

HyNet North West

ENVIRONMENTAL STATEMENT (VOLUME III)

Appendix 12-1 Baseline Information (Clean)

HyNet Carbon Dioxide Pipeline DCO

Planning Act 2008

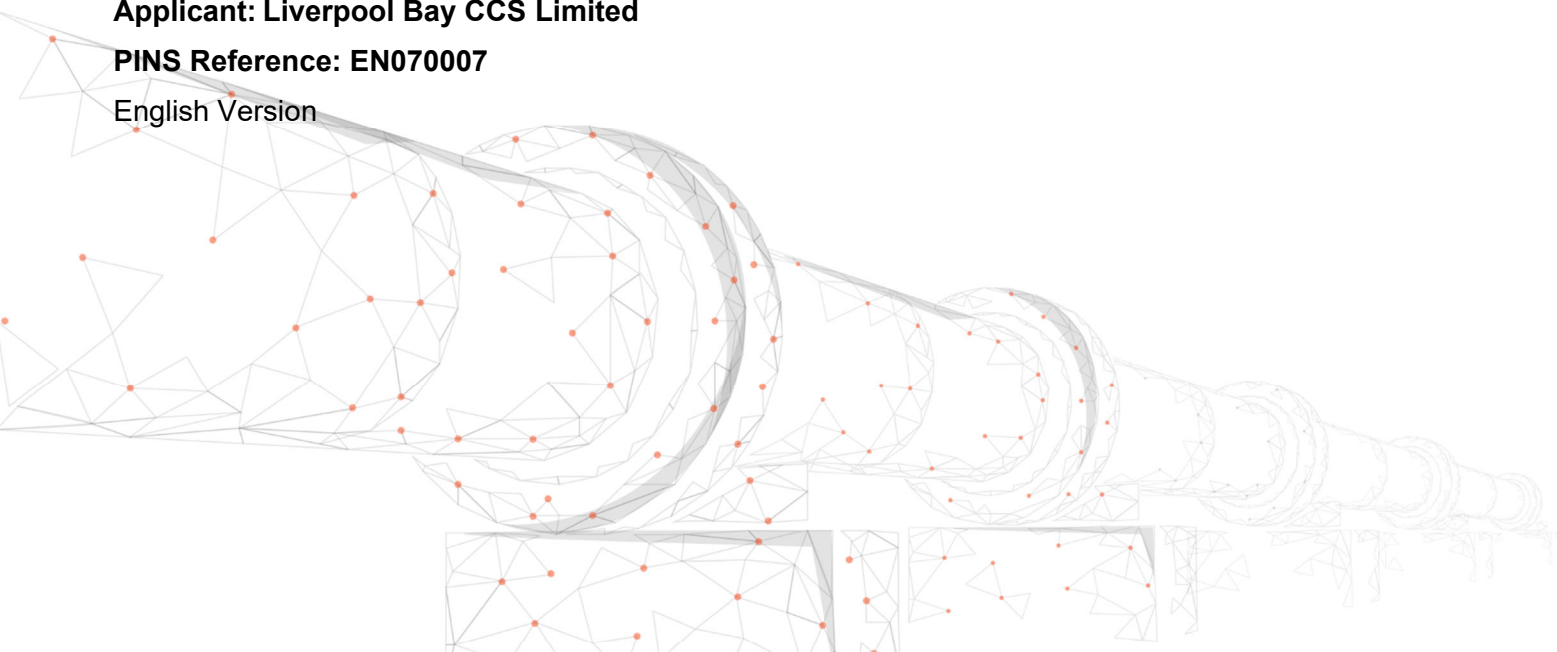
The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 – Regulations 5(2)(a)

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TABLE OF CONTENTS

1. APPENDIX 12-1 BASELINE INFORMATION	1
1.1. Legislative Framework	1
1.2. Landscape character.....	8
2. REFERENCES.....	18

1. APPENDIX 12-1 BASELINE INFORMATION

1.1. LEGISLATIVE FRAMEWORK

EUROPEAN LANDSCAPE CONVENTION

- 1.1.1. The United Kingdom (UK) is a signatory to the European Landscape Convention (ELC) (**Ref. 1**) which was ratified in 2006 and became binding in the UK from 1 March 2007. 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*” (Council of Europe, 2000). It further states that the ELC “*covers natural, rural, urban, and peri-urban areas. It includes land, inland water and marine areas. It concerns landscapes that might be considered outstanding as well as every day or degraded landscapes.*”
- 1.1.2. The ELC requires “*landscape to be integrated into regional and town planning policies and in cultural, environmental, agricultural, social and economic policies, as well as any other policies with possible direct or indirect impacts on landscape*”.
- 1.1.3. There is no legislation specifically covering landscape character or visual amenity in the UK, but the spirit of the ELC is carried through in planning policy and government guidance.

Countryside Rights of Way Act 2000

- 1.1.4. The Countryside and Rights of Way Act 2000 (‘CRoW’) (**Ref. 2**) provides a statutory framework for protected landscapes and introduced an additional right of access requiring the identification of “open access land”.

POLICY

National Policy

National Policy Statement

- 1.1.5. The Overarching National Planning Policy Statement for Energy (‘EN-1’) (**Ref. 3**) Department for Energy and Climate Change (DECC, 2011) includes a number of statements of relevance to the landscape including green infrastructure (‘GI’) and visual impacts of energy infrastructure in general.
- 1.1.6. Section 5.9 of EN-1 sets out the requirements for assessing and mitigating landscape and visual impacts of proposed Nationally Significant Energy Infrastructure Projects (NSIPs).
- 1.1.7. Paragraph 5.9.5 provides “*The landscape and visual assessment should include references to any landscape character assessment and associated studies as a means of assessing landscape impacts relevant to the proposed project*”.

- 1.1.8. Paragraph 5.9.6 provides that the *"assessment should include the effects during construction of the project and the effects of the completed development and its operation on landscape components and landscape character"*.
- 1.1.9. Further, paragraph 5.9.7 provides *"The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity. This should include light pollution effects, including on local amenity, and nature conservation"*.
- 1.1.10. Paragraph 5.9.8 importantly recognises that *"Virtually all nationally significant infrastructure projects will have effects on the landscape."* In light of this fact, the paragraph goes on to provide *"Projects need to be designed carefully, taking into account the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate"*.
- 1.1.11. The NPS recognises at paragraph 5.9.9 that *"National Parks, the Broads and AONBs have been confirmed by the Government as having the highest status of protection in relation to landscape and scenic beauty"* and that *"the conservation of the natural beauty of the landscape and countryside should be given substantial weight by the IPC [Secretary of State] in deciding applications for development consent in these areas"*.
- 1.1.12. With regard to development outside of nationally designated areas, which applied to the DCO Proposed Development is, the NPS confirms, at paragraph 5.9,12, the duty to have regard to nationally designated areas also applies and that *"the aim should be to avoid compromising the purposes of the designation and such projects should be designed sensitively given the various siting, operational and other relevant constraints"*.
- 1.1.13. In addition, consideration should be given to the impact on nationally designated areas where proposals lie outside the boundaries of protected landscapes as well as highly valued landscapes which are protected by a local designation.
- 1.1.14. Paragraphs 5.9.15, which relate to developments outside of nationally designated areas, provides that *"The scale of such projects means that they will often be visible within many miles of the site of the proposed infrastructure. The IPC [now the Secretary of State] should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project."*

- 1.1.15. Further, paragraph 5.9.16 provides that *“In reaching a judgement, the IPC [Secretary of State] should consider whether any adverse impact is temporary, such as during construction, and/or whether any adverse impact on the landscape will be capable of being reversed in a timescale that the IPC [Secretary of State] considers reasonable.”*
- 1.1.16. Further to the acknowledgement at paragraph 5.9.8 explained above, paragraph 5.9.18 provides *“All proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites. The IPC [Secretary of State] will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project.”*
- 1.1.17. In respect of the mitigation of landscape and visual amenity impacts, paragraph 5.9.21 provides *“reducing the scale of a project can help to mitigate the visual and landscape effects of a proposed project. However, reducing scale or otherwise amending design of a proposed energy infrastructure project may result in significant operational constraint and reduction in function”.*
- 1.1.18. Further in this regard paragraph 5.9.22 of EN-1 (**Ref. 3**) adds: *“Within a defined site, adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within that site, design including colours and materials, and landscaping schemes, depending on the size and type of the proposed project. Materials and designs of buildings should always be given careful consideration.”*
- 1.1.19. Lastly, paragraph 5.9.23 provides that *“Depending on the topography of the surrounding terrain and areas of population it may be appropriate to undertake landscaping off site. For example, filling in gaps in existing tree and hedge lines would mitigate the impact when viewed from a more distant vista.”*
- 1.1.20. The above provides a reasonably detailed overview of the relevant policies within EN-1 regarding the consideration of the landscape and visual impacts of an NSIP, however as this is the principal policy document on which the landscape and visual impacts of the DCO Proposed Development will be considered those relevant policies have been taken into account when considering its impacts.

National Planning Policy Framework (NPPF) – England

- 1.1.21. Whilst it does not contain specific policies for NSIPs, the NPPF (Ministry of Housing, Communities and Local Government (‘MHCLG’), July 2021) (**Ref. 4**) is be considered to contain matters that are relevant to the determination of NSIPs. It is therefore appropriate to consider relevant policies therein contained to the assessment of the landscape and visual impacts of the DCO Proposed Development.

1.1.22. Within Section 12 of the NPPF (MHCLG, 2021) "*Achieving well-designed places*" the Government sets out a number of overriding core planning principles for achieving well designed places. Of relevance to the consideration of impacts on the landscape and how Local Planning Authorities (LPAs) are engaged with during the design process Paragraph 132 provides, "*Design quality should be considered throughout the evolution and assessment of individual proposals. Early discussion between applicants, the local planning authority and local community about the design and style of emerging schemes is important for clarifying expectations and reconciling local and commercial interests. Applicants should work closely with those affected by their proposals to evolve designs that take account of the views of the community. Applications that can demonstrate early, proactive and effective engagement with the community should be looked on more favourably than those that cannot.*"

1.1.23. Paragraph 174, contained within Chapter 15 of the NPPF "*Conserving and enhancing the natural environment*" sets out how planning policies and decisions should contribute to and enhance the natural and local environment. Of relevance to the consideration of landscape and visual amenity impacts, this includes:

- *a) 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);*
- *b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
- *c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;*
- *d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
- *e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and*
- *f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.*

- 1.1.24. Of further relevance to the consideration of landscape and visual impacts, paragraph 176 provides that: *“Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty which have the highest status of protection in relation to these issues.”*
- National Planning Policy Wales (NPPW)
- 1.1.25. Within Chapter 3 of the NPPW (Welsh Government, 2021) (**Ref. 5**) *“Strategic and Spatial Choices”* the Government sets out a number of overriding core planning principles for achieving good design and better places. With regard to the consideration of landscape impacts and the engagement of LPAs within the design process paragraph 3.4 provides, *“Design is an inclusive process, which can raise public aspirations, reinforce civic pride and create a sense of place and help shape its future. For those proposing new development, early engagement can help to secure public acceptance of new development. Meeting the objectives of good design should be the aim of all those involved in the development process and applied to all development proposals, at all scales. These objectives can be categorised into five key aspects of good design.”* These five aspects are noted to be: Access, Character, Community Safety, Environmental Sustainability and Movement.
- 1.1.26. Chapter 6 of the NPPW refers to *“Distinctive and Natural Places”* and provides under the heading Landscape the following. *“The landscapes of Wales are rich and varied. Many Welsh landscapes are iconic, and a quarter of the land area of Wales is designated as either a National Park or Area of National Outstanding Beauty (AONB). The character and special qualities of all our places and landscapes, both urban and rural, can provide a strong sense of place, inspiration and belonging, and contribute to the distinctive cultural identity of Wales.”*

Local Policy

- 1.1.27. The Landscape and Visual Study Area spans two LPA areas: Cheshire West and Chester Council, and Flintshire County Council.
- Cheshire West and Chester Council (CWACC)
- 1.1.28. Local policies which are relevant to the assessment of potential landscape and visual effects within Cheshire West and Chester Council’s ‘Local Plan’ Part One (CWCC, 2015) (**Ref. 6**) and Two (CWCC, 2019) (**Ref. 7**) include:
- Local Plan Part One*
- ENV2 Landscape
 - ENV3 Green infrastructure
 - ENV6 High quality design and sustainable construction

- 1.1.29. Those policies contained with CWCC's Local Plan Part One that are considered to be of particular relevance to the DCO Proposed Development have been provided in more detail below.
- 1.1.30. Policy ENV2 Landscape states the *"Local Plan will protect and, wherever possible, enhance landscape character and local distinctiveness."* The policy goes on to provide that development should:
- *"Take full account of the characteristics of the development site, its relationship with its surroundings and where appropriate views into, over and out of the site.*
 - *Recognise, retain and incorporate features of landscape quality into the design."*
- 1.1.31. Policy ENV6 High Quality Design and Sustainable Construction notes a number of key design principles to be taken into account with regard to development throughout Cheshire West and Chester. Of those principles listed, the following are considered to be of most relevance to the DCO Proposed Development:
- Be sympathetic to heritage, environmental and landscape assets
 - Provide for the sustainable management of waste
 - Meet applicable nationally described standards for design and construction
- Local Plan Part Two*
- GBC2 Protection of the landscape
 - DM2 Impact on residential amenity
 - DM3 Design, character and visual amenity
 - DM44 Protecting and enhancing the natural environment
 - DM45 Trees, woodland and hedgerows
- 1.1.32. Those policies contained with CWCC's Local Plan Part Two that are considered to be of particular relevance to the DCO Proposed Development have been provided in more detail below.
- 1.1.33. Policy GBC2 Protection of the Landscape, provides that where development will be sited within the countryside it must, *"through appropriate siting, scale, layout, density, design and landscape treatment"*:
- Protect and, wherever possible, enhance landscape character and distinctiveness.
 - Integrate into the landscape character of the area.
 - Be designed to take account of guidance in the Landscape Strategy.

- 1.1.34. Policy DM2 Impact on Residential Amenity provides information about development proposals in or near residential areas, where residential amenity may become affected. The policy notes a number of key considerations for developers within these area including:
- outlook
 - privacy
 - light
 - noise
 - odour
- 1.1.35. Policy DM44 Protecting and Enhancing the Natural Environment, in conjunction with Policy ENV4 within Local Plan Part 1, notes that development will be supported where there is no net loss of natural assets and, where possible, it delivers net gains.
- 1.1.36. Policy DM44 notes that where proposals may impact upon protected sites, species or habitats consideration must be given to ecological impacts with emphasis given to the connectivity with existing green networks and mitigation hierarchy.
- 1.1.37. Policy DM45 Trees, Woodlands and Hedgerows promotes the conservation, management and, where possible, enhancement of existing trees, woodlands, traditional orchards, and hedgerows. The policy goes on to state where retention of trees, woodlands and hedgerows is not possible and tree removal is required as part of the development, the proposals must:
- Include replacement trees, woodlands and hedgerows within the site, or where this can be demonstrated to not be practical, contribute to off-site provision, prioritised within the locality of the development.
 - Include replacement planting at a ratio of at least two new trees for each tree lost. Replacement trees should be of heavy or extra heavy standard, and where prominent trees are to be removed, large specimen trees may be required.
 - Use locally native species, where appropriate.
- Flintshire County Council (FCC)
- 1.1.38. Local policies which are relevant to the assessment of potential landscape and visual effects within 'Flintshire Local Development Plan 2015-2030' (FCC, 2023) (**Ref. 8**) include:
- STR13 Natural and Built Environment, Green Networks and Infrastructure
 - PC1 The Relationship of Development to Settlement Boundaries
 - PC2 General Requirements for Development
 - PC3 Design

- EN2 Green Infrastructure
- EN4 Landscape Character
- EN5 Area of Outstanding Natural Beauty
- EN7 Development Affecting Trees, Woodland and Hedgerows
- EN11 Green Wedges

1.1.39. Those policies contained with FCC’s Local Development Plan that are considered to be of particular relevance to the proposed development have been provided in more detail below.

1.1.40. EN7 Development Affecting Trees, Woodland and Hedgerows provides guidance for proposals likely to impact. Policy EN7 states:

“Development proposals that will result in significant loss of, or harm to, trees, woodlands or hedgerows of biodiversity, historic, and amenity value will not be permitted.

Where the impact of development affecting trees, woodlands or hedgerows is considered acceptable, development will only be permitted where:

- a) the development maximises their retention through sensitive design measures; and*
- b) where the removal of trees is considered necessary, suitable replacements shall be provided elsewhere within the site; and*
- c) it results in a net benefit in biodiversity.”*

1.2. LANDSCAPE CHARACTER

1.2.1. As shown on **Figure 12.2: Landscape Character Plan (Volume IV)**, the DCO Proposed Development spans across:

- NRW’s National Landscape Character Areas:
 - NLCA 12: Clwydian Range
 - NLCA 13: Deeside; and Wrexham
- NE’s National Character Areas:
 - NCA 59 Wirral
 - NCA 60 Mersey Valley
 - NCA 61 Shropshire, Cheshire, and Staffordshire Plain

NATIONAL CHARACTER

- 1.2.2. The DCO Proposed Development spans across three separate character areas as identified within NE's National Character Area map (**Ref. 9**). These are NCA 59 Wirral, NCA 60 Mersey Valley and NCA 61 Shropshire, Cheshire and Staffordshire Plain. NCAs are broad in scale, and as such are useful to set the scene, but local level landscape characterisation provides a more useful resource for assessment purposes (see Local Landscape section below). The NCA therefore will not be assessed as a separate receptor within this LVIA.
- 1.2.3. However, although broad in scale, the characteristics of the NCAs have been taken into account within the LVIA, in terms of providing a valuable basis for understanding the broader regional environmental opportunities. Where characteristics relevant to the wider area are present on-site, opportunities to retain, mitigate for losses, or enhance the site in line with the objectives of the wider national character area will be considered as part of the mitigation and design process. Key characteristics are described as follows:
- 1.2.4. **NCA 59 Wirral** – This NCA is broadly described as being located on a peninsula formed by the Mersey and Dee estuaries. The landscape is noted as having a unique character reflective of formal landscapes of former large country estates, rural areas, natural coastal scenery and wooded sandstone ridges.
- 1.2.5. The key characteristics of this NCA, that are considered to be of particular relevance to the DCO Proposed Development, are:
- A low-lying but gently rolling platform punctuated by low sandstone outcrops, this western portion of the Wirral peninsula stretches from the mid-Wirral sandstone ridge to the Dee Estuary.
 - The north Wirral coast is characterised by extensive beaches along the foreshore, while the large, funnel-shaped Dee Estuary lies between the Wirral peninsula and north-east Wales.
 - Woodland is predominantly broadleaved, with woodland cover on sandstone ridges, country parks and country estates.
 - The formal landscape has been created by former large country estates and the core of the area is mixed agricultural land, with areas of improved pasture, arable farming and market gardens and extensive areas given over to grazing horses.

- Fields are defined by intermittent clipped hedgerows, with copses, some red sandstone walls and field ponds ('marl pits'); coastal areas often feature a geometric field pattern bounded by ditches draining former marshlands. This is a significant coast and estuary, with internationally, nationally and locally recognised wildlife and habitats that include intertidal mudflats, sand flats and coastal salt marshes, with coastal sand dune systems. Inland, extensive areas of lowland heathland are associated with sandstone outcrops.
- The rural landscape, with country estates, scattered farms and a mix of ancient and post-medieval fieldscapes, is interspersed with residential commuter belt development, with towns and villages coalescing due to suburban development, linked by an intricate network of lanes, bridleways and footpaths.
- Recreation and tourism are supported by good access to the dramatic coastal landscape and its outstanding ornithological interest, with a number of country parks, Local Nature Reserves and Local Wildlife Sites; links-style golf courses are a distinctive feature along the coastline.

1.2.6. Key Statements of Environmental Opportunities for this NCA are listed as.

- SEO 1: Work with natural coastal processes to conserve and enhance the dynamic estuarine and coastal landscape, with habitats such as intertidal mudflats and sand flats, coastal salt marshes and coastal sand dunes, while addressing climate change and safeguarding wildlife.
- SEO 2: Conserve and enhance the rolling countryside, punctuated by low sandstone outcrops, with significant lowland heathlands, woodlands and other wildlife habitats, while maintaining the long, open views over the coast and estuary that contribute to the varied sense of place.
- SEO 3: Work with landowners and land managers to support sustainable food production in the farmed environment while enhancing and strengthening the mosaic of farmland features including ponds, trees, hedgerows and red sandstone walls, to enhance biodiversity and improve soil and water quality, strengthen resilience of habitats to climate change and enhance landscape character.
- SEO 4: Safeguard and interpret Wirral's heritage, history, archaeology and geology to enhance the character of the landscape and improve people's understanding and enjoyment of the historic environment.
- SEO 5: Enhance people's understanding and enjoyment of the natural environment, providing interpretation and educational facilities and opportunities for experiencing wildlife, with a strong network of green infrastructure, which will bring health and wellbeing benefits for both residents and visitors.

- 1.2.7. **NCA 60 Mersey Valley** – This NCA is broadly described as a low-lying river valley landscape comprising a mix of industrial development and urban areas and high-quality farmland. Farmland throughout the NCA is predominantly arable bound by degraded hedgerows with isolated hedgerow trees.
- 1.2.8. The key characteristics of this NCA, that are considered to be of particular relevance to the DCO Proposed Development, are:
- The landscape is low-lying, focusing on the broad linear valley of the River Mersey; it is estuarine in the west and has extensive areas of reclaimed mossland in the east.
 - The Mersey Estuary is a defining element in the landscape, with expansive intertidal mudflats/sand flats and low exposed cliffs.
 - Trees and woodland are mainly associated with settlements, occasional parkland and isolated woodland blocks; and in recent years new community woodlands have been planted.
 - Large-scale, open, predominantly flat, high-quality farmland occurs between developments, with primarily arable farming to the north of the valley and a mixture of arable and dairying to the south.
 - The field pattern is regular and large scale, often defined by hedgerows with isolated hedgerow trees; many hedgerows are intermittent and have been replaced by post-and-wire fencing, while field boundaries on the mosses are marked by ditches.
 - A range of important wetland habitats remain, including estuarine mudflats/sand flats and fringing salt marshes in the west, remnants of semi-natural mosslands and pockets of basin peats in the east, with the broad river valley in between.
 - There are densely populated urban and suburban areas, with major towns particularly at the river crossings, including Runcorn, Widnes and Warrington.
 - There is large-scale, highly visible industrial development, with docks, chemical works and oil refineries.
 - The river valley has a dense communication network with motorways, roads, railways and canals running east–west, and power lines are also prominent.
- 1.2.9. Key Statements of Environmental Opportunities for this NCA are listed as:
- SEO 1: Conserve and enhance the Mersey Valley’s rivers, tributaries and estuary, improving the ability of the fluvial and estuarine systems to adapt to climate change and mitigate flood risk while also enhancing habitats for wildlife and for people’s enjoyment of the landscape.

- SEO 2: Promote the Mersey Valley’s historic environment and landscape character and positively integrate the environmental resource with industry and development, providing greenspace within existing and new development, to further the benefits provided by a healthy natural environment, as a framework for habitat restoration and for public amenity.
- SEO 3: Manage the arable and mixed farmland along the broad linear Mersey Valley, and create semi-natural habitats, woodlands and ecological networks, to protect soils and water, enhance biodiversity, increase connectivity and improve the character of the landscape, while enabling sustainable food production.
- SEO 4: Manage and enhance the mossland landscape in the east, safeguarding wetlands including the internationally important lowland raised bogs, to conserve peat soils, protect and enhance biodiversity, conserve archaeological deposits, contribute to landscape character and store carbon.

1.2.10. **NCA 61 Shropshire, Cheshire and Staffordshire Plain** – This NCA is broadly described as an area of flat and gently undulating pastoral farmland, extending to cover most of Cheshire, the northern half of Shropshire and the north west of Staffordshire. Prominent features associated with sandstone ridges cut across the plain, characterise by woodland and ancient semi-natural woodland that is scarce for the majority of the wider plain.

1.2.11. The key characteristics of this NCA, that are considered to be of particular relevance to the DCO Proposed Development, are:

- Extensive, gently undulating plain, dominated by thick glacial till from the late Pleistocene Period, producing productive, clay soils and exemplifying characteristic glacial landforms including eskers, glacial fans, kettle holes, moraines and a landscape of meres and mosses.
- Prominent discontinuous sandstone ridges of Triassic age, characterised by steep sides and freely draining, generally infertile soil that supports broadleaved and mixed woodland.
- Few woodlands, confined to the area around Northwich and to estates, cloughs and deciduous and mixed woods on the steeper slopes of the wind-swept sandstone ridges. Locally extensive tracts of coniferous woodland and locally distinctive orchards scattered throughout.
- Strong field patterns with generally well-maintained boundaries, predominantly hedgerows, with dense, mature hedgerow trees. Sandstone walls occur on the ridges and estate walls and Cheshire-style (curved topped) metal railing fences occur locally on estates in Cheshire.
- Dairy farming dominates on the plain, with patches of mixed farming and arable in the north and large areas in the south-east.

- Diversity of wetland habitats includes internationally important meres and mosses comprising lowland raised bog, fen, wet woodland, reedbed and standing water, supporting populations of a host of rare wildlife, including some species of national and international importance.
- Extensive peat flood plains where flood plain grazing marsh habitats support regionally important populations of breeding waders in areas such as Baggy Moor, Weald Moor and Doxey Marshes. Many main rivers and their flood plains lie in this area, including the Dee, Dane, Severn, Penk and Sow. Significant areas of grazing marsh, alluvial flood meadows and hay meadows associated with the rivers Dee, Sow, Gow and Severn. The area has the highest density of field ponds in western Europe.
- The numerous canals are important for recreation as well as habitat. Several National Cycle Routes and nearly 5,000 km of public rights of way cross the plain. Six National Nature Reserves (NNRs) are scattered throughout, close to large population centres and well used for recreation.

1.2.12. Key Statements of Environmental Opportunities for this NCA are listed as:

- SEO 1: Restore, manage and protect from diffuse pollution the rivers, streams, lakes, ponds and wetland habitats (including flood plain grazing marsh and wet woodland) and support partnerships to maintain the integrity and unique conditions for the preservation of the internationally important meres and mosses and River Dee, to benefit water availability, water quality, landscape character, biodiversity and climate regulation.
- SEO 2: Protect the landscape of the plain, recognising its importance to food production and incorporating well-maintained hedgerows, ponds and lowland grassland margins within agricultural systems, to secure resource protection and maintain productivity, while reducing fragmentation of semi-natural habitats to benefit a wide range of services, such as landscape character, sense of place, water quality and biodiversity.
- SEO 3: Manage and restore lowland heathland and ancient and plantation woodland, support partnerships to plan appropriately scaled new woodland cover, particularly where this will link and extend existing woodlands, restore and reinstate traditional orchards and increase biomass provision to mitigate the impact of climate change, where this will benefit biodiversity, landscape character and enhance the experiential qualities of the area.
- SEO 4: Protect and manage the nationally important geological sites and heritage features demonstrating how the interaction of natural and historical factors influenced the distinctive character of its landscape and settlement patterns, and help to promote greater understanding of the link between wildlife, heritage and geodiversity, particularly the importance of former extraction sites for both geodiversity and biodiversity.

- 1.2.13. The DCO Proposed Development also extends across two of NRW's National Landscape Character Areas, NLCA 12 Clwydian Range and NLCA 13 Deeside and Wrexham (**Ref. 10**). Further detail in respect of these NLCAs is provided below.
- 1.2.14. **NLCA 12 Clwydian Range** is broadly described as an extensive upland area, forming a broad ridge between the Vales of Clwyd and Llangollen, and the western (Deeside) part of the Cheshire plain. The area is notable for its limestone outcrops and Iron Age Hillforts within the Clwydian Range AONB.
- 1.2.15. The key characteristics of the NLCA, that are considered to be of particular relevance to the DCO Proposed Development, are:
- Rounded, heather clad open hills in two main groups, a northern chain rising to Model Famau (554m), a southern chain rising to Moel y Gamelin (577m). Formed by sandstones and argillaceous rocks and shales.
 - Narrow, minor river valleys dissect the hills - draining into the Vales of Clwyd or Llangollen
 - A gentle intervening vale - the River Alyn flows north, at times incised, then east.
 - Well defined western and southern edges – with adjacent deep valleys.
 - Carboniferous Limestone to the east - with classic scenery of clints, grykes, crags and scarp slopes, use of stone in field boundaries and buildings, large quarries, and in places an exposed appearance. Gentler slopes towards Deeside.
 - A series of minor rivers - have their sources in the hills, draining west into the Clwyd in the Vale of Clwyd.
 - Hedgerows and numerous hedgerow trees - improved hill sheep grazing and lowland pasture.
 - Culturally a divide - the area reflects the historical divide between English influences on the east and Welsh influences to the west. Parts of the area are designated as an AONB.
 - Sparse level of settlement - confined to compact, nucleated hamlets and isolated farmsteads. Crossed by a number of arterial 'A' roads, the presence of the A55 Expressway across the northern part of the area is the most apparent.
- 1.2.16. Key Statements of Environmental Opportunities for this NCA are listed as:
- Preserve and enhance the existing character and natural qualities of the AONB and those broad views out towards the wider landscape and Dee Estuary.
 - Strengthen recreational routes and access throughout the area particularly within and connecting to the AONB.

- Preserve and enhance existing habitats and landscape features associated with those SSSI and SAC throughout the NLCA to create opportunities for wildlife.
- Protect and manage existing heritage features, notably the iron age hillforts with the upland areas. Heritage features also create opportunities for tourism and recreation, preserving the historic character of the area.

1.2.17. **NLCA 13 Deeside and Wrexham** is broadly described as a border area extending from the mouth of the River Dee along the coast to Point of Ayr. The area is noted to be heavily industrialised, with a long-established history associated with mining, engineering and metalworking.

1.2.18. The key characteristics of this NLCA, that are considered to be of particular relevance to the DCO Proposed Development, are:

- Lowland, foothills and levels - sloping down to the lower Dee and Dee Estuary. Carboniferous Coal Measures interspersed with outcrops of Millstone Grit, Holywell shales and Cefn-y-Fedw sandstones. Glacial till, fluvio-glacial and river terrace drift overlay in parts of the valley floor, giving rise to localised gentle landform variation.
- A single large river, the Dee, traverses the area. The Dee opens out into a broad estuary with tidal sand and mud flats. A number of minor rivers dissect the landscape, for example, the Alyn and Eitha, and associated streams.
- A broad flat flood plain adjacent to the Dee Estuary – with wide open views to Wirral.
- Narrow, incised, wooded tributary valleys – many running down from the west.
- Mixed pasture and some arable - and farm woodland cover.
- Urban settlements - a strongly settled character is apparent in the central and southern parts of the area, with the relatively large, almost linked settlements of Holywell-Connah's Quay-Mold-Wrexham-Ruabon.
- An industrial character - evident in the line of coalesced settlements at Connah's Quay and Holywell, associated both with the Chester to Holyhead railway line, mining and large scale power generation and industrial plants. Include landmark scale structures such as Broughton aircraft factory, Shotton Steel works and Connah's Quay power station. Industry tends to dwarf historic settlement and features e.g. Flint and its castle.
- Small settlements – outside urban areas, compact villages associated with landed estates and isolated farmsteads, or coalesced ribbon developments and encroachment upon commons, which are the legacy of the former coal and lead mining industries.

1.2.19. Key Statements of Environmental Opportunities for this NCA are listed as:

- Preserve and enhance the unique character associated with the River Dee which provides a key habitat for migratory fish, salmon and otters as well as many invertebrates. With the Dee Estuary noted to be a source of valuable habitat for waterfowl and waders as well as providing a key visual amenity feature within the landscape, despite its proximity to the industrial area within Deeside.
- Mature woodland blocks, copses and along watercourses provide elements of seclusion within the landscape. Opportunity to enhance woodland and tree cover across the NLCA to enhance biodiversity and separate the wider lowland landscape from the industrial areas to the north.
- Protect and manage the historic parkland, estates and monuments throughout the NLCA to enhance key visual amenity spaces and provide opportunities for tourism and recreation through the NLCA.
- Enhance recreation routes throughout the area to connect with key footpath networks and long-distance routes such as Offa's Dyke and the Clwydian range to the south and west.

CONSERVATION AREAS

1.2.20. There are two conservation areas that lie within the Newbuild Infrastructure Boundary:

- Thornton-le-Moors Conservation Area; and
- Chester Canal Conservation Area.

1.2.21. The Shropshire Union Canal has been designated as a Conservation Area from Ellesmere Port to Nantwich, covering a distance of approximately 27 miles. The canal has been designated for a number of reasons. Most notable of relevance to the Study Area includes the presence of original buildings and hard landscape along the canal, and available views to the wider landscape such as Helsby Hills and The Clwydian Range. Other reasons for designation include:

- It is one of the earliest main-line canals built as a broad canal with locks (for boats up to 14 foot wide);
- It has some of the first built broad staircase locks in Chester (staircase of 3 locks) and Bunbury (staircase of 2 locks);
- Several of the locks along its length are designated as Scheduled Ancient Monuments at both Beeston and Bunbury;
- The canal formed a primary transport route for industry with links to Ellesmere Port, Calveley, Barbridge Junction and Nantwich Basin, all noted to be of significance in terms of warehousing and transshipment, forming historically prominent infrastructure for the transport of cargo;

- A large number of original buildings remain along the length of the canal, including bridges and associated traditional hard landscaping, such as paving to the towpaths, under bridges, stones with rope markings forming key historic features; and
- Presence of key views from along the route of the canal towards features such as The Cheshire Sandstone Ridge – Frodsham and Helsby Hills and, The Clwydian Hills from the top of Northgate Locks and Chester City Walls and Towers to name a few.

REGISTERED LANDSCAPES OF OUTSTANDING AND OF SPECIAL INTEREST IN WALES

1.2.22. The Study Area has been identified as lying, in part, within a Registered Landscape of Outstanding and of Special Interest. The Registered Landscapes of Outstanding and of Special Interest in Wales are a non-statutory historic designation established by NRW and the International Council on Monuments and Sites (ICOMOS UK). There are 58 sites across Wales which recognise landscapes for their outstanding or special historic interest, aiming to help provide guidance to local authorities, statutory bodies and developers for future planning applications by identifying sites of local value.

2. REFERENCES

- **Ref. 1** – European Landscape Convention, Council of Europe. (2000).
- **Ref. 2** – Countryside Rights of Way Act, c.37, Royal Assent. (2000).
- **Ref. 3** – Overarching National Policy Statement for Energy (EN-1), Department of Energy & climate change. (2011).
- **Ref. 4** – National Planning Policy Framework, Ministry of Housing, Communities and Local Government. (2021).
- **Ref. 5** – National Planning Policy Wales, Welsh Government. (2021).
- **Ref. 6** – Cheshire West and Chester Council Local Plan Part One - Strategic Policies, CWCC. (2015).
- **Ref. 7** – Cheshire West and Chester Council Local Plan Part Two - Land Allocations and Detailed Policies, CWCC. (2019).
- **Ref. 8** – Flintshire Local Development Plan 2015-2030, FCC. (2023).
- **Ref. 9** – National Character Area profiles, Natural England (2014)
- **Ref. 10** - National Landscape Character Areas (NLCA), Natural Resources Wales. Retrieved from: [REDACTED]