

Landscape and Visual Impact Assessment.

Dunmill BESS, Bridge of Dun, Montrose, Angus

On behalf of RES.

Date: 21/12/2023 | Pegasus Ref: P23-1395

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1. Introduction.

Terms of Reference

- 1.1. Pegasus Group has been instructed by RES Ltd. (the Applicant), to undertake a Landscape and Visual Impact Assessment in relation to a proposed battery electricity storage scheme (BESS) on farmland at Dun Mill, Bridge of Dun, near Montrose, Angus (the Site).
- 1.2. This LVIA will consider existing landscape and visual receptors in the study area, these include:
 - Physical landscape resources;
 - Landscape character; and
 - Views and visual amenity experienced by residents, recreational users (including visitors and tourists) and road users.
- 1.3. Principles and good practice for undertaking landscape and visual impact assessment are set out in the Landscape Institute (LI) and the Institute of Environmental Management (IEMA) Guidelines for Landscape and Visual Impact Assessment, Third Edition (2013)¹ (GLVIA3). The detailed methodology used is set out in **Appendix A**.
- 1.4. The proposed Landscape Masterplan for the proposed development, including proposed landscape and visual mitigation measures, is included as **Appendix B**.
- 1.5. The scope of this LVIA has included early consideration of constraints and opportunities for the site and its local landscape context. This has been used to inform the current proposed Landscape Masterplan for the Proposed Development which, consequently, incorporates a 'landscape and ecologically led' approach to design and mitigation.

Site Overview

- 1.6. The Site comprises part of a single field of arable farmland, with the access to the Site crossing the eastern edge of second arable field. The Site area is 3.69 hectares (ha). The below ground connection to the National Grid at the Bridge of Dun substation lies outside of the application boundary. The Site is shown on **Figure 1: Site Location Plan**.
- 1.7. The Site lies within Angus Council area.
- 1.8. Additional information and a more detailed description on the physical components, landscape character and visual amenity of the site and study area are set out in later sections of this LVIA.

¹ Landscape Institute and Institute of Environmental Management and Assessment (2013) *Guidelines for Landscape and Visual Impact Assessment, 3rd Edition*

2. Approach and Methodology

Overview

- 2.1. The approach and methodology used for this report has been developed using best practice guidance, as set out in the following documents:
- Landscape Institute and Institute of Environmental Management and Assessment (2013) *Guidelines for Landscape and Visual Impact Assessment, 3rd Edition*;
 - Natural England (2014) *An Approach to Landscape Character Assessment*;
 - Landscape Institute (2019) *Technical Guidance Note O6/19: Visual Representation of Development Proposals*; and
 - Landscape Institute (2021) *Technical Guidance Note O2/21: Assessing Landscape Value Outside National Designations*.
- 2.2. Use has also been made of additional sources of data and information, such as published character assessments, aerial imagery (Google Earth), and Ordnance Survey (OS) base mapping. These are referenced in the relevant sections of the baseline information.
- 2.3. Supporting plans and figures have also been produced as part of this LVIA and are included as **Figures 1 to 6**.

Study Area

- 2.4. The study area for this LVIA covers a 3km radius from the Application Site. However, the main focus of the assessment was taken as a radius of 2km from the Application Site as it is considered that even with clear visibility it is considered that there would be only very limited visibility of the Proposed Development beyond this distance.

Level of Assessment

- 2.5. Principles and good practice for undertaking landscape and visual impact assessment are set out in GLVIA3.
- 2.6. GLVIA3 acknowledges that landscape and visual impact assessment (LVIA) can be carried out either as a standalone assessment or as part of a broader EIA. GLVIA3 notes that the overall principles and core steps in the process are the same but that there are specific procedures in EIA with which an LVIA that sits within an EIA must comply.
- 2.7. This assessment has been prepared as a detailed LVIA and addresses matters of individual landscape resources, landscape character areas, and visual amenity (including the use of representative viewpoints). The LVIA also considers the interaction between landscape character and views in relation to physical components of the landscape. The LVIA draws on professional judgement in relation to sensitivity of receptors (both landscape and visual), the nature of impacts and consequential likely effects. This process informs judgements on a landscape mitigation strategy which will avoid, reduce, or remedy adverse impacts.

- 2.8. Landscape features and elements provide the physical environment for flora and fauna and the associated importance of biodiversity assets. This LVIA does not consider the value, susceptibility or importance on ecology and biodiversity, nor does it consider impacts from an ecological stance.
- 2.9. Heritage assets such as Scheduled Monuments (SMs), Listed Buildings (LBs) and Conservation Areas (CAs) all contribute to the overall present-day landscape character, context and setting of an area. These aspects have been given consideration in the LVIA in terms of physical landscape resources (for example trees and hedgerows) and landscape character. However, this LVIA does not address the historic significance, importance or potential impacts on heritage assets and designations; these assets are assessed in the context of landscape and visual matters only.

Night-Time Impacts/Lighting Impacts

- 2.10. At Paragraph 6.12, GLVIA3 notes that for some types of development, the visual effects of lighting may be an issue, and in such cases, it may be important to carry out night-time 'darkness' surveys of the existing conditions in order to address the potential effects of lighting.
- 2.11. The Proposed Development would not require illumination during the hours of darkness during normal operations. Any illumination would relate only to emergency (maintenance) situations, with the resulting effects being very limited in extent and duration. Further assessment of night-time impacts and lighting is not therefore considered necessary.

Collating Baseline Information

- 2.12. To capture a comprehensive description of the baseline position for landscape and visual receptors, information has been collated using a process of desk study and field survey work.
- 2.13. The desk study includes reference to published landscape character studies and other published policy documents relevant to landscape and visual matters, such as OS 1:25,000 base mapping and aerial imagery.
- 2.14. Field survey work was completed during November 2023. A series of representative photographs were taken with a full-frame digital SLR camera with a 50mm fixed focal length lens, set at approximately 1.6 metres Above Ground Level (AGL). These are presented as a series of viewpoints and have been used to inform both the landscape and, separately, visual appraisal work.
- 2.15. The field survey and viewpoint photography were undertaken in November after a period of windy weather when the majority of deciduous vegetation had lost most of its leaf cover. Consequently, the viewpoints effectively illustrate a worst-case scenario in terms of potential visibility of the proposed development. Where appropriate, consideration has therefore also been given to the potential for reduced visibility during the summer months when deciduous vegetation is in full leaf.

Consideration of Effects

- 2.16. Having established the relevant baseline position, the LVIA process then identifies landscape receptors and visual receptors, and considers their specific sensitivity to development of the

type proposed. The LVIA then identifies the nature and magnitude of potential impacts, and consequently the likely scale of effect that would arise from the proposed development on the identified landscape and visual receptors.

- 2.17. Effects are considered at Year 1 (post-construction) and Year 15 (once the proposed mitigation has had time to develop and grow, becoming a discernible part of the local landscape pattern). Construction phase effects are generally not considered separately in detail as their short-term temporary nature means that construction phase effects would not exceed the operational effects in magnitude or scale.

3. Designations and Planning Policy Context

Designations

- 3.1. The Site lies outside of any national/statutory or local/non-statutory landscape designations – see **Figure 2: Landscape Designations**.
- 3.2. There are two designated Inventory Gardens and Designed Landscapes (IGDLs) within the study area:
 - The House of Dun, approx. 250m to the north-east of the Site; and
 - Kinnaird Castle, approx. 2.5km to the south-west of the Site.
- 3.3. Within the vicinity of the site there are a several other environmental designations which have some relevance to landscape and visual matters. These include:
 - Montrose Basin and mouth of the River South Esk (600m to the south-east of the Site) – SSSI, Ramsar, SPA;
 - Dun's Dish (approx. 1.9km to the north-west) – SSSI, Ramsar, SPA; and
 - River South Esk (approx. 600m to the south) – SAC.
- 3.4. Cultural heritage designations within 2km of the Site include:
 - Listed Buildings (LBs):
 - multiple Grade A, B and C LBs at Dun and House of Dun, approx. 280m to 1km to the north/north-east of the Site;
 - Grade C LB at Dun Mill, approx. 25m to the north-east;
 - multiple Grade B and C LBs at Langley Park, approx. 1.6–2km to the north-east;
 - Grade B LB at Broomley House, approx. 1.25km to the east-north-east;
 - multiple Grade B and C LBs at Old Montrose, approx. 2.1km to the south-south-east;
 - Grade B LB (telephone kiosk) at Bridge of Dun station, approx. 440m to the south;
 - Grade A LB at Bridge of Dun, approx. 660m to the south;
 - Grade B and C LBs at Barnhead, approx. 1.35–1.6km to the south;
 - 3 No. Grade C LBs at Arrat's Mill, approx. 1.8km to the west-south-west;
 - 2 No. Grade B and 1 No. Grade C LBs at Balwyllo, approx. 800m to the west.

- Scheduled Monuments (SMs):
 - 100m to the north of the Site (palisaded enclosure and ring ditch);
 - 425 (Gallows Knowe cairn) and 675m (West Broomley ring ditches) to the north-east;
 - 1.4-2km to the east-north-east (various);
 - 1.9km to the south (cursus, barrows and enclosures at Powis);
 - 1.8km to the south-west (settlement at Powmouth); and
 - 0.8-1.5km to the west (various).

3.5. Where relevant, these matters are considered in the analysis of constraints and opportunities and the subsequent appraisal.

Planning Policy

European Landscape Framework

- 3.6. The European Landscape Convention (ELC) promotes the protection, management and planning of European landscapes. The ELC was adopted on 20 October 2000 and came into force on 1 March 2004. It defines landscape as:
- 3.7. “...an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors).”
- 3.8. This definition is important in that it focuses on landscape as a resource in its own right and moves beyond the idea that landscapes are only a matter of aesthetics and visual amenity.

National Planning Policy

- 3.9. The current National Planning Framework (NPF) for Scotland is NPF4², which was adopted on 13 February 2023.
- 3.10. Policies of relevance to this LVIA, as set out in **Table 3.1** below:

Table 3.1: Relevant NPF4 Policies

Policy	Policy Intent	Policy Outcomes
Policy 4: Natural Places	<i>“To protect, restore and enhance natural assets making best use of nature-based solutions.”</i>	<ul style="list-style-type: none"> • “Natural places are protected and restored. • Natural assets are managed in a sustainable way that maintains

² [National Planning Framework 4 – gov.scot \(www.gov.scot\)](https://www.gov.scot/national-planning-framework-4) – accessed November 2023.

Policy	Policy Intent	Policy Outcomes
		and grows their essential benefits and services.”
Policy 6: Forestry, Woodland and Trees	<i>“To protect and expand forests, woodland and trees.”</i>	<ul style="list-style-type: none"> • “Existing woodlands and trees are protected, and cover is expanded. • Woodland and trees on development sites are sustainably managed.”
Policy 11: Energy	<i>‘To encourage, promote and facilitate all forms of renewable energy development, onshore and offshore. This includes energy generation, storage, new and replacement transmission and distribution infrastructure and emerging low-carbon and zero emissions technologies including hydrogen and carbon capture utilisation and storage (CCUS).’</i>	<ul style="list-style-type: none"> • “Expansion of renewable, low-carbon and zero emissions technologies. <p>In particular:</p> <p>“... e) In addition, project design and mitigation will demonstrate how the following impacts are addressed:</p> <p style="margin-left: 20px;">i. impacts on communities and individual dwellings, including, residential amenity, visual impact, noise and shadow flicker;</p> <p style="margin-left: 20px;">ii. significant landscape and visual impacts, recognising that such impacts are to be expected for some forms of renewable energy. Where impacts are localised and/or appropriate design mitigation has been applied, they will generally be considered to be acceptable;</p> <p>...”</p>

Local Planning Policy

3.11. The following section sets out the local planning policy background relevant to the site.

Angus Local Development Plan

3.12. The Angus Local Development Plan (LDP) was adopted in September 2016. Relevant policies from the LDP are detailed in **Table 3.2**;

Table 3.2: Relevant Policies within Angus Local Development Plan 2016

Policy Ref	Detail of Policy
<p>Policy PV3: Access and Informal Recreation</p>	<p><i>New development should not compromise the integrity or amenity of existing recreational access opportunities including access rights, core paths and rights of way. Existing access routes should be retained, and where this is not possible alternative provision should be made.</i></p> <p><i>New development should incorporate provision for public access including, where possible, links to green space, path networks, green networks and the wider countryside.</i></p> <p><i>Where adequate provision cannot be made on site, and where the development results in a loss of existing access opportunities or an increased need for recreational access, a financial contribution may be sought for alternative provision.</i></p>
<p>Policy PV6: Development in the Landscape</p>	<p><i>Angus Council will seek to protect and enhance the quality of the landscape in Angus, its diversity (including coastal, agricultural lowlands, the foothills and mountains), its distinctive local characteristics, and its important views and landmarks.</i></p> <p><i>Capacity to accept new development will be considered within the context of the Tayside Landscape Character Assessment, relevant landscape capacity studies, any formal designations and special landscape areas to be identified within Angus. Within the areas shown on the proposals map as being part of 'wild land', as identified in maps published by Scottish Natural Heritage in 2014, development proposals will be considered in the context of Scottish Planning Policy's provisions in relation to safeguarding the character of wild land.</i></p> <p><i>Development which has an adverse effect on landscape will only be permitted where:</i></p> <ul style="list-style-type: none"> • the site selected is capable of accommodating the proposed development; • the siting and design integrate with the landscape context and minimise adverse impacts on the local landscape; • potential cumulative effects with any other relevant proposal are considered to be acceptable; and • mitigation measures and/or reinstatement are proposed where appropriate. <p><i>Landscape impact of specific types of development is addressed in more detail in other policies in this plan and work involving development which is required for the maintenance of strategic</i></p>

Policy Ref	Detail of Policy
	<p><i>transport and communications infrastructure should avoid, minimise or mitigate any adverse impact on the landscape.</i></p> <p><i>Further information on development in the landscape, including identification of special landscape and conservation areas in Angus will be set out in a Planning Advice Note.</i></p>
<p>Policy PV7: Woodland, Trees and Hedges</p>	<p><i>Ancient semi-natural woodland is an irreplaceable resource and should be protected from removal and potential adverse impacts of development. The council will identify and seek to enhance woodlands of high nature conservation value. Individual trees, especially veteran trees or small groups of trees which contribute to landscape and townscape settings may be protected through the application of Tree Preservation Orders (TPO).</i></p> <p><i>Woodland, trees and hedges that contribute to the nature conservation, heritage, amenity, townscape or landscape value of Angus will be protected and enhanced. Development and planting proposals should:</i></p> <ul style="list-style-type: none"> • protect and retain woodland, trees and hedges to avoid fragmentation of existing provision; • be considered within the context of the Angus Woodland and Forestry Framework where woodland planting and management is planned; • ensure new planting enhances biodiversity and landscape value through integration with and contribution to improving connectivity with existing and proposed green infrastructure and use appropriate species; • ensure new woodland is established in advance of major developments; • undertake a Tree Survey where appropriate; and • identify and agree appropriate mitigation, implementation of an approved woodland management plan and re-instatement or alternative planting. <p><i>Angus Council will follow the Scottish Government Control of Woodland Removal Policy when considering proposals for the felling of woodland.</i></p>
<p>Policy PV8: Built and Cultural Heritage</p>	<p><i>Angus Council will work with partner agencies and developers to protect and enhance areas designated for their built and cultural heritage value. Development proposals which are likely to affect protected sites, their setting or the integrity of their designation will be assessed within the context of the appropriate regulatory regime.</i></p>

Policy Ref	Detail of Policy
	<p><u>National Sites</u></p> <p><i>Development proposals which affect Scheduled Monuments, Listed Buildings and Inventory Gardens and Designed Landscapes will only be supported where:</i></p> <ul style="list-style-type: none"> • the proposed development will not adversely affect the integrity of the site or the reasons for which it was designated; • any significant adverse effects on the site or its setting are significantly outweighed by social, environmental and/or economic benefits; and • appropriate measures are provided to mitigate any identified adverse impacts. <p>...</p>
<p>Policy PV9: Renewable and Low Carbon Energy Development</p>	<p><i>Proposals for renewable and low carbon energy development will be supported in principle where they meet the following criteria:</i></p> <ul style="list-style-type: none"> • the location, siting and appearance of apparatus, and any associated works and infrastructure have been chosen and/or designed to minimise impact on amenity, landscape and environment, while respecting operational efficiency; • access for construction and maintenance traffic can be achieved without compromising road safety or causing unacceptable change to the environment and landscape; • ... • there will be no unacceptable adverse impact individually or cumulatively with other existing or proposed development on: • landscape character, setting within the immediate and wider landscape (including cross boundary or regional features and landscapes), sensitive viewpoints and public access routes; <p>...</p>

3.13. The Renewable and Low Carbon Energy Development Supplementary Guidance is also relevant to this LVIA. Under Landscape matters, the guidance states:

“Impact varies with the location, scale and type of renewable energy scheme proposed. Supporting information and accompanying visual/graphic information should be commensurate with the scale, location and potential impact (individually and cumulatively) of the proposal and should include options for mitigation where appropriate.

All forms of renewable energy development should be considered within their landscape context taking account of relevant ALDP policies and advice and guidance from Scottish



Natural Heritage and Historic Environment Scotland on assessing the impact of renewable energy developments on the landscape. The Council will seek advice from SNH and HES as appropriate.

Landscape and Visual Representation

Landscape and Visual Representation VIA or LVIA may be required for larger structures depending on scale, type and location of the proposal. Landscape and Visual Impact (LVIA) should address the sensitivity, magnitude and significance of landscape and visual impact and include. Prior to the undertaking of an LVIA, the proposed assessment viewpoints, shown on a 1:50k Ordnance Survey base, should be submitted to Angus Council for approval prior to undertaking the assessment. The level of information should reflect the scale of development and should be agreed with planning officers."

- 3.14. The need to consider potential cumulative impacts is also noted.

Local Development Plan 2

- 3.15. The preparation of the Local Development Plan 2 has been delayed for various reasons, and is now expected to cover the period 2029–2039 when it is adopted in 2029.

4. Landscape and Visual Baseline

- 4.1. The following section describes the individual components of the physical landscape that are present in the study area. These have been described to establish an understanding of the specific landscape baseline, including individual elements and more distinctive features, which together contribute to landscape character.
- 4.2. The landscape character and physical landscape features and elements are shown in some of the Photoviews at **Figure 6**.

Physical Landscape Resource

Topography and Landform

- 4.3. The Site slopes from approx. 17m Above Ordnance Datum (AOD) adjacent to the A935 main road in the north-west corner of the Site, down to approx. 8m AOD in the south-east corner.
- 4.4. The Site is situated on the northern edge of the floodplain of the River South Esk, with land to the immediate north of the Site rising up to a ridge at approx. 100–110m AOD. Land to the south falls towards the river, and then rises again to another ridge at approx. 125–140m AOD. Land to the east falls towards the Montrose Basin – see **Figure 3: Topography Plan**.

Hydrology and Water Features

- 4.5. There are drainage ditches on at least part of many of the boundaries of the field containing the Site – east, south, and west.
- 4.6. The River South Esk lies approx. 625m to the south of the Site at its closest, with the river and its floodplain forming the main landscape feature in the local area as it empties into the Montrose Basin, approx. 1.6km to the south-east.

Land Use

- 4.7. The two fields within the Site are currently used for arable agriculture – combinable crops at the time of the field survey.
- 4.8. The surrounding landscape is predominantly farmland (mainly arable, but with some grassland) with some forestry.

Vegetation Patterns

- 4.9. Vegetation patterns within the fields are described above under Land Use. Comprising only part of two fields, many of the boundaries to the Site are not currently demarcated on the ground. The northern boundary to field containing most of the Site, adjacent to the A935, is a mix of native hedgerow (in poor condition, in places little more than remnants), post and wire fence, and open sections, with a single hedgerow tree near the boundary between the two fields. The eastern boundary is a mix of native hedgerow and trees. The eastern part of the southern boundary is open, with the western part being formed by a drainage ditch with extensive reed growth. The western boundary comprises a row of trees, with the western boundary of the adjacent field formed by a native hedgerow with hedgerow trees in the southern half.

- 4.10. Within the surrounding landscape, field boundaries are a mix of hedgerows with variable frequency of hedgerow trees, tree belts, post and wire fences, and some open boundaries. Tree cover along the River South Esk is variable – woodland and tree belts in some locations (especially around Kinnaird Castle), and more open elsewhere.

Public Access

- 4.11. The Land Reform (Scotland) Act 2003 established widespread access rights across the Scottish countryside, guided by the Scottish Outdoor Access Code (SOAC). Access rights must be exercised responsibly. Therefore, there is theoretical access across the Site, but restricted to field boundaries as the fields are being used for arable or fodder crop production.
- 4.12. In addition, local authorities have powers to establish and maintain a network of Core Paths within their area. Core paths can be cross-country routes with variable states of surfacing, or they may follow hard-surfaced paths, roads or streets, sometimes in more urban areas. There are no Core Paths within the Site or its immediate environs, with the nearest Core Path (CP99 – The Lurgies) being on the south side of the River South Esk, running from Bridge of Dun east and then south-east towards Old Montrose – see **Figure 2: Environmental Designations**.

Development and Transport Infrastructure

- 4.13. The Site and its immediate environs are predominantly rural in character, though with the busy A935 main road on the northern boundary, and the Bridge of Dun substation to the south. The Caledonian [Steam] Railway runs between Brechin and Bridge of Dun, with Bridge of Dun station being approx. 475m to the south of the Site. High voltage powerlines on steel-lattice pylons run north-west and then west-north-west from the substation towards Brechin.
- 4.14. A network of main and minor roads links the various individual properties and farmsteads to the settlements of Brechin (approx. 5km to the west) and Montrose (approx. 4km to the east).

Night-Time Lighting

- 4.15. The Site is not illuminated at night. Within the surrounding landscape there is internal and external lighting at the various residential properties and farmsteads, as well as domestic and street lighting in the surrounding settlements.

Landscape Character

- 4.16. Reference has been made to published guidance on landscape character for the area – see **Figure 4: Landscape Character**. The site is located on the edge of Landscape Character Type (LCT) 390: Lowland Basins, adjacent to the northern section of LCT 387: Dipslope Farmland.
- 4.17. The modelled Zone of Theoretical Visibility indicates, and the field survey has confirmed, that visibility of the Proposed Development from within LCT387 would be limited to two narrow bands on either side of the river valley:
- an area extending out to approx. 300m to the north and 1.2km to the north-north-west of the Site (both areas being to the north of the A935); and

- an intermittent area approx. 1–1.5km wide to the south of the A934.

4.18. The full published descriptions of LCT387 and LCT390 are provided at Appendix C. Key characteristics of relevance to the Site are described below:

LCT390: Lowland Basins

- *“Broad basins formed where sandstones have been eroded away leaving harder enclosing rocks.*
- *Flat, relatively low lying landform with strong horizontal composition.*
- *Extensive mudflats, reinforce openness and flatness of landscape, and dynamic character reinforces by presence of large populations of birds, and reflections of sky. Open, large scale, regular, tended pattern of fields on fringes of waterbodies.*
- *Rich natural heritage, particularly migratory and wading birds.*
- *Historic sites and associations.*
- *Dominance of water, sky and distant shores.*
- *Diverse, calm, settled and (away from main roads and other discordant elements) the quiet, calm and balanced ambience.*
- *Views are wide and panoramic across the basins along strong visual links to adjacent landscape types.”*

4.19. The House of Dun is noted as a local landmark in the vicinity of the Site, and wind turbines are also noted as being prominent in some views.

4.20. Landscape character perception is described thus:

“Views across the basin are open and panoramic. They vary greatly with the tidal conditions – at low tide there are great expanses of exposed mud and sand with wading birds and people digging for bait, whereas when the basin is filled with water the surface is more reflective. The Montrose church spire is a landmark feature and orientation point.”

LCT387: Dipslope Farmland

- *“Extensive area of lowland farmland running parallel to the coastline, generally sloping from Sidlaws and Forfar Hills in north–west to near sea level in the south–east.*
- *Dominated by productive agricultural land, it has an open, medium–scale character which is predominantly productive arable land use with simple geometric field patterns.*
- *Low woodland cover, except on large estates which have pine shelter belts and hedgerows, and along river corridors. Where located on the slopes it reinforces the change in gradient.*

- *Variety of historic sites from different eras ranging from prehistoric, Roman to Medieval, including castles, a number of historic estates and designed gardens which create a rich diverse character and strong local cultural identity.*
- *Dispersed settlement pattern, including some suburban development which extends outwith the historic settlement confines.*
- *Infrequent single and small clusters of a range of domestic and medium scale commercial turbines along the elevated slopes, prominent due to their elevation and the lack of significant woodland cover.*
- *Variety of views from within the landscape, but typically, given the broad fall of slope to the east, there is a strong visual relationship with views along the coast and wide panoramas out to open sea. Intervisibility across the Tay firth to the Fife coast is pronounced around Dundee and reduces in clarity with distance and prominence further north."*

4.21. The published landscape character assessments are considered to accurately reflect the landscapes of the Site and its environs.

4.22. The published landscape character assessments do not assess the sensitivity of the landscape to development.

Visual Baseline

4.23. This section provides a description of the nature and extent of the existing views to and from the Site, and within the surrounding area more generally. Where relevant, it also includes reference to specific locations that will potentially be subject to impacts as a result of the proposed development of the site.

Visual Envelope

4.24. The visual envelope is the area of landscape from which a site or proposed development will potentially be visible. It accounts for general judgements on the theoretical visibility of a site or proposed development and sets a broad context for the study area within which to address landscape and visual impacts. The extent of a visual envelope will be influenced by the physical landscape components of an area, such as hedgerows, woodlands or buildings and can also be influenced by distance from a site.

4.25. A computer generated screened ZTV has been produced for the site (see **Figure 5: Screened ZTV and Viewpoint Locations**); this is based on the height of the development as shown on the layout plan, and accounts for some degree of screening by existing built form and vegetation.

4.26. Although the ZTV represents a 'screened' scenario, the OS data sources only tend to include substantial blocks of trees and woodland. Much of the existing green infrastructure around the Site forms a 'layering effect', with the screening effects of lower level vegetation (such as hedgerows and shrub/scrub vegetation) and smaller areas of tree cover combining with drystone walls and very small-scale changes in topography to reduce visibility of low level development of the type proposed. Such effects are not modelled in the ZTV, and

consequently, overall screening is underestimated and the ZTV represents a 'worst-case scenario'.

- 4.27. Based on the ZTV and informed by subsequent site survey and observations from the field work, the visual envelope is broadly defined as follows:
- out to approx. 300m to the north of the Site;
 - out to approx. 225m to the east of the Site;
 - out to approx. 4.5km to the south-east of the Site (to the edge of Montrose on the east side of the Montrose Basin);
 - out to approx. 650m to the south of the Site (as far as the river), with a further 1-1.5km wide band of visibility to the south of the A934;
 - a narrow band out to approx. 3-4km to the south-south-west; and
 - out to approximately 1.5km to the west and 1.2km to the north-north-west.
- 4.28. The ZTV does not allow for the screening effects of any proposed planting within the Proposed Development.

Visual Receptors

- 4.29. Potential visual receptors identified in the vicinity of the Site are shown in Table 4.1:

Table 4.1: Potential Visual Receptors

Receptor Type	Location
Residential Occupiers	Dun Mill
	Mains of Dun and Mains of Dun Cottages
	Drum, Drum of Dun Farm Cottage, and The Fishing Lodge
	Properties at Bridge of Dun – Three Chimneys, Greenacres, Station Cottages (1 st floor windows only)
	The Smithy (and possibly other properties) at Barnhead
	Properties at Powis
	Balwylo and Balwylo Cottages

Receptor Type	Location
	Properties on the A934 at: <ul style="list-style-type: none"> • Sandyhillock Cottages • Carcary • Bonnyton • Fullerton • Maryton • Rossie Mills
Road Users	A935
	Minor road between Mains of Dun and Bridge of Dun
	Minor road between Bridge of Dun and Balwyllo
	Minor road between Bridge of Dun and Barnhead
	Minor road between Barnhead and Kinnaird Castle
	Minor road between Barnhead and Bonnyton
	Minor road between Barnhead and Maryton
	A934
Recreational Visitors	Users of Core Path CP99: The Lurgies
	Passengers on the Caledonian Railway
	Users of Balwyllo playing fields
	Bird watchers at the mouth of the River South Esk and Montrose Basin
	Users of Core Path 100: Bonnyton to Rossie Moor to the south of Bonnyton

- 4.30. There may also be some limited long-distance visibility of the Proposed Development from the western edge of Montrose. The separation distance between the Site and these potential receptors is such (approx. 4.5km) that effects on visual amenity would be no greater than negligible, and these receptors are not therefore considered further in this LVIA.
- 4.31. Bird watchers visiting the mouth of the River South Esk and the Montrose Basin (approx. 1-2km to the south-east of the Site) would be expected to have their attention and vision focussed on their main activity, rather than looking towards the Site. They are therefore considered unlikely to undergo more than negligible effects on visual amenity and are not considered further in this LVIA.

Receptor Sensitivity

- 4.32. The sensitivity of visual receptors within the landscape that surrounds the Site has been assessed using the methodology set out in Appendix A:
- **High sensitivity** – residential occupiers (views from main habitable rooms), recreational visitors;
 - **Medium sensitivity** – residential occupiers (views from rooms other than main habitable rooms), users of minor roads, people engaged in outdoor sporting activities where the focus of the receptor is not on the surrounding landscape;
 - **Low sensitivity** – people at places of work (e.g. industrial and commercial premises), people travelling through the landscape on main roads and motorways, and passengers on trains.
- 4.33. It should be noted that high voltage electricity transmission lines mounted on steel-lattice pylons are visible in some local views, running north-west and then west-north-west from the Bridge of Dun substation towards Brechin.

Selection of Representative Viewpoints

- 4.34. The ZTV for the Proposed Development was used to guide the selection of representative viewpoints for the visual assessment. The 12 selected viewpoints are not intended to cover every possible view, but rather are representative of a range of receptor types (e.g. residents, recreational visitors and road users) from various directions and distances from the site boundary.
- 4.35. A visual assessment from the representative viewpoints was carried out in November 2023 to determine how the proposed development might influence the visual amenity for these typical receptors. The assessment was carried out as part of the site survey, with the photographic assessment recording the character of the view and the Site. The viewpoint photographs are provided at **Figure 6: Viewpoint Photographs**, with the viewpoint locations shown on **Figure 5: ZTV and Viewpoint Locations Plan**.
- 4.36. The field survey was undertaken in autumn after a period of stormy weather, when deciduous vegetation generally had limited remaining leaf cover. It is therefore likely that the visibility of the site may be reduced during the summer months when such deciduous vegetation is in full leaf.

5. Proposed Development and Landscape Strategy

Proposed Development

- 5.1. The proposed development comprises a battery energy storage system (BESS) together with associated equipment and infrastructure. Although the final design of the equipment is not yet fixed, the proposed development is likely to consist of the following:
- battery units housed in shipping containers;
 - power conversion systems;
 - BESS substation;
 - DNO substation;
 - miscellaneous other items of electrical infrastructure;
 - boundary fencing (weldmesh or acoustic fencing) around the edge of the site, with access gates into the site;
 - access track from the minor road at Mains of Dun;
 - a pole-mounted CCTV and emergency lighting system located at strategic points around the site;
 - acoustic and visual screening bunds adjacent to the eastern and western boundaries of the Site; and
 - an attenuation basin adjacent to the southern boundary of the Site.
- 5.2. The ground surface within the security fence is likely to be stone or asphalt (or a combination of the two).
- 5.3. The BESS would be connected to the Bridge of Dun substation via an underground cable running along the western edge of the field to the south of the Site. Once installed, the cable would not be visible above ground.

Likely Causes of Impact

Causes of Temporary Impact during Construction

- 5.4. The temporary construction works which may give rise to impacts on landscape and visual receptors are as follows:
- installation of tree and hedgerow protection fencing where required;
 - movement of vehicles bring materials and equipment onto the Site;
 - presence and movement of construction vehicles and plant within the Site;

- presence of construction compounds, site offices and welfare facilities;
- temporary construction lighting (very limited);
- construction of the proposed access tracks;
- installation of fencing and CCTV system;
- installation of battery units and other infrastructure/services;
- installation and planting of the proposed landscape mitigation measures (see below).

5.5. The construction phase would give rise to short-term landscape and visual effects. The construction phase effects would be distinct to the operational effects as they would include more activity on Site (the operational phase having relatively low activity associated with it). Further information is contained elsewhere in the application documentation.

5.6. The construction-phase landscape and visual effects arising from the Proposed Development would be a secondary consideration to its 40-year long-term operational effects, which are the focus of the assessment contained in Section 6 of this report. Their short-term temporary nature means that construction phase effects would not exceed the operational effects in magnitude or scale. The principal effects of the development would relate to the operational phase, and construction phase effects are given no further specific consideration in this assessment.

Causes of Impact at Completion

- 5.7. The permanent components of the proposed development which may give rise to impacts on landscape and visual receptors are as follows:
- new elements such as containerised batteries, sub-stations and other infrastructure, fencing, and CCTV cameras;
 - stoned access tracks and hardstanding areas; and
 - changes to land use and pattern through the replacement of arable farmland with electricity infrastructure, species-rich grassland, and native trees and shrubs.

Landscape Mitigation Measures

- 5.8. The LVIA process has identified a number of key receptors within the environs to the Site which would undergo discernible adverse effects as a result of the Proposed Development, notably:
- residential receptors within approx. 500m of the Site to the north-east, east, south and west;
 - main road users on the A935 to the immediate north of the Site;
 - minor road users within approx. 500-600m of the Site to the east, south and west;
 - recreational visitors using Core Path CP99: The Lurgies to the south-east of the Site;

- passengers on Caledonian Railway; and
- people using the Balwyllo playing fields.

5.9. Initial draft designs for the Proposed Development have therefore been refined to allow the inclusion of substantial landscape mitigation measures as set out below and shown on the Landscape Masterplan at Appendix B.

- existing field boundary vegetation, such as hedgerows and hedgerow trees, would be retained and enhanced through additional planting and improved management to maximise their landscape and biodiversity benefits;
- the remnant hedgerow along the northern boundary (adjacent to the A935) would be replanted as a hedgerow with hedgerow trees;
- existing and proposed hedgerows would be managed to a height of 3m and an A-shaped profile to maximise biodiversity benefits;
- the proposed bunds would be planted with native shrubs, and seeded with a shade-tolerant species-rich seed mix;
- areas outside of the security fence but within the red line would be seeded with species-rich grass mixes and managed to maximise biodiversity benefits.

5.10. As well as providing the intended filtering and screening of views towards the Proposed Development, all of the proposed planting has been designed to fit with the local landscape character and vegetation patterns.

6. Assessment of Landscape Effects

- 6.1. The assessment of landscape effects considers the changes to the landscape as a resource. Different combinations of the physical, natural and cultural components (including aesthetic, perceptual and experiential aspects) of the landscape and their spatial distribution create the distinctive character of landscapes in different places.
- 6.2. Effects are considered in relation to both landscape features and elements, and landscape character, at Years 1 and 15. A summary of landscape effects is provided at **Table 6.2** at the end of this chapter.

Landscape Features and Elements

- 6.3. The following section describes the predicted changes to the physical landscape elements and features on the site that will give rise to the subsequent perceived changes in landscape character.
- 6.4. Direct effects on physical landscape features and elements would be limited to the Site itself, but some changes would be visible from the site environs.

Topography and Landform

- 6.5. The landform of the Site is typical for the local area and is therefore considered to be of low value. The Proposed Development would require only limited changes to the topography of the Site in order to create suitable platforms for the installation of the various elements of the Proposed Development, and to create the proposed bunds. The landform is therefore considered to be of low susceptibility to changes arising from development of the type proposed. The topography is therefore considered to be of **low** sensitivity.
- 6.6. The Proposed Development would result in only limited effects on the topography of the Site, mainly earthworks for the construction of access tracks and the levelling (via limited 'cut and fill') of areas required for transformers, containerised batteries and other structures, and the creation of the proposed bunds. Such changes would be small in scale, and limited to the Site itself (though visible from the environs to the Site). Changes would be long-term and permanent (although theoretically reversible). The magnitude of change is therefore assessed as **small**, and with low sensitivity this would result in a **minor adverse** effect at Year 1 which would remain broadly similar by Year 15.

Water Features

- 6.7. Ditches and other watercourses are common within the surrounding agricultural landscape and are therefore considered to be of medium value as landscape features. The existing ditches within the Site would be retained on their current alignments, with the implementation of regular maintenance to ensure that they continue to provide good drainage within the Site. They are therefore considered to be of low susceptibility to changes arising from development of the type proposed, and overall **low** sensitivity.
- 6.8. There would be **no discernible effects** on the existing ditches as landscape features.
- 6.9. The Proposed Development also includes the construction of an attenuation basin on the southern side of the main development area, which would be connected to the existing field

drainage system. The proposed attenuation basin would form a new landscape feature that would be entirely in keeping with the local landscape character, resulting in a **very small** magnitude of change. With low sensitivity, the effect would be **minor to negligible** and **neutral** (i.e., neither adverse nor beneficial).

- 6.10. Effects would remain broadly similar by Year 15.

Vegetation

- 6.11. Arable crops within the fields of the Site are considered to be of low value as they are common in the local area and temporary, being harvested and replanted on an annual cycle. The limited area of cropping land that would be lost as a result of the Proposed Development means that the arable cropping is considered to be of low susceptibility to changes arising from development of the type proposed. The overall sensitivity is therefore considered to be **low**.
- 6.12. Field boundary vegetation within the Site is variable, and the vegetation that is present would be retained and enhanced. The existing field boundary vegetation is therefore considered to be of low to medium value, and low susceptibility to changes arising from development of the type proposed. The overall sensitivity is therefore considered to be **low to medium**.
- 6.13. While there would be some limited loss of arable cropping land, the Proposed Development includes the enhancement of existing hedgerows, the planting of new hedgerows and hedgerow trees, and the planting of native shrubs on the proposed bunds. Areas outside of the security fence would be seeded with species-rich grassland.
- 6.14. In landscape terms, these vegetation changes are considered to result in beneficial effects on the vegetation within the Site. Such changes would be small in scale, and limited to the Site itself (though visible from the environs to the Site). Changes would be long-term and permanent (although theoretically reversible). At a site level the overall magnitude of change is therefore assessed as **small beneficial** at Year 1, increasing to **medium beneficial** by Year 15. For the local landscape as a whole, the magnitude would be **very small beneficial** at Year 1, increasing to **small beneficial** by Year 15.
- 6.15. With low to medium sensitivity this would result in a **minor to moderate beneficial** effect at the site level, increasing to **moderate beneficial** by Year 15 as the tree and shrub belts develop. For the local landscape as whole, the effect would be **minor beneficial**, increasing to **minor to moderate beneficial** by Year 15.

Public Access

- 6.16. Though there are no Core Paths within the Site, there is access to the Site in line with the 2003 Land Reform Act and the SOAC. Any such access to the arable fields would be restricted by the SOAC to the field perimeters. At the time of the field survey, there was little evidence of regular access across the Site, and as a recreational resource, the Site is therefore considered to be of low value.
- 6.17. The Proposed Development would result in the main development area within the Site being fenced for the security of the installed infrastructure and for electrical safety. Access would continue to be possible to the field boundaries outside of the fenced areas, but this would not result in a notable reduction in access compared to the current arable fields. The current

level of access within the Site is therefore considered to be of medium susceptibility, resulting in overall **low** sensitivity.

- 6.18. Changes would be small in scale, and limited to restricted parts of the Site. Changes would be long-term and permanent (although theoretically reversible). The overall magnitude of change is therefore assessed as **very small**, resulting in a **minor adverse to negligible** effect. The effect would not change over the life of the Proposed Development.
- 6.19. The Proposed Development would not alter the extent of public access in the wider environs to the Site, or result in direct effects on any Core Paths or notable areas of publicly land (such as the Montrose Basin).

Land Use and Development

- 6.20. The Site is used for arable agriculture, but there are farmsteads and individual residential properties in the surrounding area. The A935 main road runs adjacent to the northern boundary of the Site.
- 6.21. Being common in the local area, the agricultural land use of the Site is considered to be of low value, but high susceptibility to changes arising from development of the type proposed. The overall sensitivity is therefore considered to be **medium**.
- 6.22. The proposals would represent a change to the current land use from predominantly agricultural fields to an operational BESS, albeit in the context of the nearby substation and associated powerlines. Changes in land use would be large in scale, but limited to within the Site itself. Such changes would be long-term, but reversible when the BESS is decommissioned, with the land being capable of complete reversion to agriculture. The magnitude of change is therefore assessed as **medium**, and with medium sensitivity this would result in a **moderate adverse** effect at both Year 1 and Year 15.
- 6.23. The Proposed Development would not result in changes to development patterns in the wider area, or to transport infrastructure.

Landscape Character

Landscape Sensitivity

- 6.24. Landscape sensitivity is a term applied to specific receptors, combining judgements on the value related to a landscape (i.e. the receptor) with the susceptibility of the landscape to the specific type of change proposed. Receptors can include specific landscape elements or features or may be judged at a wider scale and include landscape character parcels, types or areas.
- 6.25. As advocated in the GLVIA3, professional judgement is used to balance analysis of value and susceptibility in order to determine sensitivity. Each of these aspects of the analysis will vary subject to the scale and detail of the assessment.
- 6.26. In order to inform judgements on value and susceptibility the following section refers to the baseline information (Section 4) and additional consideration of the local character in relation to the site and its immediate context. These judgements are then carried through to the analysis of landscape sensitivity.

Landscape Value

- 6.27. The landscape character of the Site and its (immediate) environs is defined by:
- its use for arable agriculture;
 - its setting on the edge of the floodplain of the River South Esk;
 - the substation and powerlines;
 - the Caledonian Railway to the south;
 - the woodland areas to the south-west in the vicinity of Kinnaird Castle; and
 - the Montrose Basin.

- 6.28. The landscape of the Site and its environs is undesignated at either national/statutory or local/non-statutory levels. The value of local landscape character has therefore been assessed in the context of GLVIA3 Box 5.1 and TGN O2/21 – see **Table 6.1** below.

Table 6.1: Assessment of Landscape Value (after GLVIA3 Box 5.1 and TGN O2/21)

Factor	Commentary
Natural Heritage	The Site comprises arable farmland used for the production of combinable crops. Existing field boundary vegetation is a mix of hedgerows and more open areas. This has some ecological value, and would be enhanced as part of the Proposed Development. No clearly identified landscape-related geological interests.
Cultural Heritage	No specific cultural or heritage designations within the Site. The House of Dun (IGDL and a number of LBs) lies approx. 250m to the north-east of the Site, with other heritage assets present within the wider study area.
Landscape Condition	The local landscape is generally considered to be in moderate condition.
Associations	No well-known specific associations with notable people, events or the arts.
Distinctiveness	Although located on the edge of the floodplain of the River South Esk, close to where the river flows into the Montrose Basin, the local landscape is not noted for being distinctive, and the Site is not considered to be atypical for the local area.

Factor	Commentary
Recreational	<p>No Core Paths within the Site, and no evidence of notable use of the Site for recreational access. Core Path CP99: The Lurgies lies approx. 700m to the south of the Site, on the south bank of the River South Esk. Much of the path is enclosed by gorse bushes, with only limited visibility towards the Site.</p> <p>Montrose Basin is well-used by bird watchers, and the Caledonian Railway to the south is a popular tourist attraction.</p>
Perceptual – Scenic	<p>The Site and its environs are of moderate scenic quality. Powerlines and the substation detract from landscape character, as does traffic on the busy main road to the north.</p>
Perceptual – Wildness and Tranquillity	<p>The local landscape is clearly managed for agriculture and is not considered to be wild or remote.</p> <p>Tranquillity is adversely affected by busy local roads.</p>
Functional	<p>The Site does not provide the setting for any statutory / national or non-statutory / local landscape designations.</p> <p>Intervening tree cover means that the Site is very unlikely to be visible from the IGDLs at House of Dun and Kinnaird Castle.</p>

6.29. Based on the above analysis, the landscape of the Site and its immediate environs is considered to be of medium value.

Landscape Susceptibility

6.30. In LVIA, landscape susceptibility is the ability of a landscape to accommodate change without undue consequences for the maintenance of the baseline situation.

6.31. Different types of development can affect landscapes in different ways and consequently landscape susceptibility is specific to the type of development proposed (i.e., a BESS).

6.32. The local landscape is already strongly influenced by human activity – agriculture, the substation and powerlines, the Caledonian Railway, busy roads, and various farmsteads and residential properties. The landscape of the Site and its environs is therefore considered to be of medium susceptibility to development of the type proposed (a change from arable agriculture to a BESS facility).

Landscape Sensitivity

6.33. With medium value and medium susceptibility to development of the type proposed, the landscape of the Site and its immediate environs is considered to be of overall **medium** sensitivity.

Effects on Landscape Character

Landscape Character of the Site

- 6.34. Direct effects on landscape character would be limited to the Site itself, with some perceptual/experiential effects extending across the wider visual envelope as set out at Paragraph 4.27. Indirect effects on landscape character would reduce with increasing distance from the Site.
- 6.35. Direct effects on the Site would be large scale, limited to within the Site, long-term in duration, but reversible following decommissioning of the site at the end of its life. The magnitude of change to the landscape character of the Site is therefore assessed as **large**. With medium sensitivity, this would result in a **major adverse** effect at both Years 1 and 15.

Landscape Character of the Surrounding Landscape

- 6.36. Within the immediate environs to the Site, experiential/perceptual changes would be of medium scale and localised, reducing to small scale with increasing distance from the Site. The overall magnitude of change to the landscape immediately surrounding the Site would be **medium**, generally experienced within up to approx. 175–200m to the north and east of the Site, and up to approx. 500–600m to the south and west of the Site. By Year 15, the growth and development of the proposed mitigation planting would mean that the magnitude of change would reduce to **small**.
- 6.37. Much more limited indirect effects on landscape character may be experienced in certain locations (from where the Proposed Development may be visible) up to 1–1.5km to the south of the Site.
- 6.38. The scale of change for LCT390: Lowland Basins would be small. Changes would be long-term, but reversible following decommissioning of the site at the end of its life. For LCT390 overall, the magnitude of change would be **small**, and would remain broadly similar by Year 15.
- 6.39. As noted at Paragraph 4.17, there would also be some very limited visibility of the Proposed Development from, and therefore very limited perceptual/experiential effects on landscape character within, very restricted parts of LCT387: Dipslope Farmland. The magnitude of change to the landscape character of this LCT would be **very small**, and would remain broadly similar by Year 15.
- 6.40. With medium sensitivity, the effects of the Proposed Development on the character of the landscape within the immediate environs to the Site (generally within up to approx. 175–200m to the north and east of the Site, and up to approx. 500–600m to the south and west of the Site) would be **moderate adverse**. By Year 15, the scale of effect would reduce to **minor to moderate adverse**.
- 6.41. For LCT390 overall, the scale of effect would be **minor to moderate adverse**, and would remain broadly similar by Year 15.
- 6.42. For LCT387, the scale of effect would be at worst **minor adverse**, experienced only within very restricted parts of the LCT. Effects would remain broadly similar by Year 15.

Inventory Gardens and Designed Landscapes

- 6.43. The limited visibility of the Proposed Development to the north-east and south-west, combined with strong boundary vegetation surrounding the IGDLs at House of Dun and Kinnaird Castle, means that the Proposed Development is unlikely to result in discernible landscape or visual effects on these IGDLs.

Summary of Landscape Effects

Table 6.2: Summary of Landscape Effects

Receptor	Sensitivity	Development Phase	Magnitude of Change	Scale of Effect
Landscape Features and Elements				
Topography and Landform	Low	Year 1	Small	Minor adverse
		Year 15	Small	Minor adverse
Water Features	Low	Year 1	No discernible change to existing features Very small change arising from proposed attenuation basin	No discernible effect on existing features Minor to negligible neutral effect arising from the proposed attenuation basin
		Year 15	No discernible change to existing features Very small change arising from proposed attenuation basin	No discernible effect on existing features Minor to negligible neutral effect arising from the proposed attenuation basin
Vegetation	Low to medium	Year 1	Small beneficial (Site) Very small beneficial (local vegetation resource as a whole)	Minor to moderate beneficial (Site) Minor beneficial (local vegetation resource as a whole)

Receptor	Sensitivity	Development Phase	Magnitude of Change	Scale of Effect
		Year 15	Medium beneficial (Site) Small beneficial (local vegetation resource as a whole)	Moderate beneficial (Site) Minor to moderate beneficial (local vegetation resource as a whole)
Access	Low	Year 1	Very small	Minor adverse to negligible
		Year 15	Very small	Minor adverse to negligible
Land Use and Development	Medium	Year 1	Medium	Moderate adverse
		Year 15	Medium	Moderate adverse
Landscape Character				
Site	Medium	Year 1	Large	Major adverse
		Year 15	Large	Major adverse
Site environs (out to approx. 175–200m to the north and east, and 500–600m to the south and west)	Medium	Year 1	Medium	Moderate adverse
		Year 15	Small	Minor to moderate adverse
LCT390: Lowland Basins	Medium	Year 1	Small	Minor to moderate adverse
		Year 15	Small	Minor to moderate adverse
LCT387: Dipslope Farmland	Medium	Year 1	Very small	Minor adverse
		Year 15	Very small	Minor adverse

6.44. The Proposed Development would not result in discernible landscape or visual effects on the IGDs at House of Dun and Kinnaird Castle.

7. Assessment of Visual Effects

- 7.1. Visual impacts are considered separately to landscape impacts. For landscape impacts it is necessary to understand the combination of direct and indirect impacts on the landscape resources potentially affected by a proposed development and therefore it is possible to provide a description and overview of the key impacts that are likely to affect the study area.
- 7.2. However, for visual receptors it is necessary to understand the specific, direct impacts on each view. Therefore, the causes of impact are considered on the basis of individual receptors and are set out in the following sections as an integral part of the assessment of visual effects.

Residential Occupiers

Dun Mill

- 7.3. The orientation of the property means that the majority of views are to the south, rather than to the west and towards the Site. Furthermore, there is a tall evergreen hedge separating much of the garden from road, and this further restricts visibility towards the Proposed Development – see **Viewpoint 1**. The proposed access track for the BESS would pass in front of the property (on the south side of and below the grade of the A935), and the construction access would also be visible, but overall visibility of the Proposed Development would be very limited.
- 7.4. The scale and geographic extent of changes to the view would be at worst small, and changes would be long-term in duration, but reversible following decommissioning of the site at the end of its life. The overall magnitude of change to visual amenity as experienced from this property is assessed as at worst **very small** at Year 1, and would not change noticeably by Year 15. With high sensitivity, the scale of effect would be **minor to moderate adverse** at both Years 1 and 15.

Mains of Dun and Mains of Dun Cottages

- 7.5. Views from the farmhouse at Mains of Dun are restricted by intervening farm buildings and tree cover, while the orientation of the cottage adjacent to the farm buildings means that views towards the Site would also be very limited. For these properties, effects would be no greater than **negligible**.
- 7.6. There is greater visibility of the Site from the rear elevations of Nos. 2–4 Mains of Dun Cottages – see **Viewpoint 2**. The proposed construction access road passes immediately to the west of these properties, while the main development area lies approx. 300m to the north-west and would be clearly visible.
- 7.7. The scale and geographic extent of changes to the view would be medium, and changes would be long-term in duration, but reversible following decommissioning of the site at the end of its life. The overall magnitude of change to visual amenity as experienced from these properties is assessed as **medium** at Year 1, but **large** during the construction phase. By Year 15, as the proposed mitigation planting develops and grows, particularly the shrub planting on the eastern bund, the Proposed Development would remain visible, but would become increasingly assimilated into the surrounding landscape. The magnitude of change would reduce to **small**.

- 7.8. With high sensitivity, the scale of effect for occupiers of Nos. 2–4 Mains of Dun Cottages would be **major adverse** during the construction phase and at Year 1, reducing to **moderate adverse** by Year 15.

Drum, Drum of Dun Farm Cottage, and The Fishing Lodge

- 7.9. Views from these properties are restricted by intervening tree cover and hedgerows, particularly that lining the disused railway line to the east of Bridge of Dun station. There would, however, be some limited visibility of the Proposed Development from these properties. Similar, but more distant views, are shown by **Viewpoint 9**.
- 7.10. The scale and geographic extent of changes to the view would be small, and changes would be long-term in duration, but reversible following decommissioning of the site at the end of its life. The overall magnitude of change to visual amenity as experienced from these properties is assessed as **small** at Year 1, and would not change noticeably over time.
- 7.11. With high sensitivity, the scale of effect would be at worst **moderate adverse** at Year 1 and Year 15.

Properties at Bridge of Dun – Three Chimneys, Greenacres, Station Cottages

- 7.12. The orientation of Greenacres, combined with vegetation around the boundary of Three Chimneys, means that views towards the Proposed Development from this property are likely to be very limited. Effects would be no greater than **negligible**.
- 7.13. High hedges and outbuildings, as well as the single-storey nature of the property, means that views towards the Proposed Development from Three Chimneys are also likely to be limited, though some views may be possible, particularly from the western part of the garden – see **Viewpoint 3**.
- 7.14. There would be some visibility of the Proposed Development from 1st floor windows of some of the properties at Bridge of Dun Cottages – see **Viewpoint 4**, though views are restricted by tree cover on the north side of the railway, and views are across the station yard. Furthermore, these windows are unlikely to be providing views from the main habitable rooms of the properties, and the sensitivity of receptors is therefore reduced.
- 7.15. The scale and geographic extent of changes to the view from Three Chimneys and Bridge of Dun Cottages would be at worst small, and changes would be long-term in duration, but reversible following decommissioning of the site at the end of its life. The overall magnitude of change to visual amenity as experienced from these properties is assessed as **small** and **very small** respectively at Year 1. The magnitude of change would not alter noticeably over time.
- 7.16. With high sensitivity, the scale of effect on receptors at Three Chimneys would be at worst **moderate adverse**. For receptors at Bridge of Dun Cottages, the effect would be at worst **minor adverse**. Effects would not change noticeably over time.

Balwylo and Balwylo Cottages

- 7.17. The orientation of all of these properties is such that the main views are generally to the south-south-east, and not towards the Proposed Development. Tree cover to the east of the main house at Balwylo also further restricts views towards the Site. There may be some very

limited visibility of the Proposed Development from the easternmost of the cottages, but views would be restricted by intervening trees and topography – see **Viewpoint 7**.

- 7.18. The scale and geographic extent of changes to the view would be at worst small, and changes would be long-term in duration, but reversible following decommissioning of the site at the end of its life. The overall magnitude of change to visual amenity as experienced from these properties is assessed as at worst **very small** at Year 1, reducing to **negligible** by Year 15 as the proposed mitigation planting on the western bund grows and develops.
- 7.19. With high sensitivity, the scale of effect would be at worst **minor to moderate adverse** at Year 1, reducing to **negligible** by Year 15.

Properties at Barnhead, Powis, and on the A934

- 7.20. Whilst there may be some very limited visibility of the Proposed Development from some of these properties, the proposed BESS would form only a very small component in wide and expansive views, seen at a distance of over 3km – see **Viewpoints 10, 11 and 12**. Effects on visual amenity are therefore considered unlikely to be any greater than negligible.

Road Users

A935

- 7.21. The Proposed Development would be clearly visible to road users as they pass the Site, with the Proposed Development being prominent in views along a stretch of the road approximately 600m in length – see **Viewpoints 1 and 8**. Further to the west, there would be reduced visibility along another approx. 400m of the road – see **Viewpoint 7**.
- 7.22. The scale and geographic extent of changes to the view would be large as road users pass the Proposed Development. Changes would be long-term in duration, but reversible following decommissioning of the site at the end of its life. The overall magnitude of change to visual amenity as experienced from the A935 is assessed as **large** at Year 1, reducing to **small** by Year 15 as the proposed mitigation planting grows and develops.
- 7.23. With low sensitivity, the scale of effect would be at worst **moderate adverse** at Year 1, reducing to **minor adverse** by Year 15.

Minor road between Mains of Dun and Bridge of Dun

- 7.24. The Proposed Development would be visible to road users from much of this route, though in some sections roadside hedgerows and hedgerow trees would reduce the visibility – see **Viewpoints 2 and 3**. Construction traffic would also access the Site from this road.
- 7.25. The scale and geographic extent of changes to the view would be medium, and changes would be long-term in duration, but reversible following decommissioning of the site at the end of its life. The overall magnitude of change to visual amenity is assessed as **medium** at Year 1 and Year 15.
- 7.26. With medium sensitivity, the scale of effect would be **moderate adverse** at Year 1 and Year 15.

Minor road between Bridge of Dun and Balwyllo

- 7.27. The Proposed Development would be visible to road users from parts of this route – see **Viewpoints 5 and 6**. During construction, works relating to the cable connection to the substation would be visible adjacent to the road where it passes the substation.
- 7.28. The scale and geographic extent of changes to the view would be medium, and changes would be long-term in duration, but reversible following decommissioning of the site at the end of its life. The overall magnitude of change to visual amenity is assessed as **medium** at Year 1 and Year 15.
- 7.29. With medium sensitivity, the scale of effect would be **moderate adverse** at Year 1 and Year 15.

Minor road between Barnhead and Kinnaird Castle

- 7.30. The Proposed Development would not be visible from the majority of this route, but there would be some limited visibility from a short section to the north-west of Barnhead – see **Viewpoint 10**.
- 7.31. The scale and geographic extent of changes to the view would be at worst small, and changes would be long-term in duration, but reversible following decommissioning of the site at the end of its life. The overall magnitude of change to visual amenity is assessed as **very small** at Year 1 and Year 15.
- 7.32. With medium sensitivity, the scale of effect would be at worst **minor adverse** at Year 1 and Year 15.

A934

- 7.33. While there would be some visibility of the Proposed Development from restricted sections of the A934, the BESS would appear as only a very small component in wide and expansive views, seen at a distance of over 3km – see **Viewpoints 11 and 12**.
- 7.34. The scale and geographic extent of changes to the view would be at worst small, and changes would be long-term in duration, but reversible following decommissioning of the site at the end of its life. The overall magnitude of change to visual amenity is assessed as **very small** at Year 1 and Year 15.
- 7.35. With low sensitivity, the scale of effect would be at worst **minor adverse to negligible** at Year 1 and Year 15.

Other roads

- 7.36. While there may be occasional glimpsed views of the Proposed Development from other roads in the surrounding, visibility would be limited and passing due to intervening vegetation, and the Proposed Development would generally not form a noticeable feature in such views.

Recreational Visitors

Users of Core Path CP99: The Lurgies

- 7.37. For the majority of CP99, gorse and other vegetation lining the causeway restricts visibility towards the Site. There are however a small number of locations where gaps in the vegetation would allow views towards the Proposed Development – see **Viewpoint 9**.
- 7.38. At those locations where views are possible, the scale and geographic extent of changes to the view would be at worst small, and changes would be long-term in duration, but reversible following decommissioning of the site at the end of its life. The overall magnitude of change to visual amenity as experienced from these locations is assessed as at worst **small**, and would not change noticeably over time. For the route as a whole, the magnitude of change would be **negligible**.
- 7.39. With high sensitivity, the scale of effect would be at worst minor to **moderate adverse**. For the route as whole the effect would be **negligible**.

Passengers on the Caledonian Railway

- 7.40. Passengers would have views of the Proposed Development as they approach Bridge of Dun station (heading east), and leave the station (heading west back towards Brechin) – see **Viewpoint 6**. While train passengers are typically considered to be of low sensitivity, those travelling on a tourist route such as the Caledonian Railway are considered to be of medium sensitivity as the views obtained from the train are part of the visitor experience.
- 7.41. The scale and geographic extent of changes to the view would be small, and changes would be long-term in duration, but reversible following decommissioning of the site at the end of its life. The overall magnitude of change to visual amenity is assessed as **small** at Year 1 and Year 15.
- 7.42. With medium sensitivity, the scale of effect would be **minor to moderate adverse** at Year 1 and Year 15.

Users of Balwyllo Playing Fields

- 7.43. There may be some very limited visibility of the Proposed Development from the playing fields, though the tree belt along the eastern side of the playing fields would further restrict visibility – see **Viewpoint 7**.
- 7.44. The scale and geographic extent of changes to the view would be at worst small, and changes would be long-term in duration, but reversible following decommissioning of the site at the end of its life. The overall magnitude of change to visual amenity as experienced from the playing fields is assessed as at worst **very small** at Year 1, reducing to **negligible** by Year 15 as the proposed mitigation planting on the western bund grows and develops.
- 7.45. With medium sensitivity, the scale of effect would be at worst **minor adverse** at Year 1, reducing to **negligible** by Year 15.

Bird watchers at the mouth of the River South Esk and Montrose Basin

- 7.46. There may be some very limited visibility of the Proposed Development from some locations used by bird watchers around the Montrose Basin and on the River South Esk – see

Viewpoints 9 and 11. The BESS would appear as only a very small component in wide and expansive views, and is unlikely to be the main focus of views.

7.47. The scale and geographic extent of changes to the view would be at worst small, and changes would be long-term in duration, but reversible following decommissioning of the site at the end of its life. The overall magnitude of change to visual amenity is assessed as **very small** at Year 1 and Year 15.

7.48. With high sensitivity, the scale of effect would be at worst **minor to moderate adverse** at Year 1 and Year 15.

Users of Core Path 100: Bonnyton to Rossie Moor to the south of Bonnyton

7.49. There would be some very limited visibility of the Proposed Development from this route as users descend from Rossie Moor to Bonnyton. The Proposed Development would be predominantly hidden from view by intervening vegetation, and would form only a very small component in wide and expansive views.

7.50. The scale and geographic extent of changes to the view would be at worst small, and changes would be long-term in duration, but reversible following decommissioning of the site at the end of its life. The overall magnitude of change to visual amenity is assessed as **very small** at Year 1 and Year 15.

7.51. With high sensitivity, the scale of effect would be at worst **minor to moderate adverse** at Year 1 and Year 15.

Summary of Visual Effects

Table 7.1: Summary of Visual Effects

Receptor	Sensitivity	Development Phase	Magnitude of Change	Scale of Effect
Residential Occupiers				
Dun Mill	High	Year 1	Very small	Minor to moderate adverse
		Year 15	Very small	Minor to moderate adverse
Mains of Dun	High	Year 1	Negligible	Negligible
		Year 15	Negligible	Negligible
Mains of Dun Cottages	High	Construction	Large	Major adverse
		Year 1	Medium	Major adverse
		Year 15	Small	Moderate adverse
	High	Year 1	Small	Moderate adverse

Receptor	Sensitivity	Development Phase	Magnitude of Change	Scale of Effect
Drum, Drum of Dun Farm Cottage, and The Fishing Lodge		Year 15	Small	Moderate adverse
Properties at Bridge of Dun – Three Chimneys, Greenacres, Station Cottages	High/Medium	Year 1	Small/ Very small	Moderate adverse/Minor adverse
		Year 15	Small/ Very small	Moderate adverse/Minor adverse
Balwylo and Balwylo Cottages	High	Year 1	Very small	Minor to moderate adverse
		Year 15	Negligible	Negligible
Properties at Barnhead, Powis, and on the A934	High	Year 1	Negligible	Negligible
		Year 15	Negligible	Negligible
Road Users				
A935	Low	Year 1	Large	Moderate adverse
		Year 15	Small	Minor adverse
Minor road between Mains of Dun and Bridge of Dun	Medium	Year 1	Medium	Moderate adverse
		Year 15	Medium	Moderate adverse
Minor road between Bridge of Dun and Balwylo	Medium	Year 1	Medium	Moderate adverse
		Year 15	Medium	Moderate adverse
Minor road between Barnhead and Kinnaird Castle	Medium	Year 1	Very small	Minor adverse
		Year 15	Very small	Minor adverse
A934	Low	Year 1	Very small	Minor adverse to negligible
		Year 15	Very small	Minor adverse to negligible

Receptor	Sensitivity	Development Phase	Magnitude of Change	Scale of Effect
Recreational Visitors				
Users of Core Path CP99: The Lurgies	High	Year 1	Small/negligible	Moderate adverse/negligible
		Year 15	Small/negligible	Moderate adverse/negligible
Passengers on the Caledonian Railway	Medium	Year 1	Small	Minor to moderate adverse
		Year 15	Small	Minor to moderate adverse
Users of Balwyllo Playing Fields	Medium	Year 1	Very small	Minor adverse
		Year 15	Negligible	Negligible
Bird watchers at the mouth of the River South Esk and Montrose Basin	High	Year 1	Very small	Minor to moderate adverse
		Year 15	Very small	Minor to moderate adverse
Users of Core Path 100: Bonnyton to Rossie Moor to the south of Bonnyton	High	Year 1	Very small	Minor to moderate adverse
		Year 15	Very small	Minor to moderate adverse



8. Summary and Conclusions

Overview

- 8.1. Pegasus Group has been instructed by RES Ltd. (the Applicant), to undertake a Landscape and Visual Impact Assessment in relation to a proposed battery electricity storage scheme (BESS) on farmland at Dun Mill, Bridge of Dun, near Montrose, Angus (the Site).
- 8.2. The scope of this LVIA has included early consideration of constraints and opportunities for the site and its local landscape context. This has been used to inform the current proposed Landscape Masterplan for the Proposed Development which, consequently, incorporates a 'landscape and ecologically led' approach to design and mitigation.

The Site and its Environs

- 8.3. The Site lies outside of any national/statutory or local/non-statutory landscape designations. There are two designated Inventory Gardens and Designed Landscapes (IGDLs) within the study area: The House of Dun (approx. 250m to the north-east of the Site); and Kinnaird Castle (approx. 2.5km to the south-west of the Site).
- 8.4. The Site comprises part of the single field of arable farmland, with the access to the Site crossing the eastern edge of second arable field. The Site area is 3.69ha. The below ground connection to the National Grid at the Bridge of Dun substation lies outside of the application boundary. The surrounding landscape comprises arable and some pastoral farmland, with some forestry.
- 8.5. The Site slopes from approx. 17m AOD adjacent to the A935 main road in the north-west corner of the Site, down to approx. 8m AOD in the south-east corner. The Site is situated on the northern edge of the floodplain of the River South Esk, with land to the immediate north of the Site rising up to a ridge at approx. 100-110m AOD. Land to the south falls towards the river, and then rises again to another ridge at approx. 125-140m AOD. Land to the east falls towards the Montrose Basin. There are drainage ditches on at least part of many of the boundaries of the field containing the Site. The River South Esk lies approx. 625m to the south of the Site at its closest, with the river and its floodplain forming the main landscape feature in the local area as it empties into the Montrose Basin, approx. 1.6km to the south-east.
- 8.6. Comprising only part of two fields, many of the boundaries to the Site are not currently demarcated on the ground. The northern boundary to field containing most of the Site, adjacent to the A935, is a mix of native hedgerow (in poor condition, in places little more than remnants), post and wire fence, and open sections, with a single hedgerow tree near the boundary between the two fields. The eastern boundary is a mix of native hedgerow and trees. The eastern part of the southern boundary is open, with the western part being formed by a drainage ditch with extensive reed growth. The western boundary comprises a row of trees, with the western boundary of the adjacent field formed by a native hedgerow with hedgerow trees in the southern half. Tree cover along the River South Esk is variable – woodland and tree belts in some locations (especially around Kinnaird Castle), and more open elsewhere.



- 8.7. There is theoretical access across the Site (under the Land Reform (Scotland) Act 2003), restricted to field boundaries as the fields are used for arable cropping. There are no Core Paths within the Site, but there is a single Core Path (CP99: The Lurgies) within the study area.
- 8.8. The Site and its immediate environs are predominantly rural in character, though with the busy A935 main road on the northern boundary, and the Bridge of Dun substation to the south. The Caledonian [Steam] Railway runs between Brechin and Bridge of Dun, with Bridge of Dun station being approx. 475m to the south of the Site. High voltage powerlines on steel-lattice pylons run north-west and then west-north-west from the substation towards Brechin. A network of main and minor roads links the various individual properties and farmsteads to the settlements of Brechin (approx. 5km to the west) and Montrose (approx. 4km to the east).
- 8.9. The site is located on the edge of LCT 390: Lowland Basins, adjacent to the northern section of LCT 387: Dipslope Farmland. The modelled ZTV indicates, and the field survey has confirmed, that visibility of the Proposed Development from within LCT387 would be limited to two narrow bands on either side of the river valley:
- an area extending out to approx. 300m to the north and 1.2km to the north-north-west of the Site (both areas being to the north of the A935); and
 - an intermittent area approx. 1-1.5km wide to the south of the A934.

The Proposed Development

- 8.10. The proposed development comprises a battery energy storage system (BESS) together with associated equipment and infrastructure.
- 8.11. Landscape mitigation proposals include:
- existing field boundary vegetation, such as hedgerows and hedgerow trees, would be retained and enhanced through additional planting and improved management to maximise their landscape and biodiversity benefits;
 - the remnant hedgerow along the northern boundary (adjacent to the A935) would be replanted as a hedgerow with hedgerow trees;
 - existing and proposed hedgerows would be managed to a height of 3m and an A-shaped profile to maximise biodiversity benefits;
 - the proposed bunds would be planted with native shrubs, and seeded with a shade-tolerant species-rich seed mix;
 - areas outside of the security fence but within the red line would be seeded with species-rich grass mixes and managed to maximise biodiversity benefits.
- 8.12. As well as providing the intended filtering and screening of views towards the Proposed Development, all of the proposed planting has been designed to fit with the local landscape character and vegetation patterns.



Effects on Landscape Features and Elements

- 8.13. As landscape features and elements, the Proposed Development would result in:
- a minor adverse effect on on-site topography;
 - no discernible effect on existing on-site water features, and minor to negligible neutral effect arising from the proposed attenuation basin;
 - a minor to moderate, increasing to moderate, beneficial effect on vegetation (field and boundary vegetation) within the Site, and minor, increasing to minor to moderate, beneficial effect on the local vegetation resource as a whole;
 - a minor adverse to negligible effect on access within the Site; and
 - a moderate adverse effect on land use within the Site.

Effects on Landscape Character

- 8.14. The Proposed Development would result in the conversion of a small area of arable farmland to a BESS, with species-rich grassland surrounding the BESS, together with the planting of new hedgerows with hedgerow trees and the enhancement of existing hedgerows, and the planting of native shrubs on the proposed bunds to the east and west of the BESS. Direct effects on landscape character would be limited to the Site itself, with some perceptual/experiential effects extending across the wider visual envelope. Indirect effects on landscape character would reduce with increasing distance from the Site.
- 8.15. Effects on the landscape character of the Site would be major adverse and long-term, but reversible at the end of the project following decommissioning.
- 8.16. The effects of the Proposed Development on the character of the landscape within the immediate environs to the Site (generally within up to approx. 175–200m to the north and east of the Site, and up to approx. 500–600m to the south and west of the Site) would be moderate adverse. By Year 15, the effects would reduce to minor to moderate adverse.
- 8.17. For LCT390 overall, the scale of effect would be minor to moderate adverse, and would remain broadly similar by Year 15.
- 8.18. For LCT387, the scale of effect would be at worst minor adverse, experienced only within very restricted parts of the LCT. Effects would remain broadly similar by Year 15.
- 8.19. The Proposed Development would not result in discernible landscape or visual effects on the IGDs at House of Dun and Kinnaird Castle.

Effects on Visual Amenity

- 8.20. Notable effects on visual amenity would be limited to receptors at Nos. 2–4 Mains of Dun Cottages, approx. 100m to the south-east of the main part of the Site. Effects on these receptors would reduce by Year 15 as the proposed planting develops and grows.



- 8.21. While the Proposed Development would be visible from some other locations within the surrounding landscape, it would generally be seen as a small component within a complex landscape and would not be prominent in the view.

Conclusion

- 8.22. Overall, notable adverse effects on landscape character and visual amenity would be limited to the Site and its immediate environs. Such effects are not considered to be in conflict with current local or national planning policy.

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Appendix A: LVIA Methodology

Introduction

1. This assessment has been undertaken with regard to best practice, as outlined in published guidance:
 - Guidelines for Landscape and Visual Impact Assessment (3rd edition) – Landscape Institute/ Institute of Environmental Management and Assessment (2013) [GLVIA3];
 - GLVIA3 Statement of Clarification 1/13 – Landscape Institute (2013);
 - An Approach to Landscape Character Assessment – Natural England, (October 2014);
 - Landscape Institute Technical Guidance Note – Visual Representation of Development Proposals (September 2019); and
 - Landscape Institute Technical Guidance Note – Assessing Landscape Value Outside National Designations (February 2021).
2. GLVIA3 states within paragraph 1.1 that “Landscape and Visual Impact Assessment (LVIA) is a tool used to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource in its own right, and on people’s views and visual amenity.”
3. GLVIA3 also states within paragraph 1.17 that when identifying landscape and visual effects there is a “need for an approach that is in proportion to the scale of the project that is being assessed and the nature of the likely effects. Judgement needs to be exercised at all stages in terms of the scale of investigation that is appropriate and proportional.”
4. GLVIA3 recognises within paragraph 2.23 that “professional judgement is a very important part of LVIA. While there is some scope for quantitative measurement of some relatively objective matters much of the assessment must rely on qualitative judgements” undertaken by a landscape consultant or a Chartered Member of the Landscape Institute (CMLI).
5. The effects on cultural heritage and ecology are not considered within this LVIA but where relevant are considered elsewhere in the application documentation.

Study Area

6. The study area for this LVA covers a 3km radius from the Application Site. However, the main focus of the assessment was taken as a radius of 2km from the Application Site as it is considered that even with clear visibility it is considered that there would be only very limited visibility of the Proposed Development beyond this distance, seen as a relatively small component in the wider landscape.

Effects Assessed

7. Landscape and visual effects are assessed through professional judgements on the sensitivity of landscape elements, landscape character, visual receptors and representative viewpoints combined with the predicted magnitude of change arising from the proposals. The landscape and visual effects have been assessed in the following sections:
 - Effects on landscape features and elements;
 - Effects on landscape character; and
 - Effects on visual amenity.
8. Sensitivity is defined in GLVIA3 as “a term applied to specific receptors, combining judgments of susceptibility of the receptor to a specific type of change or development proposed and the value related to that receptor.” Various factors in relation to the value and susceptibility of landscape elements, landscape character, visual receptors or representative viewpoints are considered below and are cross referenced, in combination with professional judgement, to determine the overall sensitivity as shown in Table A.3.
9. Magnitude of change is defined in GLVIA3 as “a term that combines judgements about the size and scale of the effect, the extent over which it occurs, whether it is reversible or irreversible and whether it is short or long term in duration.” Various factors contribute to the magnitude of change on landscape elements, landscape character, visual receptors and representative viewpoints.
10. Professional and reasoned judgements on the sensitivity of the landscape and visual receptor and the magnitude of change arising from the proposals are cross referenced in Table A.18 to determine the overall degree of landscape and visual effects.

Effects on Landscape Character and Landscape Features and Elements

11. Landscape character is defined in GLVIA3 as the “distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.” The assessment of effects on landscape character considers how the introduction of new landscape elements physically alters the landform, landcover, landscape pattern and perceptual attributes of the Application Site or how visibility of the proposals changes the way in which the surrounding landscape character is perceived.
12. The effects on landscape features and elements are limited to within the Application Site and includes the direct physical change to the fabric of the land, such as the removal of woodland, hedgerows or grassland to allow for the proposals.

Sensitivity of Landscape Character and Landscape Features and Elements

13. Sensitivity of landscape character and landscape features and elements is determined by a combination of the value that is attached to landscape character or a particular landscape feature or element and the susceptibility of the landscape character, feature or element to changes that would arise as a result of the proposals – see pages 88–90 of GLVIA3. Both value and susceptibility are assessed on a scale of high, medium or low.

14. The criteria for assessing the value of landscape character and landscape features and elements are shown in Table A.1 below. These criteria also relate to those identified in Box 5.1 of GLVIA3 (Page 84) and TGN O2/21, namely:

- natural heritage;
- cultural heritage;
- landscape condition;
- associations;
- distinctiveness;
- recreational;
- perceptual – scenic;
- perceptual – wildness and tranquillity; and
- functional.

Table A.1: Criteria for Assessing the Value of Landscape Features and Elements and Landscape Character

High	<p>Landscapes falling under statutory landscape designations including, but not limited to, World Heritage Sites, National Parks, Areas of Outstanding Natural Beauty, and considered to be an important component of the country's character experienced by a high number of people.</p> <p>Landscape condition is good, and components are generally maintained to a high standard.</p> <p>In terms of seclusion, enclosure by land use, traffic and movement, light pollution and presence/absence of major infrastructure, the landscape has an elevated level of tranquillity.</p> <p>Rare or distinctive landscape elements and features are key components that contribute to the landscape character of the area.</p> <p>Recognised associations with people or events.</p>
Medium	<p>Undesignated landscapes or those falling under local (non-statutory) designations, including urban fringe and rural countryside, considered to be a distinctive component of the local landscape character.</p> <p>Landscape condition is fair, and components are generally well maintained.</p> <p>In terms of seclusion, enclosure by land use, traffic and movement, light pollution and presence/absence of major infrastructure, the landscape has a moderate level of tranquillity.</p> <p>Rare or distinctive landscape elements and features are notable components that contribute to the character of the area.</p>

Low	<p>Undesignated landscape including urban fringe and rural countryside considered to be of unremarkable character.</p> <p>Landscape condition may be poor, and components poorly maintained or damaged.</p> <p>In terms of seclusion, enclosure by land use, traffic and movement, light pollution and presence/absence of major infrastructure, the landscape has limited levels of tranquillity.</p> <p>Rare or distinctive elements and features are not notable components that contribute to the landscape character of the area.</p>
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15. The criteria for assessing the susceptibility of landscape character and landscape features and elements are shown in Table A.2:

Table A.2: Criteria for Assessing Susceptibility of Landscape Character and Landscape Features and Elements

High	<p>Scale of enclosure – landscapes with a low capacity to accommodate the type of development being proposed owing to the interactions of topography, vegetation cover, built form etc.</p> <p>Nature of land use – landscapes with no or little existing reference or context to the type of development being proposed.</p> <p>Nature of existing elements – landscapes with components that are not easily replaced or substituted (e.g. ancient woodland, mature trees, historic parkland etc.).</p> <p>Nature of existing features – landscapes where detracting features, major infrastructure or industry is not present or where present has a limited influence on landscape character.</p>
Medium	<p>Scale of enclosure – landscapes with a medium capacity to accommodate the type of development being proposed owing to the interactions of topography, vegetation cover, built form etc.</p> <p>Nature of land use – landscapes with some existing reference or context to the type of development being proposed.</p> <p>Nature of existing elements – landscapes with components that are easily replaced or substituted.</p> <p>Nature of existing features – landscapes where detracting features, major infrastructure or industry is present and has a noticeable influence on landscape character.</p>

Low	<p>Scale of enclosure – landscapes with a high capacity to accommodate the type of development being proposed owing to the interactions of topography, vegetation cover, built form, etc.</p> <p>Nature of land use – landscapes with extensive existing reference or context to the type of development being proposed.</p> <p>Nature of existing features – landscapes where detracting features or major infrastructure is present and has a dominating influence on the landscape.</p>
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16. The relationship between the value of landscape character and landscape features and elements and their susceptibility to changes likely to arise from the Proposed Development is then used to determine the overall sensitivity, as shown in Table A.3.

Table A.3: Overall Sensitivity of Landscape and Visual Receptors

	Value			
		High	Medium	Low
Susceptibility	High	High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Low

17. Indicative landscape sensitivity criteria are then described in Table A.4:

Table A.4: Overall Sensitivity of Landscape Receptors

Criteria Level	Sensitivity Description
High	<p>Key characteristic(s) of landscape very vulnerable and could be adversely affected by development; and/or</p> <p>Areas of very strong positive character that are highly valued by virtue of their scenic quality (including most statutorily designated landscapes); and/or</p> <p>Distinctive perceptual/ aesthetic aspect that is often a signature feature of a landscape and that is vulnerable to adverse change; and/or</p> <p>Elements/features that could be described as unique; or are nationally scarce; or mature vegetation with provenance such as ancient woodland or mature parkland trees.</p>
Medium	<p>Some key characteristics may exhibit vulnerability to adverse effects from inappropriate or unsympathetic development that may lead to wider effects on character; and/or</p> <p>Areas that exhibit positive character but may have some evidence of alteration to/ degradation of/ erosion of features resulting in areas of more mixed character. Can also apply to areas with evidence of degraded character that remain valued by local communities; and/or</p> <p>Perceptual/ aesthetic aspect has some vulnerability to unsympathetic development; and/or</p> <p>Features/elements that are locally commonplace; unusual locally but in moderate/poor condition; or mature vegetation that is in moderate/poor condition or readily replicated.</p>

Low	<p>Key characteristics are robust and unlikely to be adversely affected by development; and/or</p> <p>Areas that are relatively bland or neutral in character with few/no notable features; and/or</p> <p>Evidence of alteration to/ degradation of /erosion of features; and/or</p> <p>Perceptual/ aesthetic aspect is either robust and unlikely to be affected by development, or is in the main negative; and/or</p> <p>Elements/features that are regionally and/or nationally ubiquitous; or make little contribution to local distinctiveness; and/or</p> <p>Elements/features that might be considered to detract from landscape character such as obtrusive man-made artefacts (e.g. power lines, large areas of hard-standing etc).</p>
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Magnitude of Change on Landscape Character and Landscape Features and Elements

18. Reasoned professional judgement has been used to determine the magnitude of change on landscape character and landscape features and elements. The following separate factors are considered:
- size/scale;
 - geographical extent;
 - duration; and
 - reversibility.
19. The assessment of size and scale of change is based on the indicative criteria set out in Table A.5:

Table A.5: Indicative Size/Scale Criteria

Criteria Level	Feature/Element	Aesthetic/Perceptual Aspect	Key Characteristics/ Overall Character
Large	All, or a large proportion of the feature/element is lost or altered, with its integrity compromised or greatly enhanced.	Change wholly or largely alters an aesthetic/ perceptual aspect, such that it becomes difficult/ impossible to appreciate, when considered against the baseline.	Very obvious/intensive change in the balance of landscape characteristics, with a resulting change in overall character.
Medium	Partial change to the element/feature in question, which may in some cases diminish or enhance its overall integrity.	Change is such that the development has an influence upon an aesthetic/ perceptual aspect, but said aspect remains appreciable.	Obvious change to one/more key characteristics, but overall character does not fundamentally change.
Small	Only a small proportion of the feature/element is affected, with no effect on its integrity.	Change has little tangible effect upon an aesthetic/ perceptual aspect.	Unremarkable change to key characteristics; and/or little/no effect upon the wider character

20. The geographical extent of a change is determined by the indicative criteria set out in **Table A.6:**

Table A.6: Geographical Extent Criteria

Criteria Level	Description
Site	The effect would be experienced only within the development site itself
Immediate setting/localised	The effect would be experienced in the immediate setting or surroundings of the site only, and would not be experienced within the wider landscape; or Localised change that would affect only a part of a landscape type/character area.

Landscape character type/landscape character area	The effect would be experienced wholly/largely within the landscape type/character area within which the development is located.
Wider landscape	The effect would be experienced across several landscape types/character areas.

21. The duration of a change is determined by the indicative criteria set out in **Table A.7:**

Table A.7: Duration Criteria

Criteria Level	Description
Permanent	Permanent or more than 25 years/a generation.
Long-term	10-25 years; or the change could not reasonably be considered temporary in nature.
Medium-term	3-10 years; or the limited duration of the change can be inferred by any reasonably informed person.
Short-term	0-3 years; or the change would be considered as temporary in nature by any reasonable person.

22. The reversibility of a change relates to the prospects and practicality of a change being able to be reversed, and is determined by the indicative criteria set out in **Table A.8:**

Table A.8: Reversibility Criteria

Criteria Level	Description
Reversible	Change can be wholly or largely reversed. For example, the removal of a wind farm development following decommissioning.
Partially reversible	Change is partially reversible. For example, the restoration of an unsightly quarry to something similar to the baseline.
Irreversible	Change cannot realistically be reversed, i.e., it is permanent.

23. These four factors are then considered together to derive an overall magnitude of change for each receptor, which is determined by use of professional judgement, based on the indicative criteria set out in **Tables A.9 & A.10** below.

Table A.9: Indicative Criteria for Magnitude of Change upon Landscape Character

Criteria Level	Description
Very large	Fundamental change in the make-up and balance of landscape characteristics over an extensive area.
Large	Very obvious change in the balance of landscape characteristics over an extensive area ranging to particularly intensive change over a more limited area.
Medium	Changes in an extensive area which whilst notable do not alter the balance of the landscape characteristics ranging to moderate changes in the localised area which whilst obvious do not fundamentally change local character.
Small	Limited change in any components of the wider landscape with modest and unremarkable changes in the localised area.
Very small	Very small and unremarkable change in any components of the landscape.
Negligible	Change, which whilst occurring would be virtually imperceptible within the wider landscape.

Table A.10: Indicative Criteria for Magnitude of Change upon Landscape Features and Elements

Criteria Level	Description
Very large	Permanent removal of, or a significant change to, the characteristics of the landscape element in question that cannot be replaced, reinstated or otherwise mitigated against.
Large	Permanent removal of, or a significant change to, the characteristics of the landscape element in question. Limited scope for replacement, reinstatement or other mitigation.

Medium	Partial removal of or moderate changes to the characteristics of the landscape element in question. Also applies to complete removal that can be suitably mitigated against.
Small	Small scale changes to a landscape element or loss of/change to a small proportion of an extensive feature. Larger scale losses that can be fully mitigated against through provision of equivalent replacement features.
Very small	Very small-scale changes to a landscape element or loss of/change to a very small proportion of an extensive feature. The changes can be fully mitigated against through provision of equivalent replacement features.
Negligible	Changes to a landscape element that would have no impact on the integrity of the element as a whole and that can be fully mitigated against through provision of equivalent replacement features.

Effects on Visual Amenity

24. The assessment of effects on visual amenity considers the changes in views arising from the proposals in relation to visual receptors including settlements, residential properties, transport routes, recreational facilities and attractions; including detailed assessments from the representative viewpoints within the study area.

Sensitivity of Visual Receptors

25. Sensitivity is determined by a combination of the value that is attached to a view and the susceptibility of the visual receptor to changes in that view that would arise as a result of the proposals – see pages 113–114 of GLVIA3. Both value and susceptibility are assessed on a scale of high, medium or low.
26. The criteria for assessing the value of views are shown in **Table A.11**.

Table A.11: Criteria for Assessing the Value of Views

High	Views with high scenic value within landscapes falling under statutory landscape designations including, but not limited to, World Heritage Sites, National Parks, Areas of Outstanding Natural Beauty etc. Likely to include key viewpoints on OS maps or reference within guidebooks, provision of facilities, presence of interpretation boards, etc.
Medium	Views with moderate scenic value within undesignated landscapes or those falling under local (non-statutory) designations, including urban fringe and rural countryside.

Low	Views with unremarkable scenic value within undesignated landscape with partly degraded visual quality and detractors.
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27. The criteria for assessing the susceptibility of views are shown in **Table A.12**.

Table A.12: Criteria for Assessing Visual Susceptibility

High	Includes occupiers of residential properties, and people engaged in recreational activities in the countryside including using public rights of way (PRoWs).
Medium	Includes people engaged in outdoor sporting activities where the focus of the receptor is not on the surrounding landscape, and people travelling through the landscape on minor roads and trains.
Low	Includes people at places of work (e.g. industrial and commercial premises), and people travelling through the landscape on major roads and motorways.

28. The relationship between the value of the view and the susceptibility of visual receptors to changes likely to arise as a result of the Proposed Development is then used to determine the overall sensitivity, as shown in **Table A.3** above.

Magnitude of Change on Visual Receptors

29. Reasoned professional judgement has been used to determine the magnitude of change on the views experienced by visual receptors. The following separate factors are considered:

- size/scale;
- geographical extent;
- duration; and
- reversibility.

30. The assessment of size and scale of change is based on the indicative criteria set out in **Table A.13**:

Table A.13: Indicative Size/Scale Criteria

Criteria Level	Description
Large	A marked change in the balance of features visible in the view; a marked change in the composition of the view; change would affect a significant proportion of the view; change/new features would represent an obvious contrast with existing features; views of the change would be clear and unencumbered by screening features; the development would occupy the foreground of the view.
Medium	The balance of features in the view would change, but not to such a degree that the existing composition of the view would fundamentally change; the change would, whilst obvious, be subordinate to existing features; the development would occupy the middle ground of the view.
Small	The balance and composition of the view would not change greatly from baseline; change would affect only a small proportion of the view; change/new features would not contrast strongly with existing features; views of the change would be screened/filtered or otherwise encumbered by existing foreground features; the development would occupy the background of the view.

31. The geographical extent of an effect is determined by the indicative criteria set out in **Table A.14:**

Table A.14: Indicative Geographic Extent Criteria

Criteria Level	Description
Large	Views would be direct from the receptor; views would generally be at short-range; change in view would be evident over a wide area.
Medium	The change in view would be experienced at an oblique angle to the main view available to the receptor; views would generally be at medium range.
Small	The change in view would not fall within the main angle of the view available to the receptor; views would generally be at long-range; change would be evident over a small area only.

32. The duration of a change is determined by the indicative criteria set out in **Table A.15**:

Table A.15: Duration Criteria

Criteria Level	Description
Permanent	Permanent or more than 25 years/a generation.
Long-term	10–25 years; or the change could not reasonably be considered temporary in nature.
Medium-term	3–10 years; or the limited duration of the change can be inferred by any reasonably informed person.
Short-term	0–3 years; or the change would be considered as temporary in nature by any reasonable person.

33. The reversibility of a change relates to the prospects and practicality of a change being able to be reversed, and is determined by the indicative criteria set out in **Table A.16**:

Table A.16: Reversibility Criteria

Criteria Level	Description
Reversible	Change can be wholly or largely reversed. For example, the removal of a wind farm development following decommissioning.
Partially reversible	Change is partially reversible. For example, the restoration of an unsightly quarry to something similar to the baseline.
Irreversible	Change cannot realistically be reversed, i.e., it is permanent.

34. These four factors are then considered together to derive an overall magnitude of change for each receptor, determined through professional judgement based on the indicative criteria set out in **Tables A.17**:

Table A.17: Indicative Criteria for Magnitude of Change upon the View

Criteria Level	Description
Very large	Fundamental change in the character, make-up and balance of the view. The proposals would be dominant; a controlling feature within the view.
Large	Very obvious changes in the character, make-up and balance of the view. The proposals would be a prominent feature. The nature of the existing view would change.
Medium	Moderate changes in the character, make-up and balance of the view, with the proposals noticeably distinct. This may lead to an overall change in the nature of the view depending upon the type and nature of change.
Small	The proposals would be visible as a new feature. Change would be limited and would be unlikely to affect the nature of the existing view as a whole.
Very small	Minor change in the nature of the view. Lacking sharpness of definition, not obvious, indistinct, not clear, obscure, blurred, indefinite.
Negligible	No discernible change in the view.

Assessment of Scale of Landscape and Visual Effects

35. The likely scale of effects is dependent on all of the factors considered in the sensitivity and the magnitude of change upon the relevant landscape and visual receptors. These factors are assimilated to assess the likely scale of effect which would arise from the Proposed Development. The variables considered in the evaluation of the sensitivity and the magnitude of change are reviewed holistically to inform the professional judgement of the scale of effect. The cross referencing of the sensitivity and magnitude of change on the landscape and visual receptor determines the scale of effect as shown in **Table A.18** below.

Table A.18: Scale of Landscape and Visual Effects

		Sensitivity		
		High	Medium	Low
Magnitude of Change	Very large	Major	Major	Moderate to Major
	Large	Major	Major	Moderate
	Medium	Major	Moderate	Minor to Moderate
	Small	Moderate	Minor to Moderate	Minor
	Very small	Minor to Moderate	Minor	Minor to Negligible
	Negligible	Negligible	Negligible	Negligible

Nature of Effects

36. GLVIA3 includes an entry that states “effects can be described as positive or negative (or in some cases neutral) in their consequences for views and visual amenity.” GLVIA3 does not, however, state how negative or positive effects should be assessed and therefore becomes a matter of subjective judgement rather than reasoned criteria. Due to inconsistencies with the assessment of negative or positive effects, a precautionary approach is applied to this LVIA that assumes all landscape and visual effects are considered to be negative or adverse unless otherwise stated.

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- KEY**
- Site Boundary
 - Landowner's property
 - Existing vegetation to be retained with RPA
 - Proposed tree planting
 - Existing trees to be removed
 - Existing water feature
 - Proposed native hedgerow planting
 - Existing retained farmland
 - Proposed native shrub planting, seeded with shade tolerant species rich mix eg. Emorsgate EW1 Woodland Mix
 - Proposed meadow grassland eg. Emorsgate EM1 Basic General Purpose Meadow Mix
 - Proposed attenuation basin eg. Emorsgate EM8 Meadow mix for Wetlands
 - BESS area
 - Access track
 - Acoustic fence
 - Existing gas pipe
 - Existing water pipe
 - Existing electric overhead lines
 - Proposed drainage channel
 - No dig area
 - Tree protection fencing
 - Outline of existing track



INDICATIVE PLANTING SCHEDULE

PROPOSED TREE PLANTING

Species	Form	Girth	Height cm	Clear Stem	Root Condition
Acer campestre	HS	12-14	350-450	Mix 200	RB
Betula pendula	HS	12-14	350-450	175-200	RB
Betula pubescens	HS	12-14	350-450	175-200	RB
Prunus avium	HS	12-14	350-450	175-200	RB
Prunus padus	HS	12-14	350-450	175-200	RB
Quercus robur	HS	12-14	350-450	175-200	RB
Sorbus aria	HS	12-14	350-450	175-200	RB
Sorbus aucuparia	HS	12-14	350-450	175-200	RB

PROPOSED NATIVE SHRUB PLANTING MIX

To be planted 3/m2

Species	Mix %	Height	Form	Root Condition
Cornus sanguinea	20	60-80cm	1+1 Branched	B
Crataegus monogyna	60	60-80cm	1+1 Branched	B
Euonymus europaea	5	60-80cm	1+1 Branched	B
Rosa canina	10	60-80cm	1+1 Branched	B
Viburnum opulus	5	60-80cm	1+1 Branched	B

PROPOSED NATIVE HEDGEROW PLANTING

To be planted at 7 per linear metre at 0.3 cm offsets in triple staggered rows

Species	Mix %	Height cm	Form	Root Condition
Crataegus monogyna	60	60-80	1+1 Branched	B
Corylus avellana	20	60-80	1+1 Branched	B
Prunus spinosa	20	60-80	1+1 Branched	B

REVISION NOTE:
 First issue - 13/12/2023
 A - (13/12/2023 NM) Water tank and construction compound removed from plan and outline of existing track to the east added to plan as per client's request.
 B - (21/12/2023 LAB) Red line updated

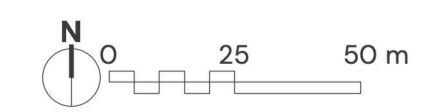
Dunmill BESS, Montrose

Landscape Masterplan

CLIENT
RES

DATE: 21/12/2023 SCALE: 1:1500@A1 TEAM: NM/ LAB APPRVD: DT

DRAWING NUMBER
P23-1395_EN_06B





Location and Context

Two flooded *Lowland Basins* have formed in Tayside where softer, Upper Old Red Sandstone deposits, enclosed by hard volcanic or carboniferous rocks, have been eroded away. The first of these is occupied by Loch Leven in the extreme south of Tayside, enclosed by the Lomond and Cleish Hills to the east and south, and by the Ochils to the north and extending to the West up the flat valleys of the Queich River and Glendey Water and to the south east along the River Leven. The second of these is the Montrose Basin, a broad tidal estuary cut off from the sea by the spit of land occupied by the town of Montrose, and enclosed by harder volcanic rocks to the north and south.

Key Characteristics

- Broad basins formed where sandstones have been eroded away leaving harder enclosing rocks.
- Flat, relatively low lying landform with strong horizontal composition.
- Extensive mudflats, reinforce openness and flatness of landscape, and dynamic character reinforces by presence of large populations of birds, and reflections of sky. Open, large scale, regular, tended pattern of fields on fringes of waterbodies.
- Rich natural heritage, particularly migratory and wading birds.
- Historic sites and associations.
- Dominance of water, sky and distant shores.
- Diverse, calm, settled and (away from main roads and other discordant elements) the quiet, calm and balanced ambience.
- Views are wide and panoramic across the basins along strong visual links to adjacent landscape types.

Landscape Character Description

General

Both basins include considerable areas of arable and grazing land around the fringes of the waterbodies. This is generally of semi-open character, enclosed by hedges. Semi-natural woodland is found around the edges of the waterbodies.

Roads encircle both basins, several of them of A-road status. In addition, the M90 passes close to the western side of Loch Leven and, at Montrose an inner ring road has been constructed along the north-eastern side of the basin. These roads mean that there is often a considerable amount of traffic movement and noise in these otherwise tranquil locations.

Historically, both the Loch Leven and Montrose Basins have been a focus for settlement. In the case of Loch Leven, a number of suburban settlements have developed around the loch principally at Kinross, Milnathort and Kinnesswood (the latter is discussed in relation to the *Rugged Lowland Hills* Landscape Character Type). Some of the more recent development at Kinross is particularly prominent in the landscape as a result of the building materials that have been employed (white walls and orange pantiles reflecting the styles more commonly found in Fife to the south) and the lack of screening around the urban edge. Development at Montrose has been concentrated on the constrained spit of land occupied by the town itself. Expansion has occurred north and southwards predominantly sandwiched between the basin and the sea.

The two *Lowland Basins* have similarities, in terms of underlying geology, peripheral land use, road patterns and settlement history, which are highlighted in the key characteristics above and at the end of this character description. However, they differ in certain respects and have been described separately in the following sections.

Loch Leven Basin

Landform

Loch Leven was formed at the end of the last Ice Age as retreating ice sheets, which had scoured a hollow between the Lomond Hills, Cleish Hills and the Ochils, deposited a mass of fluvio-glacial sand and gravel, impounding a shallow loch surrounded by extensive areas of marsh and wetland. It is dominated by soils of humus iron podzols with gleys and peaty gleys derived from the surrounding hills and with alluvial soils associated with the Loch, the burns, rivers and wetlands. There is an area of valley peat at Portmoak at the foot of the Lomond Hills. The Basin is characteristically flat except for some very shallow rising ground towards the west and a series of glacial landform features, eskers, from South Kilduff east to Gellybank.

Landcover

In the first half of the 19th Century, the level of the loch was lowered by 1.5 metres in order to ensure a steady supply of water to mills along the River Leven and to increase the amount of rentable farmland. Surrounding areas of marsh were drained and improved to provide the basis of the landscape that we see today. Inland, a shallow basin extends towards the Crook of Devon, drained by a network of minor burns. Downstream, the River Leven has been canalised in a straight channel and the surrounding floodplain drained by a network of ditches. Water levels in the loch fluctuate, revealing extensive mudflats during the late

summer and early autumn. The area becomes more complex at its western end near the boundary with Clackmannanshire. There is a substantial sand and gravel pit at Craigton with a number of other much smaller scale and mainly disused quarries occurring sporadically across the western part of the Basin.

Despite the changes brought by the lowering of water levels and the drainage of the marshes, Loch Leven retains a rich ecology and is designated as an SSSI and an NNR. It is particularly important for birds, accommodating thousands of ducks, migratory geese, swans and waders. The loch's fish stocks have been exploited for over 650 years, the brown trout being particularly well known. Mammals around the loch include otters, roe deer and foxes. The area has a range of natural and planted woodland with Scots pine growing in the drier areas and birch, willow and alder in wetter areas. There are some four substantial softwood forests at Portmoak, Levenmouth, Waterbutts Plantation and Cockairney Feus. Elsewhere there are frequent shelterbelts, small, mixed, softwood and hardwood forests and groups of trees sometimes, but not always, associated with steadings.

Settlement

Historically Loch Leven has been a focus for human settlement and land use. The earliest signs of settlement included a crannog which was destroyed during the 19th Century. Loch Leven has a number of other historic sites including Kinross House, Loch Leven Castle on Castle Island – a prominent landmark - and the Priory on St Self's Island. Several villages and hamlets grew around the fringes of the loch, their industries of weaving, paper making and fishing reliant on the supply of water. The largest of these settlements, particularly Kinross and Milnathort, having expanded over the last century, and both are strongly associated with the Basin in distant views. Both of the towns are contained in a relatively narrow area between the motorway and the Loch. Elsewhere settlements vary in size and form. Kinnesswood has also expanded over the last century, the latter pushing up the slopes of the Lomond Hills. There are small villages on the edge of the Basin and low hills e.g. Dalqueich, Cleish and Scotlandwell and small hamlets in the Basin, e.g. Gairney Bank, Carsegour, and Mawcarse. There is a regular distribution of steadings and other small building groups with some sporadic groups of houses and individual houses.

The former airfield at Balado has been redeveloped for intensive poultry units with wooden structured dwellings and a military installation with a distinctive golf-ball like structure which is visible over a wide area. There are a variety of small scale commercial uses, a gliding club at Levenmouth, the RSPB Vane Farm Visitor Centre, recreational car parks and picnic sites, camping sites, a golf club, a falconry centre, motorway service centre, and the M90 motorway itself which all contribute to a diverse land use outwith the towns. Other roads too are noticeable features in this flat landscape including the A977, A91, B9097, A911, B996, B919 and B920. Some of these roads run around the perimeter of the Basin along the boundary with the low hills. The channelled River Leven's artificially straight course is a prominent feature within the Basin and from surrounding higher land. The Loch Leven Heritage Trail encircles the loch, providing a well-used pathway for use by walkers and cyclists with panoramic views of the loch. New recreational facilities have grown up with easy access to this path, although this does not undermine the unspoilt character of the basin.

The M90 motorway is the most obvious linear feature across the Basin where it is generally a noticeable feature, effectively severing the Loch, visually, from the western part of the Basin. It is a busy landscape with many point features, including the towns of Kinross and Milnathort, the loch itself and its islands, and characteristic castles, houses and steadings. Overhead transmission lines also form locally prominent linear features where the pylons are on the hill tops. Together with the distinctive skylines and slopes of the surrounding hills, views of the Loch provide a unique sense of place.

Perception

The overall impression is of a very broad, shallow basin within which, particularly at the eastern end, water and sky, together with the enclosing hills are the dominant landscape elements. Away from the towns and the Loch, the Basin is characteristically an open, large scale, flat rather angular and often diverse landscape. It is textured, locally and seasonally colourful, generally balanced, regular, calm, tended and safe. The wildfowl on, over and flying around the Loch are an important part of the landscape experience.

Montrose Basin

Landform

The Montrose Basin is a large, rounded estuarine basin formed near the mouth of the River South Esk. Unlike Loch Leven, the basin is tidal, revealing extensive mudflats at low tide. An area of low-lying, drained farmland extends inland, while the basin is separated from the sea by the town of Montrose, located on a low peninsula spit of land less than two kilometres wide. There have been attempts to drain the basin to provide farmland in the past, the most notable effort leaving Dronner's Dyke which is revealed at low tide. Like the Loch Leven Basin, this area is shallow and open. The expanse of mudflats, water, distant shores and sky all shape the character of the surrounding landscape.

Landcover

The Montrose Basin also has a rich natural heritage. Its mudflats provide important feeding grounds for birds, supporting internationally important numbers of geese, widgeon and redshank and nationally important numbers of eider, oystercatcher, knot and mute swan. A number of salt-loving plants, including rare grasses, occur on the mudflats. The variety of saline, brackish and freshwater marshes have a great variety of plant communities. The area is also of geological importance.

Settlement

In prehistory, the edges of the basin were the focus for a dense distribution of ceremonial, funerary and settlement sites. More recently, the basin has physically constrained the growth of the town of Montrose, with the east coast railway forming the boundary between the basin and the town. Extensive, unparalleled views of the basin can be seen from the trains that pass along this stretch of railway. There has been growth of the settlement to the north and south of Montrose, including a number of caravan sites sited on the edges of the basin. Outwith the town settlement is limited to a scatter of farmsteads, generally located on slightly higher ground along the A934 and A935 to the south and north of the basin. The western end of this landscape unit is occupied by Kinnaird Park with its castle, deer park and extensive estate woodlands. A number of historic mills are sites along the non-tidal section

of the River South Esk, above the Bridge of Dun, and the House of Dun with its designed landscape and policies forms a local landmark to the north of the basin, clearly visible from the A935. There is a scatter of small and medium-sized wind turbines on adjacent landscapes which are prominent in views across the basin.

Some land has been reclaimed at the inland edge of the basin. There is also a series of raised beaches which demonstrate the series of sea level changes that occurred during the later stages of the last Ice Age and in the post-glacial period.

The area is popular with visitors, and there are low-key recreational facilities such as a visitor centre, small car parks, bird viewing hides and footpaths.

Perception

Views across the basin are open and panoramic. They vary greatly with the tidal conditions – at low tide there are great expanses of exposed mud and sand with wading birds and people digging for bait, whereas when the basin is filled with water the surface is more reflective. The Montrose church spire is a landmark feature and orientation point.



This is one of 390 Landscape Character Types identified at a scale of 1:50 000 as part of a national programme of Landscape Character Assessment republished in 2019.

The area covered by this Landscape Character Type was originally included in the Tayside LCA (Land Use Consultants), published 1999.



Location and Context

The *Dipslope Farmland* Landscape Character Type in Tayside is located to the south-east of the Sidlaws and the Forfar Hills, and north of the Montrose basin. It forms an extensive area of lowland farmland sloping gently towards the Angus coast.

Key Characteristics

- Extensive area of lowland farmland running parallel to the coastline, generally sloping from Sidlaws and Forfar Hills in north-west to near sea level in the south-east.
- Dominated by productive agricultural land, it has an open, medium-scale character which is predominantly productive arable land use with simple geometric field patterns.
- Low woodland cover, except on large estates which have pine shelter belts and hedgerows, and along river corridors. Where located on the slopes it reinforces the change in gradient.
- Variety of historic sites from different eras ranging from prehistoric, Roman to Medieval, including castles, a number of historic estates and designed gardens which create a rich diverse character and strong local cultural identity.
- Dispersed settlement pattern, including some suburban development which extends outwith the historic settlement confines
- Infrequent single and small clusters of a range of domestic and medium scale commercial turbines along the elevated slopes, prominent due to their elevation and the lack of significant woodland cover.
- Variety of views from within the landscape, but typically, given the broad fall of slope to the east, there is a strong visual relationship with views along the coast and wide panoramas out to open sea. Intervisibility across the Tay firth to the Fife coast is pronounced around Dundee and reduces in clarity with distance and prominence further north.

Landscape Character Description

Landform

The *Dipslope Farmland* area in Tayside is dominated by Lower Old Red Sandstone, though there are patches of igneous rocks, forming low outliers of the Sidlaws. The areas fall from up to 180 metres in the north-west to about 50 metres along the coastal strip. The dipslope blends almost imperceptibly into the southern slopes of the Sidlaw and Montreathmont Hills.

Landcover

This is one of the most fertile and productive agricultural areas in Scotland, with much of the land being categorised as Classes 1 or 2. It is not surprising, therefore, that intensive agriculture, based on cereals, is the dominant land use. Fields tend to be large and rectilinear. Woodland cover is low or even absent in some areas, particularly closest to the coast, creating an open, exposed landscape in places. Elsewhere, particularly on some of the larger estates more extensive woodland survives, comprising a mixture of shelterbelts (for example stands of Scots pine or beech) and hedgerow trees. Where these survive, the landscape enclosed and structured. Often the trees are wind-trimmed and bent slightly away from the coast. Semi-natural woodland is limited to steeper valley sides, for example along the Lunan Water.

Settlement

The fertility of the land has given rise to a dense distribution of archaeological and historic sites. There are many important ceremonial cursus monuments from the Neolithic, when farming was introduced to Scotland. Bronze Age burial sites include that at Dickmountlaw just to the north of Arbroath, and the very large mound at Maryton, looking north over the Montrose Basin. Right across the coastal plain, later prehistoric settlements of the Bronze Age and Iron Age are represented by enclosure and groups of roundhouses and souterrains. The prehistoric settlements in the Lunan valley, though not easily visible, form one of the densest distributions in Scotland. There are Roman sites such as the camp at Kirkbuddo near Whigstreet, and medieval castles including Braikie Castle and Gardyne Castle near Friockheim and Colliston Castle to the south. Designed landscapes are also important in this area. A dense scatter of more recent farmsteads, often visible over considerable distance because of the reduction of woodland cover, is supplemented by a number of isolated houses or groups of houses, reflecting the proximity to Dundee and Arbroath. Both settlements are, however, relatively well-hidden in this otherwise open landscape. Dundee is screened from the north by a ridgeline running parallel to the Firth of Tay, while Arbroath occupies lowland at the mouth of a shallow valley. The *Dipslope Farmland* has a network of main and minor roads, which are generally small-scale and fit with the grain of the landscape. The exception is the busy A90 which runs north from Dundee, which has a considerable landscape and aural impact.

This low-lying area has electricity transmission lines which serve Dundee and Arbroath, which are prominent in this open landscape with relatively sparse woodland cover. There are also developments of single and small clusters of a range of domestic and medium scale commercial wind turbines located along elevated slopes. Whilst infrequent, their prominence is reinforced by their elevation and the lack of significant woodland cover.

This is one of 390 Landscape Character Types identified at a scale of 1:50 000 as part of a national programme of Landscape Character Assessment republished in 2019.

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