



## Kintore Hydrogen Plant

### Environmental Impact Assessment Report Chapter 6: Landscape and Visual Impact Assessment

Date: August 2024

## Environmental Impact Assessment Report

**Volume 2**

**Chapter 6**

---

Version: Final

Date: August 2024

This report is also downloadable from the Kintore Hydrogen website at:  
<https://www.kintorehydrogen.co.uk/>

Kintore Hydrogen Limited  
4th Floor  
80 Victoria Street  
London  
SW1E 5JL

### Qualifications

Prepared by: Chartered Landscape Architects at ASH design + assessment Ltd. (ASH), a registered practice with the Landscape Institute (LI). Key staff involved in the preparation of this Chapter include Nicola Sukatorn, a Chartered Landscape Architect and Chartered Member of the Landscape Institute (CMLI), who has 10 years' experience of Landscape and Visual Impact Assessment (LVIA); and Sarah Kjellman, a Landscape Architect and Associate Member of the LI, who has 4 years' experience of LVIA; along with other members of ASH.

Checked by: Jennifer Skrynka, a Chartered Landscape Architect and Environmental Consultant and CMLI, who is the Managing Director of ASH, and has nearly forty years of experience.

## Table of Contents

1	Introduction.....	1
1.1	Purpose of this chapter .....	1
1.2	Legislation, policy and guidance .....	1
1.3	Consultation .....	2
2	Assessment Approach.....	4
2.1	Methodology.....	4
2.2	Study area.....	5
2.3	Baseline study.....	9
2.4	Uncertainties and/or data limitations .....	12
2.5	Impact assessment criteria .....	12
2.6	Maximum design envelope parameters for assessment .....	15
2.7	Impacts scoped out of the assessment .....	15
2.8	Mitigation measures adopted as part of Kintore Hydrogen Plant .....	16
3	Baseline Environment.....	18
3.1	Current baseline.....	18
3.2	Future baseline .....	23
4	Assessment of Effects .....	26
4.2	Landscape effects .....	26
4.3	Visual effects.....	32
4.4	Inter-related effects .....	35
5	Cumulative Effects Assessment .....	37
5.2	Cumulative landscape effects .....	38
5.3	Cumulative visual effects .....	38
5.4	Cumulative assessment summary .....	39
6	Conclusion and Summary.....	40
6.1	Landscape effects .....	40
6.2	Visual effects.....	40
6.3	Cumulative effects.....	40
6.4	Conclusion .....	40
	References.....	45

## List of Tables

Table 1.1:	Key points raised during scoping and consultation to date.....	3
Table 2.1:	Summary of desktop study sources .....	9
Table 2.2:	Summary of desktop study sources for landscape baseline.....	9
Table 2.3:	Landscape value criteria .....	10
Table 2.4:	Summary of desktop study sources for visual baseline.....	10
Table 2.5:	Summary of site-specific surveys undertaken .....	11

Table 2.6:	Landscape and visual sensitivity .....	13
Table 2.7:	Magnitude of landscape and visual change .....	14
Table 2.8:	Landscape and visual significance of effect criteria.....	14
Table 2.9:	Maximum design envelope parameters assessed.....	15
Table 2.10:	Impacts scoped out of the assessment .....	16
Table 2.11:	Designed-in mitigation measures .....	17
Table 5.1:	Cumulative developments included in cumulative LVIA .....	37
Table 6.1:	Summary of potential effects on landscape character .....	42
Table 6.2:	Summary of potential cumulative effects on landscape character.....	42
Table 6.3:	Summary of potential effects on visual amenity .....	42
Table 6.4:	Summary of potential cumulative effects on visual amenity .....	44

## List of Figures

### Within this chapter

Figure 2.1:	ZTV and study area.....	6
Figure 2.2:	Visualisation Locations.....	8
Figure 3.1:	Designated and protected landscapes .....	20
Figure 3.2:	Landscape character.....	22
Figure 3.3:	Potential visual receptors .....	24
Figure 3.4:	Visual receptors included within the assessment.....	25
Figure 4.1:	Further mitigation or enhancement: indicative landscape plan (electrolysis plant site) .....	29
Figure 4.2:	Further mitigation or enhancement: indicative landscape plan (above-ground installation site) .....	30
Figure 4.3:	Further mitigation or enhancement: indicative landscape plan (pumping station and potential water treatment plant site) .....	31

### Volume 3: Visualisations

Figure 6.1a-c:	Visualisation Location 1 – West of South Fornet
Figure 6.2a-c:	Visualisation Location 2 – Near Newton Fields
Figure 6.3a-c:	Visualisation Location 3 – East of Burnside Cottages
Figure 6.4a-c:	Visualisation Location 4 – B977, south of Leylodge
Figure 6.5a-d:	Visualisation Location 5 – Near South Leylodge
Figure 6.6a-c:	Visualisation Location 6 – Near Leylodge Schoolhouse
Figure 6.7a-c:	Visualisation Location 7 – South of Firley Moss
Figure 6.8a-c:	Visualisation Location 8 – East of Tillybin
Figure 6.9a-c:	Visualisation Location 9 – B977, near Waterside

# 1 Introduction

## 1.1 Purpose of this chapter

1.1.1 This chapter of the Environmental Impact Assessment Report (EIAR) presents the findings of Environmental Impact Assessment (EIA) work undertaken concerning potential effects of Kintore Hydrogen Plant on landscape character and visual amenity and reports the findings of the Landscape and Visual Impact Assessment (LVIA).

1.1.2 The purpose of the LVIA is to identify and describe potential significant effects which may occur as a result of the proposed development to views obtained by those living, working and visiting in the area, and to the wider landscape resource. The proposed development is assessed during construction and operation, based on the maximum design envelope parameters for the LVIA, which includes designed-in mitigation. Potential opportunities for further mitigation and enhancement are also identified and the potential resulting residual predicted significance of landscape and visual effects.

1.1.3 Although closely related to one another, effects on landscape character and visual amenity have been considered separately in this chapter for reasons of clarity and robustness. The LVIA considers the two separate subjects of Landscape and Visual as follows:

- The landscape assessment considers the potential effects of the proposed development on landscape character, designated and protected landscapes.
- The visual assessment considers the potential effects of the proposed development on the visual amenity of those present within the landscape, including established views from residential areas and routes.

1.1.4 Consideration is also given to cumulative effects occurring as a result of the addition of the proposed development to other proposed developments of a similar nature, during their operational stage within the study area.

1.1.5 Further information is contained within technical appendices in Volume 3:

- Appendix 6.1: Technical Methodologies.
- Appendix 6.2: Landscape Assessment Tables.
- Appendix 6.3: Visual Assessment Tables.

1.1.6 This EIAR chapter:

- presents the environmental baseline established from desk studies, surveys and consultation to date;
- presents the potential environmental effects on landscape character and visual amenity arising from Kintore Hydrogen Plant (referred to as the proposed development), based on the information gathered and the analysis and assessments undertaken;
- identifies any assumptions and limitations encountered in compiling the environmental information; and
- highlights any necessary monitoring and/or mitigation measures that could prevent, minimise, reduce or offset the possible environmental effects identified in the EIA process.

## 1.2 Legislation, policy and guidance

1.2.1 The assessment has taken into account national, regional and local policy and guidance relating to LVIA relevant to the proposed development. Detailed information on planning policy is contained within the Planning Statement accompanying the application for the proposed development. The following provides a summary of key policy documents with respect to the LVIA.

### National context

1.2.2 The following national policy documents, statements and guidance have been referred to in carrying out this assessment:

- Scottish Government (2023): National Planning Framework 4 (NPF4) [1];
- Scottish Government (2023): Scottish Energy Strategy: The future of energy in Scotland [2];
- Scottish Government (2000): Planning Advice Note 60 – Planning for Natural Heritage (PAN60), revised 2008 [3];

- Scottish Natural Heritage (2014), now NatureScot<sup>1</sup>: Renewable Energy and the Natural Heritage. Position Statement [4]; and
  - NatureScot: Developing with Nature guidance [5].
- 1.2.3 The NPF4 [1] sets out the national framework for planning policy in Scotland. It recognises the global climate emergency as a priority in decision-making and is generally supportive of electricity generation and associated grid infrastructure.
- 1.2.4 The Scottish Energy Strategy [2] encourages renewable energy and low carbon solutions in order to meet local and national heat, transport and electricity needs and achieve emissions reduction targets, while Planning Advice Note 60 [3] sets out the relationship between new development and natural heritage, and emphasises the importance of maintaining and enhancing landscape character, particularly in relation to the character and scenic qualities of designated landscapes.
- 1.2.5 Some of these objectives are also echoed by NatureScot in their position statement on Renewable Energy and Natural Heritage [4], which encourages renewable energy developments in appropriate locations, stating that proposals should “*optimise energy generation whilst safeguarding elements of the natural heritage that are nationally and internationally important*”.

### Regional context

- 1.2.6 The following regional policy documents, planning advice documents and supplementary guidance documents have been referred to in carrying out this assessment:
- Aberdeenshire Council (2023): Local Development Plan (LDP), adopted 13<sup>th</sup> January 2023 [6];
  - Aberdeenshire Council (2023): Landscaping Design: Planning Advice PA2023-08 guidance [7];
  - Aberdeenshire Council (2023): Securing positive effects for biodiversity in new development: Planning Advice PA2023-10 [8]; and
- 1.2.7 The Aberdeenshire LDP [6] informs decision-making with regards to land use planning in Aberdeenshire and sets out the principles according to which planning applications will be determined.

1.2.8 The council’s supplementary planning advice PA2023-08 on Landscaping Design [7] provides guidance on landscape design for new development, with the aim to “*achieve high standards of landscaping design, planting and maintenance to ensure that networks of green and blue open spaces support placemaking by being well located, designed, and managed, as well as being adaptable, and sustainable*” (p2), setting out the key requirements and methodology for achieving this.

1.2.9 The planning advice PA2023-10 on Securing positive effects for biodiversity in new development [8] relates to Policy 3 of NPF4 [1], which requires developments to contribute to the enhancement of biodiversity, in a manner that is proportionate to the scale of the development. The guidance sets out how this can be achieved in order to secure positive effects for biodiversity.

1.2.10 These national and regional documents provide context for the proposed development and set out the importance of sensitive and considered design within the landscape.

## 1.3 Consultation

1.3.1 Key issues raised during scoping and consultation specific to LVIA are listed in Table 1.1, together with how details of how these issues have been considered in the production of this EIAR and cross-references to where this information may be found.

<sup>1</sup> Scottish Natural Heritage (SNH) formally changed their name to NatureScot on 24 August 2020. Some documents referred to in this report were published prior to this date. As such reference is still made to SNH where appropriate.

Table 1.1: Key points raised during scoping and consultation to date

Date	Consultee and type of response	Points raised	How and where addressed
6 October 2023	Natural Environment Team – scoping response	Outdoor access – consider impacts on informal outdoor access routes, not just defined Core Paths.	Considering LVIA effects on receptors on recognised routes, including core paths. Consideration also given to informal outdoor access routes where appropriate, for example, where there is potential for significant effects, or where specifically highlighted by consultees and other stakeholders during the consultation process. See Section 4.3 for visual assessment of receptors on routes. Impacts on outdoor recreation are also considered in Chapter 14: Population and Health.
6 October 2023	Natural Environment Team – scoping response	<p>Biodiversity and Landscape Design:</p> <ul style="list-style-type: none"> <li>• “Commitment to positive effects for biodiversity is welcomed”, and guidance included (see below). Importance of considering “on-site essential measures” as well as opportunities in river restoration and control of invasive non-native species in River Don corridor.</li> <li>• “Quality landscaping scheme using suitably locally native species” is also required.</li> </ul> <p>Reference to SNH Ancient Woodland and Scottish Forestry Native Woodland Survey Scotland sites and other nature conservation areas.</p> <p>Reference made to the following documents, in relation to the landscape design and biodiversity enhancements “in proportion to the opportunities available and the scale of the development”:</p> <ul style="list-style-type: none"> <li>• Policy P1 of the Aberdeenshire LDP 2023 [6];</li> <li>• Policy 3c of NPF4 [1];</li> <li>• Aberdeenshire Council (2023): Securing positive effects for biodiversity in new development: Planning Advice PA2023-10 [8];</li> <li>• NatureScot: Developing with Nature guidance [5]; and</li> <li>• Aberdeenshire Council (2023): Landscaping Design: Planning Advice PA2023-08 guidance [7].</li> </ul>	<p>Potential opportunities for further mitigation or enhancement are described in 4.2.7 to 4.2.12</p> <p>Landscape design would be designed with reference to best practice and guidance documents, and in liaison with ecologists to secure opportunities for biodiversity enhancements.</p> <p>See Design Principles Statement and the Outline Biodiversity Enhancement and Management Plan (Outline BEMP) for more information relating to landscape design and biodiversity net gain (BNG).</p>
1 November 2023	Aberdeenshire Council – scoping opinion	“Further engagement is anticipated in respect of viewpoint selection and would welcome those discussions.”	Further consultation conducted: see below regarding email correspondence with Aberdeenshire Council.
7 March 2024	Aberdeenshire Council – email correspondence	Proposal of nine Visualisation Locations (VLs) and LVIA study area.	Section 2.2 describes the study area. VLs are described in Section 2.1

## 2 Assessment Approach

### 2.1 Methodology

#### Assessment guidance

2.1.1 The LVIA has been prepared with reference to the third edition of the Guidelines for Landscape and Visual Impact Assessment (LI and IEMA, 2013) [9], referred to as GLVIA3, and SNH (2002 guidance document Landscape Character Assessment: Guidance for England and Scotland [10].

#### Professional judgement

2.1.2 GLVIA3 places a strong emphasis on the importance of professional judgement in identifying and defining the significance of landscape and visual effects. As part of this assessment, professional judgement has been used in combination with structured methods and criteria to evaluate landscape value and landscape and visual sensitivity, magnitude and significance of effect. The assessment has been undertaken and verified by Landscape Professionals (Chartered Landscape Architects) to provide a robust and consistent approach.

#### Key stages of the assessment

2.1.3 GLVIA3 advises that landscape and visual effects should be assessed from a clear understanding of the development proposed and any mitigation measures which are being adopted.

2.1.4 The GLVIA3 methodology for landscape assessment involves an appreciation of the existing landscape resource, the susceptibility of its key components to accept the change proposed, and an understanding of the potential effects which could occur and how these could affect these key components.

2.1.5 Familiarity with the site and the extent, nature, and expectation of existing views by visual receptors is a key factor in establishing the visual sensitivity in terms of the development proposed. The guidelines require evaluation of magnitude of change to views experienced by sensitive receptors, comprising individuals living, working, travelling and carrying out other activities within the landscape, and the subsequent evaluation of the significance of effects.

2.1.6 The potential to mitigate adverse effects should also be considered for both landscape and visual assessment.

2.1.7 There are five key stages to the assessment, described in more detail below:

- establishment of the baseline;
- appreciation of the development proposed;
- identification of key landscape and visual receptors;
- identification of potential effects; and
- assessment of significance of effect.

#### Establishment of the baseline

2.1.8 Establishment of the baseline conditions has been undertaken through a combination of desk study and site appraisal, as described in Section 2.3.

#### Appreciation of the development proposed

2.1.9 Appreciation of the proposed development involves the accumulation of a thorough knowledge of the proposal, its nature, scale and location within the baseline landscape, and any peripheral or ancillary features proposed. Analysis of the proposed activities and changes which would take place leads to an understanding of the potential effects that may occur to the landscape and visual resource.

2.1.10 This stage has included review of all available desk-based information relating to the proposed development in terms of its long-term physical appearance and requirements for construction and access and review of visual aids of other, similar development types.

#### Identification of key landscape and visual receptors

2.1.11 The identification of key landscape and visual receptors with the potential to be affected by the proposed development is the first step in the analysis of the potential for significant effects to occur. Landscape and visual receptors can be described as follows:

- Landscape receptors comprise key characteristics or individual features which contribute to the value of the landscape and have the potential to be affected by the proposed development. Landscape receptors are identified through analysis of baseline characteristics when considered in relation to the impacts which might result from a development of the type proposed.
- Visual receptors can be defined as individuals occupying and using the study area with the potential to obtain views of the proposed development. They include individuals experiencing views from locations such as buildings, recognised routes

and popular viewpoints used by the public. Potential visual receptors are identified through analysis of desk resources, mapping and site survey, as described in Section 3.1. A review of the ZTV in the context of site survey is used to identify the potential for visual receptors to be affected by the proposed development.

**Identification of potential effects and assessment of significance of effect**

2.1.12 The latter two stages of the assessment (identification of potential effects and the assessment of significance of effects) involve the consideration of sensitivity to change and magnitude of change, described in Section 2.5.

**2.2 Study area**

2.2.1 The study area comprises the area where any potentially significant effects resulting from the proposed development would be likely to occur and has been established through consideration of the Zone of Theoretical Visibility (ZTV) (see paragraphs 2.2.3 to 2.2.8), and professional judgement.

2.2.2 As proposed to Aberdeenshire Council, the LVIA study area is based on a 5 km offset from the main electrolysis plant site of the proposed development and 500 m from the application boundary for other elements of the proposed development to capture effects relating to other aspects of the proposed development. This is illustrated on Figure 2.1.

**Zone of Theoretical Visibility**

2.2.3 As an aid to establishing the scope for the LVIA, ZTVs have been produced for the proposed electrolysis plant site area and proposed ground flare and are presented in Figure 2.1. ZTVs are computer-generated diagrams which use a terrain model to indicate areas from which the proposed development would be theoretically visible. ZTVs for the proposed development have been generated using ESRI ArcGIS software based on a terrain modelled using Ordnance Survey (OS) Terrain 5 Digital Terrain Model (T5 DTM) data.

2.2.4 ZTVs have been produced using points located at regular intervals within the proposed electrolysis plant site, based on the maximum design envelope parameters for the LVIA (see Section 2.6). The following height parameters have been used:

- Proposed ground flare, located in the very north of the proposed electrolysis plant site area – 132 m AOD (based on max. 30 m height above an indicative ground level of 102m AOD);
- Proposed electrolysis plant, comprising:

- Proposed buildings, structures and equipment within the **southern** part of the proposed electrolysis plant site area (including an area east of The Knock hilltop) – 134 m AOD (based on 18 m height [14 m to building ridge plus 4 m for oxygen vent stacks] above an indicative ground level of 116 m AOD);
- Proposed buildings, structures and equipment within the **northern** part of the proposed electrolysis plant site area – 127 m AOD (based on max. 20 m height [16 m to building ridge plus 4 m for oxygen vent stacks] above an indicative ground level of 107 m AOD); and
- Proposed buildings, structures and equipment within the **western** part of the proposed electrolysis plant site area (most elevated part of the site, around The Knock hilltop) – 128 m AOD (based on max. 8 m height above an indicative ground level of 120 m AOD).

2.2.5 On Figure 2.1 and Figure 2.2, separate ZTVs are shown to illustrate where the ground flare would theoretically be visible; and where the other aspects of the electrolysis plant would theoretically be visible (as described in 2.2.4). Where both ZTVs overlap, the ground flare and other features of the electrolysis plant would together be theoretically be visible. On Figure 3.1 to Figure 3.4, the separate ZTVs have been merged, and therefore show where the ground flare and/ or other features of the electrolysis plant would theoretically be visible.

2.2.6 The ZTVs takes account of earth curvature and light refractivity, set to 0.075 in accordance with SNH (2017), now NatureScot, guidance [11].

2.2.7 Whilst ZTVs are useful tools for the identification of potential effects, they are not indicative of effects in themselves. ZTVs do not take into account the potential screening effects of woodland and other localised features such as buildings, trees or local landform which are not captured by the OS T5 DTM data. Nor do they give indication of the way in which a development may relate to its broader landscape context and the receding scale and visibility of features with distance.

2.2.8 Further details on the technical parameters of ZTV production are included in Appendix 6.1.



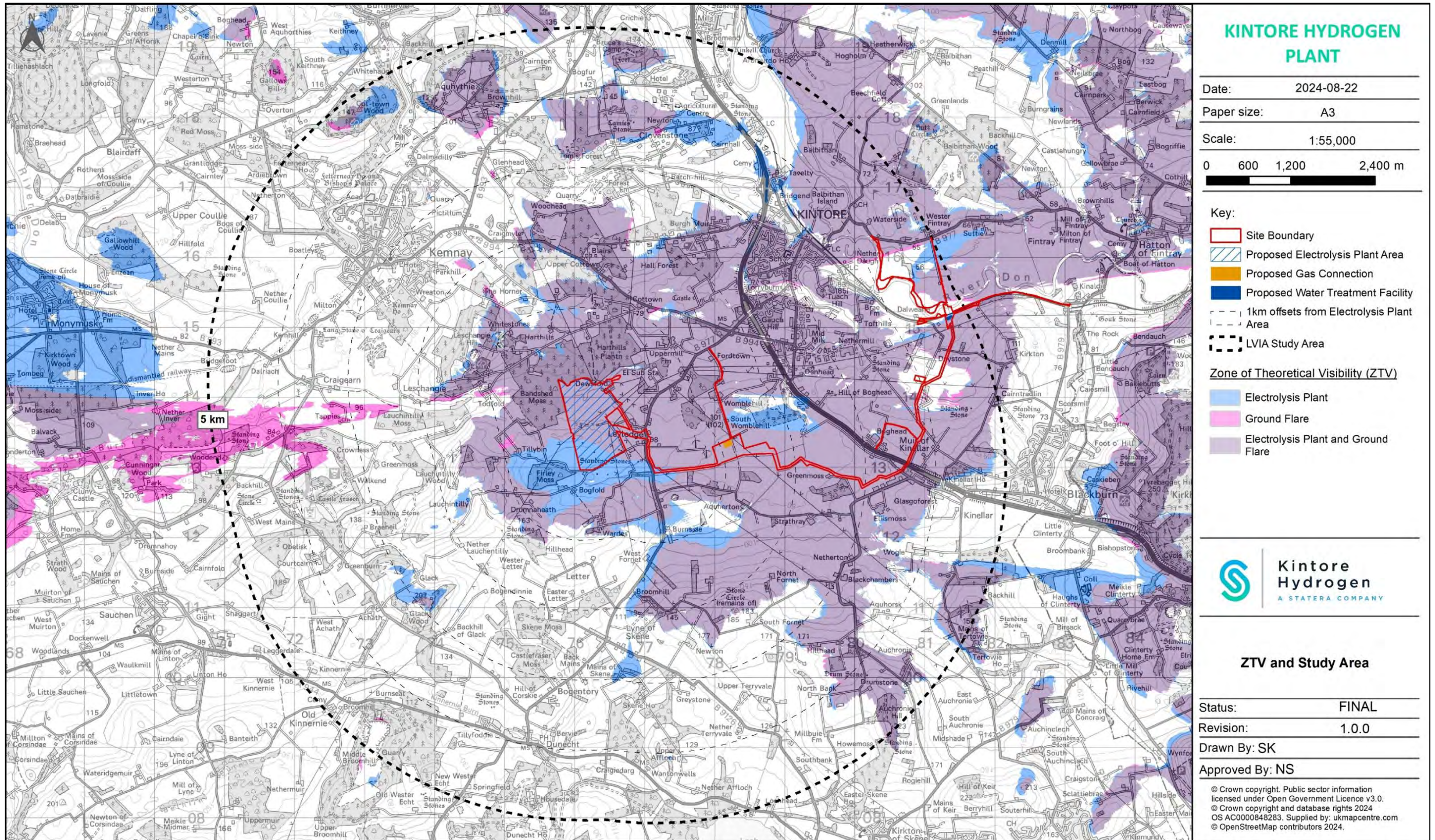


Figure 2.1: ZTV and study area

**KINTORE HYDROGEN PLANT**

Date: 2024-08-22  
 Paper size: A3  
 Scale: 1:55,000

0 600 1,200 2,400 m

**Key:**

- Site Boundary
- Proposed Electrolysis Plant Area
- Proposed Gas Connection
- Proposed Water Treatment Facility
- 1km offsets from Electrolysis Plant Area
- LVIA Study Area

**Zone of Theoretical Visibility (ZTV)**

- Electrolysis Plant
- Ground Flare
- Electrolysis Plant and Ground Flare

**Kintore Hydrogen**  
 A STATERA COMPANY

**ZTV and Study Area**

Status: FINAL  
 Revision: 1.0.0  
 Drawn By: SK  
 Approved By: NS

© Crown copyright. Public sector information licensed under Open Government Licence v3.0.  
 © Crown copyright and database rights 2024 OS AC0000848283. Supplied by: ukmapcentre.com  
 © OpenStreetMap contributors 2024.

## Visualisations

- 2.2.9 Nine visualisations have been produced to support the LVIA work. These show an indicative block model based on the maximum design envelope parameters for the LVIA, which is considered to be the 'worst-case scenario' for the proposed development in LVIA terms (see Section 2.6). This includes designed-in mitigation (described in Section 2.8).
- 2.2.10 The model does not include detail relating to the colour, form, material, or detailed design of the proposed development and illustrates a series of blocks to show the 'worst-case' layout and building sizes that have been assessed in the LVIA. This ensures it is representative of the maximum design envelope defined for the Planning Permission in Principle application.
- 2.2.11 Visualisations comprise baseline photographs, wirelines and photowires from all locations. Photowires show the wireline overlaid directly on the baseline photograph, and therefore the wireline does not indicate any screening. Further information on the presentation and preparation of visualisations is included in Appendix 6.1.
- 2.2.12 Potential opportunities for further mitigation or enhancements (comprising landscape earthworks and planting and other aspects of the masterplan and architectural design) have not been shown in wirelines and photowires but are described indicatively in Section 4.
- 2.2.13 The visualisations have been produced to support the LVIA work and are intended to show the location and scale of the proposed development within the landscape setting. Visualisation Locations (VLs) do not comprise representative viewpoints for visual assessment and have therefore not been assessed as viewpoints, because the visual assessment is a receptor-based assessment (giving consideration to all potential visual receptors) rather than a viewpoint-based assessment.
- 2.2.14 Visualisations have been included from the following nine VLs, as proposed to Aberdeenshire Council during consultation (see Figure 2.2 for their locations):
- VL 1: West of South Fornet (see Volume 3: Figures 6.1a-c);
  - VL 2: Near Newton Fields (see Volume 3: Figures 6.2a-c);
  - VL 3: East of Burnside Cottages (see Volume 3: Figures 6.3a-c);
  - VL 4: B977, south of Leylodge (see Volume 3: Figures 6.4a-c);
  - VL 5: Near South Leylodge (see Volume 3: Figures 6.5a-d);
  - VL 6: Near Leylodge Schoolhouse (see Volume 3: Figures 6.6a-c);
  - VL 7: South of Firley Moss (see Volume 3: Figures 6.7a-c);
  - VL 8: East of Tillybin (see Volume 3: Figures 6.8a-c);
  - VL 9: B977, near Waterside (see Volume 3: Figures 6.9a-c);
- 2.2.15 One set of visualisations have been produced to SNH (2017), now NatureScot, guidance [11], included within the EIA Report as Volume 3. Further detail on the preparation of visualisations is included in Appendix 6.1.
- 2.2.16 Separately, the Design Principles Statement that accompanies the planning application presents further sketch visualisations of the proposed development that are illustrations of what a more realistic architectural design may look like, as this is developed in due course following the Planning Permission in Principle stage. These provide an illustration of how landscape-sensitive architectural design can be taken forwards. For avoidance of doubt, however, the maximum design envelope assessed in the LVIA is that presented in the wirelines and photowires referred to in this EIAR chapter.

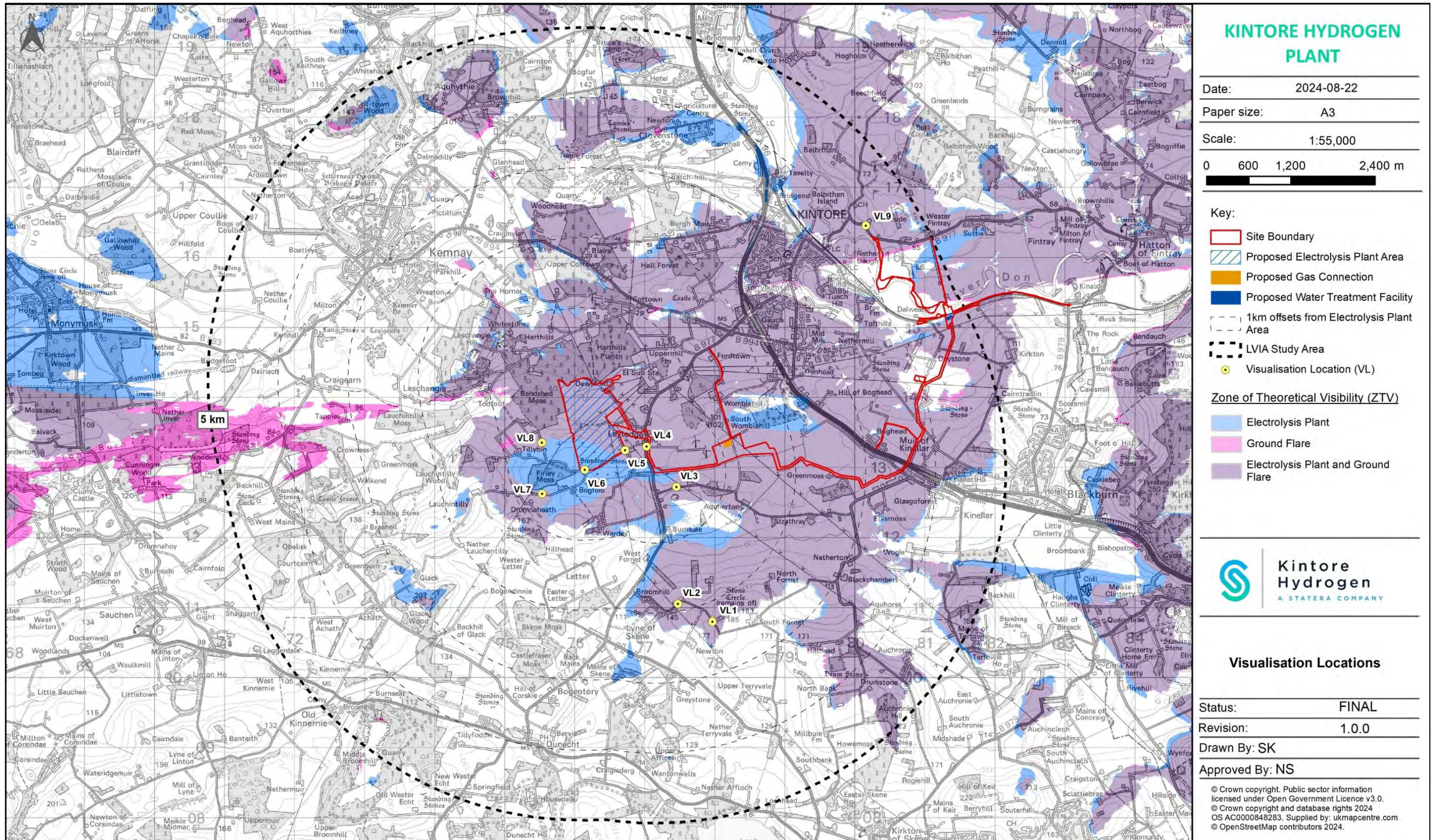


Figure 2.2: Visualisation Locations

## 2.3 Baseline study

### Desktop study

2.3.1 Information on Landscape and Visual was collected through a detailed desktop review of existing studies and datasets. These are summarised at Table 2.1 below.

**Table 2.1: Summary of desktop study sources**

Title	Source	Year	Ref.
NPF4	Scottish Government	2023	[1]
Scottish Energy Strategy: The future of energy in Scotland	Scottish Government	2023	[2]
Planning Advice Note 60 – Planning for Natural Heritage (PAN60)	Scottish Government	2000, revised 2008	[3]
Renewable Energy and the Natural Heritage. Position Statement	SNH, now NatureScot	2014	[4]
Developing with Nature guidance	NatureScot	2021-2022	[5]
LDP 2023	Aberdeenshire Council	2023	[6]
Landscaping Design: Planning Advice PA2023-08	Aberdeenshire Council	2023	[7]
Securing positive effects for biodiversity in new development: Planning Advice PA2023-10	Aberdeenshire Council	2023	[8]
The Scoping Opinion and other consultation responses for the proposed development	Aberdeenshire Council and other statutory consultees	Assorted (2023 – 2024)	Table 1.1
OS mapping (aerial, 50k, 25k, 10k mapping)	OS	2024	Figures 2.1 – 4.14
Online map resources	Google Maps / Google Earth Bing Maps Streetmap	2024	[12] [13] [14]
ZTV for the proposed development	ASH	2024	Figures 2.1-3.4

### Landscape baseline desktop study

2.3.2 A combination of desk and site survey has been used to establish the landscape baseline within the study area.

2.3.3 In addition to the resources summarised in Table 2.1 above, the establishment of the landscape baseline has included a desktop review of the following additional resources in Table 2.2:

**Table 2.2: Summary of desktop study sources for landscape baseline**

Title	Source	Year	Ref.
Scottish Landscape Character Types Map and Descriptions	SNH, now NatureScot	2019	[15]
LDP 2023 Appendix 13 Aberdeenshire Special Landscape Areas	Aberdeenshire Council	2023	[6]

### Identification of Baseline Landscape Value

2.3.4 The value of the baseline landscape is an important consideration in establishing the landscape baseline and informing later judgement of the significance of effects. Landscape value concerns the perceived importance of the landscape when considered as a whole, and within the context of the study area and is established through consideration of the following factors:

- presence of landscape designations, other inventory or registered landscapes / landscape features or identified planning constraints;
- the scenic quality of the landscape;
- perceptual aspects, such as wildness or tranquillity;
- conservation interests such as cultural heritage features or associations, or if the landscape supports notable habitats or species;
- recreational value; and
- rarity, either in the national or local context, or if it is considered to be a particularly important example of a specific landscape type.

2.3.5 It should be noted that absence of a designation does not necessarily mean that a landscape or component is not highly valued, as factors such as accessibility and local scarcity can render areas of nationally unremarkable quality highly valuable as a local resource.

2.3.6 Criteria for the allocation of perceived baseline landscape value are outlined in Table 2.3 below:

**Table 2.3: Landscape value criteria**

Landscape value	Criteria
High	<ul style="list-style-type: none"> <li>The landscape is closely associated with features of international or national importance which are rare within the wider context;</li> <li>The landscape is of high scenic quality and forms a key part of an important designated landscape or planning constraint; and/or</li> <li>The landscape is an example of a scarce resource within the local context and is of considerable local importance for its, scenic quality, recreational opportunities or cultural heritage associations.</li> </ul>
Medium	<ul style="list-style-type: none"> <li>The landscape is associated with features of national or regional importance which are relatively common within the wider context;</li> <li>The landscape forms part of a designated landscape or is associated with other features of importance but is not rare or distinctive within the local context; and/or</li> <li>The landscape is one of a number within the local context appreciated for its scenic quality, recreational opportunities or cultural heritage associations.</li> </ul>
Low	<ul style="list-style-type: none"> <li>The landscape characteristics are common within the local and regional context and the landscape is not associated with any particular features or attributes considered to be important; and/or</li> <li>The landscape is of poor scenic quality and is not appreciated for any recreational or cultural associations.</li> </ul>

**Visual baseline desktop study**

2.3.7 A combination of desk and site survey has been used to establish the range and distribution of potential visual receptors within the study area, and the visual baseline for these receptors.

2.3.8 In addition to several of the resources summarised in Table 2.1, the establishment of the visual baseline has included a desktop review of the following additional resources in Table 2.4.

**Table 2.4: Summary of desktop study sources for visual baseline**

Title	Source	Year	Ref.
Aberdeenshire Core Paths Plan Map	Aberdeenshire Council	2017	[16]

Other web based and published sources providing information on local resources and activities within the study area

**Site specific surveys**

2.3.9 In order to inform the LVIA, the site-specific surveys listed in in Table 2.5 have been undertaken.

**Table 2.5: Summary of site-specific surveys undertaken**

Title	Extent of survey	Overview of survey	Survey provider	Year	Reference to further information
Site Selection / Site Familiarisation Visit	Perimeter of potential proposed development site (different from current proposed development site) and general area	Familiarisation with proposed development site, appraisal of constraints and opportunities and general photography from key locations.	ASH, with HRI Munro Architects	2022	n/a
Initial LVIA Site Familiarisation Visit	5 km LVIA study area and beyond (up to around 5 – 7km from the proposed development boundary)	Familiarisation with proposed development site, as well as collation of initial information on baseline visual amenity and landscape character within study area.	ASH	2024	Design Principles Statement
Photography Site Visit	5 km LVIA study area	Photography to NatureScot (2017) [11] standards, for EIAR visualisations.	Micah Stanbridge Photography	2024	Figure 6.1-6.9
LVIA Site Visit	5 km LVIA study area	<p>Landscape:</p> <ul style="list-style-type: none"> <li>• Collation of information on baseline landscape character for the purposes of identifying local landscape character zones, supported by a photographic record.</li> </ul> <p>Visual:</p> <ul style="list-style-type: none"> <li>• Verification of visual receptors identified through desk study and identification of any further potential receptors which had been missed.</li> <li>• Collation of information on baseline visual amenity, including information on the types and activities of visual receptors likely to be present, and the nature of the existing views which are obtained.</li> <li>• Site recording including the completion of standardised recording forms and annotation of Ordnance Survey plans and ASH figures, supported by a photographic record of views from key receptor locations.</li> </ul>	ASH	2024	Appendices 6.2 and 6.3

## 2.4 Uncertainties and/or data limitations

2.4.1 The LVIA is subject to the following limitations and assumptions, which have been managed as far as practicable as described below:

- The prominence of the proposed development in the landscape and views will vary according to the prevailing weather conditions. The LVIA has been carried out, as is best practice, by assuming the ‘worst case’ scenario i.e. on a clear, bright day in winter, when neither foreground deciduous foliage nor haze can interfere with the clarity of the view obtained.
- The LVIA assesses the maximum design parameters for the LVIA (described in Section 2.6), which includes designed-in mitigation (described in Section 2.8). The initial assessment of effects is carried out using these parameters. Following this, opportunities for potential further mitigation or enhancements (comprising landscape earthworks and planting and other aspects of the masterplan and architectural design) are described in Section 4 and potential for reduction in the resulting residual effects is identified at a high level. The Design Principles Statement provides more information and builds on these opportunities for potential further mitigation or enhancement.
- ZTVs are used to inform the landscape, visual and cumulative effects assessments. The limitations and technical specifications for production of ZTVs are included in paragraphs 2.2.3 to 2.2.8 and are further discussed in Appendix 6.1.
- The field assessment of visual effects has been undertaken from public roads, footpaths or open spaces. For residential receptors, assumptions have been made about the types of rooms in buildings and about the types and importance of views from these rooms. For there to be a visual effect, there is the need for a viewer and therefore only buildings that are in use have been considered in the visual assessment.
- The assessment of effects on visual receptors occupying buildings such as residences and public buildings includes consideration of potential for views from exterior areas associated with the building including gardens where appropriate. These effects are referenced where relevant.
- The assessment reflects the baseline situation at the time of site work (April 2024) and therefore does not take account of any changes to the landscape fabric which have taken place after this date.

## 2.5 Impact assessment criteria

### Identification of potential effects

- 2.5.1 The identification of potential effects is a two-fold process, giving consideration as to how potential effects may arise from aspects of the proposed development and how they may be accommodated by the existing baseline features.
- 2.5.2 Potential effects can be considered to be ‘direct’ effects upon existing views, landscape elements, features and key characteristics and, also, ‘indirect’ effects which may occur secondarily to changes affecting another landscape component or area.
- 2.5.3 Where it is established that potential effects could be limited by mitigation measures, these are also given consideration.
- 2.5.4 Potential effects are evaluated through the allocation of criteria for sensitivity and magnitude, with professional judgement applied to these, as has been throughout the assessment process.

### Landscape and visual sensitivity

- 2.5.5 Sensitivity concerns the nature of the baseline landscape or visual receptor, and the ability to accommodate development of the type proposed without compromising the key characteristics and / or composition.
- 2.5.6 There are two aspects which contribute to the evaluation of landscape and visual sensitivity: value and susceptibility to change. The consideration of these two separate aspects in the differing assessments for landscape and visual amenity are detailed below.
- Landscape sensitivity
    - Value: The baseline value of the landscape and the contributory value of individual landscape receptors to the landscape as a whole.
    - Susceptibility: The ability of landscape receptors to accommodate development of the type proposed without changing the intrinsic qualities of the landscape as a whole.
  - Visual sensitivity
    - Value: The baseline value of a particular view to the visual receptor, including the perceived.
    - Susceptibility: The susceptibility of the viewer to changes to the view, giving consideration to the particular activity they may be involved in and also the

composition of the baseline view and importance of the proposed area of change as a part of the view.

2.5.7 Criteria for the evaluation of sensitivity to change are presented in Table 2.6.

**Table 2.6: Landscape and visual sensitivity**

Sensitivity rating	Landscape sensitivity	Visual sensitivity
High	A highly valued landscape of particularly distinctive character susceptible to relatively small changes of the type proposed.	Visual receptors obtaining views from: <ul style="list-style-type: none"> <li>• dwellings and publicly accessible buildings where the changed aspect is an important element in the view and there are no detracting features present; and</li> <li>• recreational routes and locations where the changed aspect is an important element in the view and there are no detracting features present.</li> </ul>
Medium	A reasonably valued landscape with a composition and characteristics tolerant of some degree of change of the type proposed.	Visual receptors obtaining views from: <ul style="list-style-type: none"> <li>• dwellings and publicly accessible buildings where the changed aspect is a less important element in the view and / or where some detracting features are present;</li> <li>• recreational routes and locations where the changed aspect is a less important element in the view and / or where some detracting features are present;</li> <li>• roads and transport routes where the changed aspect is an important element in the view and there are no detracting features present.</li> <li>• workplaces where the changed aspect is an important element of the view and there are no detracting features present.</li> </ul>
Low	A relatively unimportant landscape which is potentially tolerant of a large degree of change of the type proposed.	Visual receptors obtaining views from: <ul style="list-style-type: none"> <li>• dwellings and publicly accessible buildings where the changed aspect is an unimportant element in the view and / or numerous detracting features are present;</li> <li>• recreational routes and locations where the changed aspect is an unimportant element in the view and / or where numerous detracting features are present;</li> <li>• roads and transport routes where the changed aspect is a less important element in the view and / or where some detracting features are present; and</li> <li>• workplaces where the changed aspect is a less important element in the view and / or where some detracting features are present.</li> </ul>

Landscape and visual magnitude

2.5.8 Magnitude of change concerns the extent to which the existing landscape character or view would be altered by the proposed development. Elements specific to the evaluation of magnitude of change for the differing assessments of landscape and visual amenity are detailed below.

- Magnitude of landscape change:
  - the degree to which features or characteristics may be removed, altered or added within the landscape;
  - the geographical extent of proposed changes;
  - whether changes would be direct or indirect; and
  - the potential duration and reversibility of proposed changes (taking into consideration proposed mitigation measures where relevant).
- Magnitude of visual change:
  - the scale or extent of proposed changes within the view;
  - the location of proposed changes within the view, relevant to other existing features;
  - the extent to which this may alter the composition or focus of the view; and
  - the duration and reversibility of proposed changes (taking into consideration proposed mitigation measures where relevant).

2.5.9 Criteria for the evaluation of magnitude of change are presented in Table 2.7. In recognition of the differing changes that would occur over time, two stages for magnitude of change have been included:

- during the construction of the proposed development; and
- during operation of the proposed development.

2.5.10 Designed-in mitigation (see Section 2.8) is considered in the initial assessment of magnitude of change during construction and operation. Further recommended mitigation or enhancements (comprising landscape earthworks planting, and other aspects of the masterplan and architectural design) are then discussed in relation to how this can be employed to mitigate residual effects during operation, in Section 4.



**Table 2.7: Magnitude of landscape and visual change**

Magnitude rating	Magnitude of landscape change	Magnitude of visual change
High	Notable change in landscape characteristics over an extensive area ranging to a very intensive change over a more limited area.	Where the proposed development would result in a very noticeable change in the existing view.
Medium	Perceptible change in landscape characteristics over an extensive area ranging to notable change in a localised area.	Where the proposed development would result in a noticeable change in the existing view.
Low	Virtually imperceptible change in landscape characteristics over an extensive area or perceptible change in a localised area.	Where the proposed development would result in a perceptible change in the existing view.
Negligible	No discernible change in any landscape characteristics or components.	Where the proposed development would result in a barely perceptible change in the existing view.

**Assessment of significance of effects**

- 2.5.11 Evaluation of the predicted significance of effect has been carried out through the analysis of the anticipated magnitude of change in relation to the landscape or visual sensitivity, taking into account any proposed mitigation measures, and is established using professional judgement.
- 2.5.12 In recognition of the potential for effects to vary over time, the assessment has been undertaken at two different stages:
- during the construction of the proposed development; and
  - during operation of the proposed development.
- 2.5.13 Designed-in mitigation (see Section 2.8) is considered in the initial assessment of effect significance during construction and operation. Further recommended mitigation or enhancements (comprising landscape earthworks planting, and other aspects of the masterplan and architectural design) are then discussed in relation to how this can be employed to mitigate residual effects during operation, in Section 4.
- 2.5.14 The significance of effect for landscape and visual elements is considered as follows:
- Landscape Effects
    - The assessment takes into account identified effects upon existing landscape receptors and assesses the extent to which these would be lost or modified in the context of their importance in determining the existing baseline character.

- Visual Effects
  - The assessment takes into account likely changes to the visual composition, including the extent to which new features would distract or screen existing elements in the view or disrupt the scale, structure or focus of the existing view.

2.5.15 The assessment takes into consideration the potential for effects to be:

- adverse, where changes such as the addition of new distracting features, or the removal of existing positive features, are anticipated to negatively affect the landscape or view; or
- beneficial, where changes, such as the removal of existing distracting features or the addition of associated planting or other mitigation measures are anticipated to positively influence the landscape or view.

2.5.16 Criteria used for the assessment of effects are presented in Table 2.8. For the purposes of the LVIA, effects with a rating of **moderate** or greater, are considered to be **significant** in terms of the EIA Regulations.

**Table 2.8: Landscape and visual significance of effect criteria**

Significance of effect	Adverse or beneficial	Landscape effect	Visual effect
Major (significant)	Adverse	The proposed development is at considerable variance with the landform, scale and pattern of the landscape and would be a dominant feature, resulting in considerable reduction in scenic quality and large scale change to the intrinsic landscape character of the area.	The proposed development would become a prominent and very detracting feature and would result in a very noticeable deterioration to an existing highly valued and well composed view.
	Beneficial	The proposed development would add / remove landscape features or alter the composition of landscape components which would result in a very noticeable improvement to the landscape characteristics and scenic quality of the landscape.	The proposed development would form a prominent new attractive feature within, or result in the removal of an existing very detracting feature from, a poorly composed view leading to a very noticeable improvement to the attractiveness, composition and value of the existing view.

Significance of effect	Adverse or beneficial	Landscape effect	Visual effect
Moderate (significant)	Adverse	The proposed development is out of scale with the landscape, or inconsistent with the local pattern and landform and may be locally dominant and/or result in a noticeable reduction in scenic quality and a degree of change to the intrinsic landscape character of the area.	The proposed development would introduce some detracting features to an existing highly valued view or would be more prominent within a pleasing or less well composed view, resulting in a noticeable deterioration of the quality of view.
	Beneficial	The proposed development would add / remove landscape features or alter the composition of landscape components which would result in a noticeable improvement to the landscape characteristics and scenic quality of the landscape.	The proposed development would become a new attractive feature within, or result in the removal or partial removal of an existing detracting feature from, a poorly composed or less well composed view leading to a noticeable improvement to the attractiveness, composition and value of the existing view.
Minor	Adverse	The proposed development does not quite fit with the scale, landform or local pattern of the landscape and may be locally intrusive but would result in an inappreciable reduction in scenic quality or change to the intrinsic landscape character of the area.	The proposed development would form a perceptible but not detracting feature within a pleasing or valued view or would be a prominent feature within a poorly composed view of limited value, resulting in a small deterioration to the existing view.
	Beneficial	The proposed development would add / remove landscape features or alter the composition of landscape components which would result in a small or localised improvement to the landscape characteristics and scenic quality of the landscape.	The proposed development would form a fairly attractive feature and / or remove a fairly detracting feature from an existing less well composed view, resulting in a small improvement to the attractiveness, composition and value of the existing view.
Negligible	n/a	The proposed development sits well within the scale, landform and pattern of the landscape and would not result in any discernible reduction in scenic quality or change to the intrinsic landscape character of the area.	The proposed development would form a barely perceptible feature within the existing view and would not result in any discernible deterioration or improvement to the view.

## 2.6 Maximum design envelope parameters for assessment

2.6.1 The maximum design envelope parameters for the LVIA identified in Table 2.9 have been selected as those having the potential to result in the greatest effect on an identified receptors or receptor groups. These parameters have been identified based on the overview description of the development provided in Chapter 2: Project Description and Site Setting.

## 2.7 Impacts scoped out of the assessment

2.7.1 The impacts listed in Table 2.10 have been scoped out of the assessment for Landscape and Visual as agreed through the EIA scoping process detailed in Chapter 5: Scoping and Consultation.

Table 2.9: Maximum design envelope parameters assessed

Potential impact	Maximum design parameter	Justification
<b>Construction phase</b>		
Landscape and visual effects during construction resulting from the construction of the <b>proposed development</b>	<ul style="list-style-type: none"> <li>Construction of various aspects of the proposed development throughout the site boundary, simultaneously, based on the description of construction in Chapter 2.</li> </ul>	To assess the maximum construction work possible.
	<ul style="list-style-type: none"> <li>All construction work is assessed to occur simultaneously within the construction stage (and not in separate phases).</li> </ul>	To assess the maximum construction effects that may be experienced. This approach is taken since full details of the construction programme may not be fully defined at this stage., allowing for phases overlap or their definition change slightly.
<b>Operation phase</b>		
Landscape and visual effects during operation resulting from the introduction of the <b>proposed ground flare</b>	Structures modelled reaching a maximum height of 132 m AOD (based on max. 30 m height above an indicative ground level of 102 m AOD), with an outer diameter of 17 m. <ul style="list-style-type: none"> <li>Structure situated within this zone, based on a realistic but worst-case location.</li> </ul>	To assess the maximum extents of a built feature within a central location in this zone of the Planning Parameters Plan (Chapter 2).
Landscape and visual effects during operation resulting from the introduction of the <b>proposed electrolysis plant buildings, structures and equipment</b>	Within the <b>southern</b> part of the proposed electrolysis plant site area (including an area east of The Knock hilltop): <ul style="list-style-type: none"> <li>Buildings, structures and equipment modelled reaching a maximum height of 134 m AOD (based on 18 m height above an indicative ground level of 116 m AOD).</li> <li>Buildings, structures and equipment which are laid out within this zone, based on the approximate requirements for assorted buildings within this zone.</li> </ul>	To assess the maximum extents of built features within this zone of the Planning Parameters Plan (Chapter 2),

Potential impact	Maximum design parameter	Justification
	<p>Within the <b>northern</b> part of the proposed electrolysis plant site area:</p> <ul style="list-style-type: none"> <li>Buildings, structures and equipment modelled reaching a maximum height of 127 m AOD (based on max. 20 m height above an indicative ground level of 107 m AOD).</li> <li>Buildings, structures and equipment which are laid out within this zone, based on the approximate requirements for assorted buildings within this zone.</li> </ul>	To assess the maximum extents of built features within this zone of the Planning Parameters Plan (Chapter 2),
	<p>Within the <b>western</b> part of the proposed electrolysis plant site area (most elevated part of the site, around The Knock hilltop):</p> <ul style="list-style-type: none"> <li>Buildings, structures and equipment modelled reaching a maximum height of 128 m AOD (based on max. 8 m height above an indicative ground level of 120 m AOD).</li> <li>Buildings, structures and equipment which are laid out within this zone, based on the approximate requirements for assorted buildings within this zone.</li> </ul>	To assess the maximum extents of built features within this zone of the Planning Parameters Plan (Chapter 2),
Landscape and visual effects during operation resulting from the introduction of the <b>proposed gas connection</b>	<ul style="list-style-type: none"> <li>Buildings, structures and equipment modelled reaching a maximum height of 7 m above existing ground level.</li> </ul>	To assess the maximum extents of built features in this location.
Landscape and visual effects during operation resulting from the introduction of the <b>proposed water treatment facility</b>	<ul style="list-style-type: none"> <li>Buildings, structures and equipment modelled reaching a maximum height of 7 m above existing ground level.</li> </ul>	To assess the maximum extents of built features in this location.
Landscape and visual effects during operation resulting from the introduction of all aspects of the proposed development together.	<ul style="list-style-type: none"> <li>Operation of all aspects of the proposed development to occur simultaneously within the operational stage (and not in separate phases).</li> </ul>	To assess the maximum effects that may be experienced once the whole development is complete and operational.

Table 2.10: Impacts scoped out of the assessment

Potential impact	Justification
<b>Construction phase</b>	

Potential impact	Justification
Dunecht House GDL	Lack of potential intervisibility with the proposed development, see paragraph 3.1.7 and Figure 3.1.
Castle Fraser GDL	Lack of potential intervisibility with the proposed ground flare only, which would be largely screened by landform and trees, see paragraph 3.1.7 and Figure 3.1.
Landscape Character Type (LCT) 26	Since national LCT 26 covers the entire study area, a finer-grained landscape characterisation has been conducted to identify Local Landscape Zones (LLZs), see paragraphs 3.1.14 to 3.1.18 and Figure 3.2.
Local Landscape Zone (LLZ) 4	Limited theoretical visibility and screening of the proposed development from trees, buildings and landform, see paragraphs 3.1.19 and Figure 3.2.
Cumulative landscape and visual effects during construction	Since it is not possible to accurately predict the timing and overlap of different construction stages of various other projects: see paragraph 5.1.3.
Visual receptor locations outwith the ZTV and study area and the B987.	Since they are not considered likely to experience significant visual effects due to screening and context, or lack of ZTV cover.
<b>Operation phase</b>	
Dunecht House GDL	As above (same reason as for construction phase).
Castle Fraser GDL	As above (same reason as for construction phase).
Landscape Character Type (LCT) 26	As above (same reason as for construction phase).
LLZ 4	As above (same reason as for construction phase).
Visual receptor locations outwith the ZTV and study area and the B987.	As above (same reason as for construction phase).
Cumulative effects during operation for receptors and landscape areas that were assessed with Negligible or No View in the landscape and visual assessments for the proposed development alone	Since it is not considered that these effects could contribute to a significant cumulative effect, see paragraph 5.1.7.

## 2.8 Mitigation measures adopted as part of Kintore Hydrogen Plant

2.8.1 A number of measures have been designed into Kintore Hydrogen Plant to reduce the potential for impacts on landscape character and visual amenity. These are listed in Table 2.11, and should be read alongside the Planning Parameters Plan, shown in Chapter 2.

**Table 2.11: Designed-in mitigation measures**

Measures adopted as part of Kintore Hydrogen Plant	Justification
<i>Note: see Planning Parameters Plan (Chapter 2) for depiction of areas referenced here</i>	
Zoning of the southern part of the proposed electrolysis plant site area (including an area east of The Knock hilltop), to comprise built features that would have a maximum roof height of 134 m AOD (based on 18 m height above an indicative ground level of 116 m AOD).	To minimise adverse landscape and visual effects, particularly on visual receptors to the immediate south of the proposed electrolysis site
Zoning of the northern part of the proposed electrolysis plant site area, to comprise built features that would have a maximum roof height of 127 m AOD (based on max. 20 m height above an indicative ground level of 107 m AOD).	To minimise adverse landscape and visual effects and provide sensitive integration of the development with the site topography
Zoning of western part of the proposed electrolysis plant site area (most elevated part of the site, around the hilltop), to comprise built features that would have a maximum roof height of 128 m AOD (based on max. 8 m height above an indicative ground level of 120 m AOD (i.e. not exceeding existing hilltop elevation within this part of the site).	To minimise adverse landscape and visual effects and provide sensitive integration of the development with the site topography
Retention of existing vegetation within and around the proposed electrolysis plant site area.	To minimise landscape and visual effects and retain existing screening and landmark natural features and areas for biodiversity
Zoning of proposed electrolysis plant site area to allow space for further landscape planting, habitat creation and enhancement. <i>NB. Retention of existing trees and habitat is considered in the initial assessment of impacts as noted above. The potential benefit of further mitigation or enhancement through landscape planting and earthworks is not considered in the initial assessment of effects; the mitigation of residual effects from such proposals is described in Section 4.</i>	To factor in required space for further landscape mitigation, habitat creation and enhancement.
A proposed Grampian planning condition to prevent commissioning and operation of the proposed development until the two nearest residential properties at Dewsford have been vacated.	Primarily to mitigate noise impacts but also avoids operational phase visual impacts at these receptors.
Built elements of proposed electrolysis plant site area are set back from minor road to the south of the site through zoning of the site.	To minimise adverse landscape and visual effects, particularly on visual receptors to the immediate south of the proposed electrolysis site.
Trenchless techniques such as horizontal directional drilling will be employed where required for pipeline and electrical export cable crossings of existing woodland or important hedgerows, to be detailed prior to construction.	To minimise/ avoid loss of existing vegetation and minimise landscape and visual effects.
Restoration of existing landscape following temporary construction works for pipeline and electrical export cable trenching and temporary haul roads.	To minimise landscape and visual effects following completion of construction works.

2.8.2 The above 'designed-in' mitigation measures are assessed in the LVIA for construction and operational effects.

2.8.3 These differ to further mitigation or enhancement measures, which are described in Section 4, under paragraphs 4.2.7 to 4.2.12, and comprise landscape earthworks and planting and other aspects of the masterplan and architectural design. These are not considered in the initial assessment of construction and operational effects, but the potential for further mitigation or enhancement is discussed in Section 4 in relation to further mitigating residual effects during operation.

## 3 Baseline Environment

### 3.1 Current baseline

3.1.1 Within the LVIA, the 'current baseline' is defined as the baseline observed on site in April 2024.

#### Landscape baseline

3.1.2 The proposed development is located approximately 3 km to the west of Kintore town centre in Aberdeenshire, in agricultural fields to the immediate south-west of the existing Kintore Substation and the 400 kV Substation Extension. The surrounding land use is predominantly agricultural with a mix of arable crops and grazing. There are also a number of blocks of coniferous plantation forestry and policy woodland in the area.

3.1.3 Within the local area, settlement is concentrated in the two main towns of Kintore and Kemnay as well as dispersed dwellings and farmsteads and smaller settlements including the closest properties at Leylodge, Dewsford and Leylodge Schoolhouse. This is a relatively settled rural area connected by a network of minor rural roads, the A96 trunk road, and several B roads including the B994, B977, B993 and B9126. Several high-voltage overhead power lines (OHLs) cross the study area and wider landscape connecting to the Kintore Substation and its extensions as well as some domestic and commercial scale wind turbines to its east and west, a quarry to the north, industrial related features (including a stack tower and a wind turbine to the north) and agricultural sheds and warehouses.

3.1.4 This is a landscape of low gently rounded hills and broad valleys with dense woodlands and shelterbelts that create a pattern of contrast between open farmland with extensive views and more enclosed areas contained by woodlands.

#### Designated and protected landscapes

3.1.5 Landscapes can be ascribed an international, national, regional or local designation that recognises the importance of the landscape for its scenic interest or attractiveness. Areas of landscape may also be protected by planning policy at either a national or regional level.

3.1.6 The following designated or protected landscapes fall within the study area (see Figure 3.1):

- Castle Fraser Garden and Designed Landscape (GDL);
- Dunecht House GDL; and

- Bennachie Special Landscape Area (SLA).

3.1.7 *Dunecht House GDL* has been scoped out of further assessment due to the lack of potential intervisibility with the proposed development. *Castle Fraser GDL* has also been scoped out of further assessment due to the limited potential intervisibility with the ground flare of the proposed development only (see Figure 2.1), which would be largely screened by landform and trees.

3.1.8 One landscape area identified for inclusion in the assessment is described below.

#### Bennachie SLA

3.1.9 SLA is a local landscape designation applied by Aberdeenshire Council through the development planning process to landscapes identified as being of regional or local importance. The Special Qualities of Aberdeenshire SLAs are identified in Appendix 13 of the Aberdeenshire LDP (Aberdeenshire Council, 2023) [6]

3.1.10 *Bennachie SLA* covers the eastern part of the study area, including Cottown Wood, Aquhythie and part of Kemnay. Its eastern boundary follows the B993 road through Kemnay.

3.1.11 The features for which *Bennachie SLA* has been recognised are listed below. Further baseline description is contained in Appendix 6.2.

- *"Bennachie and, in particular, the summit of Mither Tap with its fortifications, is the iconic hill range of central Aberdeenshire, which is instantly recognisable from across the wider landscape, in both long and short range views.*
- *Intact land cover of heather moorland on the main Bennachie ridge.*
- *Extensive woodland across lowland and upland, including native woods, estate policies and forestry plantations, with a substantial amount recognised as ancient woodland.*
- *Hillforts are found on summits such as Mither Tap and Tillymuick, along with earlier prehistoric cairns and later post-medieval granite quarries, which emphasise the long history of settlement in the region. On the lower slopes lies the remains of the Early Medieval centre of Maiden Castle, and the later 19th century Colony site, which forms an important part of the oral history in the area.*
- *The River Don is a key feature of Aberdeenshire, meandering through the upland glen south of Bennachie and across the farmland around Kemnay.*
- *The farmland to the east provides the setting to Bennachie, but also typifies lowland Aberdeenshire with its mosaic of wooded estates and open farmland.*

- *Bennachie is valued for its range of formal and informal recreational opportunities and is a hugely popular area, with walkers enjoying the spectacular views from the Bennachie summits, and Pitfichie being a centre for mountain biking.*
- *Panoramic views from the upland areas, particularly from the Bennachie summits, over the Don Valley and beyond to the patchwork of Aberdeenshire farmland.”*

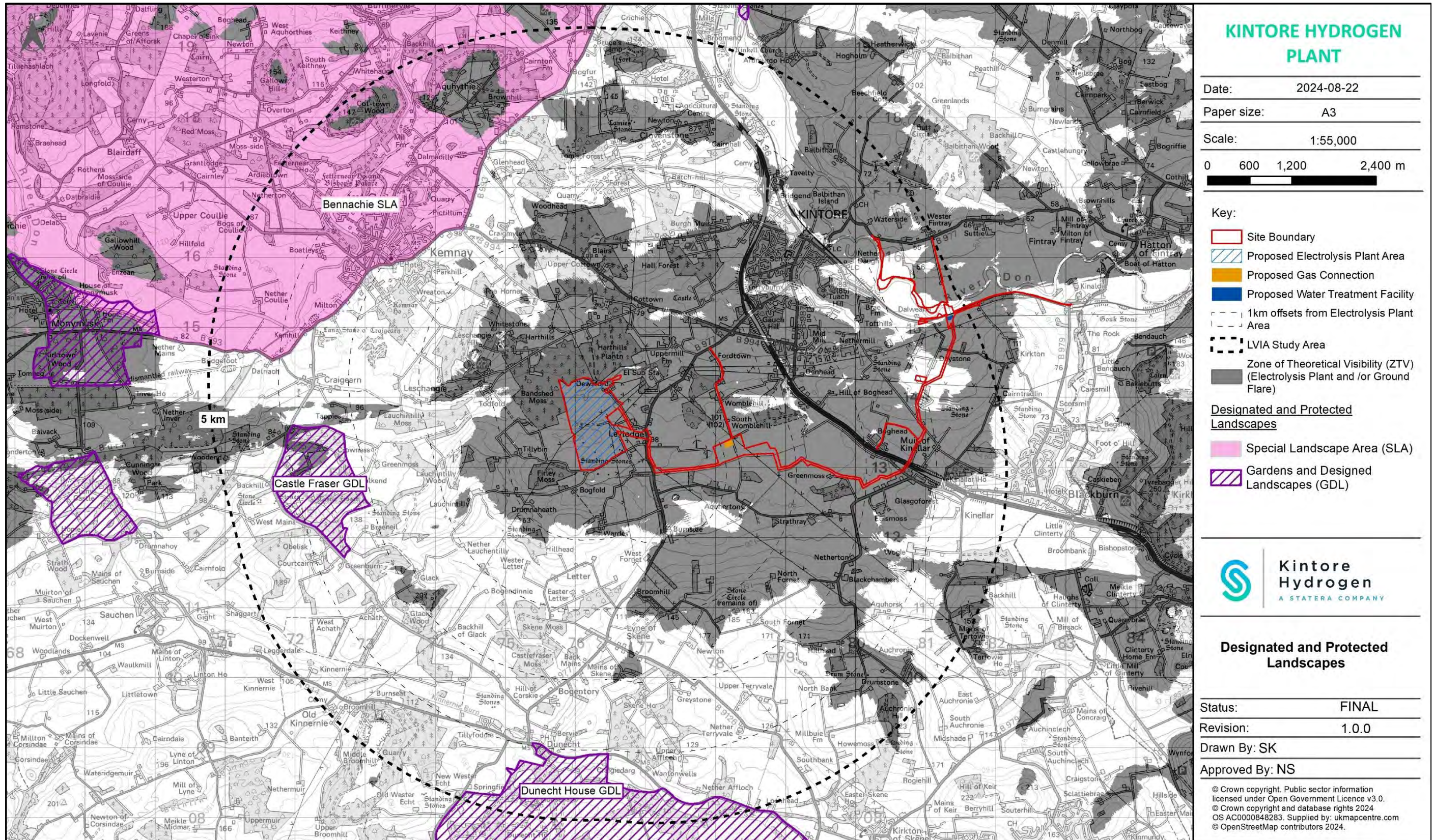


Figure 3.1: Designated and protected landscapes

**Landscape character**

3.1.12 NatureScot (formerly SNH), in conjunction with partner councils, has undertaken a detailed review and classification of the landscape areas and types of Scotland. This study, updated most recently in 2019, identifies numbered Landscape Character Types (LCTs) across Scotland (SNH, 2019) [15].

3.1.13 The study area (and the area beyond) is contained within one national LCT: *LCT 26: Wooded Estates – Aberdeenshire*. This area is described by NatureScot (SNH, 2019) [15] as “a landscape of low hills and wide valleys, with dense woodland as a consistent feature”. NatureScot also note the following key characteristics:

- “Rolling landform of low gently rounded hills and broad valleys.
- Occasional low-lying basins are filled with mosses or lochs.
- Strong woodland structure associated with numerous estate policies.
- Mixed farmland with varying size and pattern of fields, these enclosed by a mix of fences, low stone walls and, in places, thick mixed shelterbelts and field trees.
- Occasional mosses are ringed by birch and Scots pine.
- Numerous and varied archaeological features occur in this landscape and include henges, carved stone balls, recumbent stone circles and Pictish monuments.
- Well settled with a large number of towns and villages. More recent settlement expansion and housing development is particularly evident closer to Aberdeen.
- Significant network of roads radiating out from Aberdeen.
- Long views across open farmland contrast with sudden enclosure by woodland as one passes through this landscape. The prominent Grampian Outlying Hills and Ridges often form a focus in these views.”

3.1.14 A finer-grained landscape characterisation has been conducted and four Local Landscape Zones (LLZs) have been identified within the study area to reflect the landscape baseline context at the time of assessment. These LLZs are shown on Figure 3.2, and described below:

LLZ 1 – Undulating Open Farmland

3.1.15 An open but diverse landscape with fields interspersed with frequent small areas of woodland. It is a relatively well-settled landscape, crossed by a number of roads and the railway which passes to the east of Kintore. It also contains electricity infrastructure including Kintore Substation (including under-construction extensions) and the

associated concentration of OHLs which contribute to a slightly more industrial rural landscape character in some places. Some small-scale wind turbines are present, as well as agricultural sheds and warehouses. Long-ranging, extensive views are obtained from some of the more elevated across farmland and forests within the wider landscape, with some views out towards distant hills including the landmark hill of Bennachie.

LLZ 2 – Undulating Forested Farmland

3.1.16 Undulating farmland which shares many similarities with *LLZ 1*, but with a higher degree of woodland cover and commercial forestry, which gives it a generally more enclosed character, although more open, elevated areas occasionally offer extensive views over the patchwork of fields and forestry. Settlement consists of scattered cottages and small settlement clusters, connected by a well-developed network of roads, with some industrial development and transmission infrastructure crossing the landscape.

LLZ 3 – Settled / Industrial

3.1.17 This LLZ encompasses the settlements of Kintore and Kemnay within the study area, as well as areas with a more industrial character along the A96 transport corridor, around the edges of Kintore and near Kinellar, and generally include a mixture of residential development, commercial premises, and industrial buildings. From areas at the outskirts of this LLZ or from elevated areas there are open views out towards surrounding farmland and forests, but often buildings and adjacent areas of woodland provide a sense of enclosure.

LLZ 4 – Wooded Estates

3.1.18 Encompassing Castle Fraser and Dunecht House GDLs, this LLZ shares similarities with *LLZ 1*, although there is a higher degree of woodland cover, often associated with estate policies. It is well settled, with a number of small settlements, estate houses and farmhouses, served by a road network including the A944.

3.1.19 *LLZ 4* is not considered likely to experience significant landscape effects, due to limited theoretical visibility and screening of the proposed development from trees, buildings and landform. This has been informed by analysis of the ZTV and site appraisal of potential effects. This LLZ is therefore scoped out detailed assessment.

3.1.20 The assessment therefore focusses on potential effects of the proposed development on the landscape character of *LLZ 1*, within which it would be situated, as well as *LLZs 2 and 3*. A full description of baseline landscape characteristics for these LLZs is detailed in Appendix 6.2.



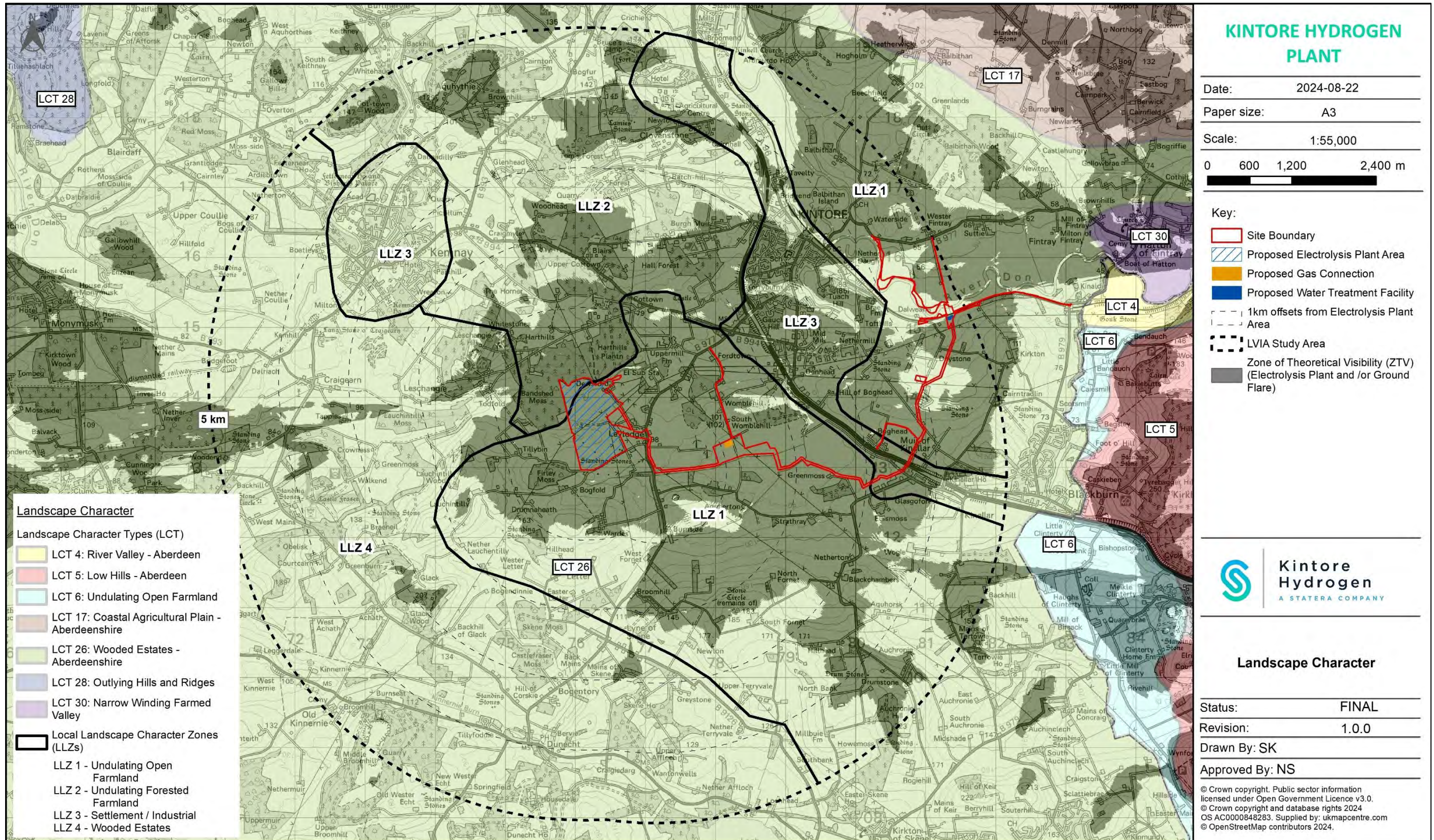


Figure 3.2: Landscape character

### Visual baseline

3.1.21 The visual context of this area varies from more contained views partially enclosed by undulating landform and areas of dense woodland and shelterbelt vegetation to those with extensive views across the landscape to distant hills. Many views feature OHLs crossing the landscape and from some locations Kintore Substation is visible, although to the north and west it is relatively screened within dense forestry. A number of roads cross the study area, and small-scale wind turbines and agricultural sheds are present.

#### Visual receptor locations

3.1.22 Visual receptors within the ZTV have been identified in the study area.

3.1.23 Visual receptors with the potential for significant visual effects have been included in the assessment (identified on Figure 3.4 and described in Appendix 6.3) and are grouped for discussion as follows:

- receptors in buildings: 26 buildings / building clusters (*B1 – B26*) have been identified within the study area and ZTV from which receptors may have views of the Proposed Development. These comprise receptors immediately to the south and south-west of the proposed development, to the east and south-east and to the north.
- receptors on routes: six routes / route groupings (*R1 – R6*) have been identified within the study area and ZTV from which receptors may have views of the Proposed Development. These include the A96 (*R1*), B977 (*R2*), B994 (*R3*) railway (*R4*) and core paths in and around Kintore (*R5*) and core paths south-east of Kintore (*R6*).

3.1.24 The B987 road, which runs through Kintore and is labelled on Figure 3.3, is scoped out of assessment due to lack of potential for significant effects, due to screening and context. Receptors in other locations outwith the ZTV and study area are also not included in the assessment as they are not considered likely to experience significant visual effects (but are identified broadly on Figure 3.3 for reference).

3.1.25 Receptors would include people who live and work in the local area, and visitors to the area.

### 3.2 Future baseline

3.2.1 The baseline landscape and visual resource of the study area is not anticipated to alter noticeably in future years. Whilst there may be some continued development or ongoing changes to forestry or tree cover, this is not anticipated to lead to any very noticeable change to the wider landscape characteristics of the study area or visual amenity.

3.2.2 The UKCP18 dataset published by the Met Office [17] predicts that the UK will experience a trend of warmer, wetter winters and hotter, drier summers during the lifetime of the proposed development, and there is likely to be an increase in storm events. While this may influence the landscape and visual baseline context, it is difficult to predict the exact nature of the type of changes likely to occur.

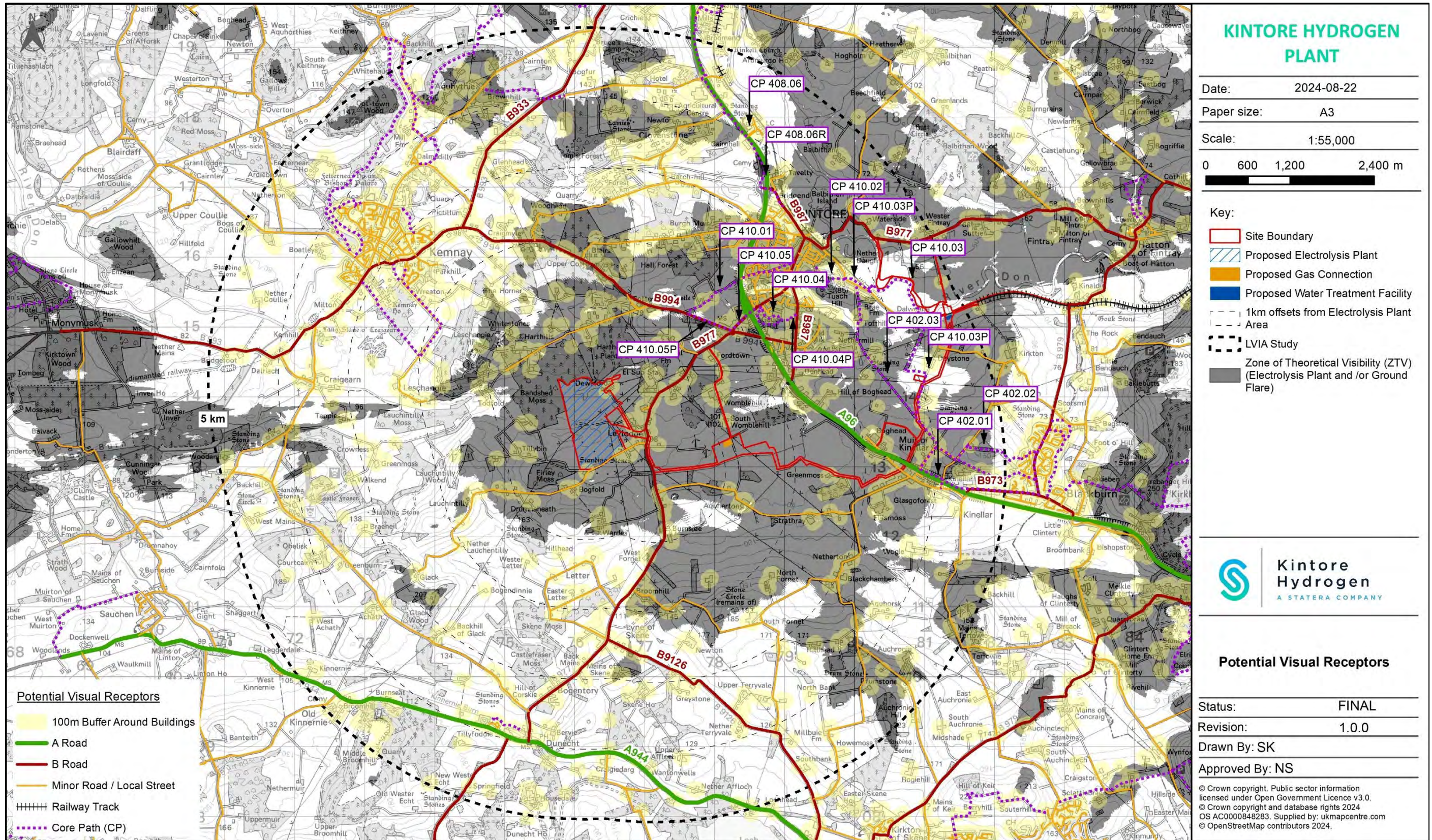


Figure 3.3: Potential visual receptors

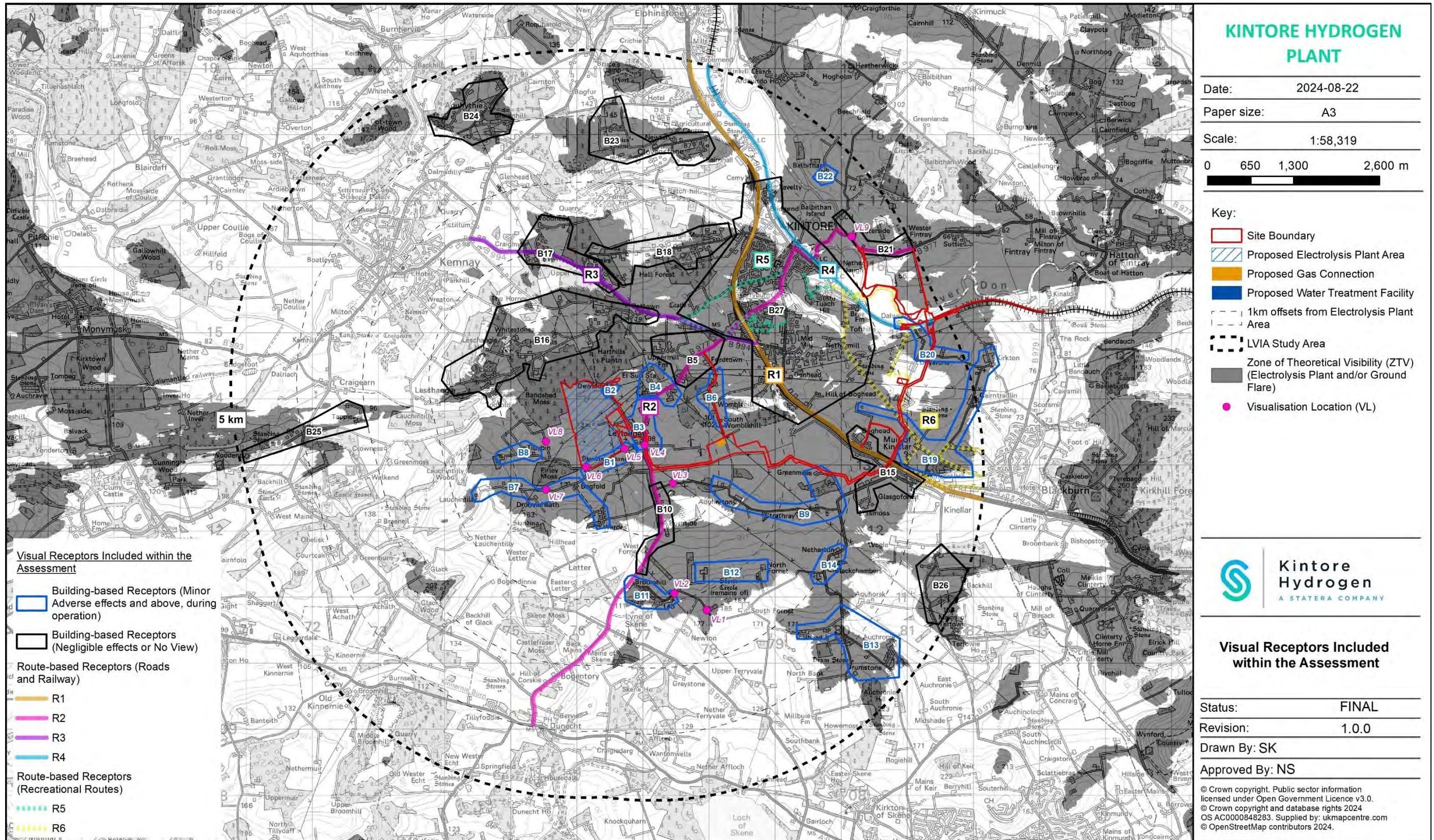


Figure 3.4: Visual receptors included within the assessment

## 4 Assessment of Effects

- 4.1.1 This section provides an assessment of landscape effects of the proposed development, following by an assessment of visual effects. Within each of these sections, construction effects are discussed first, followed by operational effects, and opportunities for further mitigation or enhancement and residual effects. This is followed by a consideration of inter-related effects.
- 4.1.2 The detailed assessments are provided in the following appendices:
- Appendix 6.2 – Landscape Assessment Tables; and
  - Appendix 6.3 – Visual Assessment Tables.
- 4.1.3 The appendices provide descriptions of receptor sensitivity, the nature and magnitude of change and effect significance for each receptor in line with the definitions in Section 2.5.
- 4.1.4 The key findings of the assessment are discussed below, to be read in conjunction with Figure 3.1 and Figure 3.2 for the landscape assessment and Figure 3.4 for the visual assessment.

### 4.2 Landscape effects

#### Construction phase

##### Significant effects

- 4.2.1 During construction, some localised significant landscape effects are predicted to occur within part of *LLZ 1 (Undulating open farmland)*, where there would be a **locally moderate-major adverse** (significant) effect within the immediate context of the proposed electrolysis plant site (up to around 1 km). Construction works associated with the proposed electrolysis plant site would be locally noticeable within the immediate landscape context.
- 4.2.2 Works associated with the proposed hydrogen and water pipelines, gas connection compound (above-ground installation), water abstraction and discharge point with pumping station, and other underground services would also be experienced on lower ground. Significant construction effects would therefore be localised across the majority of this LLZ, and construction effects would be **elsewhere minor adverse** (not significant).

##### Non-significant effects

- 4.2.3 As noted above, construction effects on the wider part of *LLZ 1* would not be significant. All other construction effects on landscape areas are also predicted to be not significant, within both *LLZ 2 (Undulating forested farmland)* and *LLZ 3 (Settled / Industrial)*, where **negligible** effects are predicted. Construction effects on *Bennachie SLA* are also predicted to be **negligible**, whereby no perceptible changes are predicted to the landscape character of the SLA or to any of the Special Qualities.

#### Operational phase

##### Significant effects

- 4.2.4 During operation, localised significant landscape effects are predicted to occur within part of *LLZ 1 (Undulating open farmland)*, where there would be a **locally moderate adverse** (significant) effect within the immediate context of the proposed electrolysis plant site (up to around 1 km). The proposed electrolysis plant site would become a noticeable feature within the immediate local context, where it would increase the sense of development and industrial character. These localised significant effects would largely relate to the southern part of the site and surrounding context, as well as the area occupied by the electrolysis site itself. Effects of the northern part of the electrolysis site would be considerably limited by landform, tree cover and context adjacent to the substation extension.
- 4.2.5 From other parts of this landscape, it would be experienced in the context of Kintore Substation and other electrical infrastructure, and often contained by surrounding trees and buildings. Therefore, while it would form a new feature in the landscape, it is unlikely that it would become a distracting feature or compromise the overall landscape characteristics within the wider LLZ. Significant operational effects would therefore be localised across the majority of this LLZ, and operational effects would be **elsewhere minor adverse** (not significant).

##### Non-significant effects

- 4.2.6 As noted above, operational effects on the wider part of *LLZ 1* would not be significant. All other operational effects on landscape areas are also predicted to be not significant, within both *LLZ 2* and *LLZ 3*, where **negligible** effects are predicted. Operational effects on *Bennachie SLA* are also predicted to be **negligible**, whereby no perceptible change are predicted to the landscape character of the SLA or to any of the Special Qualities.

### Further mitigation or enhancement

- 4.2.7 In addition to the designed-in mitigation which forms part of the proposed development (discussed in Section 2.8), there is opportunity for further mitigation and enhancement which would contribute to the mitigation of adverse landscape and visual effects of the proposed development.
- 4.2.8 These measures will be designed in detail during stages of the planning and design process following the Planning Permission in Principle stage. The proposals are described at a high level at this stage, based on the zones in the Planning Parameters Plan (Chapter 2). In summary, the landscape mitigation measures, shown broadly on Figure 4.1, Figure 4.2 and Figure 4.3 are proposed to incorporate the following:
- Proposed electrolysis plant site:
    - Earthworks and native woodland planting along the southern site boundary (between the minor road and proposed electrolysis plant site, avoiding constraints such as cultural heritage asset and OHL routes) (see Area 1 on Figure 4.1);
    - Native woodland planting on the eastern and western peripheries of the proposed electrolysis plant site (see Areas 2 and 4 on Figure 4.1),
    - Native woodland planting to the north-east of the proposed electrolysis plant site, near Dewsford (see Area 3 on Figure 4.1).
  - Proposed gas connection:
    - Native woodland and/or hedge planting surrounding the proposed gas connection compound and other infrastructure (see Area 5 on Figure 4.2); and
  - Proposed water treatment facility:
    - Native woodland planting around the southern, eastern and western sides of the proposed water treatment works and other infrastructure (see Area 6 on Figure 4.3).
- 4.2.9 Within other parts of the electrolysis plant site, there may be potential for further integrated landscape planting to be proposed, designed around built features and infrastructure, which is indicated with labels on Figure 4.1. This is discussed further in the Design Principles Statement accompanying the planning application. Although opportunities for further planting are indicated on Figure 4.1 and in the illustrative landscaping plans in the Design Principles Statement, to be conservative the additional potential planting is not assessed in residual effects, since the locations and potential for this is not confirmed at this stage.

### Design Principles Statement

- 4.2.10 Further details regarding design principles relating to landscaping and opportunities for more landscaping, building on the further mitigation outlined in this chapter, can be found in the Design Principles Statement (DPS). The DPS aims to serve as a 'roadmap' and source of guidance and recommendation for future detailed design stages. It includes an Illustrative Landscape Masterplan, which shows more areas of landscape mitigation and more detail, albeit still at a high level at this stage for further refinement pre-construction. The DPS includes recommendations for mitigation including a carefully considered and sensitive approach to the proposed electrolysis site masterplan layout and design, use of materials and colours, architectural style, and levels, which would help further mitigate landscape and visual effects.
- 4.2.11 A key principle of the DPS is the phasing of landscape planting. Although a maximum extent of construction works at one time has been assessed in this chapter as a worst case, (see Table 2.9), construction of the electrolysis plant element of the proposed development is more likely to be in phases, with the first phase being in the northern part of the main electrolysis plant site; and the second phase in the south. However, as indicated in the DPS, large areas of landscaping around the periphery of the site (including in the southern part of the electrolysis site) would be implemented during the first phase of development. This would enable it to become established and maximise the screening effect for subsequent development phases, mitigating both construction and operational effects.
- ### Habitat creation
- 4.2.12 Further mitigation or enhancement relating to habitat creation and enhancement and biodiversity net gain is discussed in Chapter 8: Ecology and Biodiversity and the Outline Biodiversity Enhancement and Management Plan (OBEMP).
- ### Residual effects
- 4.2.13 It is anticipated that with the above further mitigation or enhancement measures in place, landscape effects can be further reduced during the operational phase of the proposed development, once planting has had the opportunity to establish and mature.
- 4.2.14 With implementation of the further mitigation or enhancement measures as described in outline at this stage, this is expected to contribute to the assimilation of the proposed development within the landscape, both through screening, and through its design which would relate it to other built features in the landscape.

- 4.2.15 Effective mitigation, in line with the outline proposals and with a requirement for detailed landscaping design to be secured by planning condition, would therefore be expected to reduce significant operational effects (localised within *LLZ 1*, particularly relating to the southern part of the electrolysis site) to **not significant**.

#### Future monitoring

- 4.2.16 It is recommended that further mitigation or enhancement, relating to landscape mitigation measures, be implemented in accordance with principles set out in the Design Principles Statement, and in line with best practice and the OBEMP in order to help integrate the proposed development into the surrounding landscape and minimise effects on landscape character and visual amenity, including appropriate maintenance and monitoring to ensure the successful establishment of planting. As noted in the DPS, this will typically include a programme of aftercare and maintenance with monitoring the success of landscape planting establishment during a five year period.

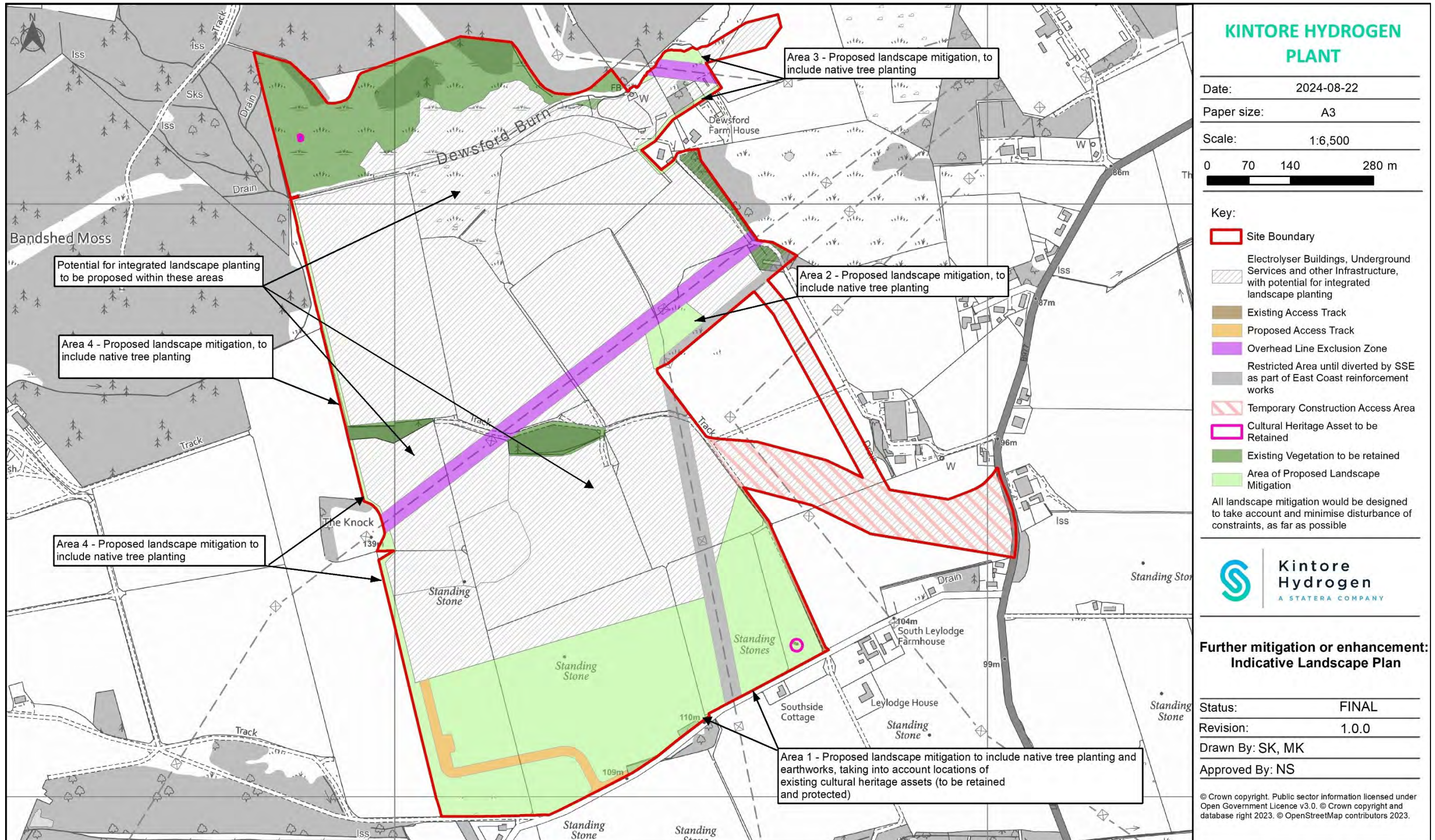


Figure 4.1: Further mitigation or enhancement: indicative landscape plan (electrolysis plant site)





Figure 4.2: Further mitigation or enhancement: indicative landscape plan (above-ground installation site)



Figure 4.3 Further mitigation or enhancement: indicative landscape plan (pumping station and potential water treatment plant site)

## 4.3 Visual effects

### Construction phase

#### Significant effects

##### Significant construction effects for building-based receptors

- 4.3.1 During construction, there would be a small number of localised significant effects on building-based receptors in *B1*, *B2*, *B3* and *B7* which are located within close proximity to the proposed electrolysis plant site. These would comprise the following:
- There would be **major adverse** (significant) construction effects on *B2 (Dewsford)*, where construction activity associated with the proposed electrolysis plant site would be visible in close proximity in multiple directions, in open views.
  - There would be **moderate-major adverse** (significant) construction effects on *B1 (properties including South Leylodge and Leylodge Schoolhouse)*, where construction works and associated traffic would be visible in close proximity, associated with the proposed electrolysis plant site. The formation of a new permanent access road would also be visible from some properties within this receptor grouping, although partially screened / filtered by trees in some views.
  - There would be **moderate adverse** (significant) construction effects on *B3 (properties including Leylodge, East Leylodge and North Leylodge)*, where construction works associated with the proposed electrolysis plant site would be visible in close proximity to the west. Construction traffic would also be visible from these receptors, along the B977 and on the new temporary construction access off the B977.
  - There would also be **moderate adverse** (significant) construction effects on *B7 (properties including Bogfold, Drumnaheath and Wardes)*, where there would be elevated views towards the proposed electrolysis plant site to the north / north-east, with construction works visible on the hillside.

##### Significant construction effects for route-based receptors

- 4.3.2 There would be a **moderate adverse** (significant) construction effect on *R2 (B977)* from which there would be views of construction works associated with the proposed underground services from a short section in close proximity; and views of construction associated with the proposed electrolysis plant site slightly further from the route.

#### Non-significant effects

##### Non-significant construction effects for building-based receptors

- 4.3.3 All other construction effects for building-based receptors are predicted to be not significant.
- 4.3.4 There would be some **minor-moderate adverse** (not significant) construction effects from the following receptors in *B6*, *B8*, *B11*, *B12*, *B15*, *B19* and *B20*:
- *B6 (properties including Womblehill and South Womblehill)*, who would experience views of construction traffic which would be using the access route to these properties, as well as construction works associated with the proposed gas connection from receptors at South Womblehill;
  - *B8 (properties including Tillybin)*, from which there would be views of construction activities associated with the proposed electrolysis plant site in main views east;
  - *B11 (properties including Broomhill)* and *B12 (properties including Little Fonet and North Fonet)*, from which there would be some relatively distant views of construction works associated with the proposed electrolysis plant site;
  - *B15 (Kinellar)* from which construction works associated with the proposed water pipeline would be visible in close proximity from some properties, including potential horizontal directional drilling (HDD) compounds either side of the A96;
  - *B19 (Muir of Kinellar, Kinellar House and other properties north of the A96)* from which construction works associated with the proposed water pipeline would be visible in close proximity; and
  - *B20 (Wood Cottage and other properties)* who would experience views of nearby construction activities associated with the proposed water pipeline, abstraction and discharge point, and pumphouse with potential associated water treatment works.
- 4.3.5 There would be **minor adverse** (not significant) construction effects from the following receptors in *B4*, *B9*, *B13*, *B14* and *B22*:
- *B4 (properties near Kintore Substation)*, from which construction works associated with the proposed electrolysis plant site may be perceptible in partially filtered views west, in the context of Kintore Substation;
  - *B9 (properties including Aquherton and Strathray)*, from which construction works associated with the proposed electrolysis plant site may be perceptible on the hillside to the north-west, with potential views of works associated with the proposed water pipeline, hydrogen pipeline and gas connection to the north;

- *B13 (properties including Hillhead, Drumstone and North Croft)*, from which there may be views of the proposed electrolysis plant site from some properties in more open positions;
- *B14 (properties including Netherton and Blackchambers)*, from which the proposed electrolysis plant site may be perceptible in some filtered oblique views to the north-west; and
- *B22 (Balbithan)* from which construction works associated with the proposed electrolysis plant site would be visible to the south-west on the distant hillside behind Kintore, partially behind Kintore Substation from some properties. Construction works on the River Don may be perceptible but potentially screened / filtered by intervening trees and / or landform.

4.3.6 From all other building-based receptors, construction effects are predicted to be **negligible**.

Non-significant construction effects for route-based receptors

4.3.7 There would be **minor-moderate adverse** (not significant) construction effects on *R6 (Core Paths south-east of Kintore)* due to the close proximity to the proposed water pipeline, abstraction and discharge point, and pumphouse with potential associated water treatment works. This would result in some disturbance during construction, including potential views of construction activities associated with the proposed water treatment plant from Core Path 410.03.

4.3.8 All other construction effects on route-based receptors would be **negligible** and non-significant. Although the proposed water pipeline would cross *R1 (A96)* and so construction compounds for HDD works to cross under the A96 may be perceptible for a very short section, this would not affect the visual experience of users of this route.

**Operational phase**

**Significant effects**

Significant operational effects for building-based receptors

4.3.9 During operation, there would be a small number of localised significant effects on building-based receptors in *B1, B2* and *B7*, which are located within close proximity of the proposed electrolyser plant site.

4.3.10 These include **moderate-major adverse** (significant) operational effects on the following receptors:

- *B1 (properties including South Leylodge and Leylodge Schoolhouse)*, from which the proposed electrolysis plant site would be very noticeable in close proximity to the north in some of the more open views, seen in the context of transmission towers; and
- *B2 (Dewsford)*, from which the proposed electrolysis plant site would be visible in open views in very close proximity to the north, south and west.

4.3.11 There would also be a **moderate adverse** (significant) operational effect on *B7 (properties including Bogfold, Drumnaheath and Wardes)*, where there would be some open, elevated main views towards the proposed electrolysis plant site from some of these properties. The proposed development would appear noticeable in the view, although it would be seen in context of transmission towers crossing the landscape.

Significant operational effects for route-based receptors

4.3.12 There would be no significant effects from route-based receptors during the operational phase of the proposed development.

**Non-significant effects**

Non-significant operational effects for building-based receptors

4.3.13 All other operational effects for building-based receptors are predicted to be not significant.

4.3.14 This includes **minor-moderate adverse** (not significant) operational effects on receptors in *B3* and *B20*:

- *B3 (properties including Leylodge, East Leylodge, and North Leylodge)*, from which the proposed electrolysis plant site would be visible in close proximity in some main, rear and side views to the west, in the context of transmission towers and seen in some views adjacent to Kintore Substation. From some properties within this receptor group, views would be screened or filtered by vegetation and other buildings; and
- *B20 (Wood Cottage and other properties)*, from which the proposed pumphouse and potential water treatment facility and associated access would be visible from some properties within this receptor group in close proximity, where there are more open views towards the River Don (although would be seen below the skyline). From other properties in this group, they would be screened/filtered by vegetation.

4.3.15 There would also be **minor adverse** (not significant) operational effects from the following receptors in *B4, B6, B9, B11 – B14, B19* and *B22*:

- *B4 (properties near Kintore Substation)*, from which the proposed electrolysis plant site may be seen to the west in the context of Kintore Substation, partially screened by trees and buildings;
- *B6 (properties including Womblehill and South Womblehill)*, from which the proposed electrolysis plant site may be partially visible, partially behind trees and in the context of transmission towers and wind turbines in the same part of the view. The proposed gas connection (above-ground installation) would also be visible in open main views south. From other properties the proposed development would likely be screened by buildings and vegetation;
- *B9 (properties including Aquherton and Strathray)*, from which the proposed electrolysis plant site would be visible at some properties with more open side / oblique views north-west, where it would be perceptible on the hillside, partially screened by trees;
- *B11 (properties including Broomhill)*, from which the proposed electrolysis plant site would be visible at properties within the eastern part of this receptor group in the valley below, seen to the west of Kintore Substation and in the vicinity of transmission towers, backclothed against forestry;
- *B12 (properties including Little Fonet and North Fonet)*, from which there would be oblique views towards the proposed electrolysis plant site, seen in the context of Kintore Substation and transmission towers, although views from Little Fonet would likely be screened by forestry;
- *B13 (properties including Hillhead, Drumstone and North Croft)*, from which the proposed electrolysis plant site would be visible at some properties in more open positions, in main / oblique distant views in the context of small-scale wind turbines, transmission towers and other industrial development, while it would be screened by intervening trees and woodland from other properties. It would become a perceptible feature, but form a small part of the overall view;
- *B14 (properties including Netherton and Blackchambers)*, from which the proposed electrolysis plant site may be perceptible in some filtered, oblique views, seen against forestry in the distance, while it would be screened in views from other properties by trees and other buildings;
- *B19 (Muir of Kinellar, Kinellar House and other properties north of the A96)*, from which the proposed development would be visible in some more open views, seen on the distant valley floor adjacent to Kintore substation. It would be seen in relatively distant views, within an already developed context, and would occupy a small part of the overall view where visible; and

- *B22 (Balbithan)*, from which the proposed electrolysis plant site would be visible on the distant hillside behind Kintore, partially behind Kintore Substation. It would be seen as a relatively small part of the overall elevated view, within a developed context. Views from some properties may be filtered or screened by vegetation or other buildings.

4.3.16 Operational effects on all other building-based receptors would be **negligible**.

Non-significant operational effects for route-based receptors

4.3.17 There would be a **minor adverse** (not significant) operational effect on *R2 (B977)*, from where there would be passing views of the proposed electrolysis plant site, seen on the hillside from a section of this route, experienced in sequential views with Kintore Substation and a recently constructed battery storage facility along this road.

4.3.18 There would also be a **minor adverse** (not significant) operational effect on *R6 (Core Paths south-east of Kintore)*, from where there would be some open, elevated views towards the proposed electrolysis plant site, particularly from Core Path 402.03, 402.01 and 402.02. The proposed electrolysis plant site would be perceptible on the distant hillside adjacent to Kintore Substation. The proposed pumphouse, potential associated water treatment works and abstraction / discharge point on the River Don would also be visible nearby from some parts of this route group, particularly CP 10.03.

4.3.19 Operational effects on all other route-based receptors would be **negligible**.

**Further mitigation or enhancement**

4.3.20 The further mitigation and enhancement that has been described in paragraphs 4.2.7 to 4.2.12 would provide further mitigation of visual impacts.

**Residual effects**

4.3.21 It is anticipated that with the above further mitigation or enhancement measures in place, visual effects can be further reduced during the operational phase of the proposed development, once planting has had the opportunity to establish and mature. These are described below as residual effects.

4.3.22 With implementation of the further mitigation or enhancement measures as described in outline at this stage, this is expected to contribute to screening of the proposed development from visual receptors and its reduced perceptibility through careful and sensitive design. This would be expected to reduce visual effects for several receptors, including:

- Earthworks and native woodland planting along the southern and eastern edges of the proposed electrolysis plant site (see Areas 1 and 2 on Figure 4.1) would be

expected to reduce visual effects from receptors at *B1* to non-significant levels, and also to reduce visual effects from other nearby receptors to the south and south-east such as in *B3*. While it may reduce effects from receptors at *B7*, by softening the appearance of the proposed electrolysis plant site, there may still be some residual significant effects to this receptor, dependant on the level of mitigation possible, due to the elevated nature of views for a small number of properties (three or fewer). Although not assessed in the LVIA, maturing of screening planting of the type proposed in the Illustrative Landscape Masterplan in the Design Principles Statement together with the other design measures described in that document could potentially reduce effects to not significant in the longer term. Other more distant visual receptors in the wider area may also experience reduced operational effects relating to landscape mitigation in this area.

- Proposed planting to the north-east of the proposed electrolysis plant site, near *B2* (see Area 3 on Figure 4.1) may help reduce visual effects to receptors in this location, although there would likely be some residual significant effects to this receptor due to the proximity to the proposed development and relative heights of proposed built features. As noted in Table 2.11, a Grampian condition is proposed to ensure that commissioning and operation of the development cannot occur unless these properties are vacant, and therefore, this location would not be considered a visual receptor location for the operational phase.
- Proposed planting along the western edge of the proposed electrolysis plant site would be expected to slightly reduce effects for receptors to the west, such as in *B8*.
- Proposed planting around the proposed gas connection would be expected to help further reduce visual effects from *B6*.
- Proposed planting around the proposed water treatment facility would be expected to reduce visual effects from *B20* and *B22*, as well as *R6*.

### Future monitoring

4.3.23 See paragraph 4.2.16.

## 4.4 Inter-related effects

4.4.1 Inter-relationships are considered to be the impacts and associated effects of different aspects of the construction or operation of Kintore Hydrogen Plant on the same receptor.

### Project lifetime effects

- 4.4.1 This section provides the assessment of the potential for effects that occur during more than one stage of the development's lifetime (such as phases of construction, operation or decommissioning) to interact such that they may create a more significant effect on a receptor than when assessed in isolation for each stage.
- 4.4.2 This is of particular relevance to landscape and visual effects of the proposed development as, although not assessed in the LVIA, it is likely to be implemented in phases, meaning that receptors may experience views of a combination of construction works and completed, operational elements.
- 4.4.3 Landscape and visual effects are assessed during construction and operation of the proposed development. As stated in Table 2.9, the assessment of the maximum design envelope parameters assesses the worst-case scenario for LVIA, whereby the construction phase (of the whole proposed development simultaneously) would generally be considered the worst-case, and operation (of the whole proposed development simultaneously, with no further landscape mitigation) already considers the worst-case.
- 4.4.4 If phasing of the project is taken forward (for example construction of one area; and operation of another), then it is anticipated that effects would generally be less than those reported in the LVIA. This is particularly the case if landscape mitigation is also phased (as described in the Design Principles Statement, albeit not assessed in residual effects in this chapter as it is dependent on phasing).

### Receptor-led effects

- 4.4.5 This section provides the assessment of the potential for effects via multiple environmental or social pathways to interact, spatially and temporally, to create a greater inter-related effect on a receptor than is predicted for each pathway (in its respective topic chapter) individually.
- 4.4.6 Landscape and visual effects are assessed during construction and operation of the proposed development. There is potential for interaction between landscape and visual effects, and potential for combined spatial and temporal effects, with the following other topic areas:
- Archaeology and Cultural Heritage (Chapter 7), whereby the historic landscape character relates to landscape character – this has been assessed through provision of visualisations, ZTVs and evidence from this chapter to inform the assessment in Chapter 7;

- Ecology and Biodiversity (Chapter 8), whereby landscape character relates to habitats, for example, and further mitigation or enhancement in the form of proposed landscape planting, inter-relates with habitat creation and enhancement proposals – this has been taken into account through a joint approach to mitigation proposals expressed in the Outline BEMP; and
- Transport and Access (Chapter 9), whereby experiences of traffic interact with experiences of landscape character and visual amenity – this has been assessed through consideration of traffic and access points, and route-based receptors, in this chapter.

## 5 Cumulative Effects Assessment

- 5.1.1 Cumulative effects may arise when other developments of a similar scale and nature combine with the proposed development to form an increased perception of a landscape or visual effect. These may relate to *“the additional changes caused by a proposed development in conjunction with other similar developments or as the combined effect of a set of developments, taken together”* (SNH, 2012: p4, in GLVIA3 [9]).
- 5.1.2 The cumulative assessment for landscape and visual effects considers a cumulative scenario comprising the cumulative sites listed in Table 5.1. The location of these sites are shown in Chapter 17: Summary of Cumulative Effects.

**Table 5.1: Cumulative developments included in cumulative LVIA**

ID	Planning ref.	Description	Address
1	APP/2022/2022	Scheme comprises formation of battery energy storage system (BESS) (49.9 megawatts), construction of substation, welfare facility, security fencing, CCTV, floodlighting, formation of access, attenuation basin and associated infrastructure.	South Leylodge Farmhouse, Kintore, Inverurie, Grampian, AB51 0XY
2	APP/2023/2310 (prev. ENQ/2023/0382)	Installation of Battery Energy Storage System (BESS) with Installed Capacity of 49.9MW, Substation and Associated Infrastructure.	Kintore Substation Kintore, Kintore, Inverurie, Grampian, AB51 0
3	APP/2021/2903	Scheme comprises construction of workshop (class 5) and office (class 4) and formation of bus/taxi depot with SUDS. Scheme also includes translucent rooflights. This project also includes associated infrastructure works and access roads.	Land At Hill Of Cottown, Kintore, Inverurie, Grampian, AB51 0YA
5	APP/2022/0651	Scheme comprises national for construction of enclosed 132kv gas insulated switchgear substation and associated infrastructure (formation of substation platform, fenced compound with cctv, siting of battery storage container, formation of access tracks, sustainable urban drainage system basin, temporary construction of compound and landscaping electricity substation comprising platform area, control building, battery storage container, associated plant and infrastructure, fencing, cctv, access tracks, sustainable urban drainage system basin and landscaping.	Land South-east Kintore Grid E, Kintore, Inverurie, Grampian, AB51 0XY
6	APP/2020/1437	Scheme comprises national for electricity substation comprising platform area, control building, associated plant and infrastructure, ancillary facilities, landscape works and road alterations and improvement works.	Land To The West Of Kintore EI, Kintore, Inverurie, Grampian, AB51 0XZ

ID	Planning ref.	Description	Address
8	APP/2022/0249	Scheme comprises formation of battery energy storage compound (up to 49 megawatts), siting of switch room, HV container, site office, construction of boundary fencing, 5 CCTV masts and formation of access track, including sustainable urban drainage system and parking.	Land South Of A96 East Of, West Broomhill, Kintore, Sheriffburn House, Inverurie, Grampian, AB51 0XA
9	APP/2023/1017 and ECU00004756	Scheme comprises construction of energy storage facility with a maximum output of 300MW.	Midmill Business Park, Tofthills Avenue, Kintore, Inverurie, Grampian, AB51 0Q
10	APP/2022/2613	Scheme comprises construction of 4 holiday cabins, associated car parking and associated service buildings (amended layout to planning permission app/2021/1327).	Deystone, Kintore, Inverurie, Grampian, AB51

- 5.1.3 In line with best practice for LVIA, the cumulative LVIA only considers sites within the study area, which are consented or the subject of a current valid planning application or appeal. Sites at scoping stage or earlier (such as areas proposed within the Aberdeenshire Council Local Development Plan or Housing Land Audit) are not included due to uncertainty as to whether these sites would progress, and their likely nature, scale and design. Construction effects have been scoped out of the cumulative assessment since it is not possible to accurately predict the timing and overlap of different construction stages.
- 5.1.4 The applicant is also aware of a potential proposal for a 200 megawatt battery storage facility that could be located on farmland north of the proposed Kintore Hydrogen Plant above-ground installation (AGI) for the hydrogen export connection. No documents or details concerning the development are available at the time of undertaking the CEA.
- 5.1.5 This site is therefore scoped out of the cumulative assessment. However, qualitatively, a development of this type and scale could have cumulative effects on landscape character or visual effects with Kintore Hydrogen Plant. However, without further detail of the proposal, it is not possible to make an assessment as to whether these could have the potential to be significant. It is anticipated that the battery storage plant applicant, in the course of undertaking its EIA including CEA, would identify and mitigate any significant adverse effects of the battery storage plant together with Kintore Hydrogen Plant.



5.1.6 In addition, the potential 400 kV overhead line project from Tealing to Kintore, that has been consulted on by SSEN during 2023-24, is not yet the subject of a planning application or EIA scoping request, as discussed in Chapter 17. This site is therefore scoped out of the cumulative assessment. However, qualitatively, such a project would be likely to have a limited cumulative effect on landscape character (being very similar to the multiple existing high voltage overhead lines connecting to Kintore substation) but may increase cumulative visual effects for receptors near to the overhead line route, which would be for the SSEN project to mitigate.

5.1.7 Landscape areas and visual receptors that were assessed in the LVIA to receive operational effects that would be negligible or no view (for the proposed development alone) have not been included in the cumulative assessment, as it is not considered that these effects could contribute to a significant cumulative effect. The following landscape areas and visual receptors are therefore scoped out of the cumulative assessment:

- Areas scoped out of the cumulative landscape assessment:
  - LLZs 2, 3 and 4; and
  - Bennachie SLA.
- Receptors scoped out of the cumulative visual assessment:
  - Building-based receptors in B5, B10, B15 – B18, B21 and B23 – B27; and
  - Route-based receptors on R1 and R3 – R5.

## 5.2 Cumulative landscape effects

5.2.1 This section is focussed on cumulative landscape effects in LLZ 1.

### Landscape character

#### LLZ 1 (undulating open farmland)

5.2.2 Several cumulative baseline developments would be located within LLZ 1: cumulative sites 1, 5, 6 and 10 and may slightly increase the sense of development within this landscape area.

5.2.3 Potential cumulative landscape effects on LLZ 1 would be broadly similar to those reported for the proposed development alone, which was **locally moderate adverse (significant)** and **elsewhere minor adverse** (not significant).

## 5.3 Cumulative visual effects

### Building-based receptors

5.3.1 This section is focussed on cumulative visual effects for building-based receptors in B1 – B4, B6 – B9, B11 – B14, B19 – B20 and B22.

#### Building-based receptors B1 – B4, B7 and B8

5.3.2 For receptors in B1 – B4, B7 and B8, cumulative sites 1, 2, 5 and 6 may be seen in views, to varying degrees. These cumulative sites would be near to the proposed electrolysis plant site, to its east (particularly cumulative site 1, a battery storage scheme, immediately to its east). Cumulative sites 5 and 6 (substation extensions) are currently under construction, so have been taken into account, to an extent, in the visual assessment of the proposed development alone. In the cumulative baseline scenario, they are assumed to be completed and operational.

5.3.3 The proposed electrolysis plant site may appear in views immediately adjacent, in front, and/or behind cumulative sites, albeit partially screened / filtered by vegetation, landform and built features in the local area. Cumulative visual effects for receptors in this group would comprise the following:

- For receptors in B1, B2, B4, B7 and B8, the cumulative sites would not affect views to the extent that they would change the visual effect rating. Potential cumulative visual effects would be broadly similar to those reported for the proposed development alone during operation, in the visual assessment:
  - B1 and B2: **moderate-major adverse (significant)**;
  - B4: **minor adverse** (not significant);
  - B7: **moderate adverse (significant)**; and
  - B8: **minor-moderate adverse** (not significant).
- For receptors in B3, cumulative site 1 may be seen to the front of the proposed electrolysis site, and so potential cumulative visual effects would likely be **minor adverse** (not significant), which would be slightly lower than for the proposed development alone during operation (which was Minor-Moderate, also not significant).

#### Building-based receptors B20

5.3.4 For receptors in *B20*, cumulative site 10 may be visible, and may be seen in views alongside in front or adjacent to the proposed water treatment plant. Potential cumulative visual effects would likely range between **negligible** for some receptors in this group and **minor adverse** (not significant), which would be slightly lower than for the proposed development alone during operation (which was minor-moderate adverse, also not significant).

#### Building-based receptors B22

5.3.5 For receptors in *B22*, cumulative sites in Kintore (including 8 and 9) may be visible within the context of Kintore settlement. However, they would be unlikely to affect the visual perception of the proposed development. Therefore, potential cumulative visual effects are not anticipated to differ to the findings of the visual assessment for the proposed development alone during operation, which was **minor adverse** (not significant).

#### Other building-based receptors (B6, B9, B11 – B14 and B19)

5.3.6 For other receptors considered in the cumulative assessment (in *B6*, *B9*, *B11 – B14* and *B19*), cumulative sites may be visible to varying degrees but are not likely to notably change the visual context within which the proposed development is seen. Therefore, potential cumulative visual effects are not anticipated to differ to those reported for the proposed development alone during operation, in the visual assessment, which were all **minor adverse** (not significant).

#### Route-based receptors

5.3.7 This section is focussed on cumulative visual effects on route-based receptors on *R2* and *R6*.

5.3.8 For receptors on *R2*, cumulative sites 1, 2, 5 and 6 would likely be visible to varying degrees, in passing. The proposed electrolysis plant site may appear in views immediately adjacent and/or in front of cumulative sites, for receptors on this route, albeit partially screened / filtered by vegetation, landform and built features in the local area. Potential cumulative visual effects are not anticipated to differ to the findings of the visual assessment for the proposed development alone during operation, which was **minor adverse** (not significant).

5.3.9 For receptors on *R6*, cumulative site 10 would likely be visible to varying degrees from short sections of this route, in passing, but are not likely to notably change the visual context within which the proposed development is seen, considering this route as a whole. Therefore, potential cumulative visual effects are not anticipated to differ to those reported for the proposed development alone during operation, in the visual assessment, which was **minor adverse** (not significant).

### 5.4 Cumulative assessment summary

5.4.1 The majority of cumulative landscape effects are anticipated to be not significant. Localised significant cumulative landscape effects are assessed for *LLZ 1* (as they were for the proposed development alone in the landscape assessment). Within the wider part of this LLZ, cumulative landscape effects would not be significant.

5.4.2 The majority of cumulative visual effects are anticipated to be not significant. Significant cumulative visual effects are assessed for receptors in *B1*, *B2* and *B7* (as they were for the proposed development alone in the visual assessment). For some receptors, cumulative visual effect ratings would differ slightly to the effects reported in the visual assessment (*B3* and *B20*), but for all other visual receptors, the cumulative scenario would not change the visual context to the extent that cumulative visual effects would differ.

## 6 Conclusion and Summary

### 6.1 Landscape effects

- 6.1.1 The landscape assessment has established that there would be localised significant adverse effects within *Local Landscape Zone 1 (LLZ1) – Undulating Open Farmland*, focused around the proposed electrolysis plant site. These effects would be most prominent during the construction phase due to the movement and activity associated with the construction of the proposed electrolysis plant and underground works as well as construction traffic. Effects would reduce during the operational phase, when there would be some locally significant operational effects within a small part of *LLZ1*.
- 6.1.2 Effects on other parts of *LLZ 1*, and all other LLZs and *Bennachie Special Landscape Area (SLA)* would be non-significant.
- 6.1.3 Further mitigation or enhancement is proposed, and would further mitigate landscape effects. It is anticipated that with the effective implementation of these measures (secured by a planning condition and approval of details of design and landscaping), long-term operational effects on landscape character of a localised part of *LLZ1* would be further reduced to a locally non-significant level. Design principles relating to mitigation are described in the Design Principles Statement (DPS) and Outline Biodiversity Enhancement and Management Plan (Outline BEMP), which also identified other opportunities for mitigation.

### 6.2 Visual effects

- 6.2.1 Significant adverse effects have been identified during construction for four building-based receptor locations and one route-based receptor location. These would be mainly concentrated within close proximity to the proposed electrolysis plant site, affecting receptors in the nearest four residential properties (*B1, B2, B3 and B7*) within approximately 0.3 – 1.5 km from the proposed electrolysis site, and on the *B977 (R2)*, where construction activity would be visible in nearby views.
- 6.2.2 Effects at all other building- and route-based receptors within the 5 km study area would be non-significant.

6.2.3 During operation, the significant visual effects would further reduce to a smaller group of receptors, comprising three building-based receptor locations (*B1, B2 and B7*) closest to the proposed electrolysis plant site. Of these, two properties (within *B2*) are proposed to be acquired voluntarily by Kintore Hydrogen (secured by a Grampian condition) and subject to this, would therefore not be considered as visual receptor locations in operation.

6.2.4 There would be no significant operational effects on route-based receptors.

6.2.5 As noted above, further mitigation or enhancement including landscape mitigation planting and earthworks, combined with sensitive architectural design and masterplanning of the proposed development, would further mitigate visual effects. This may include reduced visual effects for receptors (for example in *B1* to a non-significant level), although some degree of residual significant effects may still be present (such as from *B2 and B7*). It is anticipated that with the effective implementation of these measures and following the design principles set out in the DPS and Outline BEMP (as well as other opportunities for mitigation identified in these documents), there would be further reductions to visual effects.

### 6.3 Cumulative effects

6.3.1 The majority of cumulative landscape effects are anticipated to be not significant. Localised significant cumulative landscape effects are assessed for *LLZ 1* (as they were for the proposed development alone in the landscape assessment). Within the wider part of this LLZ, cumulative landscape effects would not be significant.

6.3.2 The majority of cumulative visual effects are anticipated to be not significant. Significant cumulative visual effects are assessed for receptors *B1, B2 and B7* (as they were for the proposed development alone in the visual assessment); the further mitigation or enhancement and residual effects as described above are applicable.

### 6.4 Conclusion

6.4.1 The LVIA has identified that there would be localised significant landscape and visual effects occurring during the construction of the proposed development, within a localised area in the immediate context of the proposed electrolysis plant site. During operation, the majority of these effects would reduce following completion of construction activities, although a small number of significant landscape and visual effects would still be experienced from areas closest to the proposed electrolysis plant site.

- 6.4.2 Within other parts of the study area, where the majority of landscape and visual effects are reported effects would be non-significant.
- 6.4.3 The LVIA has been based on an assessment of the proposed development with maximum design parameters defined for the Planning Permission in Principle application, including designed-in mitigation through control of building heights and site zoning as set out in the design parameters and Planning Parameters Plan (Chapter 2).
- 6.4.4 It is anticipated that with the proposed further mitigation or enhancement measures, to be approved in detail and the principles defined in the Outline BEMP and Design Principles Statement, adverse landscape and visual effects can be further reduced.

Table 6.1: Summary of potential effects on landscape character

Landscape Area		Significance of effect		
		Construction phase	Operation phase	Residual effect (following further mitigation or enhancement measures)
Local Landscape Zones (LLZs)	LLZ1	<b>Locally moderate-major adverse (significant)</b> , <i>elsewhere</i> minor adverse (not significant)	<b>Locally moderate adverse (significant)</b> , <i>elsewhere</i> minor adverse (not significant)	Potential for localised operational effects to reduce to <u>not significant</u>
	LLZ2	Negligible	Negligible	Limited or no change
	LLZ3	Negligible	Negligible	Limited or no change
Protected and designated landscapes	Bennachie SLA	Negligible	Negligible	Limited or no change

Table 6.2: Summary of potential cumulative effects on landscape character

Landscape Area		Significance of cumulative effect	
		Construction phase	Operation phase
Local Landscape Zones (LLZs)	LLZ1	n/a	<b>Locally moderate adverse (significant)</b> , <i>elsewhere</i> minor adverse (not significant)

Table 6.3: Summary of potential effects on visual amenity

Visual Receptor		Significance of effect		
		Construction phase	Operation phase	Residual effect (following further mitigation or enhancement measures)
Building-based receptors	B1	<b>Moderate-major adverse (significant)</b>	<b>Moderate-major adverse (significant)</b>	Potential for operational effects to reduce to <u>not significant</u>
	B2	<b>Major adverse (significant)</b>	<b>Moderate-major adverse (significant)</b>	Potential for operational effects to reduce but residual significant effect may remain if properties were occupied. As noted in Table 2.11, a Grampian condition is proposed to ensure that commissioning and operation of the development cannot occur unless these properties are vacant, and therefore, this location would not be considered a visual receptor location for the operational phase and no effect would occur.
	B3	<b>Moderate adverse (significant)</b>	Minor-moderate adverse (not significant)	Potential for operational effects to reduce
	B4	Minor adverse (not significant)	Minor adverse (not significant)	Potential for operational effects to reduce
	B5	Negligible	Negligible	Limited or no change
	B6	Minor-moderate adverse (not significant)	Minor adverse (not significant)	Potential for operational effects to reduce

Visual Receptor	Significance of effect			
	Construction phase	Operation phase	Residual effect (following further mitigation or enhancement measures)	
B7	<b>Moderate adverse (significant)</b>	<b>Moderate adverse (significant)</b>	Potential for operational effects to reduce but residual significant effect may remain for a small number (three or fewer) properties that have more elevated views. Although not assessed in the LVIA, maturing of screening planting of the type proposed in the Illustrative Landscape Masterplan in the Design Principles Statement together with the other design measures described in that document could potentially reduce effects to <u>not significant</u> in the longer term.	
B8	Minor-moderate adverse (not significant)	Minor-moderate adverse (not significant)	Potential for operational effects to reduce	
B9	Minor adverse (not significant)	Minor adverse (not significant)	Potential for operational effects to reduce	
B10	Negligible	Negligible	Limited or no change	
B11	Minor-moderate adverse (not significant)	Minor adverse (not significant)	Potential for operational effects to reduce	
B12	Minor-moderate adverse (not significant)	Minor adverse (not significant)	Potential for operational effects to reduce	
B13	Minor adverse (not significant)	Minor adverse (not significant)	Potential for operational effects to reduce	
B14	Minor adverse (not significant)	Minor adverse (not significant)	Potential for operational effects to reduce	
B15	Minor-moderate adverse (not significant)	Negligible	Limited or no change	
B16	No View	No View	Limited or no change	
B17	No View	No View	Limited or no change	
B18	Negligible	Negligible	Limited or no change	
B19	Minor-moderate adverse (not significant)	Minor adverse (not significant)	Potential for operational effects to reduce	
B20	Minor-moderate adverse (not significant)	Minor-moderate adverse (not significant)	Potential for operational effects to reduce	
B21	Negligible	Negligible	Limited or no change	
B22	Minor adverse (not significant)	Minor adverse (not significant)	Potential for operational effects to reduce	
B23	Negligible	Negligible	Limited or no change	
B24	Negligible	Negligible	Limited or no change	
B25	Negligible	Negligible	Limited or no change	
B26	Negligible	Negligible	Limited or no change	
B27	Negligible	Negligible	Limited or no change	
Route-based receptors	R1	Negligible	Negligible	Limited or no change
	R2	<b>Moderate adverse (significant)</b>	Minor adverse (not significant)	Potential for operational effects to reduce
	R3	Negligible	Negligible	Limited or no change
	R4	Minor adverse (not significant)	Negligible	Limited or no change
	R5	Negligible	Negligible	Limited or no change

Visual Receptor		Significance of effect		
		Construction phase	Operation phase	Residual effect (following further mitigation or enhancement measures)
	R6	Minor-moderate adverse (not significant)	Minor adverse (not significant)	Potential for operational effects to reduce

Table 6.4: Summary of potential cumulative effects on visual amenity

Visual Receptor		Significance of cumulative effect	
		Construction phase	Operation phase
Building-based receptors	B1	n/a	<b>Moderate-major adverse (significant)</b>
	B2	n/a	<b>Moderate-major adverse (significant)</b>
	B3	n/a	Minor adverse (not significant), <i>which is less than assessed for the proposed development alone in the visual assessment</i>
	B4	n/a	Minor adverse (not significant)
	B6	n/a	Minor adverse (not significant)
	B7	n/a	<b>Moderate adverse (significant)</b>
	B8	n/a	Minor-moderate adverse (not significant)
	B9	n/a	Minor adverse (not significant)
	B11	n/a	Minor adverse (not significant)
	B12	n/a	Minor adverse (not significant)
	B13	n/a	Minor adverse (not significant)
	B14	n/a	Minor adverse (not significant)
	B19	n/a	Minor adverse (not significant)
	B20	n/a	Ranging between negligible and minor adverse (not significant), <i>which is slightly less than assessed for the proposed development alone in the visual assessment</i>
B22	n/a	Minor adverse (not significant)	
Route-based receptors	R2	n/a	Minor adverse (not significant)
	R6	n/a	Minor adverse (not significant)

## References

- <sup>1</sup> Scottish Government (2023): National Planning Framework 4. <https://www.gov.scot/publications/national-planning-framework-4/documents/>, accessed 11/04/24
- <sup>2</sup> Scottish Government (2017): Scottish Energy Strategy: The future of energy in Scotland. <https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2017/12/scottish-energy-strategy-future-energy-scotland-9781788515276/documents/00529523-pdf/00529523-pdf/govscot%3Adocument/00529523.pdf>, accessed 11/04/24
- <sup>3</sup> Scottish Government (2000): Planning Advice Note 6 – Planning for Natural Heritage. <https://www.gov.scot/publications/pan-60-natural-heritage>, accessed 11/04/24
- <sup>4</sup> Scottish Natural Heritage (2014), now NatureScot: Renewable Energy and the Natural Heritage. Position Statement. <https://www.nature.scot/sites/default/files/2017-06/C272217.pdf>, accessed 11/04/24
- <sup>5</sup> NatureScot: Developing with Nature Guidance. <https://www.nature.scot/doc/developing-nature-guidance>, accessed on 12/04/24. Draft guidance consulted on December 2021 to March 2022.
- <sup>6</sup> Aberdeenshire Council (2023): Local Development Plan 2023. <https://www.aberdeenshire.gov.uk/planning/plans-and-policies/ldp-2023/>, accessed on 11/04/24
- <sup>7</sup> Aberdeenshire Council (2023): Landscaping Design. Planning Advice PA2023-08. <http://publications.aberdeenshire.gov.uk/dataset/0ceb7c55-b43d-45c4-a311-798f4bc9fa75/resource/7d412916-fa33-49a3-bb49-b3dd4a3dbd91/download/pa2023-08---planning-advice---landscaping-design.pdf>, accessed 11/04/24
- <sup>8</sup> Aberdeenshire Council (2023): Securing positive effects for biodiversity in new development: Planning Advice PA2023-10. <http://publications.aberdeenshire.gov.uk/dataset/0ceb7c55-b43d-45c4-a311-798f4bc9fa75/resource/fd777edd-c277-4621-bd31-f3672edef765/download/pa2023-10---planning-advice---securing-positive-effects-for-biodiversity.pdf>, accessed on 12/04/24
- <sup>9</sup> Landscape Institute and Institute of Environmental Management and Assessment (2013): Guidelines for Landscape and Visual Impact Assessment, Third Edition.
- <sup>10</sup> Scottish Natural Heritage (2002): Landscape Character Assessment. Guidance for England and Scotland. <https://digital.nls.uk/pubs/e-monographs/2020/216649977.23.pdf>, accessed on 12/04/24
- <sup>11</sup> Scottish Natural Heritage (2017), now NatureScot: Visual Representation of Wind Farms. Guidance. Version 2.2. <https://www.nature.scot/doc/visual-representation-wind-farms-guidance>, accessed on 12/04/24
- <sup>12</sup> <https://www.google.com/maps>, accessed in 2023 and 2024
- <sup>13</sup> <https://bing.com/maps>, accessed in 2023 and 2024
- <sup>14</sup> <https://streetmap.co.uk>, accessed in 2023 and 2024
- <sup>15</sup> Scottish Natural Heritage (2019), now NatureScot: Scottish Landscape Character Types and Descriptions. <https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/scottish-landscape-character-types-map-and-descriptions>, accessed 12/04/24
- <sup>16</sup> Aberdeenshire Council: Core Paths Plan. [Online], available at: <https://www.aberdeenshire.gov.uk/paths-and-outdoor-access/core-paths-plan/core-paths-plan-maps/>, accessed 01/08/24
- <sup>17</sup> The Met Office (2018): UKCP18 Overview. [Online], available at: <https://www.metoffice.gov.uk/pub/data/weather/uk/ukcp18/science-reports/UKCP18-Overview-report.pdf>