PROPOSED DEVELOPMENT OF A BATTERY ENERGY STORAGE SYSTEM, ASSOCIATED INFRASTRUCTURE AND ACCESS ON LAND AT NEWBURN HAUGH INDUSTRIAL ESTATE, NEWCASTLE UPON TYNE

Landscape and Visual Appraisal

Prepared for

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1.0 INTRODUCTION AND PROPOSED DEVELOPMENT

1.1 Introduction

1.1.1 This Landscape and Visual Appraisal (LVA) follows best practice guidance set out in Guidelines for Landscape and Visual Impact Assessment [1], hereafter referred to as 'GLVIA.' The LVA assesses the landscape and visual effects of a temporary Battery Energy Storage System (hereafter referred to as a 'BESS' or the 'Proposed Development') associated infrastructure, earthworks, landscaping and access on land adjacent to the Newburn Haugh Industrial Estate, located off Northumberland Road (A6085), Lemington (hereafter referred to as 'the Site').

1.1.2 Landscape and visual effects are separate, although closely related and interlinked issues.

1.1.3 Landscape effects are caused by physical changes to the landscape (including the built environment, or 'townscape'), which may result in changes to the distinctive character of that landscape and how it is perceived.

1.1.4 Visual effects are changes to what can be seen by people as a result of what is proposed. A visual assessment assesses the change in visual amenity undergone by people (either individually or in groups) that would arise from any change in the nature of views experienced.

1.1.5 In accordance with the guidance set out in the GLVIA, the LVA adopts an approach proportionate to the likely significant effects of the Proposed Development. The conclusions of the LVA have been determined via use of professional judgement, set within a structured assessment framework, and supported by reasoned justification.

1.1.6 The LVA aims to establish the following:

i) A clear understanding of the Site and its context, in respect of the physical and perceived landscape and in respect of views and visual amenity

[1] *Landscape Institute and Institute for Environmental Management and Assessment, 3rd edition 2013. Guidelines for Landscape and Visual Impact Assessment. Abingdon: Routledge.*

ii) An understanding of the Proposed Development facility in terms of how this would relate to the existing landscape and views;
iii) An identification of the likely significant effects of the Proposed Development upon the landscape and upon views, throughout the life cycle of the Proposed Development;
iv) Potential for mitigation to reduce / eliminate any potential adverse effect on the landscape or views arising as a result of the Proposed Development; and
v) A conclusion as to the residual likely significant landscape and visual effects of the Proposed Development.

1.1.7 The process follows a standard approach, namely:

i) The establishment of the baseline conditions, against which the effects of the Proposed Development would be assessed;
ii) The determination of the nature of the receptor likely to be affected, i.e., its sensitivity;
iii) The prediction of the nature of the effect likely to occur, i.e., the magnitude of change; and
iv) An assessment of whether a likely significant landscape and visual effect would be experienced by any receptor, by considering the predicted magnitude of change together with the sensitivity of the receptor, taking into account any proposed mitigation measures.

1.1.8 Further details regarding the methodologies of assessment and determination of significance are included in Appendix A. The LVA has been informed by both desk and field-based studies.

1.1.9 It should be noted that the landscape, including the context in which views are experienced, is dynamic, i.e., it is affected by social, economic, technological and climatic changes, all of which can influence patterns of land use, land cover and land management. As such, the baseline context for the LVA is not static.

1.1.10 For the avoidance of any doubt, the LVA does not consider effects upon the setting of heritage assets. Such effects, whilst in cases occurring upon receptors that may also be relevant to LVA (for example a listed building that is also a residential property), deal with different environmental effects, using different methodologies.

1.1.11 The LVA was undertaken by a Chartered Member of the Landscape Institute (CMLI) with over eight years' post qualification experience in the landscape and visual assessment of major infrastructure projects. The LVA was directed and reviewed by a CMLI with over nineteen years' experience.

1.2 Proposed Development

1.2.1 A detailed description of the Proposed development is set out in the Planning, Design and Access Statement (separate standalone document), the key design features are summarised below as:

i) 28 No. Battery container units which would be a maximum of 7.5m in height above ground level (agl);
ii) 14 No. transformer units;
iii) Storage room
iv) Private substation
v) Control room & welfare,
vi) DNO Room
vii) Two AUX transformers;
viii) 132kV substation with switchgear; and
ix) 4m high acoustic fence and gate.

1.2.2 The landscape proposals are illustrated on Drawing 3354-01-L-001 – Landscape Plan. Landscape proposals comprise tree planting along the north and southern boundaries to provide some visual screening and the softening of the boundary edge of the site. Proposed native scrub understorey and meadow grassland planting would provide biodiversity net gain. Proposed planting would integrate the Proposed Development into the site and its surrounding context.

2.0 METHODOLOGY, LEGLISATIVE FRAMWORK, POLICY AND GUIDANCE

2.1 Legislation, Policy and Guidance

2.1.1 The applicable legislative framework relevant to the LVA is the European Landscape Convention [2] (ELC).

2.1.2 The ELC defines Landscape as: "*an area, as perceived by people, whose character is the result of the action and interaction of natural and/ or human factors*." It is based on the premise that Landscape, whatever the quality and whether rural or urban, built, or natural, should be recognised, understood and fully integrated into policy and decision-making.

2.2 National planning policy And Guidance

2.2.1 The National Planning Policy Framework [3] (NPPF) sets out the Government's planning policies for England and how these are expected to be applied at local level in local development plans. The Framework places emphasis on plans and developments which contribute to sustainable development. The NPPF was published in March 2012 and last updated in July 2021.

2.2.2 Paragraph 174 of the NPPF states that: *"Planning policies and decisions should contribute to and enhance the natural and local environment by: protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan)."*

2.3 Local Planning Policy

2.3.1 The Local planning Authority is Newcastle City Council and the relevant local plan documents are: Planning for the Future – Core Strategy and Urban Core Plan for

[2] *Available at https://www.coe.int/en/web/landscape/home*
[3] *Available online at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf*

Gateshead and Newcastle upon Tyne 2010 – 2030 [4]; and Development and Allocations Plan 2015 – 2030 (DAP) [5].

Planning for the Future – Core Strategy and Urban Core Plan

2.3.2 Policy CS18 Green Infrastructure and the Natural Environment is considered to be of relevance to the LVA and for ease of reference has been set out here: *"A high quality and comprehensive framework of interconnected green infrastructure that offers ease of movement and an appealing natural environment for people and wildlife will be achieved by*:

1. Maintaining, protecting, and enhancing the integrity, connectivity, multifunctionality and accessibility of the Strategic Green Infrastructure Network.

2. Protection, enhancement and management of green infrastructure assets which include:

i) Biodiversity and geodiversity assets, including designated sites, designated wildlife corridors and priority habitats and species,

ii) Distinctive landscape character, recognising the particular importance of our rivers and topography, and

iii) Trees, woodland and hedgerows.

3. Addressing gaps in the network and making improvements in Opportunity Areas.

4. Improving and extending linkages to and within the Strategic Green Infrastructure Network.

5. Protecting and enhancing open spaces, sport and recreational facilities in accordance with agreed standards in line with National Policy.

6. Improving access to, along and onto the River Tyne and tributaries, without adversely impacting on the local ecology or damaging the river banks."

[4] *Available online at https://www.newcastle.gov.uk/sites/default/files/2019-01/planning_for_the_future_core_strategy_and_urban_core_plan_2010-2030.pdf*
[5] *Available online at https://www.newcastle.gov.uk/sites/default/files/2020-06/DAP%20FINAL%20Adoption%20-%20Online%20Version.pdf*

Development and Allocations Plan

2.3.3 The following policies of relevance to the LVA are: Policy DM27 Protecting and Enhancing Green Infrastructure and Policy DM29 Protecting and Enhancing Geodiversity, Biodiversity and Habitats.

2.3.4 Policy DM27 states that: *"Development will be required to optimise the benefits and to enhance existing green infrastructure assets, and contribute towards the delivery of new green infrastructure assets by:*

1. Providing on-site green infrastructure, or where it can be demonstrated that this is not possible, contribute to off-site provision.

2. Addressing gaps in the Strategic Green Infrastructure Network corridors, providing improvements within the Opportunity Areas designated on the Policies Map, and enhancing the function of the Green Belt as a green infrastructure resource.

3. Requiring proposals for the creation of new green infrastructure assets or enhancements of existing green infrastructure assets to:

i) maximise multifunctionality.
ii) enhance connectivity and accessibility.
iii) enhance biodiversity.
iv) contribute to the area's character and improve visual amenity.
v) take opportunities to include community involvement and education.
vi) secure long-term maintenance and management; and
vii) incorporate climate change mitigation measures.

4. Any development that would have an adverse impact on green infrastructure assets will be required to demonstrate that the benefits of any development will outweigh the harm."

2.3.5 Policy DM29 states that:

"1. Development which may affect any designated site, biodiversity or important habitat or species, or geological feature must be supported by an up to date ecological assessment to ensure the likely impact of the proposal can be assessed and mitigated.

2. Development which has a direct or indirect adverse effect on a Site of Special Scientific Interest (SSSI) should not normally be permitted.

3. Development which directly or indirectly causes significant harm to a Local Nature Reserve (LNR), Local Wildlife Site (LWS), Local Geological Site (LGS), and/or Site

of Local Conservation Interest (SLCI), as designated on the Policies Map, and/or protected species should be avoided. Where significant harm cannot be avoided, development will be refused unless:

- *i) adequate mitigation measures to offset any loss or disturbance which outweigh the harm to the biodiversity and/or geodiversity value of the site, habitat and species is secured;*
- *ii) as a last resort where harm cannot be avoided or fully mitigated compensatory measures are secured.*

4. Development which would have an adverse effect on priority habitats and priority species will not be permitted unless adequate mitigation can be provided.

5. Development which would have an adverse effect on the biodiversity value or connectivity and function of the Wildlife Enhancement Corridor as designated on the Policies Map, will only be permitted where adequate mitigation is secured.

6. Development will be required to protect and enhance habitats and provide net gains in biodiversity by:

- *i) retaining natural features and habitats and protecting them during construction*
- *ii) maintaining and improving buffers and ecological connectivity to the wider environment*
- *iii) creating and restoring habitat to provide corridors and stepping stones for wildlife*
- *iv) securing future management arrangements."*

2.4 Guidance

2.4.1 The following guidance documents have been used during the preparation of this LVA: (i) Guidelines for Landscape and Visual Impact Assessment (Third Edition) (GLIVA) (2013); (ii) An Approach to Landscape Character Assessment (2004) and (iii) Landscape Institute Technical Guidance Note: (TGN 06/19) Visual Representation of development proposals (2019).

2.5 Scope of the Assessment

2.5.1 The scope of the LVA is to assess the potential effects on Landscape and Visual receptors.

2.5.2 The LVA will appraise the effects of the Project on landscape character and visual amenity through the combination of a desk study and a field visit to capture viewpoint photography and verify elements from the desk study.

2.5.3 The LVA will determine the following:

i) Determine the current landscape character baseline;
ii) Determine the current visual amenity baseline;
iii) Effects upon landscape character during construction;
iv) Effects upon landscape character at completion;
v) Effects on visual receptors during construction;
vi) Effects on visual receptors at completion;
vii) Demonstrate the effectiveness of any proposed mitigation at year 15; and
viii) Report any residual effects following establishment of mitigation.

2.6 Study Area

2.6.1 The appropriate study area for any LVA will be the area from within which the Proposed Development has the potential to be visible and capable of having notable visual effects or influence upon landscape character. The extent of this area will vary according with the nature and scale of the proposed development and the nature of the terrain in the surrounding area. Large and contrasting elements for example have the potential to be more visible at a similar distance to smaller, less obtrusive elements. Location in the landscape can also be influential for example in relation to skylines or within valleys.

2.6.2 The study area for the Proposed Development comprises a 3 km radius around the site and this has been determined through a preliminary viewshed analysis of the Proposed Development (see ZTVs as shown on Figure 2), which illustrates the worst-case scenario. This has then been subsequently refined through field work taking account of localised features of built form, vegetation, landform variation which may obstruction views from a visual receptor whereas the viewshed analysis has predicted a view would be possible.

2.7 Limitations

2.7.1 Assessment work reflects the level of vegetation cover present at the time of field work in the Study Area, which was during April 2023, during which the foliage not in full leaf. Where relevant to its conclusions, the LVA makes assumptions as to the likely visibility of the Proposed Development at other times of year when trees are not in leaf, i.e. during autumn and winter months.

3.0 METHOD OF BASELINE DATA COLLECTION

3.1 Data Collection

3.1.1 Baseline data for the LVA has been gathered by both desk and field-based surveys. These have included review of extant landscape character assessment studies (see below) and a single field visit in April 2023 to gain an understanding of the landscape and visual context of the Site.

3.2 Zone of Theoretical Visibility

3.2.1 Zone of Theoretical Visibility (ZTV) mapping has been used to identify the extent of expected visibility of the Proposed Development. The ZTV reflects the theoretical visibility of the Proposed Development, with points at a height of 7.5m Above Ground Level (AGL) for each of the battery storage containers.

3.2.2 The full methodology for ZTV is set out in Appendix B and the ZTVs are presented in Figure 2.

3.3 Visualisations

3.3.1 The methodology for visualisations is presented in Appendix B. For the purposes of the assessment a series of Viewpoints Photo-sheets annotated with approximate extents of the Proposed Development for each of the viewpoints being assessed.

3.4 Site Visit

3.4.1 A site visit was carried out in April 2023. During the site visit viewpoint photography was captured and the assessor gained familiarity with the wider study area through travelling around and through the area to access the viewpoints, which largely involved walking along public footpaths and pavements beside roads.

3.4.2 Viewpoint locations were refined during the site visit avoiding localised screening and selecting camera positions to illustrate the worst-case view.

4.0 METHODOLOGY

4.1.1 This Landscape and Visual Appraisal (LVA) has been carried out in accordance with best practice guidance in relation to Landscape and Visual Impact Assessment (LVIA) specifically with reference to the Landscape Institute and IEMA Guidelines for Landscape and Visual Impact Assessment (GLVIA3).

4.1.2 It is important to note, however, that the proposed development is a non-EIA development: the scope of this LVA therefore reflects the nature and scale of the proposed development.

4.1.3 The appraisal considers distinct but closely related areas: landscape character (also including townscape and seascape) and visual amenity.

4.1.4 A full methodology is set out in Appendix A

4.2 Assessment of Significance / Assessment Criteria

4.2.1 Significance in this appraisal (noting that this is not EIA development) is used in its ordinary English meaning of ‘of importance’ or ‘worthy of attention’ to highlight any changes to landscape character or visual amenity of particular note and it is considered likely to be of assistance to the decision- maker if such a statement is included in the LVA.

5.0 BASELINE

5.1 The Site and its surroundings

5.1.1 The Site is located within Newburn Haugh Industrial Estate. The Site comprises a cleared site of soil and grass with scrubby vegetation to the perimeter. Immediately adjacent to the north is a storage yard and a former glass works, including a distinctive cone-shaped brick tower is present beyond. The eastern boundary is formed by the Leamington Gut Tributary. To the south, is a reclamation yard, and to the west is a storage site.

5.1.2 In the wider area, to the north is the A6085 which is orientated east to west, with the village of Lemington located directly to the north. To the east is more industrial and commercial land use, associated with the River Tyne which is located 0.6km south and which loops around in an ox-bow type formation at this point.

5.1.3 Beyond the River Tyne in a southerly direction is the village of Winlaton. To the west of the site is a mix of commercial buildings, changing to farmland and belts of woodland.

5.1.4 The A1 is located 1km to the east of the site and it is orientated in a north to south direction, with the A69 crossing the north of the study area, east to west. To the south the A695 runs east to west through the south of the study area, approximately 1.5km north of the site.

5.1.5 There are public rights of way throughout the study area, and a route of particular note is the Hadrian's Wall Path which is located 0.1km to the north of the Site and the River Tyne Trail that is located 0.5km to the south of the Site. There is a public right of way that is located directly adjacent to the south of the Site.

5.2 National Landscape character

5.2.1 At a national level, Natural England National Character Area 14: Tyne and Wear Lowlands [6] covers the entirety of the Study Area. Details of each NCA are available via the Natural England Website.

5.2.2 These NCA's provide background and context to more detailed landscape character assessments produce at county and district levels. Their board geographic reach means that the key characteristics identified as typical of a particular NCA may not necessarily apply to a specific location within that NCA.

5.3 Landscape Designations

5.3.1 There is no designated landscape within the site or the study area.

5.3.2 There are four areas of Ancient Woodland within the study area, however none fall within the site and although a planning designation, there are areas of Green Belt to the south and west of the Study Area.

5.4 Local Landscape Character

5.4.1 With regards published landscape character studies which cover the site and study area, the most relevant documents are the Newcastle City Council, Newcastle Character Assessment [7] which covers the northern half of the study area, and the Gateshead Council Landscape Character Assessment [8] which covers the south half. These Landscape Character Area's (LCA's) are considered to be at suitable scale for the purposes of identifying potential landscape change due to the Proposed Development and have been used for this appraisal.

5.4.2 The LCA's are illustrated on Figure 1 and extracts of the relevant published landscape character studies are presented in Appendix C.

[6] *Available online at http://publications.naturalengland.org.uk/publication/4683608954503168?category=587130*
[7] *Newcastle City Council (2017), Newcastle Character Assessment*
[8] *White Young Green (2007), Landscape Character Assessment for Gateshead Council*

Newcastle Landscape Character Assessment

5.4.3 The Newcastle Landscape Assessment is divided into 14 character zones. The site is located within the Tyne Riverside and Western Village.

Tyne Riverside & Western Villages

5.4.4 The Proposed Development is located with the southeastern extent of this landscape character area and therefore this is the 'host character area.'

5.4.5 This character area covers the south-western portion of Newcastle, extending along the Tyne waterfront west from Scotswood to Newburn and Tyne Riverside Country Park. The LCA extends up the valley side to the north, with the A69 forming the boundary. This LCA is a highly distinctive area, with Newcastle greenbelt enclosing settlements, creating a mix of countryside and urban.

5.4.6 The predominantly residential areas of Lemington and southwest Denton are in this zone, at the western edge of Newcastle's built-up area, plus the urbanised former villages of Throckley, Newburn, Walbottle and Blucher. The countryside in between gives this zone its strong urban-fringe character, becoming rural at its western extremity. The zone also includes the industrial and commercial area in the Tyne floodplain at Newburn Haugh. There are 25 individual character areas identified within this zone, of which 10 are rural (including 5 Areas of Local Landscape Significance - ALLS) and 15 are urban (including 4 Areas of Local Townscape Significance - ALTS).

5.4.7 The Site is located within the industrial and commercial area in the Tyne floodplain. The areas are being redeveloped as a modern and attractively landscaped industry and business park.

5.4.8 As described above the LCA covers 5 areas of Local Landscape Significance which are in the western part of the LCA. The value is considered to be medium.

5.4.9 The susceptibility to change in respect of the Proposed Development of a Battery Storage Facility of this size in the proposed location is considered to be Low to Medium. This is a landscape which contains multiple industrial or post-industrial

elements that have a defining visual influence. There is also a strong network of vegetation and varied topography – both of which are likely to influence the extent to which a given development will be visible and thus perceptible.

5.4.10 The sensitivity of this landscape to change in character of the type proposed is therefore assessed as Low.

Northwest Newcastle

5.4.11 This LCA is located in the northern part of the study area.

5.4.12 The Northwest Newcastle zone is situated north of the A69 West Road and straddles the A1 Western bypass, extending from the western edge of the Town Moor out to the urban fringe. The zone includes a number of large modern outer suburbs, from Fenham, Cowgate and Montagu which adjoin the Town Moor out to Kingston Park, Newbiggin Hall, West Denton and Chapel Park further out. There are 27 individual character areas identified within this zone, of which all are urban (including 3 Areas of Local Townscape Significance - ALTS).

5.4.13 As described above the LCA covers 3 areas of Townscape Significance which are in the middle part of the LCA. The value is considered to be low.

5.4.14 The susceptibility to change in respect of the Proposed Development of a Battery Storage Facility is considered to be Medium to High. This is a landscape which is predominately residential and the Proposed Development, an industrial-type development, would potentially appear out of context.

5.4.15 The sensitivity of this landscape to change in character of the type proposed is therefore assessed as Medium.

West End and Riverside

5.4.16 This LCA area is located in the eastern extent of the Study Area.

5.4.17 The West End and Riverside is the area immediately west of the city centre, positioned along the north valley side of the River Tyne to Scotswood Bridge and

including the mixed use and residential areas of Elswick, Benwell and Scotswood. There are 24 individual character areas identified within this zone, of which all are urban (including 2 Areas of Local Townscape Significance - ALTS).

5.4.18 As described above the LCA covers 2 areas of Townscape Significance which are in the middle part of the LCA. The value is considered to be Low.

5.4.19 The susceptibility to change in respect of the Proposed Development of a Battery Storage Facility is considered to be Medium to High. This is a landscape which is predominately residential and the Proposed Development, an industrial-type development, would potentially appear out of context.

5.4.20 The sensitivity of this landscape to change in character of the type proposed is therefore assessed as Medium.

Gateshead Landscape Character Assessment

5.4.21 The Gateshead Borough (LCA's divides the area into 6 areas and covers the southern part of the Study Area).

Tyne Valley

5.4.22 This character area covers the middle western part of the Study Area.

5.4.23 The area is located on the valley side of the River Tyne. The district boundary follows the route of the Tyne to the north and the area extends to the urban settlements of Crawcrook and Ryton to the south. The summary of Landscape Character is as below:

i) North facing valley side.
ii) Isolated pockets of woodland mainly on the lower slopes.
iii) Large areas of quarrying on the upper valley slopes to the south west of Clara Vale.
iv) Two large golf courses with heavily influenced man made landscape.
v) Hedgerows with hedgerow trees remain common within the area.
vi) Medium and long distance views to the east and west along the Tyne Valley.

5.4.24 There is an area of ancient woodland which is an indicator of value within the landscape, therefore the value is considered to be Medium.

5.4.25 The susceptibility to change in respect of the Proposed Development of a Battery Storage Facility is considered to be Medium to High. This is a landscape which is predominately of farmland with residential village of Ryton.

5.4.26 The sensitivity of this landscape to change in character of the type proposed is therefore assessed as Medium.

Upland Plateau

5.4.27 This character area covers the south-west part of the Study Area.

5.4.28 The area consists of upland farmland between the Tyne Valley and Derwent Valley. The area is scattered with isolated farmsteads and villages and isolated pockets of woodland, both coniferous and deciduous. The summary of Landscape Character is as below:

i) Undulating farmland, predominantly pastoral.
ii) Hedgerows with mature hedgerow trees.
iii) Medium to large blocks of managed coniferous plantation.
iv) Skyline highly influenced by overhead transmission lines and pylons.
v) Small streams flowing in a north easterly direction towards the Tyne Valley
vi) Areas of landfill and restored landfill to the north and south of the A695 south east of Ryton.

5.4.29 The area has a relatively high level of woodland cover and is considered to be countryside, albeit there are areas of landfill located here. The value is considered to be Medium.

5.4.30 The susceptibility to change in respect of the Proposed Development of a Battery Storage Facility is considered to be Medium to High. This is on the basis that this is a landscape which comprises predominately of farmland and includes the village of Ryton.

5.4.31 The sensitivity of this landscape to change in character of the type proposed is therefore assessed as Medium.

Derwent Valley

5.4.32 This character area covers the south-western part of the Study Area.

5.4.33 The area is bounded to the north by the edges of Blaydon and Swalwell. The River Derwent flows in a northward direction before joining the River Tyne. The summary of Landscape Character is as below:

i) Relatively steep valley sides along the length of the River Derwent.
ii) Valley bottom lined with various sites of ecological, historical and amenity interest.
iii) Valley sides mostly contain a mixture of arable and pastoral fields.
iv) Most fields have been amalgamated to form large fields
v) Hedgerows, post and wire fences and hedgerow trees.
vi) A694 runs along valley bottom.

5.4.34 This area contains the Derwent Walk Country Park and lots of areas of Ancient Woodland which are indicators of value. The value is considered to be High.

5.4.35 The susceptibility to change in respect of the Proposed Development of a Battery Storage Facility is considered to be high. This is a landscape which predominately comprises farmland with the Derwent Walk Country Park and some areas of Ancient Woodland located here.

5.4.36 The sensitivity of this landscape to change in character of the type proposed is therefore assessed as High.

5.5 Visual

5.5.1 The LVA includes an assessment of visual effects from five viewpoints. The locations of the viewpoints are shown on Figure 2 (3.5m and 7.5m high points).

5.5.2 Photography from each viewpoint is presented on Figures 3.1 to 3.5.

5.5.3 In relation to the visualisation categories set out in Landscape Institute Guidance Note 06-19 , the images presented are Type 1 Photosheets.

5.5.4 Viewpoints can fall into three categories, as set out in the GLVIA:

i) Representative viewpoints (which represent the experience of different types of receptors in the vicinity);
ii) Specific viewpoints (a particular view, for example a well-known beauty spot);
iii) Illustrative viewpoints (which illustrate a particular effect/ issue, which may include limited / lack of visibility).

5.5.5 For the purposes of this LVA, a series of representative viewpoints have been assessed.

5.5.6 It should be noted that the viewpoint itself is not the receptor; rather it is the people that would be experiencing the view from the viewpoint. Receptors in the vicinity of the Site that are likely to experience views of the Proposed Development include:

i) Users of public rights of way;
ii) People engaged in recreation including walking, riding, cycling and shooting;
iii) People enjoying the National Park and Open Access Land.

5.5.7 The viewpoints are set out in Table 1.1 below.

Table 1.1: Visual Receptors

Viewpoint	BNG National Grid Coordinates	Receptors
1	E: 418526 N:564658	Walkers along Hadrian's Wall Path
2	E: 419170 N: 564243	Walkers along Hadrian's Wall Path. River Tyne Trail
3	E: 417378 N: 562990	Walkers along a public right of way
4	E: 417500 N: 565142	Walkers along a public right of way
5	E: 418230 N:564441	Walkers along a public right of way

Representative Viewpoint 1

5.5.8 This viewpoint is located on a public right of way, Hadrian's Wall Path, to the north of the Proposed Development. The view is looking south towards the Proposed Development site from a distance of 500m. This Viewpoint is representative of views experienced by walkers on along the Hadrian's Wall Path.

5.5.9 This view is across the valley towards the River Tyne. From this elevated vantage point there are expansive views across and through the valley. The lower valley is occupied by industrial uses and storage yards, with the far side being well vegetated with trees. On the rising landform on the opposite side of the valley is the residential area of Winlaton.

5.5.10 In the foreground is a supermarket carpark and access road. The former Lemington Glass Works glass cone is a notable vertical feature in the view. Chimneys can be seen in the valley bottom, and lighting columns, in the distance an overhead powerline is visible crossing the valley floor.

5.5.11 This view is over a landscape with no formal designations, and due to the industrial occupation of the view the value is considered to be Low.

5.5.12 The susceptibility to change is considered to be Medium as walkers along this path will be taking in the view.

5.5.13 The combination of low value and medium susceptibility, results in a Medium sensitivity for this viewpoint.

Representative Viewpoint 2

5.5.14 This viewpoint is located on the bridge on the River Tyne Trail, to the north-east of the Proposed Development. The view is looking west towards the Proposed Development site from a distance of 900m. This viewpoint is representative of views experienced by walkers on along the River Tyne Trail.

5.5.15 This view is from the bridge along the River Tyne across the valley towards the site. From this elevated vantage point there is a channelled view along the River Tyne, views are obscured by mature trees along the banks of the River Tyne. The focal point of the view is the Glassworks Cone in the middle distance.

5.5.16 In the distance overhead lines can be seen crossing the view. There are glimpsed views of industrial usages in the valley floor, obscured by vegetation.

5.5.17 This view is over a landscape with no formal designations; however the River Tyne and Glassworks Cone are merits in the view, there the view is considered to be of Medium value.

5.5.18 The susceptibility to change is considered to be Medium as walkers along this path will take in the view.

5.5.19 The combination of medium value and medium susceptibility, results in a Medium sensitivity for this viewpoint.

Representative Viewpoint 3

5.5.20 This viewpoint is located on a Public right of way, north of the residential area of Winlaton, to the south of the Proposed Development. The view is looking northeast towards the Proposed Development site from a distance of 2km. This Viewpoint is representative of views experienced by walkers on the footpath and residential views on the north of Winlaton.

5.5.21 This view is across the valley towards the River Tyne. From this elevated vantage point there are expansive views across and through the valley. The lower valley is occupied by industrial uses and storage yards and an area of dense woodland to the north.in the foreground is an open field with mature vegetation beyond, screening views of the lower valley.

5.5.22 In the far distance the visible horizon is formed by the residential areas of Lemington and Denton and tall tower blocks punctuate the skyline. The glassworks cone is a prominent focal point in the valley floor.

5.5.23 This view is over a landscape with no formal designations and is considered scenic, so the value is considered to be Medium.

5.5.24 The susceptibility to change is considered to be High as walkers along this path will take in the view.

5.5.25 The combination of medium value and high susceptibility, results in a High sensitivity for this viewpoint.

Representative Viewpoint 4

5.5.26 This viewpoint is located on an informal path within an area of Greenspace, south of Walbottle Brickworks Nature Reserve, to the northwest of the Proposed Development. The view is looking south towards the Proposed Development site from a distance of 1.3km. This Viewpoint is representative of views experienced by those using the greenspace.

5.5.27 This view is across the valley towards the River Tyne. From this elevated vantage point there are expansive views across and through the valley. The lower valley is occupied by industrial uses and warehouses.

5.5.28 On the rising landform of the opposite side of the valley is the residential area of Winlaton. In the valley floor are overhead lines and one crosses the view in the foreground. In the foreground is a well vegetated sloping landscape, with grassland and a well-used network of paths.

5.5.29 This view is over a landscape with no formal designations, however, is considered scenic, but with detractors, the value of the view is considered to be Medium.

5.5.30 The susceptibility to change is considered to be Medium as walkers along this path will take in the view.

5.5.31 The combination of medium value and medium susceptibility, results in a Medium sensitivity for this viewpoint.

Representative Viewpoint 5

5.5.32 This viewpoint is located on a public right of way, southwest of the Proposed Development. The view is looking east towards the Proposed Development site from a distance of 150m. This Viewpoint is representative of views experienced by walkers on the footpath.

5.5.33 This view is through a palisade fence, with vacant line beyond and storage containers beyond and other industrial uses. The Glassworks cone is a prominent feature on the horizon to the north.

5.5.34 The view is contained by the fencing in the foreground and by vegetation along the southern boundary of the Site.

5.5.35 In the foreground is a supermarket carpark and access road. The former Lemington Glass Works Glass Cone is a notable vertical feature in the view.

5.5.36 This view is over a landscape with no formal designations, and due to the industrial occupation of the view the value is considered to be Low.

5.5.37 The susceptibility to change is considered to be Medium as walkers along this path will take in the view.

5.5.38 The combination of low value and medium susceptibility, results in a medium sensitivity for this viewpoint.

6.0 DESIGN AND MITIGATION

6.1.1 The landscape proposals are described in Section 1.2 and form an embedded component of the Proposed Development. Proposals comprise ecological planting along the north, east and south boundaries, with specimen tree planting which will provide some immediate partial screening of the Proposed Development, particularly along the northern boundary where the proposal is visible from the sensitive receptor of Hadrian's Wall Path and further screening as the trees mature.

7.0 ASSESSMENT OF EFFECTS

7.1 Construction Effects

7.1.1 Refer to the Planning Design and Access Statement for a description of the construction stage of the Proposed Development. However, the key details of relevance to this appraisal are:

i) the clearing and levelling of the main site area
ii) erection of the development platform; internal roads
iii) and laying out of containers.

7.1.2 Construction sites feature distinctive elements that are likely to draw attention, including temporary signage and fencing, and site operatives wearing high-visibility clothing. Construction also requires the use of suitable vehicles and other plant, some of which could be apparent by virtue of their colour, form and movement. A temporary contractor's compound would be located within the footprint of the Proposed Development, which would also feature potentially visible built forms including site offices, welfare facilities, storage, etc.

7.1.3 There would be earthworks as part of the construction phase and levelling across the site which would result in some minor loss of existing vegetation to the perimeter of the site.

7.1.4 Construction would chiefly involve elements that are relatively low in height, and which would typically benefit from the level of screening provided by surrounding warehouses and vegetation along the stream to the east. Nevertheless, some visibility of construction activity would occur such as temporary cranes (if required) that would be visible above the localised screening. There would inevitably be short-term landscape and visual effects during the construction phase, however these would be temporary in duration, limited in extent, and would **not be significant**.

7.2 Landscape Effects (Operational)

Tyne Riverside & Western Villages LCA

7.2.1 This is the host landscape character area, and the Proposed Development would introduce a Battery Storage Facility into this character area. This is an existing industrial landscape, and the Proposed Development would not result in a notable change to the character within the existing industrial floodplain which is well established influence within this LCA.

7.2.2 The physical change would be from open cleared land with storage use to internal access roads, battery storage containers and a substation, with the additional of new tree planting and meadow. The change and introduce of additional planting are considered to be restorative and positive introduction. The development is considered to be of small scale in the context of the surrounding warehouses, and thus screened by adjacent buildings. The changing nature of this LCA, and introduction of landscaping is in keeping with this changing landscape to landscaped industrial park.

7.2.3 As demonstrated by the ZTV, there is limited visibility throughout the LCA, as such changes would be highly localised.

7.2.4 There would be a Negligible magnitude of change upon this Low sensitivity receptor and therefore the overall landscape effect would be Negligible and Not Significant upon Tyne Riverside & Western Villages LCA.

Northwest Newcastle

7.2.5 The Proposed Development would have no visual influence on this character area, as shown by the ZTV on Figure 2, and therefore there would be no effect upon Northwest Newcastle LCA

West End and Riverside

7.2.6 The Proposed Development is outside of this LCA, however there would be a small proportion of visibility within this LCA as demonstrated by the ZTV. However, visibility

is limited to a small proportion of the western extent of this LCA. Where visible the Proposed Development would be seen within the existing industrial context and not be noticeable or have a particular influence on this LCA.

7.2.7 There would be a Negligible magnitude of change upon this medium sensitivity receptor. The effect would be Negligible and Not Significant.

Tyne Valley

7.2.8 The Proposed Development is outside of this LCA, however there would be some partial visibility along the eastern extent of this LCA. However, this landscape is of former industrial use with former quarrying, and the influence of the industrial landscape to the north east is well established and the Proposed Development would be seen within the existing context, limiting any change that would arise.

7.2.9 There would be a Negligible magnitude of change upon this Medium sensitivity receptor and therefore the overall landscape effect would be Negligible and Not Significant

Upland Plateau

7.2.10 The Proposed Development is outside of this LCA, however there would be some small areas of visibility in the eastern extent of this large LCA. The industrial nature of the valley floor is well established, and the Proposed Development would not give rise to a noticeable change or have a particular influence on this LCA.

7.2.11 There would be a Negligible magnitude of change upon this Medium sensitivity receptor and therefore the overall landscape effect would be Negligible and Not Significant

Derwent Valley

7.2.12 The Proposed Development as shown by the ZTV on Figure 2 would have no visibility within the study area so therefore there would be no effects upon Northwest Newcastle LCA.

7.3 Visual Effects

Representative Viewpoint 1

7.3.1 The Proposed Development would be visible in the middle distance, the substation would be a noticeable addition in the view, and the battery containers would comprise a new feature, however the existing site is used for storage of caravans and the change to the view would be relatively limited given the similar scale of development within the current and proposed use. The Proposed Development would be noticeable within the view, however it would be similar to the existing view of the Site and not out of scale.

7.3.2 There would be an infilling of the open space with built form which would alter a small part of this expansive view and the Proposed Development partly filtered by existing vegetation along the A6085. Visibility from the Hadrian's Wall path is for short sections through gaps in the vegetation of approximately 500m of path. The proposed tree planting along the northern boundary would partially filter views of the Proposed Development.

7.3.3 This would result in a small magnitude of change to the view from this medium sensitivity viewpoint. The effect would be Slight Adverse which is Not Significant.

Representative Viewpoint 2

7.3.4 The Proposed Development would be perceptible in the distance, but mainly screened by vegetation along the river Tyne. Where visible the Proposed Development would blend into the existing background of warehouses and other storage functions. The view is only possible for 100m along the bridge before becoming screened by vegetation.

7.3.5 During summer months the Proposed Development would be completely screened by vegetation.

7.3.6 This would result in a Negligible magnitude of change on this medium sensitivity receptor. This would result in a Negligible effect which is Not Significant.

Representative Viewpoint 3

7.3.7 The Proposed Development is unlikely to be a perceptible change in the view due to the distance and due to screening by intervening vegetation in the foreground of the view.

7.3.8 In summer, the view would be further screened by vegetation on trees.

7.3.9 Therefore, there would be a Negligible magnitude of change to the view from on this High sensitivity receptor. This would result in a Negligible effect, which is Not Significant.

Representative Viewpoint 4

7.3.10 The Proposed Development is unlikely to be a perceptible change in the view due to the distance and screening by intervening vegetation in the foreground of the view.

7.3.11 In summer, the view would be further screened by vegetation on trees.

7.3.12 Therefore, there would be a Negligible magnitude of change on this medium sensitivity receptor. This would result in a Negligible effect.

Representative Viewpoint 5

7.3.13 The Proposed Development would be partially visible above the fence line in the distance, with lower parts screened by the existing fence. Intervening vegetation would filter views of the Proposed Development where views are possible, limiting the change to the view. There would be views of the Proposed Development from a maximum of approximately 250m of the footpath.

7.3.14 In summer views would be further screened by foliage located along the southern boundary.

7.3.15 There would be a small magnitude of change on this Medium sensitivity receptor. This would result in a Minor Adverse effect.

7.4 Cumulative Effects

7.4.1 It is acknowledged that other proposed developments (including BESS schemes) are being promoted in the surrounding area. These schemes (alongside the Proposed Development) are set within the wider context of the ad-hoc external storage, commercial units (forming part of the Glassworks Business Units), open-air aggregate / inert waste processing facilities and other industrial / commercial units which form part of the wider Newburn Haugh Industrial Estate and extend along Kingfisher Boulevard.

7.4.2 The ZTV (Figure 2) demonstrates that there is limited visibility due to the nature of the BESS infrastructure (low height) and presence of surrounding built development. The assessment of landscape effects demonstrates that there would be negligible (not significant) or no effects. On this basis it is considered that the potential for adverse cumulative landscape effects would be minimal. In terms of the potential for cumulative visual effects, it is considered that the effects would be limited to the increased urbanisation of the locality, noting that part of the Site already benefits from planning permission for a synchronous gas-powered standby generation facility, and therefore effects would be minimal.

8.0 CONCLUSION AND SUMMARY

8.1.1 In summary of the potential for landscape and visual effects of the Proposed Development, initially there would be short duration effects resulting from construction, notably due to the presence of plant equipment within the site, however this would be seen within the context of the surrounding industrial and storage use. As such effects on landscape and visual during construction would not be significant.

8.1.2 Landscape effects upon the host landscape Tyne Riverside and Western Villages would be **negligible** and Not Significant, due to being a small-scale development within the wider existing industrial landscape in the Tyne floodplain. There would be limited effects on the other landscape character areas within the study area.

8.1.3 There would be **minor adverse** visual effects experienced from Viewpoints 1 and 5. Viewpoint 5 is located in close proximity to the Site to the south-west from the footpath. Views from Hadrian's Wall Path (Viewpoint 1) are glimpsed through gaps in vegetation so for very limited durations. of the remaining visual effects experienced by receptors at Viewpoints 2, 3 and 4 would be Negligible.

8.1.4 Following establishment of the proposed trees planted as part of the Proposed Development, there would be partial screening of the development from the surrounding area, particularly from Viewpoint 1, filtering of the Proposed Development would help reduce effects and integrate it into its surroundings.

Appendix A – LVA Methodology

Newburn BSF

Appendix A

LVA Methodology

Prepared for

Balance Power

July 2023
3354-01-

CONTENTS

IMAGES

TABLES

1.0 METHODOLOGY

1.1.1 The Landscape and Visual Appraisal (LVA) is a tool used to systematically identify and assess the nature and significance of the effects of a proposed development upon the landscape and upon views and visual amenity. The purpose of the LVA is to identify the level and nature of effect arising from a proposed development and if necessary, through an iterative design process, to inform changes to the development and evolution of mitigation strategies which minimise significant effects wherever possible.

1.1.2 The methodology for this LVA is informed by guidance contained within the Guidelines for Landscape and Visual Impact Assessment (The Landscape Institute and Institute of Environmental Assessment, 3rd Edition, 2013), often referred to as 'the GLVIA'. The LVA aims to establish the following:

i) A clear understanding of the development site and its context, in respect of the physical and perceived landscape and of views and visual amenity;
ii) An understanding of the proposed development in terms of how this would relate to the existing landscape and views;
iii) An identification of likely significant effects of the proposed development upon the landscape and upon views, throughout the life cycle of the development, including cumulative interactions with other developments;
iv) Those mitigation measures necessary to reduce or eliminate any potential adverse effect on the landscape or views arising as a result of the proposed development; and
v) A conclusion as to the residual likely significant effects of the proposed development.

1.1.3 Professional judgement is a very important part of the LVA process at every stage of the assessment. This judgement must be exercised within an assessment framework that transparently sets out the steps in the assessment process which have led to the overall conclusions. This is emphasised in Box 3.1 (page 37) of the GLVIA, which advocates a structured approach that considers the sensitivity of the receptor and magnitude of the effect when determining if an effect is significant or not.

1.1.4 To ensure the transparency of the assessment and professional judgements made, the LVA follows a standard approach, namely:

i) The establishment of the baseline conditions, against which the effects of the proposed development will be assessed;
ii) The determination of the nature of the receptor likely to be affected, i.e. its sensitivity;
iii) The prediction of the nature of the effect likely to occur, i.e. the magnitude of change; and
iv) An assessment of whether a likely significant effect would occur upon any receptor, by considering the predicted magnitude of change together with the sensitivity of the receptor, taking into account any proposed mitigation measure.

1.1.5 The GLVIA clarifies that the guidance concentrates on:

"…principles while also seeking to steer specific approaches where there is a general consensus on methods and techniques. It is not intended to be prescriptive, in that it does not provide a detailed 'recipe' that can be followed in every situation. It is always the primary responsibility of any landscape professional carrying out an assessment to ensure that the approach and methodology adopted are appropriate to the particular circumstance".

1.1.6 As set out above, use of professional judgement within a structured assessment framework is a very important element of the assessment of landscape and visual effects. As discussed in the GLVIA:

[2.23] "…Whilst there is some scope for quantitative measurement of some relatively objective matters, …much of the assessment must rely on qualitative judgement, for example about what effect the introduction of a new development or land use change may have on visual amenity, or about the significance of change in the character of the landscape and whether it is positive or negative."

[2.24] "…In all cases there is a need for the judgements that are made to be reasonable and based on clear and transparent methods so that the reasoning applied at different stages can be traced and examined by others…"

[2.26] "…In carrying out an LVIA the landscape professional must always take an independent stance, and fully and transparently address both the negative and positive effects of a scheme in a way that is accessible and reliable for all parties concerned".

1.1.7 Landscape and visual matters are separate issues, although closely related and interlinked, are dealt with as such throughout the LVA. The methodologies for assessing both are outlined separately below.

2.0 LANDSCAPE ASSESSMENT

2.1.1 The landscape assessment considers the potential effects of the proposed development on the components of the landscape as an environmental resource. Landscape receptors which could be affected by a proposed development may include:

i) Individual constituent elements and features of the landscape (sometimes referred to as landscape fabric);
ii) Specific aesthetic and perceptual qualities of the landscape;
iii) The overall character and key characteristics of the landscape as experienced in different areas (e.g. landscape character areas or types).

2.2 Sensitivity

2.2.1 The nature of a landscape receptor likely to be affected, i.e. its sensitivity is determined by considering two factors, namely:

a) Susceptibility to change; and
b) Value.

Susceptibility to Change

2.2.2 Susceptibility to change is defined in the GLVIA as follows:

[5.40] "This means the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning polices and strategies."

[5.41] "The assessment may take place in situations where there are existing landscape sensitivity and capacity studies, which have become increasingly common. They may deal with the general type of development that is proposed, in which case they may provide useful preliminary background information for

assessment. But they cannot provide a substitute for the individual assessment of the susceptibility of the receptors in relation to change arising from the specific development proposal."

2.2.3 To understand susceptibility to change, the various characteristics/factors that make up a particular landscape must be identified and consideration given as to how these will be affected by **the specific characteristics of the proposed development**. A landscape may have different levels of susceptibility to different scales and types of development (e.g. new houses; wind turbines; power lines). Consideration is given to physical and perceptual factors which are considered together to derive an overall susceptibility to the specific type of change. Factors influencing the susceptibility of a landscape to change are set out below, with specific reference made to Battery Storage Facilities where applicable:

i) Scale: A larger scale landscape (relative to the development proposed) will typically be less susceptible than a smaller scale landscape;

ii) Pattern/Complexity: The susceptibility of a receiving landscape to change will be influenced by the specific pattern of features and elements present and by the complexity of this pattern. A simpler landscape pattern will typically be more susceptible than a complex one. With specific reference to Battery Storage Facilities these tend to be discrete blocks of units assembled in a symmetrical pattern.

iii) Development/Human Influence: A landscape that includes obvious alterations to natural ground levels, includes many contemporary development elements or structures, or that is clearly functional/utilitarian in its land use will typically be less susceptible to change that introduces contemporary structures than one where development is either absent or more traditional in style, or where natural influences and natural or long-established landforms are predominant;

iv) Connections with adjacent areas: A landscape which has a clear relationship with other surrounding landscapes, for example in relation to views in and out, will typically be more susceptible than one that is more enclosed where such intervisibility not present;

v) Visual Interruption: A landscape where views are frequently interrupted by screening features, for example vegetation cover or variations in landform, will typically be less susceptible than one where there are few / no screening features.

vi) A particular landscape may have different characteristics that are more or less susceptible to change. As such, the overall susceptibility to change is allocated using professional judgement based upon consideration of the various factors outlined above and the relative weight attached to these (which will vary from landscape to landscape). The assessment of susceptibility is expressed using a three point verbal scale of high, medium or low. Where appropriate, intermediate levels such as medium/high or low/medium are used to refine the assessment. The rationale in support of the assessment of susceptibility is set out for each receptor in the assessment, so that it is clear how each judgement has been made.

Value

2.2.4 The value of the landscape receptor is independent of any development proposal. The absence of a formal landscape designation does not necessarily imply that a landscape is of lower value. Value is defined in the GLVIA as:

[5.19] "…the relative value that is attached to different landscapes by society, bearing in mind that a landscape may be valued by different stakeholders for a whole variety of reasons…Landscapes or their component parts may be valued at the community, local, national or international levels…"

2.2.5 Factors that can help in identifying valued landscapes include:

a) Presence/absence of statutory landscape designations;
b) Presence/absence of local landscape designations and associated policies;
c) Landscape quality/condition;
d) Scenic quality;
e) Rarity of particular elements/features;
f) Representativeness;
g) Conservation interest;
h) Recreation value;
i) Perceptual aspects; and
j) Cultural associations.

2.2.6 The assessment of value is expressed on a similar basis to that described for susceptibility of change above. Table 2.1 indicates how the above factors have been used to determine landscape value.

Table 2.1: Landscape Value Criteria

	Criteria tending towards higher or lower value	
	Higher	Lower
Value	Unique, and/or strongly positive landscape character, often with strong associations or (non-landscape) environmental designations. Nationally designated landscape (protected by statute).	Widespread or common landscape character. Negative character Lack of other environmental qualities Landscape without formal designation and with limited positive contribution to the locality.

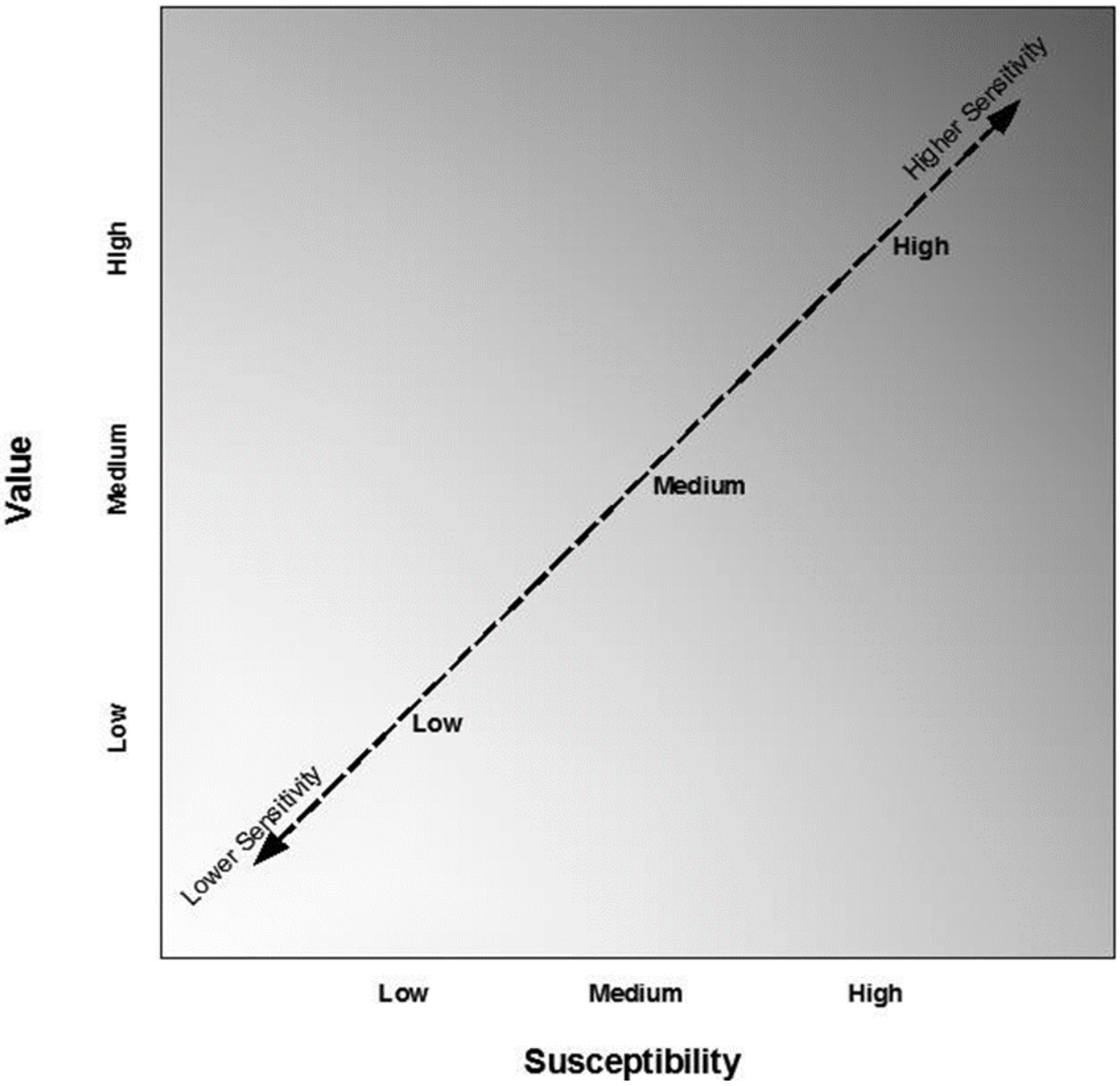
Sensitivity

2.2.7 Susceptibility to change and value are considered together to determine the sensitivity of the receptor. It should be noted that the relationship between susceptibility to change and value can be complex and is not linear. For example, a highly valued landscape (such as a National Park or Area of Outstanding Natural Beauty) may have a low susceptibility to change, due both to the characteristics of the landscape and the nature of the change proposed. Figure 2.1 provides a guide as to how susceptibility and value can be combined to assess sensitivity (with the grey shading indicative of the increasing sensitivity of receptors with increasing susceptibility and / or value). However, it must be emphasised that this is only a guide and that the final assessment of sensitivity is one of professional judgement.

2.2.8 The design, layout and scale of proposals shall conserve and enhance landscape features that are worthy of retention and that contribute positively to landscape features which typify the traditional characteristics of the area and safeguard the positive experiential and visual amenity qualities of the landscape.

2.2.9 The restoration of landscapes will be sought where either natural or cultural heritage features of importance have been lost or degraded.

Figure 2:1 Indicative Sensitivity Assessment



2.3 Magnitude

2.3.1 The magnitude of change is determined by considering four separate factors, namely:

i) Size/scale;
ii) Geographical extent;
iii) Duration; and
iv) Reversibility.

2.3.2 The **size and scale** of an effect is determined by considering the amount of change experienced by a receptor, including:

a) The extent of existing landscape elements that would be lost, the proportion of the total extent that this represents and the contribution of that element to the wider character
b) The degree to which aesthetic or perceptual aspects of the landscapes are altered by the removal, or introduction of new landscape components;
c) Whether change affects the key characteristics of a landscape.

2.3.3 The **geographical extent** of an effect is the area over which effects will be experienced. It is not the same as size / scale, as a small-scale change may be experienced over a wider area, or vice-versa.

2.3.4 The **duration** of an effect simply relates to the length of time for which it would be experienced. There is no fixed definition of how these are categorised, but the following are quoted as an example in GLVIA (para 5.51):

i) Short term: zero to 5 years;
ii) Medium-term: 5-10 years;
iii) Long-term: 10-25 years.

2.3.5 Battery Storage Facilities will typically be long term (permanent) infrastructure that would be in place beyond 25 years unless technology change was to make it redundant.

2.3.6 The **reversibility** of an effect relates to whether or not when the Proposed Development reaches the end of its operational life and is demolished or removed, there will be a lasting effect on the landscape. If it can be taken away and the land restored, it is reversible. If removal is impractical or unlikely it isn't reversible. In some cases partial removal will mean that there is partial reversibility.

2.3.7 The four factors contributing to magnitude are considered together to derive an overall magnitude of change in relation to each receptor, determined by use of professional judgement. The assessment of the magnitude of change is expressed using a four point verbal scale of large, medium, small or negligible. Where appropriate, intermediate levels such as medium / large or small / medium are used to refine the assessment.

2.3.8 Table 2.2 provides some descriptors for each of the four points on the scale which indicate how the above factors can be used to inform magnitude of change. These are very much examples rather than definitive – in reality the factors combine in multiple different ways and every case will be different. As such the circumstances of each specific are reflected in a reasoned narrative within the LVA in order to explain the particular magnitude of change allocated to each receptor.

Table 2.2: Magnitude of Landscape Character Criteria (indicative)

Magnitude	Description
Large	A substantial change or loss in landscape characteristics and/or introduction of a very incongruous feature influencing an extensive geographical area and/or which may result in a permanent and perhaps irreversible landscape impact.
Medium	A moderate change or loss in landscape characteristics and/or introduction of an incongruous feature influencing a large geographical area, and/or which may be reversible in the long term.
Small	A small change or loss in landscape characteristics and/or introduction of a feature which would influence a relatively localised geographical area, and/or which may be reversible over a short duration of time.
Negligible	A barely perceptible change or loss in landscape characteristics and/or the perception of change would be focused on a small geographical area, and/or which is almost or completely reversible.

3.0 VISUAL ASSESSMENT

3.1.1 The visual assessment is concerned with the potential effects upon the population likely to be affected (i.e. the views experienced by people). As for landscape effects (Section 2.0), the sensitivity of the receptor affected is identified, as is the magnitude of the change that would occur. These are then considered together to determine the level and significance of effect.

3.1.2 A key part of the visual assessment is the assessment of effects from a number of predetermined viewpoints, which reflect views available to different groups of people. The viewpoint itself is not the receptor; rather it is the people that would be experiencing the view. These people will generally have different responses to a change in view depending upon their location, their activity and other factors, including the weather and time of day or year. Viewpoints fall into three categories (as set out in the GLVIA):

i) Representative viewpoints (which represent the experience of different types of receptors in the vicinity);
ii) Specific viewpoints (a particular view, for example a well-known beauty spot);
iii) Illustrative viewpoints (which illustrate a particular effect or issue, which may include limited or lack of visibility).

3.1.3 Private viewpoints, such as from specific residential properties are not typically included in the LVA. It is often impractical to visit all affected properties and access to private land may not be granted. Representative or specific viewpoints from nearby publicly accessible locations can often give an impression of what effects from private land would be.

3.2 Sensitivity

3.2.1 The nature of a visual receptor likely to be affected, i.e. its sensitivity is determined by considering two factors, namely:

i) Susceptibility to change;
ii) Value.

Susceptibility to Change

3.2.2 Paragraph 6.32 of GLVIA identifies susceptibility to change in view/visual amenity as:

"...mainly a function of:

The occupation or activity of people experiencing the view at particular locations; and

The extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations."

3.2.3 Susceptibility to change is, in part, classified based upon the indicative criteria, provided in GLVIA, as set out in Table 3.1.

Table 3.1: Typical Visual Susceptibility to Change Criteria (indicative)

Criteria Level	Description
Susceptibility to Change	
High	Residents at home; People engaged in outdoor recreation, whose attention/interest is likely to be focused on the landscape or particular views, including from public rights of way; Visitors to heritage assets or other attractions, where views of the surrounding are an important contributor to the experience; Communities where views contribute to the landscape setting enjoyed by residents; Travellers on scenic routes.
Medium	Travellers on road, rail, or other scenic routes.
Low	People engaged in outdoor sport or recreation which does not involve or depend upon appreciation of views of the landscape;

Criteria Level	Description
	People at their place of work whose attention may be focused on their work / activity and not their surroundings.

3.2.4 It is important to note that the examples set out in GLVIA and Table 3.1 above only address the first bullet point and part of the second bullet point in paragraph 3.2.2 above (which are focussed on the occupation or activity of the people and the extent to which their attention is focussed on the view).

3.2.5 As such, the assessment of susceptibility in Table 3.1 and GLVIA (pages 113 &114) needs to be adjusted to reflect the requirements of the final part of the second bullet point, namely the visual amenity that people currently experience. GLVIA identifies clearly that the division between categories of susceptibility to change:

[6.35] "…is not black and white and in reality, there will be a gradation in susceptibility to change. Each project needs to consider the nature of the groups of people who will be affected and the extent to which their attention is likely to be focused on views and visual amenity…"

3.2.6 For example, the presence of existing detracting features in any given view may reduce the visual amenity of those experiencing the view. This may therefore reduce their susceptibility to certain types of change and ultimately their sensitivity.

3.2.7 The assessment of susceptibility to change is made on the same basis as for landscape effects (Section 2.0 above). A three-point scale (with intermediate levels where appropriate) is used, supported by a reasoned narrative that explains the judgement made.

Value

3.2.8 In accordance with paragraph 6.37 of the GLVIA when considering the value of a view experienced, this should take account of:

a) Recognition of the value attached to particular views, for example in relation to heritage assets or through planning designations; and
b) Indicators of the value attached to views by visitors, for example through appearances in guidebooks or on tourist maps, provision of facilities for their enjoyment and references to them in literature or art.

3.2.9 For this reason, whilst not specifically referenced in the current edition of GLVIA, the number of people likely to be affected can influence the value assigned to a particular view.

3.2.10 The assessment of value is made on the same basis as the assessment of susceptibility to change.

Sensitivity

3.2.11 Susceptibility to change and value are considered together as discussed above for landscape sensitivity and illustrated above in Figure 2.1. Again, professional judgement determines the final judgement of sensitivity, due to the non-linear and complex relationship between susceptibility and value. A reasoned narrative is set out in the LVA in order to justify the particular sensitivity assessed for each receptor, so that it is clear how each judgement has been made.

3.3 Magnitude

3.3.1 The magnitude of change that is likely to occur is determined by considering four separate factors, namely:

i) Size/scale;
ii) Geographical extent;
iii) Duration;
iv) Reversibility.

3.3.2 The **size and scale** of an effect is determined by considering a variety of factors including:

a) the loss of or addition of features, and change in composition, and the proportion of the existing view that would be occupied by the change;
b) The degree of contrast or integration of new features or other changes with relation to the existing or remaining elements in the view (form, scale, mass, line, height, colour, texture etc.);
c) The nature of the view, namely the relative amount of time it would be experienced for and whether the views would be full, partial or glimpsed.

3.3.3 The **geographical extent** of an effect will vary from viewpoint to viewpoint and will reflect the following:

a) The angle of view in relation to the main activity of the receptor;
b) The distance from the proposed development;
c) The extent over which change in view would be visible.

3.3.4 The **duration** of an effect simply relates to the length of time for which it would be experienced, i.e. short, medium or long term in a similar manner as was set out for landscape effects.

3.3.5 The **reversibility** of an effect relates to the prospects and practicality of an effect being able to be wholly or partially reversed, or whether the change cannot realistically be reversed, i.e. it is permanent.

3.3.6 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. The assessment of the magnitude of change is expressed using a four point verbal scale of large, medium, small or negligible. Where appropriate, intermediate levels such as medium/large or small/medium are used to refine the assessment.

3.3.7 Table 3.2 indicates with some descriptive text how the above factors could be used to inform magnitude of change. As the circumstances of each specific receptor will vary, a reasoned narrative is set out in the LVA for each view in order to explain the particular magnitude of change allocated to each receptor.

Table 3.2: Magnitude of Visual Change Criteria (indicative)

Magnitude	Description
Large	A change which introduces a prominent new feature, and/or something of a larger scale to existing elements in the view, which may be seen across an extensive area or experienced from a long section of a route, and/or a longer-term effect, and/or significant contrast with the existing view.
Medium	A change which introduces an obvious new feature, and/or something at a slightly bigger scale to existing elements in the view, which may be seen across a wider area or experienced from a section of a route, and/or a medium-term effect, and/or broadly compatible with the existing view.
Small	A change affecting a smaller proportion of a view, which may be seen from a limited area or experienced from a short section of a route, and/or a shorter-term effect, and/or compatible with the existing view.
Negligible	A change which is barely perceptible in the view, and/or which is only glimpsed from a route.

4.0 LEVEL AND SIGNIFCANCE OF EFFECT

4.1.1 The purpose of Environmental Impact Assessment (EIA) is to determine the likely significant effects of a development proposal. Not all landscape and visual effects arising as a result of a particular proposal will be significant. Furthermore, a

significant effect does not necessarily mean that such an effect is unacceptable to decision-makers. This is a matter to be weighed in the planning balance alongside other factors. What is important is that the likely effects of any proposal are transparently assessed and described in order that the relevant determining authority can bring a balanced and well-informed judgement to bear as part of the decision-making process.

4.1.2 The State of Environmental Impact Assessment Practice in the UK (Institute for Environmental Management and Assessment 2011) identifies a range of different factors that should be considered when evaluating the significance of an effect, including:

i) Knowledge and experience of significance from previous assessments;
ii) Details of the development proposal, such as construction and operational activities, and the nature of the effect associated with such activity;
iii) Details about the environmental sensitivity of the area that will be affected;
iv) Feedback from scoping and consultation;
v) The wider legal and policy context, which offers protection to the environment and community.

4.1.3 The level of effect can only be defined in relation to each particular development and its specific location. It is for each LVA to determine how judgements about receptor sensitivity and the magnitude of change should be combined to derive the level of effect and to clearly explain how this assessment has been made, and if the level of effect is considered significant.

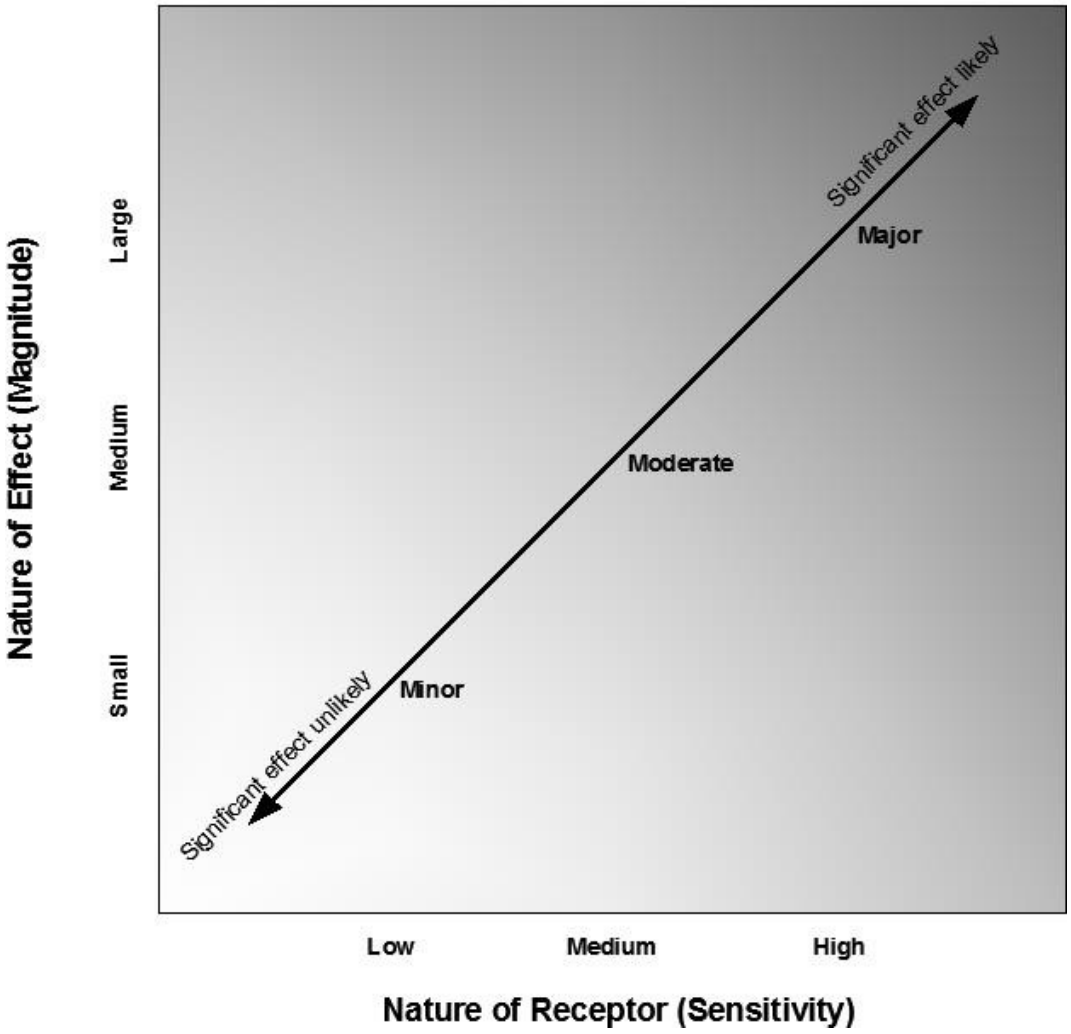
4.1.4 Figure 4.1 (below) provides a guide as to how sensitivity and magnitude can be combined to identify the level of effect upon a receptor (with the grey shading indicative of the increasing level of effect with increasing sensitivity and/or magnitude). However, the final assessment of the level of effect and whether this is significant for decision makers is one of professional judgement.

4.1.5 Where magnitude of change is identified as 'negligible,' then effects are automatically considered not to be significant due to the minimal level of change from baseline (which would not be perceptible).

4.1.6 Greater than 'moderate' effects are more likely to be identified as significant. This is because they would generally result from larger magnitudes of change on higher sensitivity receptors. This does not preclude a 'moderate' effect or lower being

significant or a greater than ‘moderate’ effect not being significant. This judgement will depend on the specific circumstances being considered.

Figure 4.1: Level of Effect Matrix (indicative)



4.1.7 The GLVIA identifies that:

[3.32] “The Regulations require that a final judgement is made about whether or not each effect is likely to be significant. There are no hard and fast rules about what effects should be deemed ‘significant’ but LVIAs should always distinguish clearly between what are considered to be significant and non-significant effects…”

[3.33] “It is not essential to establish a series of thresholds for different levels of significance of landscape and visual effects, provided that it is made clear whether or not they are considered significant. The final overall judgement of the likely significance of the predicted landscape and visual effects is however, often summarised in a series of categories of significance reflecting combinations of sensitivity and magnitude. These tend to vary from project to project but they should

be appropriate to the nature, size and location of the proposed development and should as far as possible be consistent across the different topic areas of the EIA."

[5.56] & [6.44] "There are no hard and fast rules about what makes a significant effect, and there cannot be a standard approach since circumstances vary with the location and [landscape]1 context and with the type of proposal."

4.1.8 It should be noted that effects may be either adverse (negative) or beneficial (positive). An effect can be significant and adverse, or significant and beneficial. If change occurs, with no obvious deterioration or improvement resulting, this can be said to be neutral.

Appendix B – ZTV and Visualisation Methodology

Newburn BSF

Appendix B

ZTV and Visualisation Methodology

Prepared for

Balance Power

July 2023
3354-01-

CONTENTS

1.0 ZONE OF THEORETICAL VISIBILITY

1.1.1 Zone of Theoretical Visibility (ZTV) maps have been generated in order to better understand the likely extent of the surrounding landscape across which the Proposed Development would be visible.

1.2 Data Source

1.2.1 The ZTV was produced using a commercial 2m Photogrammetric Digital Surface Model (DSM) available free from DEFRA. This is derived from aerial photography captured in 2008 and in 2018, and takes account of screening features such as buildings and vegetation.

1.2.2 The DSM is based upon a 2m grid spacing. The horizontal RMSE of the data is 1m, and the vertical RMSE is 1.5m.

1.3 ZTV creation

1.3.1 The ZTV was calculated and created using QGIS open source software. The ZTV calculation process takes account of the curvature of the earth's surface and light refraction. The eye height of the receptor in the computer model was set at 1.6m above ground level in accordance with guidance set out in GLVIA.

1.3.2 The ZTV illustrates the theoretical visibility of the BESS of Proposed Development, at a height of 3.5m above ground level.

1.3.3 The ZTV is displayed on Figure 2 of the LVIA.

1.4 *Limitations*

1.4.1 A ZTV, as use of the term theoretical implies, is not an absolute indication of the extent of visibility but rather a computer-generated aid that utilises available relative data to indicate areas of inter-visibility and screening in relation to a specific modelled object. ZTVs are tools to assist the LVIA. The technique aims to give a better understanding of the areas where visibility is likely and unlikely but imperfections in data are such that it must only be seen as an aid to understanding. This limitation needs to be recognised when interpreting the ZTVs.

1.4.2 An additional caveat is that the ZTVs simply illustrates that part of a structure would be theoretically visible. As such, it makes no distinction between a clear view of all or most of a proposed feature and a view of a very small proportion of a feature (for

example one corner of a building roof, or the top of a stack). This is especially relevant in the case of the Proposed Development, where views from the surrounding area are often limited by vegetation cover.

1.4.3 The ZTV produced using the DSM does reflect the presence of screening features in the landscape. However, it should be recognised that the DSM reflects a single moment in time (i.e. when the underlying aerial photography was taken). In reality, the extent and / or height of vegetation cover is dynamic and changes as vegetation inevitably increases in stature over time and / or is planted, trimmed or removed. Similarly, there is potential for buildings to have been erected, demolished or modified, subsequent to the data being captured.

1.4.4 Additionally, the DSM tends to assume that vegetation captured forms a solid visual barrier, when in reality views can sometimes be available through leaves and branches, especially in winter when deciduous foliage is absent. As such, the real-world visibility of the Proposed Development could potentially be underestimated in places. Field work undertaken as part of the LVIA included ground truthing the DSM ZTV, and confirmed that it is a relatively accurate depiction of visibility, whilst recognising that glimpsed views through bare vegetation may not be modelled (for example at Viewpoint 2).

1.4.5 Finally, the DSM does not distinguish between the ground surface and the surface of structures and vegetation. As a consequence, the ZTV output may indicate visibility from areas known to be occupied by woodland and buildings. Whilst in theory it may be possible for people to experience the views from such locations (by climbing onto roofs, or into the tops of trees), this is not representative of typical day to day visibility, and as such there is the potential to overstate the actual visibility of the Proposed Development. viewpoint visualisations

2.0 VIEWPOINT VISUALISATIONS

2.1 Photography

2.1.1 All photography for this assessment was taken using a Canon EOS 6D Mark II digital single lens reflex (DSLR) camera with a full-frame sensor, using a 50mm lens. The camera was mounted on a tripod to ensure a stable support and minimise camera shake. The camera was mounted on a panoramic tripod head with built-in spirit level (Manfrotto Panoramic Row), which allows for the rotation of the camera at fixed intervals around a fixed point in vertical alignment with the camera lens, thereby

eliminating parallax error. The camera is levelled using an auto-leveller device (Manfrotto Levelling Base). Camera height was 1.6m above the ground.

2.1.2 Photographs were typically taken over a full 360 degree sweep from each viewpoint location. The precise location of each photograph was recorded using a GPS, and on mapping (which has an accuracy of approximately less than 0.5m). Following the Site visit, the GPS data was loaded into the GIS software to record the viewpoint location. A spreadsheet was completed recording information about the viewpoint.

Limitations

2.1.3 It should be understood that photography can never provide an exact match to what is experienced in reality. Visualisations are tools in the assessment process but independent from it. They illustrate the view in the context of a specific date, time and weather conditions, that would be seen within a photograph and not as seen by the human eye. As such, visualisations need to be used in conjunction with site visits and should be considered in the context of the totality of views experienced from the viewpoint and not just focussed on the Proposed Development.

2.1.4 Refer to the main chapter for limitations on seasonal changes and time of year for photography.

2.2 Presentation & Viewing

2.2.1 The viewpoint photography is inserted into a Figure template, which also includes information about the viewpoint, including the date and time of photography, and details of the camera used.

2.2.2 These are presented in Figure 3.

2.2.3 Each sheet should be printed at the size stated on it. In some instances, this may require unconventional paper sizes (e.g. A1 width and A3 height). All printed sheets should be viewed held flat at a comfortable arm's length.

Appendix C – Extracts from published Landscape Character Assessments

Newcastle City Council

Newcastle Character Assessment

Tyne Riverside and Western Villages: Landscape and Townscape Character Zone A

1 Where: location and extent, number of character areas

This zone is the south western portion of Newcastle, extending along the Tyne waterfront west from Scotswood to Newburn and the Tyne Riverside Country Park. The zone extends up the valley side as far as the A69(T). This is a highly distinctive area in landscape terms where the Newcastle Green Belt encloses the settlements very tightly indeed creating a mix of countryside and town. The zone covers the south-facing slopes of the Tyne Valley and the steep enclosed denes at Walbottle and Sugley and the hilly landform between.

The predominantly residential areas of Lemington and South west Denton are in this zone, at the western edge of Newcastle's built up area, plus the urbanised former villages of Throckley, Newburn, Walbottle and Blucher. The countryside in between gives this zone its strong urban-fringe character, becoming rural at its western extremity. The zone also includes the industrial and commercial area in the Tyne floodplain at Newburnhaugh. There are 25 individual character areas identified within this zone, of which 10 are rural (including 5 Areas of Local Landscape Significance - ALLS) and 15 are urban (including 4 Areas of Local Townscape Significance - ALTS).

2 What's there: key characteristics, geography, landscape and land use.

The zone has similar topography to the adjoining West End, with some flat and low-lying land next to the River Tyne, a number of steep-sided stream valleys or denes leading down to the Tyne and steeply rising land to the north. The landform is always interesting here with the little hills of Rye and Hallow Hill above Newburn and the magnificent viewpoint of Knop Law, just east of Blucher Village. The views almost everywhere within this zone are very good, becoming increasingly panoramic higher up the valley side.

Most of the western riverside is stony glacial clay over sandstone and coal measures, with alluvium lower down plus some very large areas of filled ground. The western riverside zone supports a rich diversity of wildlife, with many interesting habitats and key local species. The Tyne becomes more rural in character further west in this zone with seal, otter, and salmon to be seen, a multitude of bird species including heron, skylark, song thrush, barn owl, and aquatic species. There are ponds and woodlands supporting amphibians, red squirrel, bats and much

botanical interest. Mudflats on the Tyne and at Lemington Gut are valued habitats for invertebrates, ducks and waders.

The Tyne itself has been greatly altered, straightened, deepened and narrowed to run in a new engineered channel to accommodate shipping serving the coal industry and the recently demolished former power station at Stella/Newburnhaugh in particular. The former sands and shoals and Dent's Meadows island were all dredged away in the 1860s and the whole Newburnhaugh channel has been eased to take out the tight loops at Lemington and Stella. The former railway along the north side of the Tyne shortcuts across the curve of the river and the flat, low lying land at Newburnhaugh to continue to Wylam. The former line is now a very popular and well used stretch of Hadrian's Way National Trail, an off road recreational route which has recently been augmented by a new loop of public promenade and path along the edge of the Tyne at Newburnhaugh.

The Western zone has diverse residential areas, principally low rise, low density brick terraces, link houses and semis with some medium rise apartment and maisonette blocks. The majority were built between or after the wars and most have front and rear gardens. These homes occur at Throckley, in south west Denton, Dumpling Hall and in northern and western Lemington. A large proportion are council-owned. However interspersed with these are older terraced houses at Lemington, Newburn, the Throckley "tree streets", Walbottle and Blayney Row, some traditional miners' cottages at Blucher, and a post war reconstruction of the older village houses around the village green at Walbottle.

Pockets of housing in Throckley and Lemington have become neglected and unpopular but the majority of homes are well cared for and have seen substantial and successful refurbishment as well as some new building.

There are no multi-storey tower blocks in this zone. The tallest buildings are at Newburnhaugh: new offices, the Lemington Glass Kiln and the numerous tall pylons in the area. There is one Conservation Area at Walbottle.

Main accesses to and through the western riverside zone are east-west and parallel to the Tyne, main roads being the A69 Trunk Road and the A6085 Scotswood Road / Lemington Road. North-south links are minor roads, often with steep gradients. There is one river crossing at Newburn Bridge which is a narrow single carriageway width.

Industry was predominantly coal mining with many pits in the area, the last to close being North Walbottle in 1968. Iron and steel working was also prominent in the Newburn and Lemington areas although this declined through the twentieth century finally closing in the 1960s. Power generation using local coal imported by ship via the Tyne continued at Stella Power Station until the 1990s. A huge graphite works occupied much of the Newburnhaugh site until about the same time. The

two operations, the site contamination and the massive “dark satanic” structures have now gone and Newburnhaugh is being redeveloped as a modern and attractively landscaped industry and business park. The industrial riverside areas still support a mixture of small to medium commercial and industrial premises: some fairly run down. Most have no particular reason to occupy the waterfront which is still inaccessible to the public east of Newburn bridge, and again east of Lemington Gut.

Green spaces in the Western zone are abundant, well linked together and many originate from reclaimed mine workings and pit heaps, the most extensive being the former Percy Pit at Lemington and Tyne Riverside Country Park at the Former Isabella Pit, Newburn. The villages are interconnected by a wealth of public footpaths and former waggonways like Blucher and Walbottle Waggonways and Hadrian’s Way (Wylam Waggonway) that cross the pleasant farmland, protected as Green Belt, between the villages and settlements. The other key green space assets in this zone are the ancient woodland denes: Walbottle Dene and Sugley Dene (means ‘valley of birdsong’) are both council owned public open spaces. Given to the former Newburn Council by the Duke of Northumberland, they lead down to the Tyne riverside and link to Hadrian’s Way, Tyne Riverside Country Park and Percy Pit.

Formal urban parks are infrequent in the area as are sports pitches, since the topography is often too hilly. Newburn Sports centre is popular both for team and pitch sports and as a base for runners and cyclists. Elswick Harriers, the oldest athletics club in the North East, established 1889, now train at Newburn. Tyne Rowing Club established 1852 is one of the oldest sporting clubs in the UK, part of the Tyne’s industrial heritage, dating from a time when Tyne oarsmen were both local and world champions. Newcastle, Northumbria and Durham Universities have active rowing squads training on the Tyne at Newburn, as do some local schools. Allotment sites are available and generally well used, though some are run down and in this area the tenants often have livestock. Unauthorised grazing of horses and ponies is a problem on council-owned green space and much private pasture in the Green Belt farmland between the villages is for horses, indicating the strength of equestrian interest in this zone. The adjacent open land is attractive agricultural land in mixed use, with very high visual amenity, and a diversity of trees, woodlands and other vegetation. The zone thus provides a rich variety of recreational opportunities and very high quality ‘countryside character” green space close to the urban area. In fact the area includes 5 Areas of Local Landscape Significance (ALLS) and 4 Areas of Local Townscape Significance (ALTS) out of a total of only 25 areas.

There are relatively abundant street and garden trees in this zone: limes in particular were often planted as street or front garden trees in the inter-war estates in Lemington and Throckley to help create the “garden village” character, although some have been lost.

3 Why it’s there: archaeology, history, cultural influences.

The earliest definite route was adopted by the Romans for 'Hadrian's Wall', which crosses this zone east to west. There are wall remains on the A69 roadside in south west Denton at The Ramparts. An archaeological excavation below what is now the A1 found evidence of pre-Roman cultivation and the flat bottomed 'Vallum' (large ditch) which runs south of and parallel to the wall. The line of the wall leaves the A69 West Road at the hilltop viewpoint of Knop Law, site of Milecastle No 9. The wall's course is now marked by the old Hexham or "Military" Road, the B6528. Part of the ditch north of the wall is visible close to North Walbottle Street, Blucher. Milecastle 10 was just east of Walbottle Dene. Milecastle 11 was at the corner of Drove Road and Hexham Road, in Throckley.

Three settlements were established from mediaeval times at Bank Top Throckley, at Walbottle and on the riverside at Newburn. The place name Throckley (or Throklaw) means burial mound of Trocca. The settlement is first recorded in 1161 but was inhabited from much earlier. A hoard of Roman silver coins was found at the site of the Water Treatment works, Hexham Road. The name Walbottle refers to a Saxon farmstead, built on the wall, and the village is recorded in Mediaeval times. The villages all expanded with the development of collieries, together with the newer settlement at Blucher. The name Blucher commemorates a Russian general at the battle of Waterloo 1815.

Newburn's historic claim to fame is as the location of a Civil War battle, at Newburn Ford 1640, where Royalist English troops lost to a much larger Scottish Covenanter force.

The last pits to close in this zone were at Throckley in 1954, Blucher in 1956 and North Walbottle in 1968.

4 Current role

Much of this zone is now a dormitory residential suburb for Newcastle, since there is now little employment locally. The village communities are still strong and apart from a little localised demolition in lower Lemington, and central Throckley, most areas remain reasonably popular places to live and are stable. The ending of coal mining and redevelopment of heavy industry at Newburnhaugh were very significant changes but there has otherwise been relatively little change in recent years. The locality is however strengthening its role as a local beauty spot and sports and leisure location for walking, cycling, running, a range of team and water sports, horse-riding, and as a good area for wildlife. This is a zone with great charm and character as a local landscape but which is also vulnerable to pressure for a plethora of more urban-style land uses such as stabling and paddocks for horses, local recreation facilities and semi-rural homes and lifestyles.

5 Strengths: special character, successes: to protect and enhance.

The long curving River Tyne and its waterfront

The streams and steep sided wooded valleys at Walbottle and Sugley Denes
Lemington Gut (lower tidal mudflats)
Lemington Glass Cone
Tyne Riverside Park
Tyne slipway and watersports
Hadrian's Way National Trail
Line of Hadrian's Wall
Landmark buildings and structures
Knop Law
Newburnhaugh Business Park, waterfront open space and promenade
Newburn Sports Centre
Former waggonways and Public Rights of Way network
Traditional miner's cottages and settlements
Walbottle Village and Green

6 Weaknesses: detractors, challenges, development against the grain: to change and improve.

Low grade industrial and commercial operations
Fly tipping
Contamination in the rivers
Electricity pylons
Gas governor at Newburn
Poor maintenance and loss of character in "garden village" style homes and former mining settlements.
Unauthorised grazing and uncontrolled horses and other livestock
Vandalism, dog fouling, graffiti, teen drinking and other anti-social behaviour
Neglect in public realm including open spaces
Major roads in close proximity to features of archaeological or wildlife value

7 Opportunities; priorities for enhancement and improvement.

Heritage along the line of Hadrian's Wall
The River Tyne and its waterfront
The River Tyne bridges
Tyne Riverside Park and Hadrian's Way
Waverley Park
Valley View Sports Ground
Sugley and Walbottle Denes
Lemington Gut
Old Lemington
Main streets and thoroughfares
Major roads and their roadsides and crossings
Off road routes and linkage
River Tyne crossing proposed at Blaydon
Sandhill Centre

8 Threats: needing action to prevent further harm.

Comprehensive redevelopment

Housing improvement that erodes intrinsic character
Paving over front gardens for parking
Loss of mature street trees and roadside grass verges
Security fencing, CCTV and other protection
Demolition
Building on green spaces
Increasing numbers of cars and higher car ownership
Loss of river views

9 References

- Hadrian's Wall: The Wall Walk Volume 1
- Sustrans C to C guide
- BBC Tyne Sport website
- Durham Mining Museum website
- Newcastle City Libraries 'Bygone Throckley' etc series
- Battle of Newburn (Ranger Service and other websites)

Strengths and opportunities.

Guide Point Ref no	Strengths and opportunities	Do's	Don'ts	Notes/Comments
A1+	Diverse villages and distinctive residential areas of architectural value.	• Protect and improve heritage. • Recognise heritage/rarity value. • Protect mining heritage. • Reinforce village core and identity.	• Allow development to blur and remove subtle differences and separation between the villages. • Lose/erode rural features and setting.	Refer to Hadrian's Wall World Heritage site and Management Plan.
A2+	Former and existing denes	• Enhance and protect Throckley-Walbottle, Sugley, & Denton Denes with • Management and interpretation.		Refer to National guidance on ancient woodland

A3+	Viewpoints	• Identify, promote and protect as key local viewpoints: • **Newburn Bridge** • **Newburnhaugh promenade and walkway** • **Blaydon Bridge** • **Knop Law** • **Hallow Hill** • **Percy Pit** • **Views from Military Road/Hexham Road**	• Mar or block views	
A4+	Main streets and thoroughfares	• Active street frontages • Consider "home zones". • More safe crossings between spaces and residential areas. • Retain grass verges		
A5+	Tree cover, street and garden trees, hedges	• Plant trees in streets, and street corners. • Plant woodland belts in parks and spaces. • Manage dene and riverside woodlands for wildlife. • Introduce native black poplar at Tyne Riverside. • Engage the local community..	• Remove trees without replacement.	Refer to Tree and Wildlife strategies
A6+	Off-road routes	• Protect and promote existing routes and links, particularly access to countryside.		

A7+	Parks and green spaces	• Protect, promote and improve Tyne Riverside Country Park. • Improve perimeter fencing of allotments and smallholdings.	• Allow high rear fences abutting spaces. • Create more low grade amenity space. • Allow more vehicle access	
A8	River Tyne and waterfront	• Improve and protect water quality, landscape and wildlife, river-related sports and activities. • Encourage industrial uses to relocate if they have no connection with the river. • Open up more public access.	• Allow buildings within 20 metres of the river without good reason.	The Tyne Riverside Park is an increasingly significant tourist venue and gateway to Newcastle for Hadrian's Way users.

Weaknesses & threats.

Guide Point Ref no	Weaknesses and threats	Do's	Don'ts	Notes/Comments
A1-	Loss of industrial economy and traditional employment.	• Embrace new development at Newburnhaugh	• Allow neglect of landscape setting	
A2-	Poor maintenance and loss of character and value in residential areas.	• Improve quality of paths and boundary treatments	• Art-stone/roughcast cladding to brick terraces	
A3-	Unsightly buildings and uses	• Provide screening & consider re-location	•	

A4-	Large grassed amenity areas	• Consider rationalisation, habitat creation and selective sites for upgrading. • Management plans and good quality workmanship & repairs	• Allow motor cycles on green spaces • Lose linkage between spaces	
A5-	Security fencing, CCTV and other protection	• Design guidance • Co-ordinated colour schemes. • Use landscaping to soften appearance and act as deterrent.	• Allow security measures to dominate. • Security fences abutting footpaths. • Over specification	
A6-	Increasing numbers of cars and rising car ownership	• Consider “home zones”. • Tackle pavement parking.		

Newcastle City Council

Newcastle Character Assessment

North West Newcastle: Townscape Character Zone J

1 Where: location and extent, number of character areas

The North West Newcastle zone is situated north of the A69 West Road and straddles the A1 Western bypass, extending from the western edge of the Town Moor out to the urban fringe. The zone includes a number of large modern outer suburbs, from Fenham, Cowgate and Montagu which adjoin the Town Moor out to Kingston Park, Newbiggin Hall, West Denton and Chapel Park further out. There are 27 individual character areas identified within this zone, of which all are urban (including 3 Areas of Local Townscape Significance - ALTS).

2 What's there: key characteristics, geography, landscape and land use.

The topography of this zone is influenced by its prominent position on the watershed between the Tyne and Ouseburn valleys. The zone occupies a broad ridge rising from 55 metres above sea level at the north of Kingston Park to hill tops at Kenton Bar, Coley Hill and at Denton Hill Head which, at 132 metres above sea level, is the highest point in Newcastle. Reflecting the ridge groundform, there are very few watercourses in this zone. Two small streams rise from Newbiggin Hall (Harey Dene and Newbiggin Dene) flowing north to the Ouseburn, while Sugley Burn rises in West Denton (Ravenshill Road) flowing south to the Tyne. Geologically this zone has heavy stony glacial clay over either coal measures or over sandstone at Fenham, Cowgate and Chapel House. Coal measures are exposed at North Walbottle and West Denton, sandstone outcrops close to the surface at East Denton and Chapel House, along the West Road and line of Hadrian's Wall. There is much filled ground along the route of the Western Bypass, and at sites such as the former Caroline and Blakelaw pits and Westgate College.

During the later 19th century demand had grown for houses away from the fumes and crowding of the industrial riverside, notably around the fringes of the Town Moor. During the first half of the twentieth century the introduction of public transport routes out to the north-west encouraged the growth and popularity of places beyond this such as Fenham, West Denton, Kenton Bankfoot and Westerhope, and this continued post war with the building through the 1950's to 1980's in particular of a number of large private estates including Chapel Park and Kingston Park. The other major pressure for house building in this zone was for council housing, with a series of large estates being built within this zone including areas of Fenham and Cowgate in the interwar years and then a post-war series of estates such as Blakelaw, West Denton, and Newbiggin Hall. The zone thus underwent a massive transformation during the twentieth century from a rural agricultural landscape with occasional villages, farms and pits to an entirely built up area.

The zone is almost exclusively low rise and low density housing, brick construction with tiled roofs. However there are a small number of 3-5 storey flats and maisonette blocks at Blakelaw and Newbiggin Hall, and there is a scattering of tower blocks including some at Cowgate, Blakelaw and West Denton. There has been extensive ongoing refurbishment, improvement and in some cases demolition within the council housing estates, but other than maturing the private estates have remained largely unchanged.

Main access routes are by road: principally north-south along the A1 Western Bypass, A191 Silver Lonnen and B1306 Two Ball Lonnen. The main east-west links are the A186 West Road, A167/A696 Jedburgh Road and B6324 Stamfordham Road. The only rail route is the Metro which crosses the extreme northerly section of this zone to Kenton Bank Foot.

Green spaces in the zone are plentiful but generally poor quality. There is no proper traditional park and although Gala Field in Newbiggin Hall has had substantial investment to create a new park, there is still some way to go. There is Newcastle's largest cemetery at West Road Crematorium and sports pitches at Blakelaw Park, West Denton, Westerhope and Cowgate. There are allotments at Newbiggin Hall, Westerhope, West Denton and Fenham. The zone has a large quantity and generous distribution of amenity green space particularly in and around the council estates, but much of this has little amenity, diversity or recreational opportunity: grass with a tree or two is often all that is on offer. In some areas there has been a lot of anti-social behaviour, vehicles and motorcycles, tipping, litter, etc addressed by quick-fix barriers and repairs using a mixed jumble of materials. This does little to improve the quality of the environment in parts of Newbiggin Hall, Blakelaw or West Denton.

The open spaces support some wildlife, particularly bird species where there is tree cover and hedging, but the area is poor for habitat diversity compared with other parts of the city, having very little woodland, no mature parks, rivers, ponds or lakes, and few stream valleys. However this zone does derive some benefit from the pleasant open countryside just beyond the built up area.

The zone's only mature woodland trees are in Newbiggin Dene, linking through to Kenton Bankfoot. There area also more recent immature plantations along the A1 Western Bypass and the A696 Woolsington Bypass. Street trees are scarce too with only a few tree-lined streets in places like Blakelaw south, Ponteland Road and central Fenham. Often where there have been roadside verges in the past these have been paved to provide parking, for example at Springfield Road, Blakelaw.

Whilst residential is the predominant land use in this zone there are five senior schools, the Northumbria Police HQ at Etal Lane, small to medium commercial/retail/industrial premises at Slatyford Lane/Stamfordham Road, and Westerhope, and larger areas at the Airport Industrial Estate and Kingston Park Business/Retail Park. There are a number of small local shopping areas and major centres but no traditional local 'High Street' shops other than at Westerhope. There are small supermarkets at Stamfordham Road and Westerhope and large ones, with huge car parking areas, at Cowgate and Kingston Park.

3 Why it's there: archaeology, history, cultural influences.

The earliest lasting human influences on this zone were the ancient routes: to the west along the line of Hadrian's Wall and to the north-west on the roads to Stamfordham and Jedburgh. Coal mining activity at locations like Blakelaw, and Slatyford, were linked to the Tyne by waggonways; a main route went north-south along the line of what is now the A1 Western Bypass with two parallel links across Blakelaw. There are also small pockets of former mining terraces at Slatyford and Chapel Park. Prior to the rapid 20th century development, there were only agricultural and mining buildings in the area, although the village of Westerhope was in existence during the early 19th century. Buildings from this earlier period include St John's Church, Whorlton and Fenham Hall (now St. Mary's College), along with remnant farm houses at Kenton Bar, Blakelaw, Newbiggin Hall and Westerhope. Other than these and coal mining heritage there is little of archaeological note in this zone. Place names are generally descriptive and Saxon in origin: Fenham was 'a marshy place' for example. Of interest as one of the few areas with special character and identity in this zone is the Northumberland Gardens Conservation Area, private red brick family houses in the arts and crafts tradition, laid out with generous gardens for growing produce, in an effort to create a better lifestyle outside the city. Westerhope has similar origins as the 'Red Cow Estate' farmland purchased by the Northern Allotment Society in the 1890s.

4 Current role

North West Newcastle is very much a dormitory suburban residential area, with pockets of popular housing but large parts that are bland, lacking interest, identity and amenity. Improving the diversity, vitality, appearance and quality of the townscape and green environment is a priority.

5 Strengths: special character, successes: to protect and enhance.

Westerhope Village
Newbiggin Dene
Harey Dene
Gala Field Park
Northumberland Gardens Conservation Area
Street and garden trees
Views from Kenton Bar.

6 Weaknesses: detractors, challenges, development against the grain: to change and improve.

Large quantities of low quality amenity green space
Inappropriate management and repairs on green spaces
Loss of street and garden trees and hedges, failure to replant
Increasing car ownership and use, with increasingly more than one vehicle per household
Vacant and boarded up buildings
Motor cycles on green spaces
Standardised traffic calming and management

Loss of verges to tarmac and parking
Neglect in public realm including open spaces, streets and schools
Loss of traditional garden walls, railings and gates
Main road edges and crossings

7 Opportunities; priorities for enhancement and improvement.

Heritage in the Conservation Area
West Denton linked open space system
Main streets and thoroughfares
Street trees and highway verges
Stamfordham Road
Green Spaces, particularly Gala Field and other amenity spaces that could be converted to provide proper parks
Tree and woodland cover and hedges
Off road routes and linking the green spaces
Airport Industrial Estate
School grounds

8 Threats: needing action to prevent further harm.

Provision for cars and parking, including paving over front gardens and highway widening
Poor quality paths and boundary treatments
Loss of woodland and trees, particularly through vandalism
Property improvement that erodes intrinsic character
Building on green spaces, especially where these provide a link between spaces

9 References

- Northumberland Gardens Conservation Character Statement and Management Plan
- Hadrian's Wall: The Wall Walk Volume 1
- Newcastle Town, R J Charlton
- Bygone Westerhope, Fenham. Newcastle City Libraries.

Strengths and opportunities.

Guide Point Ref no	Strengths and opportunities	Do's	Don'ts	Notes/Comments
J1+	Former villages and distinctive residential areas of architectural value.	• Protect and improve heritage. • Recognise heritage/rarity value.		Refer to Northumberland Gardens Conservation Area Character Statement and Management Plan

J2+	Former and existing denes	• Enhance Newbiggin Dene & Harey Dene with new woodland to reflect original landform		
J3+	Viewpoints	• Identify and protect as key city viewpoints • **Kenton Bar and A167 Ponteland Road** • **West Road and A69** • **B6324 Stamfordham Road, west of Westerhope** • **North Walbottle Road**	• Allow development to mar or block the view	
J4+	Main streets and thoroughfares	• Active street frontages • Consider “home zones”. • More safe crossings between spaces and residential areas. • Retain grass verges		
J5+	Tree cover, street and garden trees, hedges	• Plant trees in streets, and street corners. • Plant woodland belts in parks and spaces. • Manage dene woodlands for wildlife. • Engage the local community..	• Remove trees or hedges, without replacement.	Refer to Tree and Wildlife strategies
J6+	Off-road routes	• Protect and promote existing routes and links, particularly access to countryside		

J7+	Parks and green spaces (West Denton, and other spaces)	• Address scarcity of parks	• Allow high rear fences abutting spaces • Create more low-grade amenity space	

Weaknesses & threats.

Guide Point Ref no	Weaknesses and threats	Do's	Don'ts	Notes/Comments
J1-	Loss of industrial economy and traditional employment	• Implement regeneration plan		
J2-	Poor maintenance and loss of character and value in residential areas	• Improve quality of paths and boundary treatments	• Introduce more medium and high rise development.	
J3-	Unsightly buildings and uses	• Provide screening & consider relocation		
J4-	Large grassed amenity areas	• Consider rationalisation, habitat creation and selective sites for upgrading • Management plans and good quality workmanship & repairs	• Allow motor cycles on green spaces • Lose linkage between spaces	
J5-	Security fencing, CCTV and other protection	• Design guidance • Co-ordinated colour schemes • Use landscaping to soften appearance and act as deterrent	• Allow security measures to dominate • Security fences abutting footpaths • Over specification	
J6-	Increasing numbers of cars and rising car ownership	• Consider "home zones" • Tackle pavement parking		

Newcastle City Council

Newcastle Character Assessment

West End and Riverside: Townscape Character Zone K

1 Where: location and extent, number of character areas

The West End and Riverside is the area immediately west of the city centre, positioned along the north valley side of the River Tyne to Scotswood Bridge and including the mixed use and residential areas of Elswick, Benwell and Scotswood. There are 24 individual character areas identified within this zone, of which all are urban (including 2 Areas of Local Townscape Significance - ALTS).

2 What's there: key characteristics, geography, landscape and land use.

The West End of Newcastle is an area with sloping and often steeply sloping topography (some north-south streets have gradients as steep as 1 in 7). The zone occupies the south facing valley side of the River Tyne which rises to a noticeable ridge line with high points at Condercum (126 metres above sea level) and Arthur's Hill. The Tyne gorge starts to widen west of Elswick Riverside. Most of the West End is over glacial boulder clay, but has exposed coal measures in places and sandstone outcrops creating the West End's two hilltops at Condercum and Arthur's Hill. The West End open spaces support a diversity of wildlife, particularly on or close to the Tyne, with key local species such as otter, seal, bats, skylark, song thrush and dingy skipper butterfly present, and with a richness of invertebrates along the Tyne mudflats and banks that in turn support many bird and aquatic species. Two public spaces are designed as nature parks creating many different habitats to encourage local wildlife including pond species like amphibians and dragonfly.

The Tyne has been greatly deepened, altered and narrowed in the later nineteenth century (from 1863) to accommodate shipping, especially for the coal industry. This included the removal of islands, most notably "King's Meadows" and "Clarence Islands" and many other sands and shoals exposed at low tide which once lay south of what is now Newcastle Business Park. There is reclaimed land along most of the West End waterfront, and several steep sided stream valleys (denes) have been filled in, often in the course of mining activity. A riverside railway once ran parallel to the Tyne and for much of its route through this zone this is now Hadrian's Way National Trail, an off-road recreational route. There are six bridges across the Tyne within this zone, three at the Scotswood end (although the former railway bridge is no longer in use) and three close to Elswick Riverside (one road, one rail and one Metro), although this still leaves a long wide stretch of river with no crossing available.

The Tyne no longer supports any river-related industry in the West End, though there is a significant amount of new business, industry and commerce close to the river and Scotswood Road. Some areas of former riverside industry have been

replaced by the Newcastle Business Park along the south facing section of the Tyne at Elswick and South Benwell.

Away from the riverside the West End also has a significant amount of residential land use, with a mosaic of many different and often distinctive residential neighbourhoods, and a range from low rise, brick terraces and semis to medium rise apartments and high rise towers. This is in strong contrast to the more homogenous urban housing estates of eastern and northern Newcastle. Housing density is generally high across this zone compared to other parts of the city.

Some homes still date from the late nineteenth century and there are a number of locally traditional “Tyneside flats” at North Benwell, Elswick and Scotswood built before the First World War, with rear yards and sometimes a very small front garden. Later housing is predominantly council owned, often with more generous front and rear gardens. In the West End the vast majority of nineteenth century terraces were cleared in the period 1960-80 and replaced with modern brick “link” terraces, apartments, and a number of tower blocks of flats. The remaining six tall tower blocks at Cruddas Park form a strong local landmark.

Although the West End has seen substantial refurbishment (often over decades), properties in certain places remain unpopular and difficult to let. The West End housing pattern gives way to large expanses of open grassy slopes in Scotswood and western Benwell where huge numbers of failing council homes have been demolished since 1993, opening up panoramic views across the river to Gateshead, the Metro Centre and the Derwent Valley.

Main access to and through the West End is aligned east-west or parallel to the Tyne: the A186 West Road, the A695 Scotswood Road, and the B1311 Elswick Road. North-south links within the zone are minor roads with the main A1 and A189 at the west and east edges respectively. Industrial growth was shaped by the river, the riverside railways, and the many local collieries. Permeability is high except where larger scale, high security industrial use prohibits public access to the waterfront at Scotswood and western Benwell.

Green spaces in the West End are as varied as the residential areas and the zone has a reasonably generous distribution of green spaces apart from the central character areas adjoining the West Road: Grainger Park, Bentinck and Condercum. Regeneration initiatives over the last 20 years have tried to provide better quality spaces with investment in tree planting, play areas, kickabout space and other benefits. The West End is well provided with public parks and reclaimed green spaces, as a legacy of the Victorian and Edwardian industrial age. Thus the zone contains two Victorian Parks, (Elswick and Hodgkin) and St John’s Cemetery. Small portions of wooded dene survive at Benwell Dene, at Denton Dene, and possibly a small fragment at Elswick Dene. At all three the former natural valleys have been substantially obliterated by coal mining, and infill. Those areas that could not be developed have remained as amenity grass. A very large number of interlinked amenity spaces provide open grassland and tree cover parallel to and often adjoining Scotswood Road. Sports pitches are less frequent because of the sloping landform. The area has a reasonable supply of allotments though not all in good condition nor fully used. Over the last 30 years, housing clearance has helped improve the number and range of smaller spaces in the West End, notable among

these are the award winning Benwell Nature Park, in North Benwell, and the Scotswood Community Garden.

Apart from the ancient woodland remnants in the denes, and the relatively recent Scotswood Road plantations, there is no other woodland. However the West End does have some fine mature tree lines and groups in the parks and cemetery, at Grainger Park, and in the grounds of a number of former large houses like Benwell Grange, institutions, convents, public buildings and schools. There are relatively few mature street and garden trees but many young trees have been planted over the last 40 years as part of residential improvement schemes.

The West Road and Adelaide Terrace have always been the West End's main shopping streets. Adelaide Terrace now has a new local shopping centre but further efforts are needed to rejuvenate and provide better shops and more choice.

3 Why it's there: archaeology, history, cultural influences.

Generally in this zone little now remains of the pre-industrial uses, landscape and buildings, apart from the river and the street and place names. A Neolithic axe find indicates settlement well before the roman occupation. The earliest definite route was adopted by the Romans for 'Hadrian's Wall,' aligned east to west through the West End, its route now marked by Westgate Hill, the West Road and Condercum. There were two milecastles, number five at Elswick Road/Corporation Road and Number 6 at the top of Westgate Hill. Condercum Fort was a cavalry fort sited on what is still some of the highest ground in the West End. The Roman name means '*a place with a fine view'*. A short distance downhill from the fort and now tucked away in an interwar residential suburb are two archaeological gems. There are remains of a Mithraic Temple at Broomridge Avenue, and a crossing point on the Vallum is exposed at Denhill Park Avenue. There was a turret on the Wall close to Adair and Pease Avenues. There are Roman wall remains exposed on the A69 West Road verge at Turret Road, Denton Burn and roman masonry built into Thorntree Cottage.

Benwell became a mediaeval manor. There is a picture (1925) of the well at Benwell, although opinions differ whether this is the origin of the name, as it is also thought to mean "*bynnewalle*" -'a place on the wall.' Old Benwell village was established a little to the south west of the Condercum roman fort, and the mediaeval street pattern is still retained at Ferguson's Lane and Benwell Lane. Scotswood was originally a 200 acre mediaeval deer park, enclosed in 1367 by Richard Scot, a wealthy local merchant and landowner.

In Victorian times much of the area remained in agricultural use with the scattered settlements remaining on the upper slopes and the industrial uses mainly along the Tyne itself. However urban expansion was already occurring in the eastern part of the zone close to the City centre, primarily in the form of housing for the middle classes. There were also a number of large Victorian villas set in substantial grounds which were built by local industrial magnates. A number of these remain although in greatly reduced circumstances (such as Pendower Hall and Benwell Towers) but others have since been demolished. In addition there was significant building of terraced houses and flats on the banks running down to the Tyne to house industrial workers, although much of this has since been demolished.

4 Current role

Most of the West End grew with the Industrial Revolution as housing to accommodate those working in the chemical, shipbuilding, coal mining and armaments industries, and the distributive trades. The West End economy relied on its riverside industries, the most significant being William Armstrong's heavy engineering works at Elswick, occupying a mile long stretch of Tyne waterfront. Taken over by Vickers in 1928, the old factory was replaced with a modern version in 1982, built a short distance upriver. The current West End has lost much of its economic base, but many different communities, some long established, others more recent, still live there. Much of the area has become unpopular. However the area has been changing and regeneration is starting to be evident along the waterfront and quayside and a number of other pockets of renewal. Newcastle College is growing with more new building planned. Scotswood Road has been enlarged to a fast dual carriageway. However the West End has no Metro service. Tourism, riverside recreation and heritage are relatively new concepts for the area that are starting to become established at Newcastle Business Park and Elswick Riverside. The Roman heritage is barely recognised. More of the West End will need to change and adopt a different role in the 21st century and nowhere is this more apparent than in the remaining empty spaces of Scotswood and Benwell, although housing regeneration in Scotswood is now progressing well.

5 Strengths: special character, successes

The River Tyne, the waterfront, bridges, tidal reaches and mud flats
Views across the Tyne and downstream to the Tyne Bridges
Tyneside flats and traditional terraces
Benwell Nature Park
Hadrian's Way National Trail
Line of Hadrian's Wall
Newcastle Business Park and waterfront
West Road and Adelaide Terrace retail areas
Westgate College
Newcastle College
Elswick and Hodgkin Parks
Denton and Benwell Denes
Grounds & mature trees from former large villas

6 Weaknesses: detractors, challenges, development against the grain

Loss of industrial economy and traditional employment
Poor maintenance and loss of character in traditional terraces
Neglect in public realm including open spaces
Benwell perceived as being a "chaver" town
Fears about crime, disorder and anti-social behaviour
Loss of mature trees and failure to replant
Decline of traditional shopping streets
Boarded up and derelict property
Unsightly business/industrial premises
Decline in activity on the River Tyne

Lack of direct access to the River Tyne in some areas
Contamination
Some of the non-refurbished Tower blocks

7 Opportunities for enhancement, improvement

Heritage along the line of Hadrian's Wall
The River Tyne and its waterfront
North Benwell Terraces
Grainger Park
Scotswood Village
Benwell and Denton Denes
Scotswood Road corridor and Hadrian's Way
Hodgkin and Elswick Parks
Main streets and thoroughfares
Tree cover
Off road routes
Scotswood Railway Bridge

8 Threats

Demolition of homes and local landmark buildings
Failure to achieve sustainable regeneration for Scotswood/Benwell
Vandalism and arson
Security fencing, CCTV and other protection
Tree removal
Building on parks and valued green spaces
Increasing numbers of cars
Loss of river views and access

9 References

- Benwell Scotswood Area Action Plan
- Elswick Study
- Hadrian's Wall: The Wall Walk Volume 1
- Sustrans Coast to Coast Cycle Guide
- English Heritage website
- "Bygone" booklets series. (Benwell, Scotswood, Arthur's Hill and Westgate, etc)
- 'Tyne Landscape'
- 'Colour on the Tyne'
- Tyne Gorge Study

Strengths and opportunities .

Guide point Ref no	Strengths and opportunities	Do's	Don'ts	Notes/Comments
K1+	The long River Tyne waterfront, bridges, tidal reaches and mud flats	• Protect and open up for public view and access • Enhance river and river edge wildlife habitats • Retain and refurbish bridges. • Interpretation • Retain and extend waterfront walkway	• Block access or key viewpoints with buildings, barriers or fences • Build within 20 metres of the river	Refer to wildlife strategy
K2+	Views across the Tyne and downstream to the Tyne Bridges and other viewpoints	• Retain and maximise views across the Tyne, working with topography in all new build • Identify and protect as key city viewpoints: • **Business Park waterfront promenade** • **Redheugh Bridge** • **Scotswood Bridge** • **Whitfield Road** • **Hodgkin Park** • **Cruddas Park**	• Allow development to mar or block the view	Refer to "Tyne Gorge Study", where key views are identified
K3+	Tyneside flats and traditional terraces	• Protect and improve • Recognise heritage/rarity value	• Demolish any more	
K4+	Former and existing denes	• Enhance to reflect original landform and vegetation cover		

K5+	Line of Hadrian's Wall	• Interpretation • Signage • Good path links, including Hadrian's way Trail	• Give priority to vehicle movement	
K6+	Hadrian's Way National Trail	• Protect and promote • Ensure security and signage for users • Produce management plan • Demolish former abattoir	• Allow wardening and maintenance standards to slip	
K7+	Heritage along the line of Hadrian's Wall & vallum	• Protect features and settings. • Interpretation • Signage		
K8+	Landmark buildings and structures (Bridges, churches, Hadrian's Wall remains,	• Retain, protect and enhance. • Provide interpretation and signage. • Protect viewpoints of these features. • Prepare management guidance for repainting etc. • Assess for listing	• Demolish or allow degradation of character and upkeep of built fabric and setting.	
K9+	West End Regeneration	• Prepare Design Code. • Recreate character and positive sense of place • Taller features for identity at key points along south side of Scotswood Road	• Allow ad-hoc demolition leaving gap-sites • Leave isolated communities surrounded by post demolition sites • Lose local heritage features such as stone boundary walls, gates, older buildings	

K10+	Main streets and thoroughfares	• Active street frontages • Consider more “home zones”. • More safe crossings between spaces and residential areas • Enhance shopfronts on West Road • Enhance back lanes • Retain traditional pavings • Agree palette of materials/features	• Pave over grass verges or front gardens • Remove or cover back lane cobbles and setts • Over-use bollards • Proliferation of street furniture and use of non-matching types, particularly bollards	
K12+	Tree cover	• Plant trees in streets, and street corners • Plant woodland belts in parks and spaces • Manage dene woodlands • Engage the local community • Enhance woodland along Scotswood Road north side. • New structure planting	• Remove trees without replacement	Refer to Wildlife strategy
K13+	Off-road routes	• Protect and promote existing routes and links, particularly along the valley sides		
K14+	Distinctive housing areas (Scotswood Village, North Benwell Terraces)	• Retain and refurbish.	• Demolish • Plain render gable ends	Piecemeal demolition is already in progress.
K15+	Parks and green spaces (Denton Dene, Hodgkin Park, Elswick Park and other spaces)	• Management plans • Conserve and enhance heritage features	• Allow high rear fences abutting spaces.	

Weaknesses & threats.

Guide point Ref no	Weaknesses and threats	Do's	Don'ts	Notes/Comments
K1-	Loss of industrial economy and traditional employment. Decline in activity on the River Tyne	Implement regeneration plan		See Scotswood Benwell Area Action Plan
K2-	Poor maintenance and loss of character and value in residential areas.	Consider need for Conservation Area or listing	Demolish piecemeal.	
K3-	Unsightly buildings and uses	Provide screening & consider re-location		
K4-	Large grassed areas where demolition has taken place	Maintain tidy edges and mown grass perimeters Consider short term economic uses.	Continue to manage as amenity grass.	
K8-	Security fencing, CCTV and other protection	Design guidance Co-ordinated colour schemes. Use landscaping to soften appearance and act as deterrent.	Allow security measures to dominate. Security fences abutting footpaths. Over specification	
K9-	Increasing numbers of cars and rising car ownership	Consider "home zones". Tackle pavement parking.	Allow street to become car parks	

- *Significant transport route linking east/west through the Pennines with road, railway, overhead lines and a number of strategically sited settlements along the valley.*
- *Scattered large farmsteads and castles, fortified structures.*

Lowland Valley Terraces

- *A broad, open landscape of gently undulating to rolling valley terraces above the Wear and its tributaries and bounded by the Limestone escarpment and plateau to the east and the Upland Fringe Coalfields to the west.*
- *Mixed , predominantly arable farmland on heavy clay soils with pockets of lighter brown earths and sands*
- *Sub-regular patterns of medium sized and large, open fields, bounded by low hawthorn hedges with scattered hedgerow oak and ash trees. Horse grazing and other land uses typical of urban fringe around settlements*
- *Irregular woodland cover, generally sparse, but with well-wooded steep valley sides estates with mixed woodland and parkland and plantations on restored spoil heaps*
- *A settled, semi-rural landscape with scattered mining villages and towns, industrial estates, major roads, railways and transmission lines.*
- *Open cast coal sites, clay working and waste disposal sites are locally prominent. Recently restored sites form tracts of relatively featureless land.*

6.0 GATESHEAD BOROUGH LANDSCAPE CHARACTER AREAS

6.1 Following the review of the Regional Character Areas and Landscape Character Types produced in the two previous studies the information gathered, and the results of the survey work in the present study, have been used to divide the Borough further into broad Landscape Character Areas. These areas are as follows:

- Tyne Valley
- Derwent Valley
- Team Valley
- Marley Hill
- Upland Plateau
- Eastern Plain

6.2 Tyne Valley Area

Summary of Landscape Character

- North facing valley side.
- Isolated pockets of woodland mainly on the lower slopes.
- Large areas of quarrying on the upper valley slopes to the south west of Clara Vale.
- Two large golf courses with heavily influenced man made landscape.
- Hedgerows with hedgerow trees remain common within the area.
- Medium and long distance views to the east and west along the Tyne Valley.

Introduction

The area is located on the valley side of the River Tyne. The district boundary follows the route of the Tyne to the north and the area extends to the urban settlements of Crawcrook and Ryton to the south.

Landform & Drainage Pattern

The land slopes from a height of 85-90m AOD at the top of the valley sides to between 0-5m AOD in the valley bottom. Within the west of the borough, the valley sides are shallower in characteristic becoming steeper to the north of Ryton. The upper valley slopes are more undulating in characteristic with rolling pastoral fields.

The River Tyne forms the north boundary of the borough and the boundary of the character area. There are a number of small streams that flow down the valley sides and enter the Tyne. The River Derwent also flows into the Tyne to the east of Blaydon.

Land Use

Land use is mainly improved/semi improved pasture on the lower valley sides with the isolated settlement of Clara Vale and larger settlements of Crawcrook and Ryton on the upper valley slopes. There are also two large golf courses within the area, one on the floodplain of the Tyne and the other on the upper valley slopes.

Fields, Boundaries & Trees

Field boundaries within the area are a combination of hedgerows and post and wire fences with scattered hedgerow trees throughout. Where hedgerows are still present most are maintained and in reasonably good condition.

Isolated blocks of woodland occur along the valley mostly towards the north of Ryton. There are also blocks of plantation occurring within the two golf courses along the valley. Church Dene wood which surrounds Ryton Church, located to the north of Ryton, is dense mature beech woodland with a distinctive character.

Landscape Characteristics

The landscape slopes down towards the north at the bottom of the Tyne Valley along the length of the area and climbs again on the opposite side of the Tyne. This landform creates channelled views to the east and west along the Tyne Valley taking in views of urban settlements such as Wylam, Clara Vale, Heddon-on-the-Wall, Newburn and Ryton.

The upper valley slopes, to the south of Clara Vale are heavily eroded by the presence of ongoing quarrying creating a denuded landscape.

Landscape Change & Condition

Much of the landscape is in a reasonably good condition apart from those areas being quarried. Where still present, hedgerows are maintained and in some locations appear to have been replanted in the past few years.

The two golf courses have mostly wiped out any former landscape features in order to form the golf courses; however, avenues of trees and overgrown hedgerow boundaries do remain in places and are notable features within these manmade landscapes.

The protection and enhancement of Ryton Willows to the north of the Newcastle-Carlisle railway line has formed a nature reserve area which contains areas of wetland and gorse.

6.3 Derwent Valley Area

Summary of Landscape Character

- Relatively steep valley sides along the length of the River Derwent.
- Valley bottom lined with various sites of ecological, historical and amenity interest.
- Valley sides mostly contain a mixture of arable and pastoral fields.
- Most fields have been amalgamated to form large fields
- Hedgerows, post and wire fences and hedgerow trees.

- A694 runs along valley bottom.

Introduction

The area is bounded to the north by the edges of Blaydon and Swalwell. The River Derwent flows in a northward direction before joining the River Tyne.

Landform & Drainage Pattern

Within the valley bottom, the land varies between 15-20m AOD to the north and 45-50m AOD to the south. Both sides of the valley are relatively steep reaching a height of circa 145m AOD at Gibside Hill Head to the east and a height of circa 210m AOD at Bail Hill to the west.

The River Derwent has its source above the Derwent Reservoir in the North Pennines and enters the River Tyne near Swalwell. The river is fed by numerous smaller burns notable of which are Spen Burn and Low Spen Burn that drain the western valley side and run through Rowlands Gill.

Land Use

It is possible to traverse the circa 3 mile section of the Derwent Valley in Gateshead by travelling along the Derwent Walk Country Park that forms part of the Sustrans C2C cycle route. The walk passes by various sites of historical, amenity and ecological interest including Gibside Estate, several sports grounds, the Nine Arches Viaduct, various lakes and woods; observation hides; and caravan parks. The valley sides in contrast are largely defined by a mixture of pastoral and arable land, interrupted by isolated farmsteads and areas of woodland. Throughout the area also are several settlements including Rowlands Gill; Winlaton Mill village; Chopwell; High Spen and Blackhall Mill.

Fields, Boundaries & Trees

A mixture of hedgerow field boundaries and post and wire fences are used throughout the area and hedgerow trees are common consisting of mature specimens. The majority of fields have been amalgamated to form a larger field pattern.

Landscape Characteristics

Views from within the valley bottom tend to be constrained by vegetation and woodland along the various paths. The steep valley sides in some places however, being more open, provide extensive views over the Derwent Valley and beyond. The area contains

some high quality landscape of obvious amenity and ecological value most notably as part of the Derwent Walk Country Park, including extensive areas both of broadleaved and of coniferous woodland.

The A694 follows the bottom of the valley and forms a strong audible and visual element of the landscape.

Landscape Change & Condition

Much of the landscape on the valley sides remains in agricultural use, whilst most of the development and change appears to be taking place within the valley bottom, though in most cases the development complements the recreational and ecological values of the Derwent Walk Country Park.

6.4 Team Valley

Summary of Landscape Character

- Predominantly agricultural area consisting of both arable and pastoral farming practices.
- Evidence of 19th Century rectilinear field patterns on the west valley slopes around Kibblesworth.
- Landscape dissected by the busy East Coast main line railway.
- Hedgerow field boundaries with a large number of hedgerow trees remaining.
- Diverse landscape uses within the area to the south of Kibblesworth e.g. water treatment works, caravan park and reclaimed quarry.
- Long distance views of the Angel of the North.

Introduction

The area is bound to the east by the southern edge of Gateshead and by Birtley. The River Team flows in a northward direction through the area before joining the River Tyne to the north.

Landform & Drainage Pattern

Within the valley bottom, the land varies between 10-15m AOD. To the west the land climbs gradually to a high point of 216m AOD at Burdon Moor. To the east, the valley side is much steeper in nature climbing to a height of circa 90m AOD at the Angel of the North.

Kibblesworth landfill site (now capped) is located in the south of the area. This area of land is domed and is notable in the surrounding topography of the valley.

The River Team flows through the area in a northerly direction and is fed by two smaller burns that drain the western valley side, Strandy Burn and Coltspool Burn. The River Team goes underground south of the A1 and Team Valley Trading Estate before surfacing again further north.

Land Use

Land use is a mixture of pastoral and arable land through the valley. These land uses are interrupted by isolated farmsteads throughout the area and Kibblesworth Village in the west. On the southern district boundary, Northumbrian Water operates a water treatment works and reed bed area; this land use is not found elsewhere within the Team Valley. Kibblesworth landfill site is located west of the water treatment site; this area has been capped and restored for recreational purposes.

Fields, Boundaries & Trees

A mixture of hedgerow field boundaries and post and wire fences are used throughout the area. Many fields have been amalgamated to form a larger field pattern; however, long narrow field patterns dating back to circa 1860 are still evident to the east of Kibblesworth running in an east west direction. Hedgerow trees are common within the area and consist of mature specimens.

Landscape Characteristics

The landscape is open in appearance with views to the north towards the centre of Gateshead and Newcastle possible; especially from the elevated area of the remediated Kibblesworth landfill site. The East Coast main line forms a strong linear route through the area severing the existing infrastructure network and forms a strong visual and audible element of the landscape.

Landscape Change & Condition

Much of the landscape remains in agricultural use, except for the Northumbrian Water treatment works, landfill site and East Coast main line. The landscape appears to be in reasonably good condition with the retention and maintenance of many hedgerows and hedgerow trees.

6.5 Marley Hill Upland Area

Summary of Landscape Character

- Undulating arable land
- Isolated farmsteads and farm buildings
- Hedge, fence and wall field boundaries with mature hedgerow trees
- Isolated woodland blocks
- Fields on the edges of urban areas divided to enable grazing of horses

Introduction

The area consists of undulating agricultural land south of Whickham. The area is bounded to the east by the Team Valley enabling views across the valley and to the west by the Derwent Valley also enabling views.

Landform & Drainage Pattern

This upland area ranges in height between 150m AOD in the north adjacent to Whickham and gradually climbs to the south heading along Lobley Hill Road to a height of 220m AOD at Byermoor.

There are few water courses or water bodies located within the area. Black Burn flows in a northerly direction passing through Sunniside and towards Whickham. There are also a number of disused mine shafts located within this area that are now filled with water. Within the west of the area, the land naturally drains towards the Derwent Valley through woodland areas such as Snipes Dene Wood.

Land Use

Land use is agricultural, predominantly pastoral but also with isolated areas of arable land. The Tanfield Railway passes through the area in a north south direction starting from Sunniside station located immediately south of Sunniside.

The land surrounding the now disused and derelict Marley Hill Colliery is comprised of the remainder of the old railway buildings and which are now used as workshops. Much of the area between remaining buildings has been colonised by birch woodland which partially screens the old railway sidings, train sheds and workshops.

Fields, Boundaries & Trees

Field patterns have remained very similar over the past century with the retention of some field hedgerow boundaries and mature trees; these are however gappy in places and in need of repair.

There are localised areas of woodland to the south edge of Whickham consisting of coniferous, deciduous and mixed woodland, many of which are managed by the Forestry Commission and Woodland Trust. A large area of woodland is also present in the south of the area at Hedley Fell; this crosses the southern boundary of the borough.

Landscape Characteristics

The landscape is undulating pastoral land with isolated hedgerow trees and gappy hedges enabling views across the area. There are few detractors within the landscape; however a mast is present at the top of Blackmoor Hill which is visible within the surrounding area.

The area is dissected by a complex network of public rights of way, long distance walking routes (Great North Forest Trail) and roads used as public footpaths. These are most concentrated around the area to the south of Marley Hill and Longfield House.

Long distance views across the Team Valley and the Angel of the North in the adjacent character area and to the north towards Sunniside and Whickham are also possible from the top of Blackmoor Hill.

Landscape Change & Condition

The landscape is in a reasonably good condition with the retention of many hedgerows and mature hedgerow trees. Field patterns have remained over past years most likely due to the predominantly pastoral land use.

6.6 Upland Plateau

Summary of Landscape Character

- Undulating farmland, predominantly pastoral.
- Hedgerows with mature hedgerow trees.
- Medium to large blocks of managed coniferous plantation.
- Skyline highly influenced by overhead transmission lines and pylons.
- Small streams flowing in a north easterly direction towards the Tyne Valley.

- Areas of landfill and restored landfill to the north and south of the A695 south east of Ryton.

Introduction

The area consists of upland farm land between the Tyne Valley and Derwent Valley. The area is scattered with isolated farmsteads and villages and isolated pockets of woodland, both coniferous and deciduous.

Landform & Drainage Pattern

Topography within the area varies greatly climbing from approximately 80m AOD in the north east of the area to 255m AOD in the south west corner of the character area. The land undulates gently as it climbs from north east to south west although there are isolated areas that are more detailed in their topography with numerous small hillocks, such as the area to the south of Greenside.

Land Use

The area is relatively open, predominantly low-quality pasture land, broken by isolated areas of arable land and coniferous plantations which break up the agricultural landscape to a limited extent. Some areas of coniferous woodland are progressively being felled and left to allow natural re-growth of native species.

Fields, Boundaries & Trees

Field patterns have remained very similar within this area since the mid 19th century. Some amalgamation of smaller fields has occurred; however, due to the predominantly pastoral nature of the area the requirement to amalgamate fields into large areas for modern agricultural machinery has not arisen.

Field boundaries are a combination of mature hedgerows and post and wire fences, hedgerows also contain a large number of mature hedgerow trees. There are also isolated areas of dry stone walls located on higher ground although these are not common across the area.

Landscape Characteristics

Within the north of the character area, the elevated nature of the land enables long distance views to the north over the adjacent Tyne Valley character area. This is also the case to the south with views in to and across the Derwent Valley character area possible.

Within the middle of the character area long distance views are limited due to the undulating nature of the topography and the isolated blocks of coniferous woodland.

The area is crossed by overhead transmission lines leading from the electrical sub station located at Penny Hill, south west of Greenside. These detract from the landscape and form a strong visual element of the skyline.

To the south east of Ryton, past quarrying operations have ceased and one area has been reclaimed (to the south of the A695). A second area, north of the A695 is under going landfill as part of the restoration process (north of the A695).

Landscape Change & Condition

Much of the landscape within this area has had minimal change over the past 150 years; this may be due to the predominantly pastoral land use. The exception to this is an area in the north east corner which has been heavily influenced by quarrying and landfill operations. Large blocks of predominantly coniferous woodland have remained and been managed over this period such as Horsegate Plantation, Coalburn Plantation and Coalway Plantation although they are now beginning to become more mixed woodland in some locations as progressive felling occurs.

Settlements such as Crawcrook, Greenside and High Spen have shown notable growth since the 1860s developing from small hamlets to medium to large villages/commuter settlements.

6.7 Eastern Plain

Summary of Landscape Character

- Rolling agricultural land
- Large scale field pattern with gappy hedges and isolated hedgerow trees
- Middle distance views across areas of agricultural land
- Large areas of reclaimed quarry land/landfill
- Heworth Golf Course located south east of Wardley/Leam Lane

Introduction