of soils from potential spills or leakages from construction plant during operation or refuelling activities;
- Direct contact with contaminated soil or ground water and chemical attack on existing buildings, structures and services;
- Spillage and leakage from construction activities could have a direct impact on groundwater, resulting in pollution of the underlying aquifers. Pollution run-off during construction activities may occur which could also impact the surface watercourses; and
- Excavation activities could lead to mobilisation of existing contaminants in the soil or shallow groundwater (if present) potentially creating a new / preferential pathway to the underlying aquifer.

23.3.46 The Applicant's preliminary assessment, as regards to the receptors (human health and the built environment) identified is that these receptors have low sensitivities in

Table 23-8, the magnitude of impact is considered to be minor following the application of measures within the oCEMP and other environmental measures listed above. Therefore, the significance of effect would be negligible and **Not Significant**.

23.3.47 The Applicant's preliminary assessment with respect to controlled waters (groundwater) is that the groundwater in the superficial deposits and bedrock is deemed to have a medium sensitivity. The magnitude of impact of construction activity on groundwater in the Secondary A Aquifer would be minor due to application of measures within the oCEMP, implementation of the drainage strategy and other environmental measures listed above and therefore the significance of effect is considered to be negligible and **Not Significant**.

23.3.48 The Applicant's preliminary assessment, with respect to controlled waters (surface water), groundwater and surface water abstractions is that these are deemed to have a high sensitivity. The magnitude of impact of construction activity would be minor due to the application of measures within the oCEMP as listed above, implementation of the drainage strategy and other environmental measures and therefore the significance of effect is considered to be minor and **Not Significant**.

### **Operation and Maintenance Phase**

23.3.49 The following identified effects (without environmental measures) associated with this phase are outlined below:

- Maintenance works (such as servicing of electrical equipment) could result in spillages and leakages of oil, fuel and other chemicals, which could result in pollution of controlled waters; and
- Direct contact with contaminated soil or ground water and chemical attack on future buildings, structures and services.

23.3.50 The Applicant's preliminary assessment, as regards to the receptors (human health and built environment) identified is that these receptors have low sensitivities in Table 23-8 and the magnitude of impact is considered to be minor due to the application of measures within the oOEMP listed above. Therefore, the significance of effect is considered to be negligible and **Not Significant**.

23.3.51 The Applicant's preliminary assessment, with respect to controlled waters, is that the groundwater in the superficial deposits is deemed to have a medium sensitivity. The magnitude of impact of operational and maintenance activities on groundwater in the Secondary A aquifer would be minor due to application of measures within the oOEMP and other environmental measures listed above and therefore the significance of effect is considered to be negligible and **Not Significant**.

23.3.52 The Applicant's preliminary assessment, with respect to controlled waters (surface water), groundwater and surface water abstractions, is that these receptors are deemed to have a high sensitivity. The magnitude of impact of operational and maintenance activities would be minor due to the application of measures within the oOEMP and other environmental measures listed above and therefore the significance of effect is considered minor beneficial to minor adverse and **Not Significant**.

### **Decommissioning Phase**

23.3.53 The following identified effects (without environmental measures) associated with this phase are outlined below:

- Decommissioning activities could result in minor localised contamination of soils associated with potential spills and leakages from plant; and
- The spills and leakages on soil may also directly affect the groundwater resulting in potential pollution of the underlying aquifers. Silt run-off during earthworks could also affect the surface watercourses.

23.3.54 The Applicant's preliminary assessment, as regards to the receptors (human health and built environment) identified is that these receptors have low sensitivities in Table 23-8 and the magnitude of impact is considered to be minor due to the application of measures within the oDEMP listed above. Therefore, the significance of effect is considered as negligible and **Not Significant**.

23.3.55 The Applicant's preliminary assessment, with respect to controlled waters, is that the groundwater in the superficial deposits is deemed to have a medium sensitivity. The magnitude of impact of decommissioning-related activities on groundwater in the Secondary A aquifer would be minor due to application of measures within the oDEMP and other environmental measures listed above and therefore the significance of effect is considered to be negligible and **Not Significant** at this stage.

23.3.56 The Applicant's preliminary assessment, with respect to controlled waters (surface water), groundwater and surface water abstractions is that these are deemed to have a high sensitivity. The magnitude of impact of decommissioning-related would be minor due to the application of measures within the oDEMP and other environmental measures listed above and therefore the significance of effect is considered to be minor beneficial to minor adverse and **Not Significant** at this stage.

## Next Steps

23.3.57 The next steps to be undertaken with respect to land contamination are as outlined below:

- The desk-based review of the land contamination impacts has not been undertaken at this stage. However, given the broadly rural and open upland characteristic of the wider Study Area and surrounding areas, it is not anticipated that the Access Routes and Bradford West Cable Corridor will transverse land with a significant history of industrial activity or other potentially contaminated land uses. On this basis, and at this high level of assessment, no significant effects in relation to land contamination are anticipated.
- The information provided in this PEIR is preliminary and is based on desktop data available at the time of writing. The final assessment of likely significant effects will be reported in the ES;
- A site survey is to be undertaken which will comprise of a walkover of the Turbine Area and surrounding areas;
- A PRA will be undertaken by Turnkey Regeneration Ltd and presented in a Phase 1 Desk Study report which will be included in the ES;
- Engagement with consultees, including statutory consultees being the Environment Agency, Pendle Council, Calderdale Council and Bradford Council will be carried out; and
- The environmental measures outlined in this document will continue to be developed as the design of the Proposed Development is refined. It should also be noted that this Chapter presents a preliminary assessment of environmental effects identified to date and further detailed assessments will be provided in the ES.

