

ENVIRONMENTAL STATEMENT (VOLUME III)

Appendix 1.2 EIA Scoping Opinion

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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SCOPING OPINION:

Proposed HyNet North West Carbon Dioxide Pipeline

Case Reference: EN070007

Adopted by the Planning Inspectorate (on behalf of the Secretary of State) pursuant to Regulation 10 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

July 2021

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1. INTRODUCTION

1.1 Background

- 1.1.1 On 03 June 2021, the Planning Inspectorate (the Inspectorate) on behalf of the Secretary of State (SoS) received a scoping request from Liverpool Bay CCS UK Limited (the Applicant) under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) for the proposed HyNet North West Carbon Dioxide Pipeline (the Proposed Development).
- 1.1.2 In accordance with Regulation 10 of the EIA Regulations, an Applicant may ask the SoS to state in writing its opinion *'as to the scope, and level of detail, of the information to be provided in the environmental statement'*.
- 1.1.3 This document is the Scoping Opinion ('the Opinion') provided by the Inspectorate on behalf of the SoS in respect of the Proposed Development. It is made on the basis of the information provided in the Applicant's reports entitled Environmental Impact Assessment Scoping Report which was submitted in five parts - the Scoping Report, Appendix A (Part 1 of 3), Appendix A (Part 2 of 3), Appendix A (Part 3 of 3) and Appendix B.
- 1.1.4 This Opinion can only reflect the proposals as currently described by the Applicant. The Scoping Opinion should be read in conjunction with the Applicant's Scoping Report.
- 1.1.5 The Applicant has notified the SoS under Regulation 8(1)(b) of the EIA Regulations that they propose to provide an Environmental Statement (ES) in respect of the Proposed Development. Therefore, in accordance with Regulation 6(2)(a) of the EIA Regulations, the Proposed Development is EIA development.
- 1.1.6 Regulation 10(9) of the EIA Regulations requires that before adopting a scoping opinion the Inspectorate must take into account:
- (a) *any information provided about the proposed development;*
 - (b) *the specific characteristics of the development;*
 - (c) *the likely significant effects of the development on the environment; and*
 - (d) *in the case of a subsequent application, the environmental statement submitted with the original application.*
- 1.1.7 This Opinion has taken into account the requirements of the EIA Regulations as well as current best practice towards preparation of an ES.
- 1.1.8 The Inspectorate has consulted on the Applicant's Scoping Report and the responses received from the consultation bodies have been taken into account in adopting this Opinion (see Appendix 2).
- 1.1.9 The points addressed by the Applicant in the Scoping Report have been carefully considered and use has been made of professional judgement and experience in order to adopt this Opinion. It should be noted that when it comes to consider

the ES, the Inspectorate will take account of relevant legislation and guidelines. The Inspectorate will not be precluded from requiring additional information if it is considered necessary in connection with the ES submitted with the application for a Development Consent Order (DCO).

- 1.1.10 This Opinion should not be construed as implying that the Inspectorate agrees with the information or comments provided by the Applicant in their request for an opinion from the Inspectorate. In particular, comments from the Inspectorate in this Opinion are without prejudice to any later decisions taken (e.g. on submission of the application) that any development identified by the Applicant is necessarily to be treated as part of a Nationally Significant Infrastructure Project (NSIP) or Associated Development or development that does not require development consent.
- 1.1.11 Regulation 10(3) of the EIA Regulations states that a request for a scoping opinion must include:
- (a) *a plan sufficient to identify the land;*
 - (b) *a description of the proposed development, including its location and technical capacity;*
 - (c) *an explanation of the likely significant effects of the development on the environment; and*
 - (d) *such other information or representations as the person making the request may wish to provide or make.*
- 1.1.12 The Inspectorate considers that this has been provided in the Applicant's Scoping Report. The Inspectorate is satisfied that the Scoping Report encompasses the relevant aspects identified in the EIA Regulations.
- 1.1.13 In accordance with Regulation 14(3)(a), where a scoping opinion has been issued in accordance with Regulation 10 an ES accompanying an application for an order granting development consent should be based on '*the most recent scoping opinion adopted (so far as the proposed development remains materially the same as the proposed development which was subject to that opinion)*'.
- 1.1.14 The Inspectorate notes the potential need to carry out an assessment under The Conservation of Habitats and Species Regulations 2017 ('the Habitats Regulations'), as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. This assessment must be co-ordinated with the EIA in accordance with Regulation 26 of the EIA Regulations.

1.2 The Planning Inspectorate's Consultation

- 1.2.1 In accordance with Regulation 10(6) of the EIA Regulations the Inspectorate has consulted the consultation bodies before adopting a scoping opinion. A list of the consultation bodies formally consulted by the Inspectorate is provided at Appendix 1. The consultation bodies have been notified under Regulation

11(1)(a) of the duty imposed on them by Regulation 11(3) of the EIA Regulations to make information available to the Applicant relevant to the preparation of the ES. The Applicant should note that whilst the list can inform their consultation, it should not be relied upon for that purpose.

- 1.2.2 The list of respondents who replied within the statutory timeframe and whose comments have been taken into account in the preparation of this Opinion is provided, along with copies of their comments, at Appendix 2, to which the Applicant should refer in preparing their ES.
- 1.2.3 The ES submitted by the Applicant should demonstrate consideration of the points raised by the consultation bodies. It is recommended that a table is provided in the ES summarising the scoping responses from the consultation bodies and how they are, or are not, addressed in the ES.
- 1.2.4 Any consultation responses received after the statutory deadline for receipt of comments will not be taken into account within this Opinion. Late responses will be forwarded to the Applicant and will be made available on the Inspectorate's website. The Applicant should also give due consideration to those comments in preparing their ES.

2. THE PROPOSED DEVELOPMENT

2.1 Introduction

2.1.1 The following is a summary of the information on the Proposed Development and its site and surroundings prepared by the Applicant and included in their Scoping Report. The information has not been verified and it has been assumed that the information provided reflects the existing knowledge of the Proposed Development and the potential receptors/ resources.

2.2 Description of the Proposed Development

2.2.1 The Applicant's description of the Proposed Development, its location and technical capacity (where relevant) is provided in Sections 2 and 3 of the Scoping Report.

2.2.2 The Proposed Development is for the installation of Carbon Capture and Storage (CCS) infrastructure, including an underground carbon dioxide (CO₂) pipeline extending from Cheshire, England to Flintshire, Wales and associated Above Ground Installations (AGI) and Block Valve Stations (BVS). The Proposed Development forms part of a wider scheme known collectively as the HyNet North West hydrogen supply and CCS project ('the Wider Scheme'). The Proposed Development seeks to facilitate transportation of compressed CO₂ captured from existing (e.g. local industry) and future (e.g. hydrogen production plants) sources in north-west England to an offshore CO₂ storage facility located within the Liverpool Bay area.

2.2.3 The precise location and design of each element of the Proposed Development has not been defined at this stage in the EIA process. However, the Scoping Report states that a 100m wide corridor has been adopted which represents the maximum extent of the Proposed Development, including temporary construction works. The Scoping Report states that while the 100m corridor is considered to be the maximum extent of permanent and temporary construction works, further work will be undertaken to identify the land that would be required for temporary construction compounds, laydown/storage areas and access/haul routes.

2.2.4 The CO₂ pipeline would be buried at a minimum depth of 1.2m. Figures included in Appendix A (Part 1 of 3) of the Scoping Report identify indicative areas within the application site for each element of the Proposed Development.

2.2.5 The Scoping Report states the following works are to be delivered under the Development Consent Order (DCO) for the Proposed Development:

Grinsome Road AGI to Alcohols Site AGI CO₂ Pipeline

- 5.5km pipeline (up to 20 inches in diameter) transporting up to 2.5 million tonnes per annum (Mtpa) of CO₂ at a pressure of 35 barg from Grinsome Road AGI located in Ince, Cheshire to Alcohols Site AGI located within the Stanlow Refinery site, east of Ellesmere Port, Cheshire. Two route options are described in Table 3-1 of the Scoping Report.

Alcohols Site AGI to Flint AGI CO₂ Pipeline

- 32km pipeline (up to 36 inches in diameter) transporting up to 10 Mtpa of CO₂ at a pressure of 35 barg from the Alcohols Site AGI located on land north of Connah's Quay, England to Flint AGI located on land south of Flint, Wales. The Applicant has separated the Alcohols Site AGI to Flint AGI CO₂ Pipeline into sub-sections 1-4 for the purposes of the EIA. Three route options are described for Sections 2 and 4 in Table 3-1 of the Scoping Report.

Above Ground Installations (AGIs)

- Grinsome Road AGI:
 - AGI (area approximately 64m x 34m) to be sited at one of two possible locations adjacent to the CF Fertiliser Plant, Ince, Cheshire. Grinsome Road AGI comprises of Pipeline Inspection Gauge (PIG) launcher facilities, CO₂ vent facilities, a connection flange into the Protos Biomass Power Plant, a pipeline into the CF Fertiliser Plant and provision for future local emitters.
- Alcohols Site AGI:
 - AGI to be sited within the Stanlow Refinery site, Cheshire, England. Alcohols Site AGI comprises of PIG receiver/ launch facilities and connections to other emitters (e.g. proposed Hydrogen Plants). The approximate area of the Alcohols Site AGI has not been specified in the Scoping Report.
- Flint AGI:
 - AGI (area approximately 99m x 72m) to be sited at one of three possible locations south of Flint, Wales. The Flint AGI will connect the Alcohols Site AGI to Flint AGI CO₂ Pipeline to the existing pipeline between Flint AGI and the Point of Ayre and comprises of PIG receiver/ launch facilities and CO₂ vent facilities.
- Associated Infrastructure:
 - AGIs would require the construction of associated infrastructure, including valves, control mechanisms, lighting, parking provisions, access arrangements and instrumentation. The scale, nature and location of associated infrastructure has not been described in the Scoping Report.

Block Valve Stations (BVS)

- Multiple BVS (area approximately 35m x 25m) located along the Alcohols Site AGI to Flint AGI CO₂ Pipeline. The number and location of these BVS is yet to be determined.
- Four BVS (area approximately 35m x 25m) located along the existing natural gas pipeline between Flint and PoA. The location of these BVS are shown in Appendix A (Part 1 of 3) of the Scoping Report.

Other Works

- Installation of Cathodic Protection (CP) Transformer Rectifier Cabinets ('the CP system'), including below ground cabling/ground beds and above ground rectifier cabinets, along the length of the Proposed Development. The size, number and location of CP systems has not been described in the Scoping Report.
 - Ancillary works, including temporary construction compounds (area approximately 47m x 47m), temporary laydown/storage areas and temporary access/haul routes connecting to the Proposed Development from the local road network. The size (excluding temporary construction compounds), number and location of ancillary works has not been described in the Scoping Report.
- 2.2.6 The Scoping Report does not specify the heights of any of the structures associated with the Proposed Development. However, paragraph 10.3.7 of the Scoping Report states that the Zone of Theoretical Visibility (ZTV) has been defined using building heights of 3m, 6m and 9m. Paragraph 10.2.2 of the Scoping Report states that the maximum height of the BVS would be 3m (compound fence).
- 2.2.7 Operation of the Proposed Development requires repurposing and modification of an existing gas pipeline between Flint AGI and the PoA. Works to the existing pipeline are to be delivered via separate planning applications under the Town and Country Planning Act (TCPA 1990) and are not included in the DCO for the Proposed Development, except for the installation of the BVS. However, the Applicant is seeking compulsory acquisition powers relating to the acquisition of land rights and other powers connected to the use of the existing pipeline (as shown in figures included in Appendix A (Part 1 of 3) of the Scoping Report).
- 2.2.8 The Scoping Report states that construction of the Proposed Development will be phased over an 18-month period. The Scoping Report states that following the 40-year operational lifetime the CO₂ pipeline and BVS would be decommissioned (left in situ) and the AGI would be dismantled.
- 2.2.9 The Scoping Report states that trenchless crossing techniques would be used to cross major and minor roads, railways and major watercourses (Figure 3-21 of the Scoping Report). The specific trenchless crossing technique to be utilised during construction of the Proposed Development has not been determined at this stage.
- 2.2.10 The Proposed Development extends south west from Cheshire, England passing north of Chester and south of Connah's Quay before continuing north east towards Flint, Wales. The Proposed Development crosses the River Dee and Bala Lake/Afon Dyfrwdy a Llyn Tegid Special Area of Conservation (SAC) which is hydrologically connected to the Dee Estuary/Aber Dyfrydwy SAC and the Dee Estuary Special Protection Area (SPA), Ramsar site and the Dee Estuary Site of Special Scientific Interest (SSSI). The Proposed Development also passes approximately 50m north of Deeside and Buckley Newt Sites SAC and Connah's Quay Ponds and Woodland SSSI before crossing Flint Mountain / Mynydd y Fflint SSSI. In total, the Scoping Report identifies nine international and 14 national sites designated for nature conservation within 10km of the Proposed Development boundary.

- 2.2.11 In addition, the Scoping Report identifies five designated heritage assets within the Proposed Development boundary, including the Moated Site, Fishpond and Connecting Channel and Elton Scheduled Monument (SM). The Proposed Development is primarily located within Flood Zone 2 (England) and Zone C2 (Wales), however Grinsome Road AGI is located in Flood Zone 3. The Proposed Development coincides with or is immediately downstream of 14 Water Framework Directive (WFD) surface water bodies and four WFD ground water bodies. The Proposed Development coincides with Thornton le Moors Air Quality Management Area (AQMA) and is located within 500m of five Noise Important Areas (NIAs) and seven Noise Action Plan Priority Areas (NAPPAs).
- 2.2.12 The Proposed Development passes through predominantly agricultural land and crosses multiple watercourses, minor/major roads and rail crossings. In addition, the Proposed Development boundary coincides with, or is in close proximity to residential development, community assets and greenspace, employment land designations, agricultural land holdings, numerous Public Rights of Way (PRoW), including The Wales Coastal Path and multiple historic landfill sites.

2.3 The Planning Inspectorate's Comments

Description of the Proposed Development

- 2.3.1 The Inspectorate notes that the precise location and design of some elements of the Proposed Development have not been determined at this stage in the EIA process, and will be refined prior to submission of the DCO application. However, the lack of detailed information provided in the Scoping Report, particularly in relation to the location, design and extent of 'Other Works' has constrained the ability of the Inspectorate, and potentially consultation bodies, to provide meaningful comments on its content and in some cases has prevented the Inspectorate from being able to agree to scope matters out of the assessment at this time.
- 2.3.2 The Inspectorate notes that further work is being undertaken to determine the number and location of AGI, BVS and the CP system. The ES should describe the number, location and maximum dimensions of these structures, including the temporary vent stacks associated with the AGI and BVS. Where uncertainty exists in relation to these elements, the Applicant must ensure that the Rochdale envelope for the Proposed Development adequately reflects the worst-case scenario.
- 2.3.3 The ES should also provide information on the location of access routes, construction compounds and the location of trenchless crossings. The potential impacts associated with trenchless crossings (such as the effects of dewatering or the location of entry pits) should also be assessed.
- 2.3.4 The Scoping Report does not provide an assessment of the decommissioning phase of the Proposed Development. The Inspectorate considers that an assessment of the decommissioning phase should be provided in the ES. This should be proportionate and include a description of the decommissioning works, land-use requirements, and estimated timescales. The Applicant should

clearly demonstrate that the complete lifecycle of the Proposed Development, including the decommissioning phase, has been described and adequately assessed in the ES. In addition, the Applicant should ensure that the operational lifetime of the Proposed Development specified in the ES is consistent with that set out in the DCO.

- 2.3.5 The Scoping Report does not state when construction of the Proposed Development is likely to commence or when it is to become fully operational. The Applicant should clearly describe the construction and operation phase of the Proposed Development in the ES, and ensure this information is consistent with that set out in the DCO.
- 2.3.6 The Scoping Report does not consider the potential environmental effects as result of construction, operation or decommissioning of the CP system. The Applicant should provide an assessment of this matter where significant effects are likely to occur. In addition, the ES should describe how the CP system would be decommissioned following the 40-year operational lifetime of the Proposed Development.
- 2.3.7 Paragraph 2.1.7 of the Scoping Report outlines the projects that form the Wider Scheme. The ES should clearly describe the relationship between the Proposed Development and the Wider Scheme, including the extent to which the Proposed Development is dependent on the delivery of the other projects. In addition, the Applicant should describe the development timelines of projects that form the Wider Scheme, including an explanation of how these will be coordinated.
- 2.3.8 The Scoping Report states that temporary construction lighting and additional operational lighting may be required. The ES should clearly describe the location and design of construction and operational lighting and provide an assessment where significant effects are likely to occur. The design standards that additional lighting will be required to meet should also be described in the ES.
- 2.3.9 Paragraph 3.5.29 of the Scoping Report states that the BVS will be powered using connections to existing electrical and telecoms utilities, and that these works are to be undertaken by the relevant statutory undertakers and not included in the DCO for the Proposed Development. The Applicant should ensure that the potential environmental effects of these connection works or any other consequential development are considered in the assessment of cumulative effects where significant effects are likely to occur.
- 2.3.10 Paragraph 3.6.15 of the Scoping Report states that Close Sheet Piling may be required during construction of the Proposed Development. The Inspectorate notes that potential impacts arising from Close Sheet Piling have only been clearly considered in relation to Water Resources and Flood Risk. The Applicant should ensure that the potential environmental effects of these activities are described in other relevant aspect chapters of the ES (e.g. Noise and Vibration) and assessed where significant effects are likely to occur.
- 2.3.11 Paragraph 3.6.27 of the Scoping Report outlines pre-commissioning activities following installation of the CO₂ pipeline. The Applicant should ensure that the potential environmental effects of these activities are described in the relevant aspect chapters of the ES and assessed where significant effects are likely to

occur. The Inspectorate is particularly concerned with potential impacts arising from hydrostatic testing (e.g. discharge of water) and dewatering. The Applicant should seek agreement with the relevant consultation bodies regarding the assessment of pre-commissioning activities and mitigation requirements.

- 2.3.12 The Scoping Report refers to the Stanlow Refinery Plant, Stanlow Refinery Site, Stanlow Oil Refinery and Stanlow Refinery. Due to the inconsistent description of this locale, it is unclear if these are the same facility or different facilities within the Proposed Development boundary. In addition, the Scoping Report frequently refers to the Stanlow Refinery Plant and CF Fertiliser Plant when describing the location of AGIs. The location of these features has not been depicted in the figures provided in Appendix A of the Scoping Report. The ES should avoid inconsistent descriptions of development components and provide figures clearly illustrating the location of such features.
- 2.3.13 Paragraph 3.7.5 of the Scoping Report outlines typical inspection and maintenance activities that may be undertaken during operation of the Proposed Development. The Applicant should ensure that the potential environmental effects of these activities, particularly bi-weekly helicopter surveys, are described in the relevant aspect chapters of the ES and assessed where significant effects are likely to occur. In addition, the Applicant should also consider the potential environmental effects arising from the 25m easement required during the 40-year operational phase of the Proposed Development.
- 2.3.14 Paragraph 3.7.6 of the Scoping Report states that issues identified during inspection of the Proposed Development would be corrected using appropriate remedial works. However, the Scoping Report does not include a description of the works required for remediation. The Applicant should ensure that the activities and associated land use requirements of remediation works are clearly described in the ES and assessed where significant effects are likely to occur.
- 2.3.15 Paragraph 4.11.16 of the Scoping Report states that the Outline Construction Traffic Management Plan (CTMP) will include a description of; the number of vehicles, routes, frequency and timing of movements; worker hours and shift patterns; laydown areas and parking; and Abnormal Indivisible Loads (AILs). The Applicant should include information set out in the CTMP in the ES where relevant to the assessment. The ES should also explain how AILs would be transported to the Proposed Development site, including the number of AILs required during construction. The Applicant should consider the potential effects of transporting AILs to the Proposed Development site within the relevant aspect chapters of the ES. In addition, the Applicant should seek agreement with the relevant consultation bodies on worker hours/shift patterns during construction of the Proposed Development. The Applicant's attention is drawn to Cheshire West and Chester Council's consultation response in this regard (see Appendix 2 of this report).
- 2.3.16 Table 3-1 of the Scoping Report states that the Proposed Development will cross or be located in close proximity to multiple rivers (e.g. the River Dee) and navigable waterways (e.g. Shropshire Union Canal). However, rivers, canals, waterway users and associated infrastructure have not been identified as sensitive receptors in some potentially relevant aspect chapters of the Scoping

Report. The Applicant should ensure that the potential environmental effects of the Proposed Development on these receptors, particularly during construction, are considered in the relevant aspect chapters of the ES and assessed where significant effects are likely to occur. The Applicant's attention is drawn to the Canal and River Trust's consultation response in this regard.

- 2.3.17 The Scoping Report refers to 'other enabling activities' and 'in-carriageway works'. However, the Scoping Report provides no further detail regarding the nature of these works. The Applicant should include a clear description of enabling activities and in-carriageway works in the ES, including the location and associated land-use requirements, and provide an assessment of these matters where significant effects are likely to occur.

Alternatives

- 2.3.18 The EIA Regulations require that the Applicant provide 'A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects'.
- 2.3.19 The Inspectorate acknowledges the Applicant's intention to consider alternatives within the ES. The Inspectorate would expect to see a discrete section in the ES that provides details of the reasonable alternatives studied and the reasoning for the selection of the chosen option(s), including a comparison of the environmental effects.

Flexibility

- 2.3.20 The Inspectorate notes the Applicant's desire to incorporate flexibility into their draft DCO (dDCO) and its intention to apply a Rochdale Envelope approach for this purpose. Where the details of the Proposed Development cannot be defined precisely, the Applicant will apply a worst-case scenario. The Inspectorate welcomes the reference to Planning Inspectorate Advice Note nine 'Using the 'Rochdale Envelope'¹ in this regard.
- 2.3.21 The Applicant should make every attempt to narrow the range of options and explain clearly in the ES which elements of the Proposed Development have yet to be finalised and provide the reasons. At the time of application, any Proposed Development parameters should not be so wide-ranging as to represent effectively different developments. The development parameters should be clearly defined in the dDCO and in the accompanying ES. It is a matter for the Applicant, in preparing an ES, to consider whether it is possible to robustly assess a range of impacts resulting from a large number of undecided parameters. The description of the Proposed Development in the ES must not be so wide that it is insufficiently certain to comply with the requirements of Regulation 14 of the EIA Regulations.

¹ Advice Note nine: Using the Rochdale Envelope. Available at: <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

2.3.22 It should be noted that if the Proposed Development materially changes prior to submission of the DCO application, the Applicant may wish to consider requesting a new scoping opinion.

3. ES APPROACH

3.1 Introduction

- 3.1.1 This section contains the Inspectorate's specific comments on the scope and level of detail of information to be provided in the Applicant's ES. General advice on the presentation of an ES is provided in the Inspectorate's Advice Note Seven 'Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements'² and associated appendices.
- 3.1.2 Aspects/ matters (as defined in Advice Note Seven) are not scoped out unless specifically addressed and justified by the Applicant and confirmed as being scoped out by the Inspectorate. The ES should be based on the Scoping Opinion in so far as the Proposed Development remains materially the same as the Proposed Development described in the Applicant's Scoping Report.
- 3.1.3 The Inspectorate has set out in this Opinion where it has/ has not agreed to scope out certain aspects/ matters on the basis of the information available at this time. The Inspectorate is content that the receipt of a Scoping Opinion should not prevent the Applicant from subsequently agreeing with the relevant consultation bodies to scope such aspects / matters out of the ES, where further evidence has been provided to justify this approach. However, in order to demonstrate that the aspects/ matters have been appropriately addressed, the ES should explain the reasoning for scoping them out and justify the approach taken.
- 3.1.4 The Inspectorate has made effort to ensure that this Scoping Opinion is informed through effective consultation with the relevant consultation bodies. Unfortunately, at this time the Inspectorate is unable to receive hard copy consultation responses, and this may affect a consultation body's ability to engage with the scoping process. The Inspectorate also appreciates that strict compliance with COVID-19 advice may affect a consultation body's ability to provide their consultation response. The Inspectorate considers that Applicants should make effort to ensure that they engage effectively with consultation bodies and where necessary further develop the scope of the ES to address their concerns and advice. The ES should include information to demonstrate how such further engagement has been undertaken and how it has influenced the scope of the assessments reported in the ES.
- 3.1.5 Where relevant, the ES should provide reference to how the delivery of measures proposed to prevent/ minimise adverse effects is secured through dDCO requirements (or other suitably robust methods) and whether relevant consultation bodies agree on the adequacy of the measures proposed.

² Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements and annex. Available from: <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

3.2 Relevant National Policy Statements (NPSs)

- 3.2.1 Sector-specific NPSs are produced by the relevant Government Departments and set out national policy for NSIPs. They provide the framework within which the Examining Authority (ExA) will make their recommendation to the SoS and include the Government's objectives for the development of NSIPs. The NPSs may include environmental requirements for NSIPs, which Applicants should address within their ES.
- 3.2.2 The Applicant's Scoping Report acknowledges that there is no specific NPS for CO₂ pipelines however the designated NPSs that appear relevant to the Proposed Development are the:
- Overarching NPS For Energy (NPS EN-1); and
 - NPS for Gas Supply Infrastructure and Gas and Oil Pipelines (NPS EN-4).
- 3.2.3 The Applicant should ensure that the revised requirements set out in any emerging or updated NPSs for energy infrastructure have been considered in the ES where relevant to the Proposed Development.

3.3 Scope of Assessment

General

- 3.3.1 The Inspectorate recommends that in order to assist the decision-making process, the Applicant uses tables:
- to demonstrate how the assessment has taken account of this Opinion;
 - to identify and collate the residual effects after mitigation for each of the aspect chapters, including the relevant interrelationships and cumulative effects;
 - to set out the proposed mitigation and/ or monitoring measures including cross-reference to the means of securing such measures (eg a dDCO requirement);
 - to describe any remedial measures that are identified as being necessary following monitoring; and
 - to identify where details are contained in the Habitats Regulations Assessment (HRA report) (where relevant), such as descriptions of National Site Network sites and their locations, together with any mitigation or compensation measures, that inform the findings of the ES.

Baseline Scenario

- 3.3.2 The ES should include a description of the baseline scenario with and without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.

- 3.3.3 In light of the number of ongoing developments within the vicinity of the Proposed Development application site, the Applicant should clearly state which developments will be assumed to be under construction or operational as part of the future baseline.
- 3.3.4 The Scoping Report provides a description of the Study Area for each environmental aspect to be included in the ES. However, some of the Study Areas have not been depicted in corresponding figures in the Scoping Report. The Applicant should illustrate the geographic extent of Study Areas in appropriate figures for each environmental aspect considered in the ES.

Forecasting Methods or Evidence

- 3.3.5 The ES should contain the timescales upon which the surveys which underpin the technical assessments have been based. For clarity, this information should be provided either in the introductory chapters of the ES (with confirmation that these timescales apply to all chapters), or in each aspect chapter.
- 3.3.6 The Inspectorate expects the ES to include a chapter setting out the overarching methodology for the assessment, which clearly distinguishes effects that are 'significant' from 'non-significant' effects. Any departure from that methodology should be described in individual aspect assessment chapters.
- 3.3.7 The Inspectorate notes that the proposed assessment methodology for multiple environmental aspects included in the Scoping Report are based on the Design Manual for Roads and Bridges (DMRB). The DMRB is intended as technical guidance on the assessment of effects arising from the construction and operation of roads. The Applicant should provide suitable justification for why the DMRB is appropriate technical guidance for the assessment of the Proposed Development in the ES.
- 3.3.8 The ES should include details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.

Residues and Emissions

- 3.3.9 The EIA Regulations require an estimate, by type and quantity, of expected residues and emissions. Specific reference should be made to water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases, where relevant. This information should be provided in a clear and consistent fashion and may be integrated into the relevant aspect assessments. The ES should include an assessment of the effects of any lighting required for the construction or operation of the Proposed Development.
- 3.3.10 Paragraph 3.7.9 of the Scoping Report states that venting operations will be required during operation of the Proposed Development. The Applicant should consider the potential environmental effects of venting operations in relevant aspect chapters of the ES and provide an assessment of this matter where significant effects are likely to occur. In addition, the Applicant should clearly describe the location, frequency and duration of venting activities, including the

type, nature and quantity of component gases to be released into the atmosphere.

- 3.3.11 Paragraph 4.12 of the Scoping Report seeks to scope effects of heat and radiation out of the ES on the basis that the CO₂ pipeline will be installed underground, and no significant sources of radiation are anticipated. The Inspectorate agrees that effects of heat and radiation can be scoped out of the ES.

Mitigation and Monitoring

- 3.3.12 Any mitigation relied upon for the purposes of the assessment should be explained in detail within the ES. The likely efficacy of the mitigation proposed should be explained with reference to residual effects. The ES should also address how any mitigation proposed is secured, with reference to specific dDCO requirements or other legally binding agreements.
- 3.3.13 The ES should identify and describe any proposed monitoring of significant adverse effects and how the results of such monitoring would be utilised to inform any necessary remedial actions.
- 3.3.14 It is noted that the Applicant intends to submit a Register of Environmental Actions and Commitments (REAC) with the DCO application, which describes the mitigation measures to be delivered in accordance with the Construction Environmental Management Plan (CEMP). However, paragraph 4.7.8 of the Scoping Report states that a draft CEMP will not be provided with the DCO application as detail of mitigation will be set out in the REAC. The Inspectorate requests that the DCO application contain all documents which describe measures relied upon for the purposes of the EIA, including draft versions of the CEMP, Construction Traffic Management Plan (CTMP), Materials Management Plan (MMP), Site Waste Management Plan (SWMP), Construction Workers Travel Plan (CWTP), Sediment Management Plan (SMP), Groundwater Management Plan (GMP), Onshore CEMP and Marine CEMP referred to in the Scoping Report. In addition, the ES should make explicit cross-reference to these documents where relied upon for the purposes of the EIA.

Risks of Major Accidents and/or Disasters

- 3.3.15 The Inspectorate notes the intention to include an assessment in the ES of significant adverse environmental effects resulting from the vulnerability of the Proposed Development to accidents and disasters. The ES should include a description and assessment (where relevant) of the likely significant effects resulting from accidents and disasters applicable to the Proposed Development. The Applicant should make use of appropriate guidance (e.g. that referenced in the Health and Safety Executives (HSE) Annex to the Inspectorate's Advice Note 11) to better understand the likelihood of an occurrence and the Proposed Development's susceptibility to potential major accidents and hazards. The description and assessment should consider the vulnerability of the Proposed Development to a potential accident or disaster and also the Proposed Development's potential to cause an accident or disaster. The assessment should specifically assess significant effects resulting from the risks to human health, cultural heritage or the environment. Any measures that will be

employed to prevent and control significant effects should be presented in the ES.

- 3.3.16 Relevant information available and obtained through risk assessments pursuant to national legislation may be used for this purpose. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.

Climate and Climate Change

- 3.3.17 The Inspectorate notes the intention to include an assessment of the impact on the Proposed Development on climate and the vulnerability to climate change. Where relevant, the ES should describe and assess the adaptive capacity that has been incorporated into the design of the Proposed Development. This may include, for example, alternative measures such as changes in the use of materials or construction and design techniques that will be more resilient to risks from climate change.

Transboundary Effects

- 3.3.18 Schedule 4 Part 5 of the EIA Regulations requires a description of the likely significant transboundary effects to be provided in an ES. The Scoping Report has not indicated whether the Proposed Development is likely to have significant impacts on a European Economic Area (EEA) State.
- 3.3.19 Regulation 32 of the EIA Regulations inter alia requires the Inspectorate to publicise a DCO application on behalf of the SoS if it is of the view that the proposal is likely to have significant effects on the environment of a EEA state, and where relevant, to consult with the EEA state affected.
- 3.3.20 The Inspectorate considers that where Regulation 32 applies, this is likely to have implications for the examination of a DCO application. The Inspectorate notes that the ES will include a description of any transboundary effects. Where the potential for significant transboundary impacts is identified it should be made clear which EEA States would be affected.

A Reference List

- 3.3.21 A reference list detailing the sources used for the descriptions and assessments must be included in the ES.

3.4 Coronavirus (COVID-19) Environmental Information and Data Collection

- 3.4.1 The Inspectorate understands government enforced measures in response to COVID-19 may have consequences for an Applicant's ability to obtain relevant environmental information for the purposes of their ES. The Inspectorate understands that conducting specific surveys and obtaining representative data may be difficult in the current circumstances.

- 3.4.2 The Inspectorate has a duty to ensure that the environmental assessments necessary to inform a robust DCO application are supported by relevant and up to date information. Working closely with consultation bodies, the Inspectorate will seek to adopt a flexible approach, balancing the requirement for suitable rigour and scientific certainty in assessments with pragmatism in order to support the preparation and determination of applications in a timely fashion.
- 3.4.3 Applicants should make effort to agree their approach to the collection and presentation of information with relevant consultation bodies. In turn the Inspectorate expects that consultation bodies will work with Applicants to find suitable approaches and points of reference to allow preparation of applications at this time. The Inspectorate is required to take into account the advice it receives from the consultation bodies and will continue to do so in this regard.

3.5 Confidential and Sensitive Information

- 3.5.1 In some circumstances it will be appropriate for information to be kept confidential. In particular, this may relate to personal information specifying the names and qualifications of those undertaking the assessments and / or the presence and locations of rare or sensitive species such as badgers, rare birds and plants where disturbance, damage, persecution or commercial exploitation may result from publication of the information.
- 3.5.2 Where documents are intended to remain confidential the Applicant should provide these as separate documents with their confidential nature clearly indicated in the title and watermarked as such on each page. The information should not be incorporated within other documents that are intended for publication or which the Inspectorate would be required to disclose under the Environmental Information Regulations 2004.
- 3.5.3 The Inspectorate adheres to the data protection protocols set down by the Information Commissioners Office³. Please refer to the Inspectorate's National Infrastructure privacy notice⁴ for further information on how personal data is managed during the Planning Act 2008 process.

³ <https://ico.org.uk>

⁴ <https://www.gov.uk/government/publications/planning-inspectorate-privacy-notice>

4. ASPECT BASED SCOPING TABLES

4.1 Air Quality

(Scoping Report Section 5)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.1.1	Table 5-1	Construction and Operation – Air quality impacts arising from Existing Pipeline Works (excluding BVS).	The Scoping Report proposes to scope this matter out of the assessment on the basis that the Existing Pipeline Works are not included in the DCO for the Proposed Development. The Inspectorate agrees that this matter can be scoped out of the ES on the basis that likely significant effects of the Existing Pipeline Works will be considered in EIAs supporting separate TCPA applications. However, the Applicant should ensure that the potential impacts of the Existing Pipeline Works are considered in the assessment of cumulative effects where significant effects are likely to occur.
4.1.2	Table 5-1	Operation - Air quality impacts arising from the operation of the Proposed Development.	The Scoping Report proposes to scope this matter out of the assessment on the basis that there are no potentially significant sources of emissions of local air quality pollutants during operation of the Proposed Development. Paragraph 5.5.4 of the Scoping Report states that, based on the information currently available to the Applicant, operational traffic flows are below screening thresholds set out in the Institute of Air Quality Management (IAQM) guidance. The Inspectorate agrees that the traffic flows associated with the operation of the Proposed Development are unlikely to give rise to significant effects and agree that this matter can be scoped out.
4.1.3	Paragraph 3.7.8, 5.5.5 and 5.7.3	Operation – Air quality impacts arising from venting operations.	Paragraph 3.7.8 of the Scoping Report indicates that potential effects of venting operations include the creation of an asphyxiating

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>atmosphere and odour effects due to the presence of hydrogen sulphide (H₂S) in the CO₂ stream.</p> <p>The Scoping Report proposes to scope these matters out of the assessment on the basis that venting operations will be infrequent and controlled via operating procedures. However, the location of some elements of the Proposed Development have not been defined in the Scoping Report so the proximity of the Proposed Development to potential human and/or ecological receptors remains uncertain. In addition, the operating procedures required to control emissions have not been described in the Scoping Report. Therefore, the Inspectorate does not agree that air quality effects as a result of venting operations can be scoped out of the ES. Accordingly, the ES should include an assessment of these matters or demonstrate agreement with the relevant stakeholders and the absence of a likely significant environmental effect. The Applicant's attention is drawn to Cheshire West and Chester Council's (CWCC) consultation response in this regard (see Appendix 2 of this report).</p>

ID	Ref	Other points	Inspectorate's comments
4.1.4	Paragraph 5.5.1	Non-statutory sites designated for nature conservation and protected species	Paragraph 5.5.1 of the Scoping Report only lists statutory sites designated for nature conservation as sensitive receptors that will be considered in the assessment of air quality. The Applicant should also provide an assessment of air quality impacts on non-statutory sites for nature conservation, including Local Wildlife Sites (LWS), Ancient Woodland and protected species where significant effects are likely to occur and cross-reference the ecology chapter (and vice-versa) where relevant.

4.2 Climate

(Scoping Report Section 6)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
Greenhouse Gases (GHG)			
4.2.1	Table 6-3	Construction – GHG emissions arising from the disposal of waste	The Scoping Report proposes to scope this matter out of the assessment on the basis that large quantities of waste are not anticipated during construction of the Proposed Development. However, the estimated type and quantity of waste produced during the construction of the Proposed Development has not been specified in the Scoping Report. Therefore, the Inspectorate does not agree that GHG emissions arising from the disposal of construction waste can be scoped out of the ES. Accordingly, the ES should include an assessment of this matter or information demonstrating agreement with the relevant stakeholders and the absence of a likely significant environmental effect.
4.2.2	Table 6-3	Construction – GHG emissions arising from the disposal of biomass	The Scoping Report proposes to scope this matter out of the assessment on the basis that large quantities of biomass are not anticipated during construction of the Proposed Development. However, the estimated quantity of biomass produced during the construction of the Proposed Development has not been specified in the Scoping Report. Therefore, the Inspectorate does not agree that GHG emissions arising from the disposal of biomass can be scoped out of the ES. Accordingly, the ES should include an assessment of this matter or information demonstrating agreement with the relevant stakeholders and the absence of a likely significant environmental effect.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.2.3	Table 6-3	Operation – GHG emissions arising from the replacement of elements of the Proposed Development during operational maintenance	The Scoping Report proposes to scope this matter out of the assessment on the basis that no major replacements are expected during the operational lifetime of the Proposed Development. The Inspectorate notes that emissions associated with routine maintenance and refurbishment have been scoped into further assessment and is therefore satisfied that this matter can be scoped out.
4.2.4	Table 6-3	Operation – GHG emissions arising from the reduction in carbon sequestration	The Scoping Report proposes to scope this matter out of the assessment on the basis that the reduction in carbon sequestration is not considered to be large and the predominant land type is grassland, which has minimal carbon sequestration potential. However, the quantity and carbon sequestration potential of land to be permanently lost during operation of the Proposed Development has not been specified in the Scoping Report. Therefore, the Inspectorate does not agree that GHG emissions arising from the reduction in carbon sequestration can be scoped out. Accordingly, the ES should include an assessment of this matter or information demonstrating agreement with the relevant stakeholders and the absence of a likely significant environmental effect.
4.2.5	Table 6-3	Decommissioning – GHG emissions arising from the decommissioning phase, including the transport and disposal of materials	The Scoping Report proposes to scope this matter out of the assessment on the basis that the CO ₂ pipeline and BVS would be left in situ and the AGI would be dismantled. As noted in the first part of this report, the effects of decommissioning should be considered within the ES. Accordingly, the ES should include an assessment of this matter or information demonstrating agreement with the relevant stakeholders and the absence of a likely significant environmental effect.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
Climate Resilience			
4.2.6	Table 6-18	Construction – Vulnerability of construction site and workers to climate change	The Scoping Report proposes to scope this matter out of the assessment on the basis that climate resilience measures to be included in the CEMP would result in a low vulnerability of the construction site and workers to climate change. The Inspectorate agrees that this matter can be scoped out of the ES on the basis that the construction phase remains 18 months and climate resilience measures will be described in the ES.
4.2.7	Table 6-18	Operation – Vulnerability of CO ₂ pipeline to change in rainfall, temperature, drought, wind, humidity, storm surge and storm tide	The Scoping Report proposes to scope this matter out of the assessment on the basis that the CO ₂ pipeline exhibits low vulnerability to change in rainfall, temperature, drought, wind, humidity, storm surge and storm tide due to climate change. The Inspectorate agrees that these matters can be scoped out of the ES.
4.2.8	Table 6-18	Operation – Vulnerability of AGI and BVS to changes in humidity, drought, storm surge and storm tide.	The Scoping Report proposes to scope this matter out of the assessment on the basis that AGI exhibit low vulnerability to change in humidity, drought, storm surge and storm tide due to climate change. The Inspectorate notes that flood risk will be assessed in another section of the ES and therefore agrees that these matters can be scoped out further assessment in this section of the ES.

ID	Ref	Other points	Inspectorate's comments
Greenhouse Gases (GHG)			
4.2.9	Paragraph 6.5.1	GHG emissions arising from BVS	Paragraph 6.5.1 of the Scoping Report states the Proposed Development, including BVS located along the existing Flint AGI to PoA CO ₂ pipeline have been identified as potential sources of GHG

ID	Ref	Other points	Inspectorate's comments
			emissions. However, the Scoping Report does not state if GHG emissions arising from BVS located along the Alcohols Site AGI to Flint AGI CO ₂ Pipeline will be considered in the assessment. The Applicant should provide an assessment of GHG emissions arising from all BVS during operation, including those derived from the venting operations referred to in the Air Quality chapter of the ES.
4.2.10	Table 6-2	GHG emissions arising from disturbance of historic landfill sites	The Inspectorate notes that Paragraph 9.3.12 of the Scoping Report states that historic landfill sites are present within the study area for the land and soil aspect. In the event that the pipeline route cannot avoid all these sites, the GHG emissions from these sites during construction should be included in the assessment.
4.2.11	Paragraph 6.7.4	Carbon budget	Paragraph 6.7.4 of the Scoping Report states requirements set out in the Sixth Carbon Budget issued by the Climate Change Committee (CCC) are considered to be advice/ guidance. The Inspectorate notes that these are now statutory requirements under the Carbon Budget Order 2021.
4.2.12	Paragraph 6.8.1	Small emissions sources	Paragraph 6.8.1 of the Scoping Report states that small sources of GHG emissions have been excluded from further assessment. The Applicant should ensure that these are clearly described in the ES, including a suitable justification for why these potential sources of GHG emissions have been excluded from the assessment.
4.2.13	Paragraph 6.8.1	Avoided emissions	Paragraph 6.8.1 of the Scoping Report states that avoided GHG emissions will be calculated from the Wider Scheme on the basis that the Proposed Development cannot function in isolation. The Applicant should clearly describe which elements of the Wider Scheme have been included in the calculation of avoided GHG emissions and provide suitable justification for why these are considered integral to the effective operation of the Proposed Development.

4.3 Cultural Heritage

(Scoping Report Section 7)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.3.1	Table 7-1	Construction and Operation – Cultural heritage impacts arising from Existing Pipeline Works (excluding BVS)	The Scoping Report proposes to scope this matter out of the assessment on the basis that the Existing Pipeline Works are not included in the DCO for the Proposed Development. The Inspectorate agrees that this matter can be scoped out of the ES on the basis that likely significant effects of the Existing Pipeline Works will be considered in EIAs supporting separate TCPA applications. However, the Applicant should ensure that potential impacts of the Existing Pipeline Works are considered in the assessment of cumulative effects where significant effects are likely to occur.
4.3.2	Table 7-1	Construction and Operation – Direct physical impacts and impacts on the setting of World Heritage Sites, Registered Parks and Gardens and Registered Battlefields.	The Scoping Report proposes to scope this matter out of the assessment on the basis that there are no World Heritage Sites, Registered Parks and Gardens or Registered Battlefields located inside, or within 2km of the Proposed Development boundary. The Inspectorate agrees that this matter can be scoped out of the ES. However, the Applicant should ensure that the study area distances reported in the ES are consistent with those used in the baseline assessment (e.g. 1km study area).
4.3.3	Table 7-1	Operation - Direct physical impacts and impacts on the setting of Grade II Listed Building Ferry Bank Farm (Record Number 85249)	The Scoping Report proposes to scope this matter out of the assessment on the basis that all direct physical impacts would only be incurred during construction and there would be no change in setting during operation as the CO ₂ pipeline is located underground. The Inspectorate agrees that this matter can be scoped out of the ES on the basis that AGI, BVS and the CP System are not located within 1km of the Grade II Listed Building Ferry Bank Farm.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.3.4	Table 7-1	Operation - Direct physical impacts and impacts on the setting of Chester Canal Conservation Area (CA)	The Scoping Report proposes to scope this matter out of the assessment on the basis that direct physical impacts would only be incurred during construction and there would be no change in setting during operation as the CO ₂ pipeline is located underground. The Inspectorate agrees that this matter can be scoped out of the ES on the basis that AGI, BVS and CP Systems are not located within 1km of the Chester Canal CA.
4.3.5	Table 7-1	Operation – Impacts on the setting of designated heritage assets within 500m of the CO ₂ pipeline	The Scoping Report proposes to scope this matter out of the assessment on the basis that the CO ₂ pipeline would be located underground and there would be no change in setting during operation of the Proposed Development. However, it is not clear from the Scoping Report how much screening vegetation would be lost and not replaced and to what extent effects would persist into operation. The Inspectorate does not agree that this matter can be scoped out of assessment. Accordingly, the ES should include an assessment of this matter or information demonstrating agreement with the relevant stakeholders and the absence of a likely significant environmental effect.
4.3.6	Table 7-1	Operation – Direct physical impacts on non-designated below ground heritage assets and paleoenvironmental deposits within the Proposed Development boundary (excluding BVS)	The Scoping Report proposes to scope this matter out of the assessment on the basis that direct physical impacts would only be incurred during construction of the Proposed Development. The Inspectorate agrees that this matter can be scoped out of the ES.
4.3.7	Table 7-1	Construction and Operation – Direct physical impacts on non-designated below ground heritage	The Scoping Report proposes to scope this matter out of the assessment on the basis that below ground heritage assets and paleoenvironmental deposits would have been removed during the installation of the existing pipeline between Flint AGI and the PoA.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		assets and paleoenvironmental deposits at BVS.	<p>However, it is unclear if the easement of the existing pipeline between Flint AGI and the PoA covers the full extent of proposed BVS. In addition, the Proposed Development includes BVS situated along the Alcohols Site AGI to Flint AGI CO₂ Pipeline beyond the extent of the existing pipeline between Flint AGI and the PoA.</p> <p>Therefore, the Inspectorate does not agree that direct physical impacts on non-designated heritage assets and paleoenvironmental deposits at BVS during construction of the Proposed Development can be scoped out of the ES. Accordingly, the ES should include an assessment of this matter or information demonstrating agreement with the relevant stakeholders and the absence of a likely significant environmental effect.</p> <p>With regards to operation, the Inspectorate agrees that this matter can be scoped out of the ES on the basis that direct physical impacts to below ground heritage assets and paleoenvironmental deposits would only be incurred during construction of the Proposed Development.</p>

ID	Ref	Other points	Inspectorate's comments
4.3.8	Paragraphs 7.2.1 and 7.2.2	Study Areas	<p>The ES should clearly describe how study areas have been defined according to the sensitivity of the receiving environment and potential impacts during construction and operation of the Proposed Development. The study area for the assessment of effects on settings should be informed using an agreed ZTV. The Applicant should seek agreement with the relevant consultation bodies regarding the study areas used to inform the assessment and evidence this in the ES. The Applicant's attention is drawn to Flintshire County Council's (FCC) consultation response in this regard.</p>

ID	Ref	Other points	Inspectorate's comments
4.3.9	Paragraph 7.2.4	Temporary construction compounds	Paragraph 7.2.4 of the Scoping Report states that the 1km study area used to assess the potential impacts of the Proposed Development on the setting of above ground heritage assets was not applied to construction compounds due to their temporary nature. However, the Scoping Report does not specify if an alternative study area distance was adopted for temporary construction compounds. The Applicant should ensure that all study areas used in the assessment are clearly described and suitably justified in the ES.
4.3.10	Paragraph 7.3.5	Baseline assessment	The Applicant should seek agreement with the relevant consultation bodies regarding the data sources and heritage assets to be included in the assessment and evidence this in the ES. In addition, the Applicant should liaise with CWCC's Heritage Conservation Staff, Cheshire Archaeology Planning Advisory Service and Clwdy-Powys Archaeological Trust to advise on local historic and environmental issues. The Applicant's attention is drawn to consultation responses from Cadw, Historic England and FCC in this regard.
4.3.11	Paragraph 7.5.1	Impacts arising from drainage on below ground heritage assets	The ES should consider potential impacts to below ground heritage assets as a result of alteration to drainage patterns and subsequent damage (e.g. decomposition, destruction) to archaeological remains and deposits.
4.3.12	Paragraph 7.5.4	BVS located along Alcohols Site AGI to Flint AGI CO ₂ Pipeline	The Scoping Report appears to focus on the potential cultural heritage effects of BVS located along the existing pipeline between Flint AGI and the PoA. However, the Applicant should ensure that the ES also considers potential effects arising from all the BVS, including those located along the Alcohols Site AGI to Flint AGI CO ₂ Pipeline.
4.3.13	Paragraph 7.7.1	Technical guidance	The Inspectorate considers that the assessment of cultural heritage should also consider technical guidance set out in Technical Advice Note (TAN) 24: The Historic Environment (Wales) where relevant in

ID	Ref	Other points	Inspectorate's comments
			the ES. The Applicant's attention is drawn to FCC's consultation response in this regard (see Appendix 2 of this report).
4.3.14	Paragraph 7.7.2	Methodology – Baseline assessment	Paragraph 7.7.2 of the Scoping Report states that the baseline assessment will be informed using a Historic Environment Desk Based Assessment, site walkover survey and geophysical survey. The geophysical survey should be informed by a geomorphological survey of the study area, in the form of a desk-based geoarchaeological assessment and deposit model. The ES should include an assessment of the heritage value of hedgerows. The Applicant should seek agreement with the relevant consultation bodies regarding the approach to the baseline assessment and evidence this in the ES. The Applicant's attention is drawn to consultation responses from Historic England (HE) and FCC in this regard (see Appendix 2 of this report).
4.3.15	Paragraph 7.9	Methodology – Impacts on the setting of heritage assets	Paragraph 7.7.2 of the Scoping Report states that the qualitative assessment of the potential effects of the Proposed Development on the setting of above ground heritage assets will be undertaken in accordance with The Setting of Heritage Assets, Historic England (HE) (2017) and Setting of Historic Assets in Wales, Cadw (2017). The application of different assessment methodologies (depending on the location of the heritage asset in question) may result in comparable impacts being assessed differently in the ES. Therefore, as advised by Cadw (see Appendix 2 of this report) it is considered that the Applicant should conduct the assessment of this matter in accordance with the methodology set out in 'The Setting of Heritage Assets', HE (2017).

4.4 Biodiversity

(Scoping Report Section 8)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.4.1	Table 8-4	Ecological impacts arising from the existing pipeline works (excluding BVS)	The Inspectorate notes that the dDCO would not seek consent for any works on the existing pipeline works other than the BVS. The Inspectorate therefore agrees that these matters can be scoped out of the ES. However, the Applicant should ensure that the potential impacts of the Existing Pipeline Works are considered in the assessment of cumulative effects where significant effects are likely to occur.
4.4.2	Table 8-4	Operation - Effects on international and national designated sites, habitats of conservation importance, watercourses and waterbodies, amphibians, reptiles, terrestrial invertebrates, aquatic macroinvertebrates, macrophytes, hazel dormouse and other mammals not subject to legal protection.	The level of information in the Scoping Report on activities during operation/maintenance of the Proposed Development is limited. The mitigation measures likely to be relied on to avoid significant effects have not been described. In the absence of such information the Inspectorate is not in a position to agree to scope these matters from the assessment. Accordingly, the ES should include an assessment of these matters or the information referred to demonstrating agreement with the relevant stakeholders and the absence of a likely significant environmental effect.

ID	Ref	Other points	Inspectorate's comments
4.4.3	Paragraph 8.2	Study area	This section presents a range of study areas for the desk and survey area. However, it is not clear what the justification is for the extents listed. The ES must provide an explanation as to why the extent of the various study areas is sufficient to capture the zone of influence of the Proposed Development. Where professional judgement has

ID	Ref	Other points	Inspectorate's comments
			been relied on, some explanation of the reasoning behind that judgement should be provided.
4.4.4	Paragraph 8.2.3	List of sites and habitats covered in the desk study	The list of features covered by the desk study does not include non-statutory LWS although these are likely to be present within the study area for the Proposed Development – the response from the Canal and River Trust (see Appendix 2 of this report) indicates that the canal corridor is a County Wildlife Site. The ES should include these non-statutory sites as receptors in the assessment of ecological effects.
4.4.5	Table 8-1	Bird surveys	Table 8-1 states that surveys would be carried out in specifically selected transects but does not explain how these transects would be selected. The advice from Natural Resources Wales (NRW), Natural England (NE), CWCC and FCC identify potential effects on functionally linked land used by birds associated with the Dee Estuary Special Protection Area (SPA)/Ramsar site/Site of Special Scientific Interest (SSSI) and the Mersey Estuary SPA/Ramsar site/SSSI. The baseline data in the ES should include bird surveys for the affected land; the Applicant is advised to seek agreement from the relevant stakeholders on the extent, location and methodology of any bird surveys.
4.4.6	Table 8-1	Best practice guidelines	The Chartered Institute of Ecology and Environmental Management (CIEEM) has recently published an updated list of good practice guidance. The Applicant is encouraged to derive their methodologies from the documents included on this list.
4.4.7	Paragraph 8.4.3	Biodiversity net gain	The Inspectorate notes the intention to deliver biodiversity net gain as part of the Proposed Development. The assessment of net gain reported in the ES should be based on an appropriate metric that

ID	Ref	Other points	Inspectorate's comments
			allows a clear understanding of how gains and losses have been calculated.
4.4.8	Section 8.5	Likely significant effects	<p>It is recognised that Table 8-4 is not an exhaustive list of the likely significant effects from the Proposed Development. However, there are a number of potentially significant impacts which do not appear to have been addressed. The ES must either address them or demonstrate that their exclusion has been agreed with the relevant stakeholders:</p> <ul style="list-style-type: none"> • Section 16 of the Scoping Report refers to potential effects on groundwater as a result of de-watering during construction but this is not identified as a potential effect on ecological receptors. • Impacts associated with the potential introduction or spread of invasive non-native species. • Impacts on functionally linked land linked to SAC/SPA/Ramsar sites. • Vibration caused by the drilling of the cable route under the River Dee which could affect migratory fish species which are features of the Dee SAC. • Potential run off from spoil from the trench excavations which could affect the Dee Estuary SAC/Ramsar site/SPA/SSSI <p>The Applicant is advised to seek agreement with NRW, NE, CWCC and FCC on the appropriate receptors and effects to be included in the assessment of the effects of the Proposed Development.</p>
4.4.9	Paragraph 8.8.2	Effect of access restrictions on baseline assessment	<p>The Scoping Report states that where access restrictions prevent a full ecological baseline assessment '<i>...a precautionary principle will be applied to the assessment of any ecological features. The precautionary principle will assume a 'reasonable worst-case scenario'</i></p>

ID	Ref	Other points	Inspectorate's comments
			<p><i>informed by professional experience and knowledge, desk-based information and field-based evidence (where available) for any feature/receptor unable to be accessed or fully surveyed. Utilising the aforementioned approach will ensure that appropriate recommendations and/or mitigation are provided even though these may not later be required. Any recommendations/mitigation can thereafter be amended according once access/survey has been possible.</i> The Inspectorate is concerned that the proposed approach appears to pose a risk that the ES would not provide a robust baseline or an informed assessment of effects and likely mitigation requirements. Mechanisms are available to the Applicant to obtain access to land should this be refused. The baseline in the ES must be based on up to date baseline survey unless otherwise agreed with the relevant stakeholders.</p>

4.5 Land and Soil

(Scoping Report Section 9)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.5.1	Table 9-1	Operation - Contaminated soil leading to effects on human health	The Scoping Report seeks to scope out effects during operation on the grounds that any potential effect pathways would be addressed through a Remediation Strategy to be implemented during the construction phase. The Inspectorate notes that issues relating to contamination would be addressed during construction and therefore agrees that this matter can be scoped out of further assessment in the ES.
4.5.2	Table 9-1	Operation - Contaminants reaching controlled water receptors	Table 9-1 notes that there is the potential for contaminants to be mobilised during construction but states that there is no effect pathway which could lead to effects during operation. However, it is not clear from the information presented in the Scoping Report what evidence supports this conclusion. The Inspectorate is not therefore in a position to agree to scope these matters from the assessment. Accordingly, the ES should include an assessment of this matter or information demonstrating agreement with the relevant stakeholders and the absence of a likely significant environmental effect.
4.5.3	Table 9-1	Construction - Effects on pipes and cables from aggressive ground contaminants	The Scoping Report seeks to scope out effects as there would be insufficient time in the construction phase for contaminants to affect pipes and cables. The Inspectorate notes that effects during operation would be subject to further assessment so is content that construction effects can be scoped out of further consideration.

ID	Ref	Other points	Inspectorate's comments
4.5.4	Paragraph 9.2.1	Study area for impacts on lands and soils	The Scoping Report states that the study area will cover the red line boundary shown in Figures 3-1 to 3-7 for the new pipeline plus a 50m buffer. The Scoping Report does not provide any justification as to why this extent is deemed sufficient to capture the effects of the Proposed Development. Section 9.7 of the Scoping Report states that the assessment methodology will follow the guidance in LA 109 Geology and Soils. The use of a standard buffer does not appear to reflect the approach described in paragraph 3.5 of LA 109. The ES must clearly explain how the extent of the study area captures the effects from the Proposed Development.
4.5.5	Paragraphs 9.3.7 & 9.4.1	Possible old coal mining works	The Scoping Report notes that a section of the pipeline in Wales is located within a Coal Mining Reporting Area and that coal mining related stability issues will be assessed in line with best practice guidance. The Applicant's attention is drawn to the comments from the Coal Authority contained in Appendix 2 of this report. The ES should include an assessment of any risks associated with coal mining structures/voids that would be affected by the Proposed Development.
4.5.6	Paragraph 9.4.1	Remediation strategy	The Scoping Report states that a suitable remediation strategy will be agreed with the relevant local authorities. If this strategy is going to be relied on to avoid significant environmental effects the ES must include an outline of the proposed strategy as a minimum to demonstrate that delivery of the remediation would be feasible.
4.5.7	Section 9.7	Baseline data gathering	The Scoping Report provides a brief outline of the methods that would be used to collect baseline data. A targeted Agricultural Land Classification survey is proposed along with an intrusive ground investigation.

ID	Ref	Other points	Inspectorate's comments
			The ES must explain the rationale behind any targeting of surveys; where surveys do not cover the whole area affected by the Proposed Development the ES should explain why the baseline information is adequate to capture the existing situation.
4.5.8	Table 9-1	Mineral Safeguarding Areas	Table 9-1 identifies potential effects on sand and gravel extraction sites in the CWCC Local Plan. FCC have advised that sites in Flintshire may also be affected (see Appendix 2 of this report), particularly in the vicinity of the Flint AGI. The ES should identify and assess effects on all the Mineral Safeguarding Areas affected by the Proposed Development.
4.5.9	-	Disposal of excavated materials	The Scoping Report does not explain how material excavated during the construction of the Proposed Development would be handled or if off-site disposal would be required. This matter must be addressed in the ES and any significant environmental effects assessed.

4.6 Landscape and Visual

(Scoping Report Section 10)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.6.1	Table 10-2	Landscape and visual impacts arising from existing pipeline works, excluding BVS	The Inspectorate notes that the dDCO would not seek consent for any works on the existing pipeline other than in respect of the BVS. The Inspectorate therefore agrees that this matter can be scoped out of the ES. However, the Applicant should ensure that the potential impacts of the Existing Pipeline Works are considered in the assessment of cumulative effects where significant effects are likely to occur.
4.6.2	Table 10-2	Clwydian Range and Dee Valley Area of Outstanding Natural Beauty (AONB)	The Scoping Report seeks to scope out an assessment of effects on the AONB as it is beyond the study area; in addition the extract from the Google Viewshed Tool (Figure 10-2 of the Scoping Report) shows there is no inter-visibility between the AONB and the Flint AGI (based on a maximum height of 9m for the AGI). The BVS would be located 3km away from the nearest AONB boundary and would have a maximum height of 3m. The Inspectorate is satisfied that the Proposed Development is sufficiently distant from the AONB to avoid significant effects. However, if the height or locations of the AGI or BVS alter as the project design evolves then the ES should either include an assessment of effects on the AONB or a justification as to why significant effects on the AONB would not arise.
4.6.3	Table 10-2	Receptors beyond 2km	The Scoping Report seeks to scope out an assessment of effects on receptors over 2km from the Proposed Development, based on the results of the initial desktop review and site visit. The Inspectorate agrees that this matter can be scoped out of the assessment. However, if the height or locations of the AGI or BVS alter as the project design evolves then the ES should either include an

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			assessment of effects on receptors beyond 2km or a justification as to why significant effects on these receptors would not arise.
4.6.4	Table 10-2	Receptors beyond 500m of the BVS along the existing Flint – PoA pipeline	The Scoping Report seeks to scope out assessment of effects on receptors beyond 500m of the BVS on the basis of the initial desktop review and due to the limited height of these structures. The Inspectorate agrees that this matter can be scoped out of the assessment. However, if the height or locations of the BVS alter as the project design evolves then the ES should either include an assessment of effects on receptors beyond 500m of the BVS or a justification as to why significant effects on these receptors would not arise.

ID	Ref	Other points	Inspectorate's comments
4.6.5	Paragraph 10.3.9	Visual amenity receptors	It is not clear from the Scoping Report if canal users have been identified as receptors in addition to residents and footpath users. The ES should either include effects on canal users or provide a justification as to why they would not experience significant effects.
4.6.6	Table 10-1	Viewpoint locations	The Applicant is advised to finalise the list of viewpoint locations in conjunction with relevant stakeholders including the local authorities and NRW.
4.6.7	Paragraphs 10.7.6 & 10.8.1	Assessment of effects from lighting	The Scoping Report states that the need for the assessment of lighting effects on visual amenity during the construction phase would be considered when ' <i>...further details become available at a later date</i> '. The ES should contain an assessment of lighting effects on visual amenity and landscape character during construction and

ID	Ref	Other points	Inspectorate's comments
			operation or a justification as to why significant effects would not arise.

4.7 Major Accidents and Disasters

(Scoping Report Section 11)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.7.1	Table 11-3/Appendix B	<ul style="list-style-type: none"> • Earthquakes • Volcanic activity • Landslides • Sinkholes • Tsunamis • Avalanches • Thunderstorms • Wave surges • Droughts • Solar flares • Solar energetic particles • Coronal mass ejections • Fog • Wildfires • Disease epidemics • Animal diseases • Public demonstrations resulting in violence 	<p>The Inspectorate is satisfied, based on the reasoning and evidence presented in the Scoping Report that risks to or from the Proposed Development can be excluded from these matters.</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		<ul style="list-style-type: none"> • Widespread damage to societies and economies • The need for large scale humanitarian assistance, • Hindrance to such relief from political or military constraints • Security risks for relief workers • Famine • Population displacement • Dam breaches • Failures in the water supply or sewage systems • Terrorist attacks • Bridge failure • Mast and tower collapse • Property or bridge demolition accidents • Tunnel failure/fire 	
4.7.2	Table 11-3/Appendix B	<ul style="list-style-type: none"> • Cyclones, hurricanes, typhoons, storms and gales • Extreme temperatures 	The Scoping Report seeks to scope out effects from these events on the grounds that cyclones, hurricanes and typhoons do not occur in the UK. Damage from storms and gales to the AGI and BVS is possible but the design of these structures takes the UK climate into account. The risk is stated not to be significantly different to other

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>infrastructure in the locality. A similar statement is made about the vulnerability of the Proposed Development to extreme temperatures.</p> <p>However, the Scoping Report does not provide evidence to support the statements about the design of the Proposed Development. It is not clear to the Inspectorate how relevant it is that the level of risk would be the same as for other infrastructure in the locality – it is the level of risk to or from the Proposed Development that should be addressed in the ES. The Inspectorate is therefore not in a position to agree to scope out these matters from the assessment. Accordingly, the ES should include an assessment of these matters or information demonstrating agreement with the relevant stakeholders and the absence of a likely significant environmental effect.</p>
4.7.3	Table 11-3/Appendix B	Poor air quality	<p>The Scoping Report seeks to scope out these matters on the grounds that construction effects would be temporary and would be subject to mitigation. No significant effects on local air quality are predicted during the operational phase. The Inspectorate notes that the effects on air quality will be considered elsewhere in the ES and are unlikely to lead to risk to or from the Proposed Development in terms of major accidents or disasters. Accordingly, the Inspectorate agrees this matter can be scoped out of further consideration in this section of the ES.</p>
4.7.4	Table 11-3/Appendix B	Nuclear	<p>The Scoping Report seeks to scope out risks to the Proposed Development on the grounds that nuclear sites in the UK operate to a very high safety standard and there are no nuclear sites within a 5km corridor along the Proposed Development. However, the response from the Office of Nuclear Regulation (see Appendix 2 of this report) identifies the Capenhurst nuclear licensed site which is within 5km of the Proposed Development. The Inspectorate does not therefore agree to scope out this matter from the assessment. Accordingly, the</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			ES should include an assessment of this matter or information demonstrating agreement with the relevant stakeholders and the absence of a likely significant environmental effect.
4.7.5	Table 11-3	Mines and storage caverns	The Scoping Report states that part of the Proposed Development is located in a Coal Mining Reporting area because of the history of mining in the area. The risk of stability issues associated with the possible presence of shallow workings has been excluded on the grounds that any potential problems would be addressed in line with Coal Authority guidance. The Inspectorate notes that the effects from historic mine workings should be addressed elsewhere in the ES. Accordingly, the Inspectorate agrees this matter can be scoped out of further consideration in this section of the ES.
4.7.6	Table 11-3	Road traffic accidents	The Scoping Report seeks to scope out risks from transport accidents on the grounds that construction traffic would be managed and where necessary effects would be mitigated to minimise the risk of causing accidents. Traffic levels during operation are not predicted to be significant. The pipeline would be buried to a depth that would make it unlikely that it would be affected by road traffic accidents. The AGI and BVS would be located at least 100m from major roads and are within a fenced compound so are unlikely to be affected during a major accident. The Inspectorate notes that the effects on road safety will be considered elsewhere in the ES and are unlikely to lead to risk to or from the Proposed Development in terms of major accidents or disasters. Accordingly, the Inspectorate agrees this matter can be scoped out of further consideration in the ES.
4.7.7	Table 11-3/Appendix B	Rail traffic accidents	The Scoping Report seeks to scope out increased risk of rail accidents because trenchless rail crossing techniques would be used to avoid affecting railway operation. There would also be close liaison with the

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>rail operator during works close to or under rail lines. Risks of long-term impacts on the pipeline from subsidence and vibration would be addressed through the design of the pipeline. As the pipeline would be buried and the AGI and BVS would be a long distance from the railway lines, rail accidents are not expected to pose a significant risk to the Proposed Development. The Inspectorate agrees this matter can be scoped out of further consideration in the ES.</p>
4.7.8	Table 11-3/Appendix B	Accidents on the Shropshire Union Canal	<p>The Scoping Report seeks to scope out risks to or from the Proposed Development crossing the canal on the grounds that trenchless crossing techniques would be used. There would also be close liaison with the canal operator during construction. As the pipeline would be a sealed and buried feature the Scoping Report considers that significant effects on or from the canal waters would not occur during operation. The Inspectorate notes that the Canal and River Trust do not agree that, based on the information presently available, effects on the canal should be scoped out (see Appendix 2 of this report). Accordingly, the ES should include an assessment of these matters or information demonstrating agreement with the relevant stakeholders and the absence of a likely significant environmental effect. The ES should also assess impacts on the safety of canal users and the structural integrity of the canal unless otherwise agreed with the Canal and River Trust.</p>
4.7.9	Table 11-3/Appendix B	Aviation	<p>The Scoping Report notes that Hawarden Airport is located 530m south east of the Proposed Development. It states that as the pipeline would be buried during operation the Proposed Development would be protected against ground aviation incidents and is unlikely to contribute to aviation accidents. The Inspectorate agrees that effects on or from aviation can be scoped out of further assessment.</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.7.10	Table 11-3/Appendix B	Accidental pollution releases to air	The Scoping Report seeks to scope out effects during construction as dust and other emissions would be temporary and either controlled under relevant legislation or subject to mitigation. The Inspectorate notes that this matter would be considered in other parts of the ES and is unlikely to lead to significant environmental effects so are satisfied that this matter can be scoped out of this section of the ES.
4.7.11	Table 11-3/Appendix B	Accidental pollution releases to land or water	The Scoping Report seeks to scope these matters out on the grounds that standard control measures would be implemented to manage risks of spills or leaks. The Inspectorate notes that these matters will be considered elsewhere in the ES and are satisfied that these matters can be scoped out of this section of the ES.
4.7.12	Table 11-3	Flood defence failure	The Scoping Report seeks to scope out effects from flood defence failure on the grounds that the Proposed Development would be designed to include allowances for further climate change predictions. The risks to the Alcohols Site and Grinsome Road AGIs would benefit from the existing flood defences. The risk to these structures would be no greater than that for similar major hazard installations protected by the same defences. The Inspectorate notes that flood risk will be considered elsewhere in the ES so agrees that this matter can be scoped out of this section of the ES.

ID	Ref	Other points	Inspectorate's comments
4.7.13	Section 11.2	Study area	The Scoping Report defines the study area on the basis of man-made or natural features which could pose a risk to the Proposed Development. These are stated to be based on information held by the Applicant and their consultant but there is no further explanation or justification. The ES must explain the reasoning and/or evidence

ID	Ref	Other points	Inspectorate's comments
			used to determine these distances – a simple reference to professional judgement will not be adequate.
4.7.14	Section 11.4	Design, mitigation and enhancement measures	Where measures are designed to avoid or reduce significant effects these should be clearly described. If reliance is being placed on the provisions in the CEMP then as a minimum an outline CEMP should be provided which contains details of any measures referred to in the ES.

4.8 Materials and Waste

(Scoping Report Section 12)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.8.1	Table 12-8	Construction and Operation – Impacts arising from the Existing Pipeline Works (excluding BVS)	The Scoping Report proposes to scope this matter out of the assessment on the basis that the Existing Pipeline Works are not included in the DCO for the Proposed Development. The Inspectorate agrees that this matter can be scoped out of the ES on the basis that likely significant effects of the Existing Pipeline Works will be considered in EIAs supporting separate TCPA applications. However, the Applicant should ensure that potential impacts of the Existing Pipeline Works are considered in the assessment of cumulative effects where significant effects are likely to occur.
4.8.2	Table 12-8	Construction and Operation – Impacts arising from the extraction of raw resources and the manufacture of products	The Scoping Report proposes to scope this matter out of the assessment on the basis that impacts and effects arising from the extraction of raw resources and the manufacture of products cannot be assured with any accuracy. The Inspectorate does not consider the absence or quality of available information to be an appropriate basis for scoping matters out of the assessment. Notwithstanding this, the Inspectorate agrees that this matter can be scoped out, on the basis that the nature and quantity of materials and resources required to facilitate construction and operation of the Proposed Development will be reported in the ES.
4.8.3	Table 12-8	Operation - Impacts arising from the consumption of material resources	The Scoping Report proposes to scope this matter out of the assessment on the basis that impacts associated with routine repair and maintenance activities are considered to be minimal. The Inspectorate agrees that this matter can be scoped out of the ES.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.8.4	Table 12-8	Operation - Impacts arising from the disposal and recovery of waste	The Scoping Report proposes to scope this matter out of the assessment on the basis that materials and waste impacts associated with routine repair and maintenance activities are considered to be minimal. The Inspectorate agrees that this matter can be scoped out of the ES.
4.8.5	Table 12-8	Construction and Operation - the requirement for a lifecycle assessment (including embodied carbon and water) of materials, site arisings and waste.	<p>The Scoping Report proposes to scope this matter out of the assessment on the basis that the effort and resources required to undertake a lifecycle assessment of these elements is deemed disproportionate and offers little benefit to the assessment of significance.</p> <p>The Inspectorate does not consider the effort and resources required to undertake environmental assessment to be an appropriate basis for scoping matters out of the assessment. However, the need for proportionate EIA is acknowledged.</p> <p>It is noted that Table 6-3 of the Scoping Report states that embodied emissions arising from the manufacture and transport of raw materials to suppliers during construction of the Proposed Development has been scoped into the assessment. On this basis the Inspectorate agrees that the requirement for a lifecycle assessment of materials, site arisings and waste can be scoped out.</p> <p>With regards to operation, given that potential effects will be limited to inspections and maintenance activities, the Inspectorate agrees that this matter can be scoped out of the ES.</p>
4.8.6	Table 12-8	Construction and Operation – Impacts arising from the transportation of materials and	The Scoping Report proposes to scope this matter out of the assessment on the basis that impacts arising from the transportation of materials and waste to and from the Proposed Development site will be considered in the assessment of air quality, climate, traffic and

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		waste to and from the Proposed Development site	transport and noise and vibration. The Inspectorate agrees that this matter can be scoped out of the ES on the basis that likely significant effects are considered in the relevant aspect chapters of the ES.
4.8.7	Table 12-8	Construction and Operation - Impacts on human health and controlled waters as a result of contaminated site arisings	<p>The Scoping Report proposes to scope this matter out of the assessment on the basis that impacts arising from the transportation of materials and waste to and from the Proposed Development site will be considered in the assessment of geology and soils. The Inspectorate assumes the Applicant is referring to the assessment of Land and Soil. The Inspectorate agrees that this matter can be scoped out of the ES on the basis that likely significant effects are considered in the relevant aspect chapters of the ES, including the assessment of Land and Soil referred to in the Scoping Report.</p> <p>The Applicant should seek agreement with the relevant consultation bodies regarding the transport and disposal of contaminated materials during construction of the Proposed Development. The Applicant's attention is drawn to the NRW consultation response in this regard (see Appendix 2 of this report).</p>

ID	Ref	Other points	Inspectorate's comments
4.8.8	Table 12-7	Waste stockpiling/storage	Table 12-7 of the Scoping Report states that the Applicant may identify areas for stockpiling and storing of waste during construction of the Proposed Development. The Applicant should ensure that the location and extent of waste stockpiles/ storage areas are clearly described in the ES and provide an assessment of this matter where significant effects are likely to occur.

4.9 Noise and Vibration

(Scoping Report Section 13)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.9.1	Table 13-1	Construction and Operation – Noise and vibration impacts arising from the Existing Pipeline Works (excluding BVS)	The Scoping Report proposes to scope this matter out of the assessment on the basis that the Existing Pipeline Works are not included in the DCO for the Proposed Development. The Inspectorate agrees that this matter can be scoped out of the ES on the basis that likely significant effects of the Existing Pipeline Works will be considered in EIAs supporting separate TCPA applications. However, the Applicant should ensure that potential impacts of the Existing Pipeline Works are considered in the assessment of cumulative effects where significant effects are likely to occur.
4.9.2	Table 13-1	Operation – Noise impacts arising from road traffic movements	The Scoping Report proposes to scope this matter out of the assessment on the basis that road traffic movements during operation of the Proposed Development are not expected to adversely affect noise sensitive receptors. The Inspectorate agrees that the level of traffic associated with the operation and maintenance of the Proposed Development is unlikely to give rise to significant effects and agrees this matter can be scoped out of further assessment.
4.9.3	Table 13-1	Operation – Vibration impacts arising from operation of the Proposed Development	The Scoping Report proposes to scope this matter out of the assessment on the basis that operation of the Proposed Development is not expected to generate significant levels of vibration. However, the potential sources and magnitude of vibration produced during operation of the Proposed Development remains uncertain at this stage. In addition, there is further uncertainty regarding the location and design of some elements of the Proposed Development (e.g. AG and BVS) and their proximity to sensitive receptors. Therefore, the Inspectorate does not agree that this matter can be scoped out of the

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			assessment. Accordingly, the ES should include an assessment of this matter or information demonstrating agreement with the relevant stakeholders and the absence of a likely significant environmental effect.

ID	Ref	Other points	Inspectorate's comments
4.9.4	Paragraph 13.4.3	Mitigation	Paragraph 13.4.3 of the Scoping Report describes mitigation measures that may be implemented during construction and operation of the Proposed Development, including the installation of acoustic screening. The ES should address the potential adverse effects of mitigation measures in the relevant aspect chapters of the ES (e.g. Landscape and Visual) where significant effects are likely to occur.
4.9.5	Paragraph 13.9	Technical guidance	The Inspectorate considers that the assessment of noise and vibration should also consider technical guidance set out in Technical Advice Note (TAN) 11: Noise (Wales) where relevant in the ES. The Applicant's attention is drawn to FCC's consultation response in this regard (see Appendix 2 of this report).

4.10 Population and Human Health

(Scoping Report Section 14)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.10.1	Table 14.3	Construction - Effects arising from existing pipeline works	The Inspectorate notes that the dDCO would not seek consent for any works on the existing pipeline works other than the BVS. The Inspectorate therefore agrees that these matters can be scoped out of the ES. However, the Applicant should ensure that the potential impacts of the Existing Pipeline Works are considered in the assessment of cumulative effects where significant effects are likely to occur.
4.10.2	Table 14.3	Operation - Private property and housing during	The Scoping Report scopes in effects during construction but does not make any reference to any potential effects during operation. Given that the location and final dimensions of the AGIs and BVS have yet to be determined the Inspectorate does not have sufficient evidence to agree to scope out this matter. Accordingly, the ES should include an assessment of this matter or demonstrate agreement with the relevant stakeholders and the absence of a likely significant environmental effect.
4.10.3	Table 14.3	Operation - Community land and assets	The Scoping Report seeks to scope out this matter from further assessment on the grounds that access to community land and assets will be permanently maintained. The landscape and visual impacts from the Proposed Development will be assessed elsewhere in the ES. The Inspectorate agrees that significant effects are unlikely and therefore this matter can be scoped out of further assessment in this section of the ES.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.10.4	Table 14.3	Construction and Operation - Agricultural land holdings	The Scoping Report seeks to scope out this matter from further assessment on the grounds that effects during construction are likely to be minimal. Land and hedgerows affected by construction would be reinstated so operational effects are predicted to be minimal. However, the dimensions and locations of the AGI and BVS have yet to be finalised. The Inspectorate does not have sufficient evidence to agree to scope this matter out of further assessment. Accordingly, the ES should include an assessment of this matter or demonstrate agreement with the relevant stakeholders and the absence of a likely significant environmental effect.
4.10.5	Table 14.3	Operation - Public access for walkers, cyclists and horse riders	The Scoping Report seeks to scope out this matter from further assessment on the grounds that any affected Public Rights of Way (PRoW) would be diverted. The Inspectorate agrees that this matter can be scoped out of further assessment. However, this is on the basis that the assessment of effects at the construction stage should clearly demonstrate how PRoW would be diverted, whether the diversion route would be as accessible for users as the section of PRoW to be lost and the feasibility of delivering the diversion.
4.10.6	Table 14.3	Operation - Human health	The Scoping Report seeks to scope out this matter from further assessment on the grounds that significant effects are unlikely. However, as the locations and dimensions of the AGI and BVS have yet to be finalised and the noise and air quality assessments have not been completed, the Inspectorate does not have sufficient evidence to conclude that significant effects would not arise. Accordingly, the ES should include an assessment of this matter or demonstrate agreement with the relevant stakeholders and the absence of a likely significant environmental effect.

ID	Ref	Other points	Inspectorate's comments
4.10.7	Paragraph 14.2.2	Study area	The Scoping Report identifies study areas based on the guidance in DMRB LA 112 Population and Human Health. The Scoping Report states that although the DMRB is guidance on the assessment of road schemes it provides the best methodology ' <i>in the context of the Proposed Development</i> ' but does not explain why this is the case. The ES should provide a justification as to why this methodology is appropriate for the assessment of effects on the Proposed Development.
4.10.8	Paragraph 14.3.5	Community land and assets	It is noted that the list of community land and assets receptors is not exhaustive. If any healthcare facilities are located in the study area or access to such facilities would be affected then these should also be included as receptors in the assessment.

4.11 Traffic and Transport

(Scoping Report Section 15)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.11.1	Table 15-2	Construction and Operation – Impacts arising from the Existing Pipeline Works (excluding BVS)	The Scoping Report proposes to scope this matter out of the assessment on the basis that the Existing Pipeline Works are not included in the DCO for the Proposed Development. The Inspectorate agrees that this matter can be scoped out of the ES on the basis that likely significant effects of the Existing Pipeline Works will be considered in EIAs supporting separate TCPA applications. However, the Applicant should ensure that potential impacts of the Existing Pipeline Works are considered in the assessment of cumulative effects where significant effects are likely to occur.
4.11.2	Table 15-2	Operation – Impacts arising from severance, driver delay, pedestrian delay, pedestrian amenity, fear and intimidation and highway safety	The Scoping Report proposes to scope this matter out of the assessment on the basis that operation of the Proposed Development would not be likely to result in increased traffic flow or changes to traffic composition. The Inspectorate agrees that the level and type of traffic associated with the maintenance of the Proposed Development are unlikely to lead to significant effects and agrees that this matter can be scoped out of further assessment.

ID	Ref	Other points	Inspectorate's comments
4.11.3	Paragraph 15.3.9	PRoW, Sustrans Cycle Network and Wales Coast Path	The Applicant should describe the current usage and condition of each PRoW, Sustrans Cycle Network and Wales Coast Path identified in the baseline assessment and how these contribute to the use of community land and assets within the study area for the Proposed Development. In addition, the Applicant should seek agreement with the relevant consultation bodies regarding the approach to the

ID	Ref	Other points	Inspectorate's comments
			assessment and mitigation, including requirements for temporary and/or permanent diversions of existing PRoW. The Applicant's attention is drawn to consultation responses from CWCC and FCC in this regard (see Appendix 2 of this report).
4.11.4	Paragraph 15.8.20	Technical guidance	The Scoping Report states that the thresholds of magnitude have been based on the DMRB guidance (Volume 11, Section 3, Part 8). However, the Inspectorate notes that this technical guidance has been withdrawn. The Applicant should explain why this technical guidance remains suitable for the purposes of the assessment in the ES.
4.11.5	Paragraphs 15.3.7 and 15.3.8	Figures – road and rail network	The Inspectorate notes that the Scoping Report does not include a figure illustrating the road and rail networks likely to be affected during construction of the Proposed Development. The Applicant should provide a figure in the ES showing the affected road and rail network, including the locations of road crossings, in-carriageway works and rail crossings in the ES.
4.11.6	N/A	Construction traffic	The Inspectorate notes that construction traffic is likely to pass through or be in close proximity to multiple residential areas, including small towns and villages. The Applicant should demonstrate that the route for construction traffic has considered the suitability of roads for HGVs, particularly those transporting AILs. The Applicant's attention is drawn to consultation responses from Northop Community Council and Mollington Parish Council in this regard (see Appendix 2 of this report).
4.11.7	N/A	A55 'Red Route'	The Inspectorate notes that FCC have advised that the proposed A55 'Red Route' relief road is located in proximity to the Proposed Development. Although this application is currently on hold by the Welsh Government, the Applicant should consult with Mid Wales

ID	Ref	Other points	Inspectorate's comments
			Trunk Road Agency regarding the potential impact of the Proposed Development on the delivery of the A55 'Red Route' project. In addition, the Applicant should consider this project in the assessment of cumulative effects where significant effects are likely to occur.

4.12 Water Resources and Flood Risk

(Scoping Report Section 16)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.12.1	Table 16-4	Construction and Operation – Water and flooding impacts arising from Existing Pipeline Works (excluding BVS)	The Scoping Report proposes to scope this matter out of the assessment on the basis that the Existing Pipeline Works are not included in the DCO for the Proposed Development. The Inspectorate agrees that this matter can be scoped out of the ES on the basis that likely significant effects of the Existing Pipeline Works will be considered in EIAs supporting separate TCPA applications. However, the Applicant should ensure that potential impacts of the Existing Pipeline Works are considered in the assessment of cumulative effects where significant effects are likely to occur.
4.12.2	Table 16-4	Construction and Operation – Ordinary watercourses upstream or upslope of the Proposed Development	The Scoping Report proposes to scope this matter out of the assessment on the basis that the Proposed Development would not directly or indirectly affect these waterbodies. The Inspectorate agrees that this matter can be scoped out of the ES.
4.12.3	Table 16-4	Construction and Operation – Ponds and lakes upslope of the Proposed Development	The Scoping Report proposes to scope this matter out of the assessment on the basis that the Proposed Development would not directly or indirectly affect these waterbodies. The Inspectorate agrees that this matter can be scoped out of the ES.
4.12.4	Table 16-4	Construction and Operation – Impacts to public water supply	The Scoping Report proposes to scope this matter out of the assessment on the basis that the Proposed Development is not anticipated to cause this effect. It is noted that impacts on Principal and Secondary A Aquifers during construction and operation would be subject to further assessment and therefore any implications for the

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			<p>public water supply would be considered in the ES. The Inspectorate agrees that this matter can be scoped out of the ES.</p> <p>With regard to operation, on the basis that the potential effects would be limited to maintenance and inspection activities, the Inspectorate agrees that this matter can be scoped out of the ES.</p>
4.12.5	Table 16-4	Construction and Operation – Impacts to Manchester Ship Canal	<p>The Scoping Report proposes to scope this matter out of the assessment on the basis that Manchester Ship Canal is located sufficiently downstream of the Proposed Development for potential indirect impacts to be insignificant. However, Figure 3-2 of the Scoping Report suggests that the Manchester Ship Canal runs relatively close to the indicative location of the Grinsome Road AGI. It is not possible to determine from the evidence in the Scoping Report whether any hydrological connection exists between the AGI location and the Manchester Ship Canal. The Inspectorate does not have sufficient evidence to agree to scope this matter out of further assessment. Accordingly, the ES should include an assessment of this matter or demonstrate agreement with the relevant stakeholders and the absence of a likely significant environmental effect.</p>

ID	Ref	Other points	Inspectorate's comments
4.12.6	Paragraph 16.2.5	WFD water bodies	<p>Paragraph 16.2.5 of the Scoping Report states that the assessment will include WFD water bodies within the Proposed Development boundary and those likely to be affected. However, the Scoping Report does not specify a study area in relation to WFD water bodies or cross reference an existing study area (e.g. 5km downstream for surface water features). The Applicant should clearly state the study</p>

ID	Ref	Other points	Inspectorate's comments
			area and criteria used to identify WFD water bodies to be included in the WFD assessment in the ES.
4.12.7	Paragraph 16.3.1	Strategic Flood Risk Assessment (SFRA) and Strategic Flood Consequence Assessment (SFCA)	In addition to CWCC's SFRA, the Applicant should also consider the conclusions reached in the Flintshire SFCA where relevant in the ES.
4.12.8	Paragraph 16.7.8	Groundwater impacts	The Scoping Report states that the assessment of impacts on the water environment will follow the guidance in DMRB LA 113. The Inspectorate notes that this guidance includes a requirement for groundwater assessment methods to be agreed with the relevant consultation body. Accordingly, the ES should demonstrate that the methods used to assess effects on groundwater have been agreed as far as possible with relevant stakeholders. The Applicant's attention is drawn to consultation responses from NRW, the EA and CWCC in this regard (see Appendix 2 of this report).
4.12.9	Paragraph 16.3.18	FRA/FCA	Paragraph 16.3.18 of the Scoping Report states that the Proposed Development is located in Zone C1 (benefitting from flood defences) and that the Dee Estuary and River Gowy flood plains are at risk of coastal/tidal flooding. The FRA/FCA should include an assessment of the potential impacts of breach and overtopping events on the Proposed Development where significant effects are likely to occur.
4.12.10	Paragraphs 3.5.15 and 16.3.17.	Flood Zones	Paragraph 3.5.15 of the Scoping Report states that Grinsome Road AGI is located in Flood Zone 3. However, the Scoping Report does not state if this area is high probability (Flood Zone 3a) or functional floodplain (Flood Zone 3b). In addition, Paragraph 16.3.17 of the Scoping Report does not describe the flood risk posed to AGIs and only refers to Flood Zone 2, C2 and C1. The Applicant should ensure that they provide an accurate and consistent description of the baseline flood risk for each element of the Proposed Development in

ID	Ref	Other points	Inspectorate's comments
			the ES. This description should clearly distinguish between Flood Zones, including Flood Zones 3a and 3b where relevant.
4.12.11	Paragraph 16.4.4	Temporary diversions or pumping of minor watercourses	<p>Paragraph 16.4.4 of the Scoping Report states that the hydrological regime of minor watercourses will be maintained through temporary diversion or pumping. The Applicant should provide a clear description of the location, extent, design and works associated with the diversion or pumping of minor watercourses in the ES and provide an assessment of this matter where significant effects are likely to occur.</p> <p>The ES should demonstrate that reasonable attempts have been made to avoid or reduce impacts on diverted watercourses, through the design of the Proposed Development and/or appropriate mitigation measures.</p>
4.12.12	Paragraphs 16.4.7 and 16.4.10	Sustainable Drainage Systems (SuDS)	<p>Paragraph 16.4.7 of the Scoping Report states that SuDS requirements will be followed for AGIs. The Inspectorate considers that SuDS requirements should be considered in relation to each element of the Proposed Development, including BVS and the CP system, where the drainage environment is likely to be affected. The Applicant should seek agreement with the relevant consultation bodies regarding the location, design and management of SuDS for the Proposed Development and evidence this in the ES. The Applicant's attention is drawn to consultation responses from Dŵr Cymru (Welsh Water), United Utilities, FCC and CWCC in this regard (see Appendix 2 of this report).</p>
4.12.13	Paragraph 16.5.2	Dewatering	<p>Paragraph 16.5.2 of the Scoping Report states that dewatering may be required during construction of the Proposed Development. The Applicant should explain of how and where dewatering will be undertaken and provide an assessment of this matter where significant effects are likely to occur in the ES. In addition, the</p>

ID	Ref	Other points	Inspectorate's comments
			Applicant should describe the requirements for additional abstraction licenses and a Dewatering Management Plan in the ES. The Applicant's attention is drawn to consultation responses from NRW and the Canal and River Trust in this regard (see Appendix 2 of this report).
4.12.14	Paragraph 16.7.21	Sensitivity of receptors	Paragraph 16.7.21 of the Scoping Report states that no 'Very High' category of receptor sensitivity is proposed. Where the assessment deviates from established guidance, the Applicant should ensure that this is clearly stated and suitably justified in the ES. The Applicant should seek agreement with the relevant consultation bodies regarding the methodology used in the assessment and evidence this in the ES.
4.12.15	Paragraph 16.5.2	Existing water and sewerage infrastructure	The Inspectorate notes that there is existing water supply and sewerage infrastructure located within or in close proximity to the Proposed Development boundary. The ES should demonstrate that reasonable attempts have been made to avoid or reduce impacts on the existing water supply and sewerage infrastructure, through the design and layout of the Proposed Development. The location of the existing water supply and sewerage infrastructure should be clearly illustrated in appropriate figures in the ES. The Applicant's attention is drawn to consultation responses from Dŵr Cymru (Welsh Water) and United Utilities in this regard (see Appendix 2 of this report).
4.12.16	N/A	Groundwater Dependent Terrestrial Ecosystems (GWDTes)	The Applicant should provide an assessment of the potential effects of the Proposed Development on GWDTes where significant effects are likely to occur and cross reference the ecology chapter (and vice-versa) where relevant in the ES.
4.12.17	N/A	Potential sources of contamination	The Applicant should seek agreement with the relevant consultation bodies regarding the potential sources of contamination included in

ID	Ref	Other points	Inspectorate's comments
			the assessment and evidence this in the ES. The Applicant's attention is draw to NRW's consultation response in this regard (see Appendix 2 of this report)
4.12.18	N/A	Potential impacts arising from operation of the Proposed Development	The Applicant should consider potential impacts arising from the CO ₂ pipeline acting as a preferential drainage pathway and the compaction of soils during operation of the Proposed Development in relevant aspect chapters of the ES, and provide an assessment of these matters where significant effects are likely to occur. The Applicant's attention is drawn to consultation responses from NRW and Mollington Parish Council in this regard (see Appendix 2 of this report).

4.13 Cumulative Effects

(Scoping Report Section 117)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
4.13.1		N/A	No matters have been proposed to be scoped out

ID	Ref	Other points	Inspectorate's comments
4.13.2	17.2.11	Search area for other NSIPs and other projects	The Scoping Report states that based on professional judgement the initial search area will be based on 15km for Nationally Significant Infrastructure Projects and 2km for other projects. It is appreciated that this may be an initial step in the process. However, the ES should demonstrate how the projects identified in the long list reflect the zones of influence of the Proposed Development as advised in the Inspectorate's Advice Note 17 Cumulative Effects Assessment.

5. INFORMATION SOURCES

5.0.1 The Inspectorate's National Infrastructure Planning website includes links to a range of advice regarding the making of applications and environmental procedures, these include:

- Pre-application prospectus⁵
- Planning Inspectorate advice notes⁶:
 - Advice Note Three: EIA Notification and Consultation;
 - Advice Note Four: Section 52: Obtaining information about interests in land (Planning Act 2008);
 - Advice Note Five: Section 53: Rights of Entry (Planning Act 2008);
 - Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements;
 - Advice Note Nine: Using the 'Rochdale Envelope';
 - Advice Note Ten: Habitats Regulations Assessment relevant to nationally significant infrastructure projects (includes discussion of Evidence Plan process);
 - Advice Note Twelve: Transboundary Impacts;
 - Advice Note Seventeen: Cumulative Effects Assessment; and
 - Advice Note Eighteen: The Water Framework Directive.

5.0.2 Applicants are also advised to review the list of information required to be submitted within an application for Development as set out in The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009.

⁵ The Planning Inspectorate's pre-application services for applicants. Available from: <https://infrastructure.planninginspectorate.gov.uk/application-process/pre-application-service-for-applicants/>

⁶ The Planning Inspectorate's series of advice notes in relation to the Planning Act 2008 process. Available from: <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>

APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED

TABLE A1: PRESCRIBED CONSULTATION BODIES⁷

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Welsh Ministers	Welsh Government
The Health and Safety Executive	Health and Safety Executive
The National Health Service Commissioning Board	NHS England
The relevant Clinical Commissioning Group	NHS Cheshire Clinical Commissioning Group (CCG)
Natural England	Natural England
The Historic Buildings and Monuments Commission for England	Historic England
The relevant fire and rescue authority	Cheshire Fire and Rescue Service
	North Wales Fire and Rescue Service
The relevant police and crime commissioner	Police and Crime Commissioner for Cheshire
	North Wales Police and Crime Commissioner
The relevant parish council(s) or, where the application relates to land [in] Wales or Scotland, the relevant community council	Cyngor Cymuned Ysceifiog Community Council
	Caerwys Town Council
	Whitford Community Council
	Halkyn Community Council
	Flint Community Council
	Northop Community Council

⁷ Schedule 1 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (the 'APFP Regulations')

SCHEDULE 1 DESCRIPTION	ORGANISATION
	Sealand Community Council
	Bagillt Community Council
	Hawarden Community Council
	Queensferry Community Council
	Brynford Community Council
	Ince Parish Council
	Llanasa Community Council
	Thornton Le Moors Parish Council
	Saughall and Shotwick Park Parish Council
	Mickle Trafford and District Parish Council
	Mollington Parish Council
	Lea By Backford Parish Council
	Backford Parish Council
	Little Stanney and District Parish Council
	Dunham On The Hill and Hapsford Parish Council
	Elton Parish Council
	Northop Hall Community Council
	Saltney Town Council
	Prestatyn Town Council
	Trelawnyd and Gwaenysgor Community Council
	Connah's Quay Community Council
	Buckley Town Council
	Shotton Town Council

SCHEDULE 1 DESCRIPTION	ORGANISATION
	Broughton and Bretton Community Council
The Environment Agency	The Environment Agency
The Equality and Human Rights Commission	Equality and Human Rights Commission
Royal Commission On Ancient and Historical Monuments Of Wales	Royal Commission On Ancient and Historical Monuments Of Wales
The Natural Resources Body for Wales	Natural Resources Wales
The Homes and Communities Agency	Homes England
The Marine Management Organisation	Marine Management Organisation (MMO)
	Natural Resources Wales
The Civil Aviation Authority	Civil Aviation Authority
Integrated Transport Authorities (ITAs) and Passenger Transport Executives (PTEs)	Merseyside Passenger Transport Authority and Executive (Merseytravel)
The Relevant Highways Authority	Cheshire West and Chester Council
	Flintshire County Council
The relevant strategic highways company	Highways England
The Passengers Council	Transport Focus
The Disabled Persons Transport Advisory Committee	Disabled Persons Transport Advisory Committee
The Coal Authority	The Coal Authority
Office of Rail and Road	Office of Rail and Road
Approved Operator	Network Rail Infrastructure Ltd
The Gas and Electricity Markets Authority	OFGEM
The Water Services Regulation Authority	Ofwat
The relevant waste regulation authority	Natural Resources Wales

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Canal and River Trust	The Canal and River Trust
Public Health England, an executive agency of the Department of Health	Public Health England
The relevant local resilience forum	North Wales Local Resilience Forum
The Crown Estate Commissioners	The Crown Estate
The Forestry Commission	The Forestry Commission
The Natural Resources Body for Wales	Natural Resources Wales
The Relevant Local Health Board	Betsi Cadwaladr University Health Board
The National Health Service Trusts	Health Protection Team
	Public Health Wales
	Welsh Ambulance Services Trust
	Velindre NHS Trust
The Office for Nuclear Regulation (the ONR)	The Office for Nuclear Regulation (the ONR)

TABLE A2: RELEVANT STATUTORY UNDERTAKERS⁸

STATUTORY UNDERTAKER	ORGANISATION
The relevant Clinical Commissioning Group	NHS Cheshire Clinical Commissioning Group (CCG)
The National Health Service Commissioning Board	NHS England
The relevant NHS Trust	North West Ambulance Service NHS Trust
	Health Protection Team
	Public Health Wales
	Welsh Ambulance Services Trust
	Velindre NHS Trust

⁸ 'Statutory Undertaker' is defined in the APFP Regulations as having the same meaning as in Section 127 of the Planning Act 2008 (PA2008)

STATUTORY UNDERTAKER	ORGANISATION
The relevant local health board	Betsi Cadwaladr University Health Board
Railways	Network Rail Infrastructure Ltd
	Highways England Historical Railways Estate
	Network Rail
Road Transport	Merseyside Passenger Transport Authority and Executive (Merseytravel)
Canal or Inland Navigation Authorities	The Canal and River Trust
	Association of Inland Navigation Authorities (AINA)
Civil Aviation Authority	Civil Aviation Authority
Universal Service Provider	Royal Mail Group
Homes and Communities Agency	Homes England
The relevant Environment Agency	The Environment Agency
	Natural Resources Wales
The relevant water and sewage undertaker	Hafren Dyfrdwy Limited
	Dwr Cymru (Welsh Water)
	United Utilities
The relevant public gas transporter	Cadent Gas Limited
	Last Mile Gas Ltd
	Energy Assets Pipelines Limited
	ES Pipelines Ltd
	ESP Networks Ltd
	ESP Pipelines Ltd
	ESP Connections Ltd
	Fulcrum Pipelines Limited

STATUTORY UNDERTAKER	ORGANISATION
	Harlaxton Gas Networks Limited
	GTC Pipelines Limited
	Independent Pipelines Limited
	Indigo Pipelines Limited
	Leep Gas Networks Limited
	Murphy Gas Networks limited
	Quadrant Pipelines Limited
	National Grid Gas Plc
	Scotland Gas Networks Plc
	Southern Gas Networks Plc
	Wales and West Utilities Ltd
The relevant electricity generator with CPO Powers	Uniper UK Limited
	Eclipse Power Network Limited
	Last Mile Electricity Ltd
	Energy Assets Networks Limited
	ESP Electricity Limited
	Forbury Assets Limited
	Fulcrum Electricity Assets Limited
	Harlaxton Energy Networks Limited
	Independent Power Networks Limited
	Indigo Power Limited
	Leep Electricity Networks Limited
	Murphy Power Distribution Limited
	The Electricity Network Company Limited
	UK Power Distribution Limited

STATUTORY UNDERTAKER	ORGANISATION
	Utility Assets Limited
	Vattenfall Networks Limited
	SP Manweb Plc
	National Grid Electricity Transmission Plc
	EirGrid Interconnector Designated Activity Company

TABLE A3: SECTION 43 LOCAL AUTHORITIES (FOR THE PURPOSES OF SECTION 42(1)(B))⁹

LOCAL AUTHORITY ¹⁰
Denbighshire County Council
Flintshire County Council
Liverpool City Council
Cheshire East Council
Cheshire West and Chester Council
Halton Borough Council
Shropshire Council
Warrington Borough Council
Wrexham County Borough Council
Wirral Metropolitan Borough Council

⁹ Sections 43 and 42(B) of the PA2008

¹⁰ As defined in Section 43(3) of the PA2008

TABLE A4: NON-PRESCRIBED CONSULTATION BODIES

ORGANISATION
Cadw
Welsh Language Commissioner
Trafnidiaeth Canolbarth Cymru (TraCC)
Liverpool City Region Combined Authority
Liverpool Mayoral Development Corporation
Potential future Development Corporations

APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

CONSULTATION BODIES WHO REPLIED BY THE STATUTORY DEADLINE:
Cadent Gas
Cadw
Canal and River Trust
Cheshire West and Chester County Council
Dŵr Cymru (Welsh Water)
Environment Agency
ESP Utilities Group
Flintshire County Council
Health and Safety Executive
Highways England
Historic England
Mollington Parish Council
National Grid
Natural England
Natural Resources Wales
Northop Community Council
The Office for Nuclear Regulation
Royal Mail
SP Energy Networks
The Coal Authority
United Utilities

Due to the presence of Cadent and/or National Grid apparatus in proximity to the specified area, the contractor should contact Plant Protection before any works are carried out to ensure the apparatus is not affected by any of the proposed works.

Your Responsibilities and Obligations

The "Assessment" Section below outlines the detailed requirements that must be followed when planning or undertaking your scheduled activities at this location.

It is your responsibility to ensure that the information you have submitted is accurate and that all relevant documents including links are provided to all persons (either direct labour or contractors) working for you near Cadent and/or National Grid's apparatus, e.g. as contained within the Construction (Design and Management) Regulations.

This assessment solely relates to Cadent Gas Limited, National Grid Electricity Transmission plc (NGET) and National Grid Gas Transmission plc (NGGT) and apparatus. This assessment does **NOT** include:

- | Cadent and/or National Grid's legal interest (easements or wayleaves) in the land which restricts activity in proximity to Cadent and/or National Grid's assets in private land. You must obtain details of any such restrictions from the landowner in the first instance and if in doubt contact Plant Protection.
- | Gas service pipes and related apparatus
- | Recently installed apparatus
- | Apparatus owned by other organisations, e.g. other gas distribution operators, local electricity companies, other utilities, etc.

It is **YOUR** responsibility to take into account whether the items listed above may be present and if they could be affected by your proposed activities. Further "Essential Guidance" in respect of these items can be found on either the [REDACTED] or [REDACTED] website.

This communication does not constitute any formal agreement or consent for any proposed development work; either generally or with regard to Cadent and/or National Grid's easements or wayleaves nor any planning or building regulations applications.

Cadent Gas Limited, NGGT and NGET or their agents, servants or contractors do not accept any liability for any losses arising under or in connection with this information. This limit on liability applies to all and any claims in contract, tort (including negligence), misrepresentation (excluding fraudulent misrepresentation), breach of statutory duty or otherwise. This limit on liability does not exclude or restrict liability where prohibited by the law nor does it supersede the express terms of any related agreements.

If you require further assistance please contact the Plant Protection team via e-mail [REDACTED] or via the contact details at the top of this response.

Yours faithfully

Plant Protection Team

ASSESSMENT

Affected Apparatus

The apparatus that has been identified as being in the vicinity of your proposed works is:

- | National Gas Transmission Pipelines and associated equipment
- | Electricity Transmission overhead lines
- | Above ground electricity sites and installations

As your proposal is in proximity to apparatus, we have referred your enquiry / consultation to the following department(s) for further assessment:

- | Land and Development Asset Protection Team (High Pressure Gas Transmission and Electricity Transmission Apparatus)

We request that you take no further action with regards to your proposal until you hear from the above. We will contact you within 28 working days from the date of this response. Please contact us if you have not had a response within this timeframe.

Requirements

BEFORE carrying out any work you must:

- | **Ensure that no works are undertaken in the vicinity of our gas pipelines and that no heavy plant, machinery or vehicles cross the route of the pipeline until detailed consultation has taken place.**
- | Carefully read these requirements including the attached guidance documents and maps showing the location of apparatus.
- | Contact the landowner and ensure any proposed works in private land do not infringe Cadent and/or National Grid's legal rights (i.e. easements or wayleaves). If the works are in the road or footpath the relevant local authority should be contacted.
- | Ensure that all persons, including direct labour and contractors, working for you on or near Cadent and/or National Grid's apparatus follow the requirements of the HSE Guidance Notes HSG47 - 'Avoiding Danger from Underground Services' and GS6 – 'Avoidance of danger from overhead electric power lines'. This guidance can be downloaded free of charge at <http://www.hse.gov.uk>
- | In line with the above guidance, verify and establish the actual position of mains, pipes, cables, services and other apparatus on site before any activities are undertaken.

GUIDANCE

High Pressure Gas Pipelines Guidance:

If working in the vicinity of a high pressure gas pipeline the following document must be followed: 'Specification for Safe Working in the Vicinity of Cadent and/or National Grid High Pressure Gas Pipelines and Associated Installations - Requirements for Third Parties' (SSW22). This can be obtained from:

[Redacted]

National High Pressure Gas Pipelines Guidance:

[Redacted]

[Redacted]

Dial Before You Dig Pipelines Guidance:

[Redacted]

Working Near National Grid Electricity Transmission equipment:

If you are carrying out any work in proximity to an overhead line or any excavation that may be near an underground cable then please consult National Grid Technical Guidance Note 287 that can be found at

[Redacted]

[Redacted] Further guidance related to underground cables can also be found at [Redacted]

[Redacted]

Standard Guidance

Essential Guidance document:

[Redacted]

General Guidance document:

[Redacted]

Excavating Safely in the vicinity of gas pipes guidance (Credit card):

[Redacted]

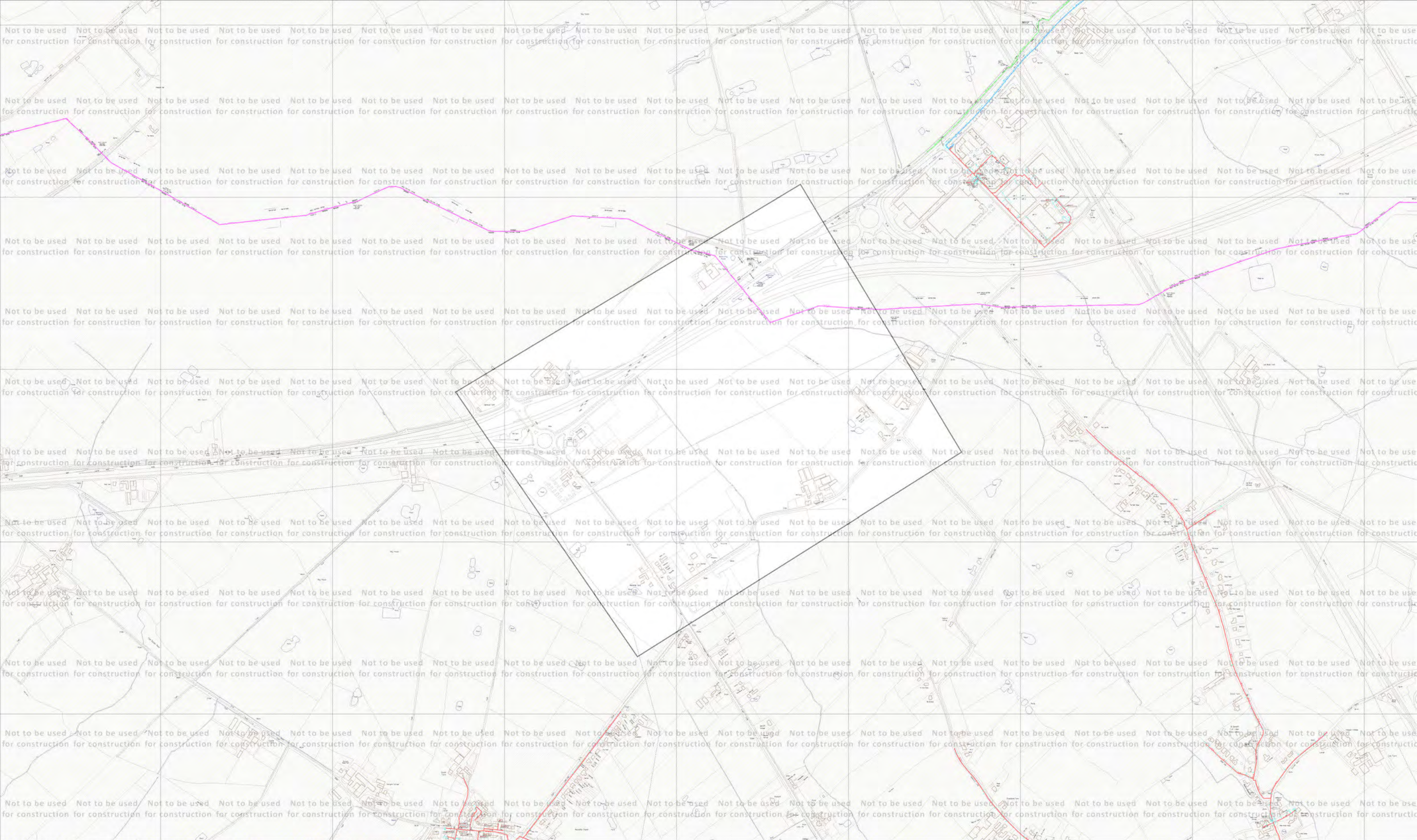
[Redacted]








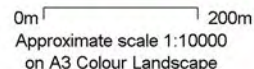
Excavating Safely in the vicinity of electricity cables guidance (Credit card):

[Redacted]

[Redacted]

Copies of all the Guidance Documents can also be downloaded from the [Redacted] and [Redacted] websites.



ID: NW_GW1B_3NWP_029765 View extent: 4120m, 2440m		Do not proceed without further consultation		Map 1 of 2 (GAS)	
USER: toby.cooper DATE: 09/06/2021 DATA DATE: 08/06/2021 REF: EN070007 PT2 (TC) MAP REF: SJ3771 CENTRE: 337094, 371852		This plan shows those pipes owned by Cadent Gas Limited in its role as a Licensed Gas Transporter (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regard to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc., are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Cadent Gas Limited or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.		MAPS Plot Server Version 1.11.0  Cadent Your Gas Network Requested by: The Planning Inspectorate	
Some examples of Plant Items: Valve  Depth of Cover  Syphon  Diameter Change  Material Change  Out of Standard Service 				This plan is reproduced from or based on the OS map by Cadent Gas Limited, with the sanction of the controller of HM Stationery Office. Crown Copyright Reserved. Ordnance Survey Licence number 100024886	



ID: NW_GW1B_3NWP_029765	View extent: 4120m, 2440m	<p style="color: red; text-align: center;">Do not proceed without further consultation</p> <p>This plan shows those cables owned by National Grid Electricity Transmission plc in its role as a Licensed Electricity Transporter (ET). Electricity cables owned by other ETs, or otherwise privately owned, may be present in this area. Information with regard to such cables should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Ancillary equipment such as cooling systems and communication cables are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by National Grid Electricity Transmission plc or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of cables and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near electricity apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.</p>	Map 2 of 2 (ELECTRIC)
USER: toby.cooper	Underground cables — Overhead lines —		MAPS Plot Server Version 1.11.0
DATE: 09/06/2021			
DATA DATE: 23/02/2021			
REF: EN070007 PT2 (TC)			
MAP REF: SJ3771 CENTRE: 337094, 371852			
		Requested by: The Planning Inspectorate	
		This plan is reproduced from or based on the OS map by National Grid Electricity Transmission plc, with the sanction of the controller of HM Stationery Office. Crown Copyright Reserved. Ordnance Survey Licence number 100024241	

ENQUIRY SUMMARY

Received Date

04/06/2021

Your Reference

EN070007 PT2 (TC)

Location

Centre Point: 337094, 371852

X Extent: 1475

Y Extent: 1375

Postcode: CH1 6JU

Location Description: CH1 6JU Parkgate Road, Mollington, Cheshire West and Chester

Map Options

Paper Size: A3

Orientation: LANDSCAPE

Requested Scale: 10000

Actual Scale: 1:10000 (GAS), 1:10000 (ELECTRIC)

Real World Extents: 4120m x 2440m (GAS), 4120m x 2440m (ELECTRIC)

Recipients

pprsteam@cadentgas.com

Enquirer Details

Organisation Name: The Planning Inspectorate

Contact Name: Ben Jenkinson

Email Address: [REDACTED]planninginspectorate.gov.uk

Telephone: 0303 444 (3403)

Address: Temple Quay House, Temple Quay, Bristol, BS1 6PN

Description of Works

Application by Liverpool Bay CCS Limited (the Applicant) for an Order granting Development Consent for the HyNet North West Carbon Dioxide Pipeline (the Proposed Development)

Enquiry Type

Formal Planning Application

Development Types

Development Type: Development for use by General Public

Your Ref: EN070007
Date: 02 July 2021

Cadent Gas Limited
Ashbrook Court, Prologis Park
Central Boulevard
Coventry CV7 8PE

Submitted via email: hynetco2pipeline@planninginspectorate.gov.uk



Ref: EN070007 - HyNet North West Carbon Dioxide Pipeline - EIA Scoping Notification and Consultation

I refer to your letter dated 3rd June 2021 regarding the above proposed DCO. Cadent has reviewed the EIA scoping report provided and wishes to make the following comments.

In respect of existing Cadent infrastructure, Cadent will require appropriate protection for retained apparatus including compliance with relevant standards for works proposed within close proximity of its apparatus.

Cadent Infrastructure within or in close proximity to the development

Cadent has identified at this stage the following apparatus within the vicinity of the proposed works:

- High pressure (above 2 bar) gas pipelines and associated equipment
- Medium pressure
- Low Pressure

Should any diversions be required to facilitate the scheme, Cadent will require adequate notice and discussions should be started at the earliest opportunity. Please be aware that diversions for high pressure apparatus can take in excess of two years to plan and procure materials

Where the Promoter intends to acquire land, extinguish rights, or interfere with any of Cadent's apparatus, Cadent will require appropriate protection and further discussion on the impact to its apparatus and rights including adequate Protective Provisions.

Where diversions are required to facilitate the scheme, it is essential that adequate temporary and permanent land take , land rights and consents are included within the Order to enable works to proceed in time and to provide appropriate rights for Cadent to access, maintain and protect apparatus in future

Key Considerations:

- Cadent has a Deed of Grant of Easement for each pipeline, which prevents the erection of permanent / temporary buildings, or structures, change to existing ground levels, storage of materials etc.
- Please be aware that written permission is required before any works commence within the Cadent easement strip.
- The below guidance is not exhaustive and all works in the vicinity of Cadent's asset shall be subject to review and approval from Cadent's plant protection team in advance of commencement of works on site.



General Notes on Pipeline Safety:

- You should be aware of the Health and Safety Executives guidance document HS(G) 47 "Avoiding Danger from Underground Services", and Cadent's Dial Before You Dig Specification for Safe Working in the Vicinity of Cadent Assets. There will be additional requirements dictated by Cadent's plant protection team.
- Cadent will also need to ensure that its pipelines remain accessible during and after completion of the works.
- The actual depth and position must be confirmed on site by trial hole investigation under the supervision of a Cadent representative. Ground cover above our pipelines should not be reduced or increased.
- If any excavations are planned within 3 metres of Cadent High Pressure Pipeline or, within 10 metres of an AGI (Above Ground Installation), or if any embankment or dredging works are proposed then the actual position and depth of the pipeline must be established on site in the presence of a Cadent representative. A safe working method agreed prior to any work taking place in order to minimise the risk of damage and ensure the final depth of cover does not affect the integrity of the pipeline.
- Below are some examples of work types that have specific restrictions when being undertaken in the vicinity of gas assets therefore consultation with Cadent's Plant Protection team is essential:
 - Demolition
 - Blasting
 - Piling and boring
 - Deep mining
 - Surface mineral extraction
 - Landfilling
 - Trenchless Techniques (e.g. HDD, pipe splitting, tunnelling etc.)
 - Wind turbine installation
 - Solar farm installation
 - Tree planting schemes

Pipeline Crossings:

- Where existing roads cannot be used, construction traffic should ONLY cross the pipeline at agreed locations.
- The pipeline shall be protected, at the crossing points, by temporary rafts constructed at ground level. The third party shall review ground conditions, vehicle types and crossing frequencies to determine the type and construction of the raft required.
- The type of raft shall be agreed with Cadent prior to installation.
- No protective measures including the installation of concrete slab protection shall be installed over or near to the Cadent pipeline without the prior permission of Cadent.
- Cadent will need to agree the material, the dimensions and method of installation of the proposed protective measure.



- The method of installation shall be confirmed through the submission of a formal written method statement from the contractor to Cadent.
- A Cadent representative shall monitor any works within close proximity to the pipeline.

New Service Crossing:

- New services may cross the pipeline at perpendicular angle to the pipeline i.e. 90 degrees.
- Where a new service is to cross over the pipeline a clearance distance of 0.6 metres between the crown of the pipeline and underside of the service should be maintained. If this cannot be achieved the service shall cross below the pipeline with a clearance distance of 0.6 metres.
- A new service should not be laid parallel within an easement strip
- A Cadent representative shall approve and supervise any new service crossing of a pipeline.
- An exposed pipeline should be suitable supported and removed prior to backfilling
- An exposed pipeline should be protected by matting and suitable timber cladding
- For pipe construction involving deep excavation (<1.5m) in the vicinity of grey iron mains, the model consultative procedure will apply therefore an integrity assessment must be conducted to confirm if a diversion is required

Yours Faithfully



Vicky Cashman

Planning & Consents

General Counsel Department

Email: 



Further Guidance

To download a copy of the HSE Guidance HS(G)47, please use the following link:

<https://www.hse.gov.uk/pubns/books/hsg47.htm>

Specification for safe working in the vicinity of Cadent assets - requirements for third parties:

[Redacted]

Dial before you dig guidance:

[Redacted]

Essential Guidance on digging safely near our pipes:

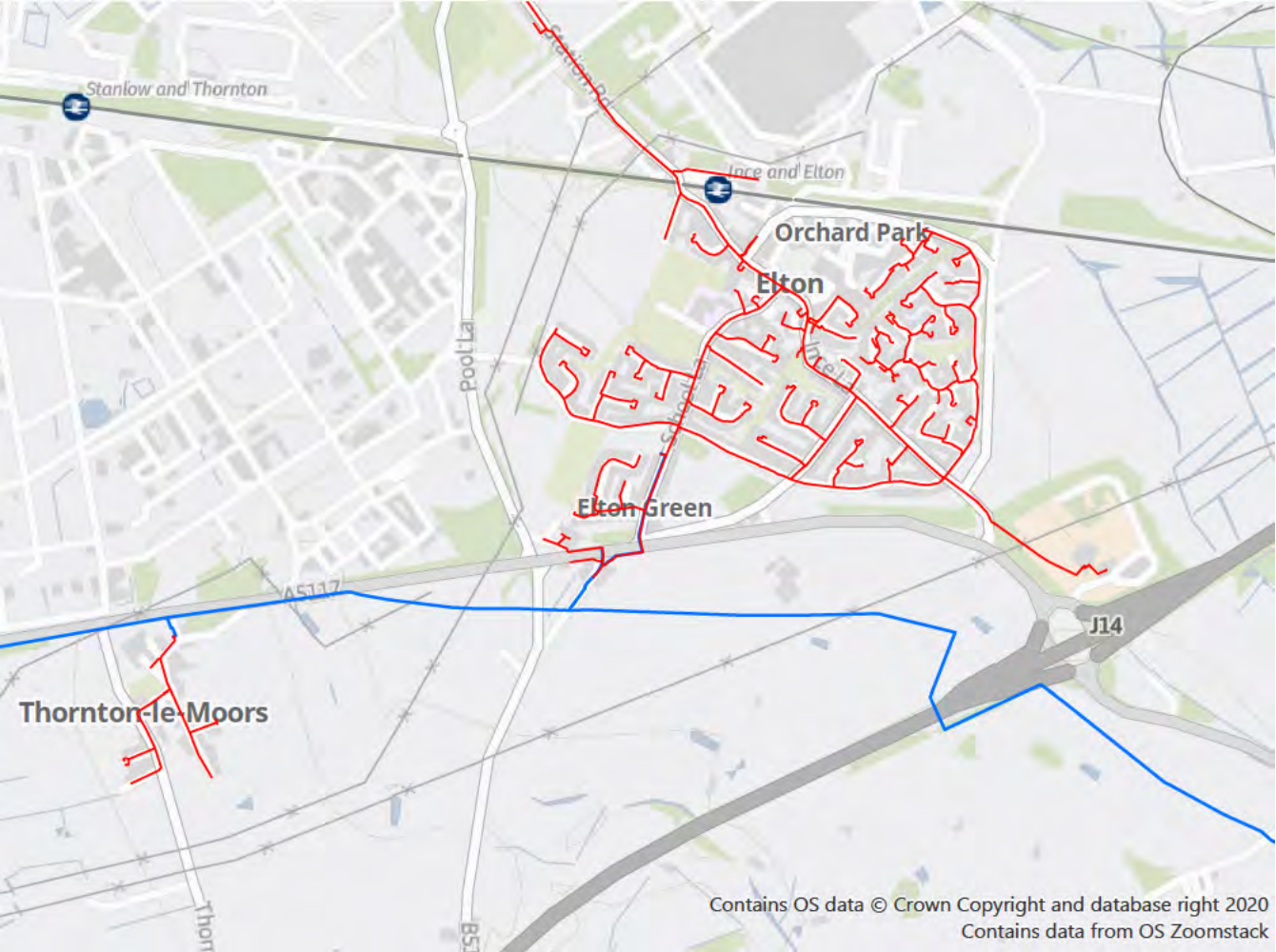
[Redacted]

Tree Planting Guidance:

[Redacted]

Excavating Safely in the vicinity of gas pipes guidance (Credit card):

[Redacted]



Stanlow and Thornton

Ince and Elton

Orchard Park

Elton

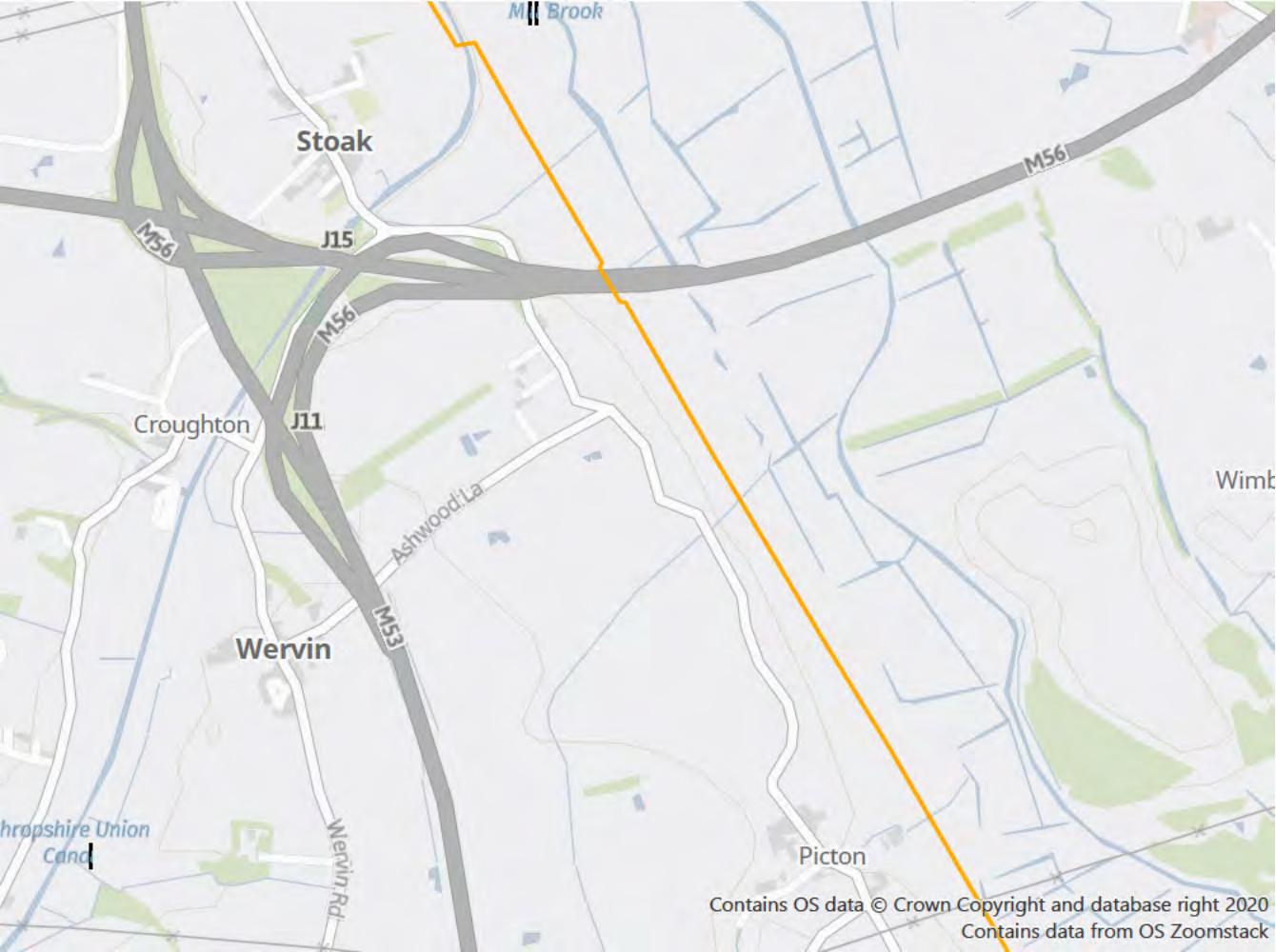
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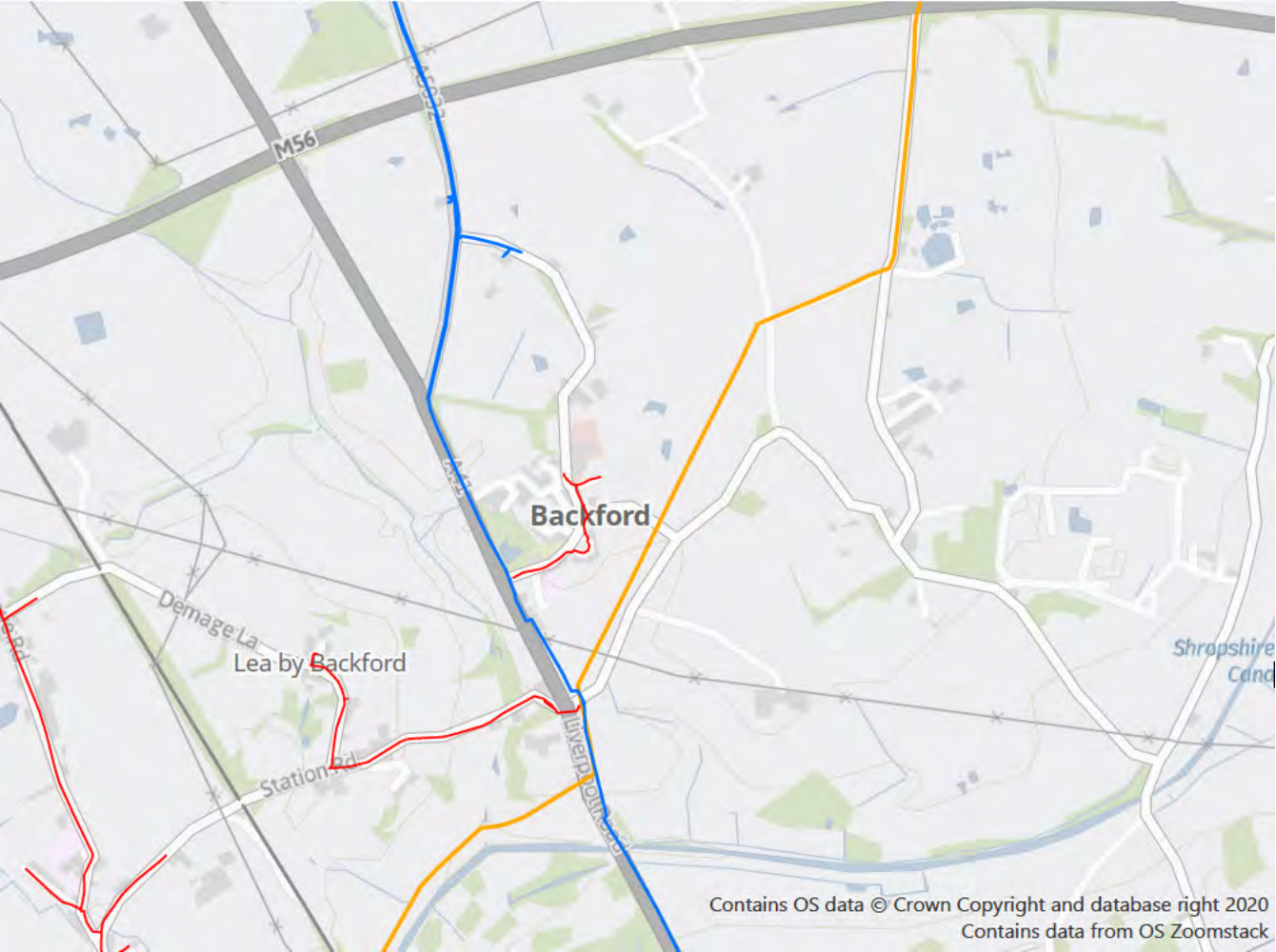
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Picton

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Backford

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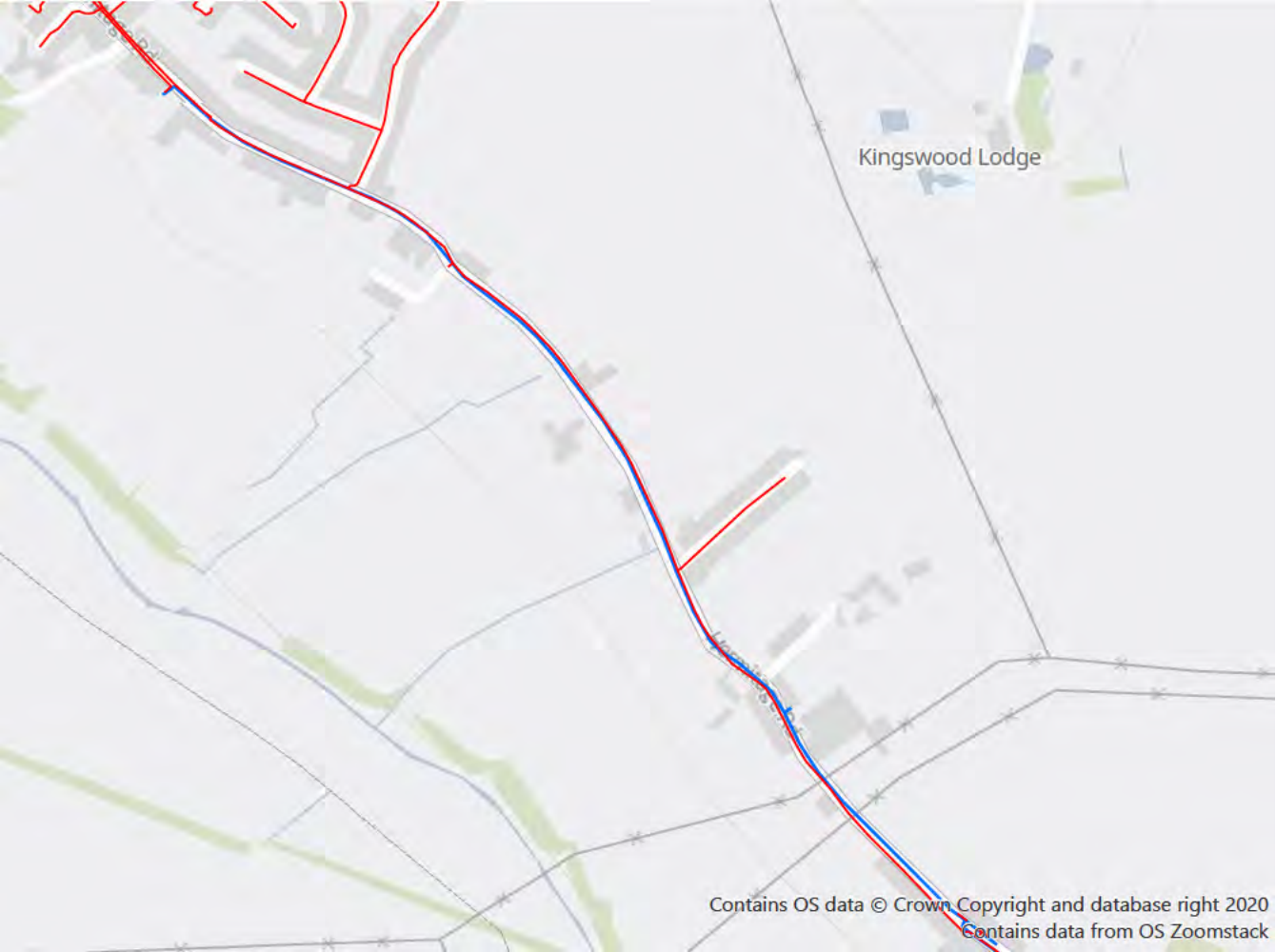


Mollington

Lea by Backford

Backford

Moston



Kingswood Lodge



Llywodraeth Cymru
Welsh Government

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Flintshire County Council
By email

Eich cyfeimod Your reference	063069
Ein cyfeimod Our reference	DH
Dyddiad Date	28 June 2021
Llinell uniongyrchol Direct line	0300 0256004
Ebost Email:	Cadwplanning@gov.wales

Dear Sir/Madam

Consultation on the Scoping Request made on behalf of Liverpool Bay CSS Limited for an Order granting Development Consent for the HyNet Cheshire England to Flintshire Wales

Thank you for your letter of 8 June 2021 requesting that Cadw provides a scoping opinion for the Environmental Impact Assessment (EIA).

Cadw, as the Welsh Government's historic environment service, has assessed the characteristics of this proposed development and its location within the historic environment. In particular, the likely impact on designated or registered historic assets of national importance. In assessing if the likely impact of the development is significant Cadw has considered the extent to which the proposals affect those nationally important historic assets that form the historic environment, including scheduled ancient monuments, listed buildings, registered historic parks, gardens and landscapes.

These views are provided without prejudice to the Welsh Government's consideration of the matter, should it come before it formally for determination.

Assessment

Our records show that the following historic assets are potentially affected by the proposal.

Listed Buildings:

350 Llwyn-erddyn
14880 Gellilyfdy
24668 Stable block and pigeon house at Plas Coch
24669 Cart house, smithy and pigsties at Plas Coch

Mae'r Gwasanaeth Amgylchedd Hanesyddol Llywodraeth Cymru (Cadw) yn hyrwyddo gwaith cadwraeth ar gyfer amgylchedd hanesyddol Cymru a gwerthfawrogiad ohono.

The Welsh Government Historic Environment Service (Cadw) promotes the conservation and appreciation of Wales's historic environment.

Rydym yn croesawu gohebiaeth yn Gymraeg ac yn Saesneg.
We welcome correspondence in both English and Welsh.



BUDDSODDWR MEWN POBL
INVESTOR IN PEOPLE



24674 Bakehouse at Gellilyfdy
24675 Stable at Gellilyfdy
24676 Barn at Gellilyfdy
24677 Plas-newydd
26192 Hafod Farmhouse
85249 Ferry Bank Farm

Scheduled Ancient Monuments:

FL006 Offa's Dyke : Section N & S of the Circle on Holywell Racecourse and Circle and Round Barrows
FL062 Hen Blas Castle
FL046 Two Round Barrows 90m NE of Eosfan
FL064 Bryn y Cwm Mound & Bailey Castle
FL076 Round Barrow 225m SE of Plas Newydd
FL096 Bryn Y Cosyn Round Barrow
FL131 Pentre Bridge Roman Site
FL162 Hen Caersws Deserted Village Site
FL163 Enclosure, Field System & Hollow-ways North of Pant
FL179 Hafod Wood Moated Site
FL189 Llyn Du Round Barrow
FL213 Croes Atti Roman Site

Registered Historic Landscapes:

HLW (C) 2 Holywell Common & Halkyn Mountain

This consultation is a request for a scoping opinion as to the contents of an Environmental Impact Assessment (EIA) that will be submitted in support of an application for an Order granting Development Consent for the HyNet from Cheshire, England to Flintshire, Wales that will be determined following the procedures required for a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008

A scoping report has been produced by WSP which has identified that whilst there will be no direct impact on any designated historic asset in Wales there is a potential impact on the settings of the above. It is therefore proposed to assess the scale of these impacts as part of the EIA. We concur that with this assessment: However, the scoping report suggests that impact of the proposed development on settings of the designated historic assets in Wales will be assessed using the methodology outlined in the Welsh Government document "Setting of Historic Assets in Wales" (2017) whilst the impact of the proposed development on the settings of the designated heritage assets in Wales will be assessed using the methodology outlined in the Historic England document "The Setting of Heritage Assets" (2017). The use of similar but different methodologies to assess this impact could lead to comparable historic assets being assessed differently. As such it is recommended that the impact of the proposed development on the setting of all designated historic assets should be assessed using one methodology and, as the application will be determined by the UK Government, the assessment should follow the methodology outlined in the Historic England document "The Setting of Heritage Assets" (2017).

Yours sincerely

Denise Harris
Diogelu a Pholisi/ Protection and Policy

Secretary of State
The Planning Inspectorate
Environmental Services
Temple Quay House
2 The Square
Bristol
BS1 6PN

Your Ref EN070007-000007-210603

Our Ref IPP-135

Tuesday 6th July 2021

BY EMAIL ONLY hynetco2pipeline@planninginspectorate.gov.uk

Dear Sirs

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11

Application by Liverpool Bay CCS Limited (the Applicant) for an Order granting Development Consent for the HyNet North West Carbon Dioxide Pipeline (the Proposed Development)

Thank you for your consultation on the Environmental Impact Assessment Scoping.

We are the charity who look after and bring to life 2000 miles of canals & rivers. Our waterways contribute to the health and wellbeing of local communities and economies, creating attractive and connected places to live, work, volunteer and spend leisure time. These historic, natural and cultural assets form part of the strategic and local green-blue infrastructure network, linking urban and rural communities as well as habitats. By caring for our waterways and promoting their use we believe we can improve the wellbeing of our nation

The proposed works are for a carbon dioxide pipeline and associated infrastructure. The Trust own and manage the Shropshire Union Canal, which may be impacted by these works as the pipeline would result in at least one crossing (underground) of the canal. The following comments are therefore provided in the context of the potential impact of the development on the canal which should be assessed further within an Environmental Statement. The chapters below have been ordered as set out in the EIA scoping report.

Air Quality

The assessment should consider the waterway and its users (boaters and towpath users) as sensitive receptors to construction dust and in terms of emissions from construction traffic, plant and machinery. Such users do not appear to have been considered at this stage.

Cultural Heritage

The canal corridor is over 200 years old infrastructure and within the designated Cheshire Canal Conservation Area. The canal itself should also be considered as a non-designated heritage asset in its own right. Canal Bridge 135 Croughton Bridge is also a listed structure (not Trust owned) as well as listed Backford Railway Bridge No.131A (not Trust owned). There is also the Scheduled Ancient Monument of the Chapel at Chapel House Farm in the vicinity of the canal. The EIA will need to include an assessment of these heritage assets and archaeology impacts associated with the excavation works and the impact of the proposed works on the heritage designations and their setting. The EIA will need to set out how the proposals would impact these in terms of physical and visual impacts on views, setting and appearance. Any impacts would need to be mitigated accordingly to avoid harm to the significance of the assets.

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Biodiversity

Page 122 Table 8-4 includes the water courses and water bodies as a receptor to be scoped into the report, we would agree that the Shropshire Union Canal should be assessed accordingly. The canal corridor is designated as a County Wildlife site. There needs to be consideration of potential impact on this designation. As the pipeline would be going underneath the canal we consider that any potential impacts on canal habitats would be on marginal canal corridor habitats (trees, hedgelines etc). It is important that this green corridor is protected and not severed by the works.

The canal corridor is also likely to be used for bat foraging, commuting and roosting along the waterway corridor. Canal corridors often form dark havens for bats where they can forage and roost without disturbance from light, which should be protected.

Regard would also need to be given to nesting birds and other protected species which may be present, either on any existing structures within the vicinity of the canal that may be disturbed and within construction compounds or where tree or vegetation removal is required.

Regard would also need to be given to any non-native species that may be encountered during the works and how these would be managed to prevent them spreading.

Any additional planting associated with mitigation should be appropriate native species. Any new planting along the canal corridor would need to be agreed with the Trust.

Geology Land Contamination and Soil

Contamination and pollution would have a negative impact on the canal corridor. We ask that any contaminated land assessment and especially any mitigation considers the canal as sensitive receptor and considered in any conceptual models. Page 133 para 9.3.14 list potential contamination pathways. We consider this list could be extended to include potential contamination of waterways from wind blow and the creation of dust and debris from construction activity.

This chapter within the EIA should also consider ground conditions in terms of the construction work in close proximity to the waterway infrastructure which could potentially adversely affect the structural integrity of the waterway. The proposed pipe undergrounding of the canal would likely be either where the canal is in a cutting or carried on an embankment. It is therefore essential that the structural integrity of the canal is not put at risk as part of any of the works, including excavation, earthmoving, drilling, boring, vibrations or the tracking of plant and machinery which could, in the worst case scenario result in the failure of the canal. Depending on the exact location of the route the exact depth of the pipeline under the canal would need to be agreed with the Trust to ensure the works do not undermine the structural integrity of the canal infrastructure. The construction technique and method of works would also need to be agreed with the Trust and carried out in accordance with the Canal & River Trust Code of Practice. <https://canalrivertrust.org.uk/business-and-trade/undertaking-works-on-our-property-and-our-code-of-practice>

Land stability and the consideration of the suitability of development with regards to ground conditions are material planning considerations as set out in paragraphs 170(e) and (f) of the National Planning Policy Framework (NPPF) and that the responsibility for securing a safe development in terms of land stability rests with the developer (para 179). This is the subject of more detailed discussion in the National Planning Practice Guidance (PPG).

The submitted details although making reference to the NPPF policy on land stability does not appear to consider the risk to land stability on existing infrastructure, especially the canal, resulting from the construction activities and works. This would need to be assessed and addressed within the EIA as set out above.

Landscape and Visual

The proposed route would result in at least one crossing (underground) of the canal and it is likely that the route would be visible from along the canal within the vicinity of the route corridor. It is understood that as the pipe would be underground and land restored that the long term permanent visual impact would be limited.

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We would however have concerns in terms of the amount of permanent above ground infrastructure that would be required within the vicinity of the canal corridor. For example the proximity of the inspection chambers and permanent maintenance facilities and associated fencing.

The proposed works could have a significant temporary impact on the views, character, environment and tranquillity that the users of the waterways currently enjoy. The crossing and invention along the waterway should be subject to careful individual assessment and consideration to establish the suitability of the works and the likely temporary and permanent impacts and mitigation required.

We note that the Trust have been listed as among the bodies that would be consulted on the viewpoints and photomontages that would be assessed via the LVIA. At this stage we note page 153, figure 10-1 lists the points of key viewpoints where visual receptors will be located two of these receptors are to be located on crossings of the canal. We would welcome further discussion on this with the applicant depending on the final route.

Major Accidents and Disasters

Page 175 Table 11-3 lists the various elements to be scoped in or out of the further assessment. Transport accidents as part of the canal crossing are scoped out of further assessment. This will depend on the final construction routes as the proposed works as these may require the crossing of the waterway corridor. We consider the potential impact on these bridges should be assessed as part of the environmental assessment. This should also include the safety of waterway users under the bridges.

As set out above, the potential impact on the structural integrity of the canal would need to be considered including the potential for a breach of the canal associated with the works and how this would be mitigated.

A robust pollution response emergency procedure would also be required, and the Trust would wish to be notified in the event of any such incident which may impact our waterways.

Noise and vibration

In terms of vibrations the canal infrastructure is over 200 years old, and depending on either of the routes of the pipeline the canal is either within a cutting or carried on an embankment. Regardless of the final route option the canal should be considered as a receptor susceptible to vibration.

The canal corridor is a tranquil space and contributes to the health and wellbeing of the nearby residents and users (boaters, commuters, leisure and recreational users on the towpath). These spaces need to be protected from intrusive forms of development and any potential impacts such as noise during construction should be kept to a minimum. We would ask that the canal and its users are included as noise sensitive receptors in this assessment.

Population and Human Health

This chapter should consider the canal users both in terms of the navigation and towpath users and their enjoyment of the waterway which could be harmed by the works, including if temporary stoppages or towpath closures are required associated with the works. Any such closures would need to be agreed with the Trust well in advance of the works.

Page 212 Paragraph 14.3.10 and 14.3.11 list out the types of PRow and non-PRow routes falling within the study area that are used by walkers, cyclists and horse riders. We consider that the list should be extended to include the canal towpath, especially as the towpath is part of the National Cycle Network and then assessed accordingly through the EIA.

Traffic and Transport

As set out above the proposed works, in particular the construction routes may require the crossing of the waterway corridor. The potential impact of these, with HGV's, plant and machinery potentially crossing the canal bridges should be assessed as part of the environmental assessment. This should also include the safety of waterway users under the bridges. Any haul roads in proximity to the canal corridor should be avoided.

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Water Resources and Flood Risk

The details of how any water during the works is to be captured, treated and disposed of should be considered especially where adjacent to the canal corridor or any watercourses which interact with the canal (including those culverted under the canal). This should include the potential for spillage or run-off directly in the canal during the construction works.

In terms of any dewatering of the works/trenches, the Trust would not want any silty discharges to the canal or indeed to any watercourses which are culverted under the canal. Any abstraction of water from the canal would also need the formal consent of the Trust. The Trust is not a land drainage authority.

The canal and any associated watercourse culverted under the canal must be protected from silty discharges associated with the works and mitigation should be set out with the EIA.

Any impacts on the canal from drainage or flood risk should be included within the EIA as this could affect both water quality and quantity and have a wider impact on our network. Depending on the final route the potential for a breach of the canal should be considered within the Flood Risk Assessment.

The Trust as Landowner

The Trust own and manage the Shropshire Union Canal, water and the towpath network in the vicinity of the proposed route crossing. Separate discussion would be needed to take place between the Trust and the applicant in terms of any formal agreements that may be required for crossing our land. Please note that as a Statutory Undertaker, the Trust would seek to challenge the use of any compulsory purchase powers to acquire rights over any of our land. Accordingly, to avoid unnecessary delay and the incurrence of excess costs, any acquisition of Trust land or rights should be arranged voluntarily.

The above comments are given without prejudice to any further matters which may be raised by the Trust at a later stage as more details emerge.

Please do not hesitate to contact me with any queries you may have.

Yours sincerely,

Tim Bettany-Simmons MRTPI
Area Planner – Special Projects

[REDACTED]
[REDACTED]
Fradley Junction, Alrewas, Burton-upon-Trent, Staffordshire, DE13 7DN

<https://canalrivertrust.org.uk/specialist-teams/planning-and-design>

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Development Management

Planning Service
Cheshire West And Chester Council
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Email: planning@cheshirewestandchester.gov.uk
Web: www.cheshirewestandchester.gov.uk

our reference:	your reference:	please ask for:	date:
21/02454/AAC	EN070007	Mr Ben Greenwood [REDACTED] [REDACTED]	28 June 2021

Dear Sir/Madam

Proposal: EIA Scoping Opinion Consultation

Location : Hynet North West Carbon Dioxide Pipeline

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017(the EIA Regulations) – Regulations 10 and 11

Further to the EIA scoping consultation letter dated 03 June 2021 on behalf of Cheshire West and Chester Brough Council I can provide the following response in respect the proposed scope of the Environmental Statement (ES) and content of each specific topic area.

Environmental Statement Layout and compliance with EIA Regulations (2017)

Having reviewed the 'Hynet North West' Environmental Impact Assessment Scoping Report (Revision 03) dated June 2021, and hereafter referred to as The Scoping Report, I can advise that the proposed scope and layout of the proposed ES appears acceptable and in general accordance with the provisions of the relevant EIA Regulations (2017).

The provision of a detailed Assessment of Alternatives including the three-stage appraisal process of route options for the CO₂ pipeline as is advised within sections 3.4 and 3.5 of the Scoping Report is welcomed. It is however, asked that the Assessment of Alternatives also

include consideration of the overall location and design of the development as well as for siting and layout of the individual Above Ground Installations (AGIs).

Specific Topic Areas

Air Quality (Section 5.0)

The likely significant effects of CO₂ release from emergency venting at Block Valve Stations (BVS) or Above Ground installations (AGI) on air quality has not been addressed within the Scoping Reports air quality considerations. Given that the pipeline route is not clear, it cannot at this stage be excluded, from the assessment, that a BVS would not be adjacent to residential properties and it is not clear how emergency venting would protect residents from acute levels of CO₂ ingress into their property in such a scenario. The detail within Paragraphs 3.7.8 – 3.7.10 of the Scoping Report do not provide adequate information in this respect and it is advised that further detail is needed, including the number of BVS and their location in relation to residential uses, and detail of any temporary stacks at the AGIs and the protocol surrounding their use.

For the above reasons it is advised that there is insufficient detail provided within the Scoping Report to be able to confidently scope out the need for air quality impacts during the developments operational phase.

With the above exception the Council's Environmental Protection Unit (EPU) concur with the other detail as set out within Section 5 of the Scoping Report, on Air Quality.

Climate (Section 6.0)

The Council's Climate Change Officer is in general agreement with the scope of proposed Climate Change considerations. It is however advised that further consideration be made in respect the reasons for scoping out of Land Use Change and Forestry (A5) and Land Use Change and Forestry (B8) matters within Table 6-3. It is suggested that the team preparing the EIA make contact with the Local Enterprise Partnership (LEP) to consider utilising the Natural Capital Audit that has been commissioned for the Cheshire and Warrington sub-region, to understand if the proposed development intersects with any areas with multi-layered natural capital benefits.

Cultural Heritage (Section 7.0)

The Council's Conservation and Design Unit and Archaeologist are in general agreement with the scope and assessment of Cultural Heritage matters, including archaeology and the historic built environment as set out within Section 7 of the Scoping Report.

It is noted that locations including both above ground installations are currently indicative, and design is at an early stage. As such, based on the indicative location map submitted (Appendix 3-2), it is advised that there is unlikely to be any direct harm to designated heritage assets.

Siting and design will however need careful consideration and it is advised that the environmental impact assessment include and take in to account long range views across the landscape, including those from Helsby Hill.

The Council's Archaeologist advises that the approach proposed taken including the methodology for the further desk-based studies and scope of the geophysical survey and walk-over surveys that will inform the production of the report would be an acceptable approach.

The full comments of the Councils Archaeologist are attached.

Biodiversity (Section 8.0)

Internationally Designated sites:

Table 8.4 of the Scoping Report, which details elements scoped in or out of further assessments, does not consider the Dee Estuary or Mersey Estuary international designations and it is not clear why this is, when the project covers the Dee Estuary area and is adjacent to the Mersey Estuary. Birds associated with these designations regularly use farmland and meadows nearby eg. Ince and Goway Meadows, Lache Meadows and even sites with hard-standing on which replicate shingle beach conditions. The project red line encompasses some of these areas.

It has not been stated with the Scoping Report that a Habitat Regulations Assessment (HRA) will be carried out and this should be included for clarity. This should include any potentially functionally linked land, as birds using the Mersey and Dee Estuaries can use sites quite far inland. Air quality impacts on designated sites should also be considered, during construction and operation. A HRA will need to be done for the overall project and also for different sections and phases, depending on how the project is taken forward.

Local Non-Statutory Sites:

Local Wildlife Sites do not seem to be considered, although it is assumed this will be done at the local level. It is advised that they should be included in Table 8.4.

Protected species:

Reptile and Invertebrate surveys are not included in Table 8.1, which details the surveys to be carried out, but it may be that the decision to carry these out will be site specific. Nevertheless, they should be included in the table. They are however, detailed in Table 8.4 and are scoped in here?

Biodiversity Net Gain:

Paragraph 8.4.3 of the Scoping Report states:

... "The principles of Biodiversity Net Gain will be applied, with the Proposed Development seeking to achieve Net Gains of Priority Habitats". It is advised that Local Policy [REDACTED] requires all habitats to be accounted for, as does the Biodiversity metric [REDACTED]

calculation, ([DEFRA 2.0](#) currently, soon to be DEFRA 3.0). It is advised that all habitats should be included within the biodiversity net gain calculations.

Land and Soil (Section 9.0)

It is noted that significant sections of the pipeline will be through natural soils. Where sections pass through industrial areas with previously developed land and made ground, contamination would be of concern and an assessment of any risks should be undertaken. The critical aim of any assessment is to ensure that no preferential pathways for contamination are created as a result of the development.

It is noted that detail of how excavated materials are to be handled and disposed of, as part of the construction phase has not been identified within the Scoping Report, and it is advised that this be included.

Whilst noting the above the Councils Environmental Protection Unit (EPU) is satisfied with the information provided and can agree, in respect ground contamination, the elements scoped out within Table 9-1.

Landscape and Visual (Section 10.0)

The Councils Landscape Officer is in general agreement with the scope of the methodology for the Landscape and Visual Impact Assessment (LVIA). In principle there is agreement with the locations of the proposed viewpoints, which make reference to visual receptors such as nearby settlements and Public Rights of Way.

It is advised that proposed heights are for the Grinsome Road and Alcohols Site Above Ground Installations be provided in any assessments.

With regards to design and mitigation, it is advised that the LVIA should clearly demonstrate an iterative design process whereby potential impacts are considered at an early stage so as to avoid any adverse negative impacts.

It is advised that the following information be provided within the ES:

- Viewpoints and supporting Map;
- Confirmation of the Zone of Theoretical Visibility (ZTV) Mapping - in principle the submitted information appears to capture ZTV visibility. Please include information on proposed building heights for AGI
- A selection of proposed viewpoints for a photomontages as indicated as per scoping report
- Sections Drawings - to include ground levels
- Detailed Landscape Layout Plan. To include for existing and proposed features.

- Proposed Landscape Strategy and Landscape Mitigation.
- Information on Public Footpaths.
- Boundary Treatment and Access information.
- Provide information on working operations / methodology to minimise disturbance and impact on existing features such as trees and hedges.
- Management and maintenance Plan

Noise and Vibration (Section 13.0)

The Council's Environmental Protection Unit (EPU) would advise that it would be expected that construction to be restricted to daytime periods and have fixed start and finish times i.e. 08.00 to 18.00 hours Monday to Friday, and 08.00 to 18.00 hours on Saturdays, with no works being permitted on Sundays or Bank Holidays, (in accordance with Policy DM30 of the Local Plan (Part Two)). Considering the likely duration documented in 13.5.2 it is advised that the most significant noise will likely arise from the construction of the AGIs and BVSs. Similarly operational noise will be limited to AGIs and BVSs in most reasonable scenarios.

It is advised that the location of construction yards/depots will be critical in ensuring construction noise impacts are minimised, as these along with above ground infrastructure are where prolonged exposure to noise is likely to occur, and in the case of the compounds, potentially at the most sensitive times of the day. Delivery, storage and movement of construction material will need to be considered in detail.

Otherwise the EPU note and agree the content of Table 13-1.

Traffic and Transport (Section 15.0)

The Council's Highways consider that the Traffic and Transport section of the EIA scoping report suitably flags up and covers the high level elements and issues that will need to be addressed in detail as part of any formal application within the ES/Transport Assessment.

It is expected that as part of the work to finalise the proposals that the Transport Assessment will detail the relevant areas of impact and how they will be mitigated and managed.

Public Rights of Way

Whilst the Scoping Report correctly identifies affected Public Rights of Way (PROW), no methodology for their assessment or consideration of impacts are shown to be scoped into the ES. The Council's Rights of Way officer advises that in addition to the outlined ES/Transport Assessment, an assessment should be included in respect PROW including direct and indirect impacts for both construction and operation phases.

Cheshire West & Chester Council

ADM006

It is advised that consideration should be made in to construction methods including any vibration impacts on any right of way as well as impacts upon users of the PROW network from construction traffic and accidents.

Water Resources and Flood Risk (Section 16.0)

In respect both surface and groundwater considerations the Lead Local Flood Authority (LLFA) is in general agreement with the Scoping Reports proposed assessment requirements outlined within Section 16 of the Scoping Report.

The full comments of the LLFA are attached.

Yours faithfully

Mr Ben Greenwood

Senior Planning Officer



Cheshire West
and Chester

ENV 9 Minerals supply and safeguarding

ENV 9

Minerals supply and safeguarding

Cheshire West and Chester will make provision for the adequate, steady and sustainable supply of sand, gravel, salt and brine, contributing to the sub-national guidelines for aggregate land-won sand and gravel, whilst ensuring the prudent use of our important natural finite resources.

This will be achieved by:

- maintaining a minimum seven year landbank for aggregate land-won sand and gravel, making provision for a steady and adequate supply over the Plan period in line with national policy and Local Aggregate Assessments, providing a flexible approach to the location of future minerals development to ensure a diversity of supply for the market. Specific sites and preferred areas will be identified within the Local Plan (Part Two) Land Allocations and Detailed Policies Plan for the future extraction of aggregate land-won sand and gravel as either extensions to existing sites or new sites
- safeguarding Cheshire West and Chester's extent of finite natural resources and associated infrastructure from incompatible development by delineating Mineral Safeguarding Areas for sand and gravel, salt and shallow coal, as shown on the Policies Map, together with existing and potential sites for minerals infrastructure
- supporting proposals which enable the use of secondary and recycled mineral resources, reducing the reliance on primary aggregate extraction where appropriate
- supporting the retention of and proposals for fixed construction, demolition and excavation waste recycling sites in appropriate locations across the borough
- supporting environmentally acceptable proposals which enable the use of locally sourced building stone for architectural and heritage purposes
- ensuring the sustainable and prudent use of all natural mineral resources, including salt and brine, whilst having regard to the need to contribute to the provision of nationally significant gas storage capacity
- requiring all proposals for minerals development to include high quality restoration and aftercare proposals in keeping with surrounding land uses.

Explanation

8.85 Mineral resources are key to the delivery of sustainable economic growth and enable the delivery of the necessary infrastructure our communities need. The National Planning Policy Framework (NPPF) requires all Mineral Planning Authorities to plan for and maintain a minimum seven year landbank for aggregate land-won sand and gravel. Current sub-national guidelines, apportioned by the North West Aggregate Working Party as shown in North West AWP aggregate apportionment requirements 2005-2020 (million tonnes), require Cheshire West and Chester to contribute 0.80mt of aggregate land-won sand and gravel per annum to meet demand between 2005-2020. This apportionment has been rolled forward to the end of the Plan period to calculate a minimum requirement of 16 million tonnes for the period 2010-2030. This requirement will be reviewed annually in light of the results of the Local Aggregate Assessment and any revised sub-national apportionment figures being established, having regard to the environmental acceptability of any changes.

Table 8.3 North West AWP aggregate apportionment requirements 2005-2020 (million tonnes)

Area	Land-won sand and gravel 2005-2020	Annual sand and gravel requirement	Crushed rock 2005-2020	Annual crushed rock requirement
Cheshire East	11.36	0.71	0.66	0.04
Cheshire West and Chester	12.8	0.80	N/A	N/A
Cumbria ⁽¹⁾	14.1	0.88	64.4	4.02
Greater Manchester, Merseyside and Warrington	7.04	0.43	67.9	1.32
Lancashire	6.86	0.44	21.1	4.24
Total	52.0	3.26	154.0	9.63

1. It should be noted that Cumbria did not agree to the revised apportionments which were taken forward by the AWP on a majority vote basis.

8.86 The Minerals Audit 2011⁽¹⁾ provided reserve and production data for aggregate land-won sand and gravel up to December 2010. The information collected during the audit provided an overview of available resources as at December 2010 and the expected depletion dates for each of the active sand and gravel sites within the borough. This data has now been updated through the Interim Local Aggregate Assessment 2013 which collates reserve and production data for the period 1 January to 31 December 2012 and provides an overview of sales patterns over the previous ten year period.

1 'Minerals Audit: Sand and gravel sites', Cheshire West and Chester Council, July 2011

8.87 The Interim Local Aggregate Assessment 2013 provided a ten year average sales figure of 0.72mt per annum. Ten year average sales take account of periods of high sales and steep declines as experienced in the UK during the past ten year period. The average sales figure has been used, alongside the apportionment requirement, to provide up to date landbank data for the borough.

Table 8.4 Aggregate landbank figures as at 31 December 2012

Method	Ten year sales (mt)	Annual apportionment (mt)	Reserves as at 31.12.2012 (mt)	Landbank (years)
Ten year average sales	0.72mt		9.3mt	12.9 years
Annual apportionment figure		0.80mt	9.3	11.63 years

8.88 Table 7.4 shows that under both methodologies the borough has an adequate landbank for sand and gravel in excess of the minimum seven years as outlined in the NPPF. However, as per advice set out in the Guidance on the Managed Aggregate Supply System a landbank in excess of the minimum seven years should not be seen as a reason to restrict further release of aggregate reserves.

8.89 Local Aggregate Assessments will provide an up-to-date appraisal of demand for and supply of aggregate in Cheshire West and Chester. It is anticipated that these assessments will indicate any fall in available resources or indeed any surplus.

8.90 The Council will identify specific sites and preferred areas for mineral extraction in the Local Plan (Part Two) Land Allocations and Detailed Policies Plan for the determination of planning applications. Policy ENV 9 works alongside other policies in the Local Plan (Part One) Strategic Policies, retained policies in the Cheshire Replacement Minerals Local Plan and Planning Practice Guidance to the National Planning Policy Framework, to assess and manage the impacts of minerals proposals until such time as they are replaced by the Local Plan (Part Two) Land Allocations and Detailed Policies Plan.

Consultee Comments for Planning Application 21/02454/AAC

Application Summary

Application Number: 21/02454/AAC

Address: Hynet North West Carbon Dioxide Pipeline

Proposal: Scoping opinion consultation

Case Officer: Mr Ben Greenwood

Consultee Details

Name: Mr Mark Leah - Archaeology

Address: [REDACTED]

Email: Not Available

On Behalf Of: Archaeology Team

Comments

Planning

Hynet North West Carbon Dioxide Pipeline: EIA Scoping Document (Ref 21/02454/AAC)

Thank you for your consultation concerning the Scoping Report for the proposed EIA for the above project, the construction of which will affect areas in both Cheshire West and Chester and Wales.

Section Seven (Pages 98-111) of the Scoping Report considers Cultural Heritage issues, including archaeology and the historic built environment. APASs advice is limited to archaeological matters as responsibility for comment on the historic built environment lies with the authoritys conservation officers. With regard to archaeology, the report provides a summary of the currently available information on both designated and undesignated Heritage Assets (7.3) and outlines a methodology for the further desk-based studies that will inform the production of the report (7.7). In this section it is noted that, where access can be gained, geophysical survey and walk-over survey are likely to be utilised to identify potential areas of interest (7.7.2). It is advised that this represents an appropriate approach which will assist in defining, where necessary, a full programme of archaeological mitigation.

It may be helpful to note that, prior to receipt of this consultation, APAS met remotely with the applicants archaeological consultants and representatives of Historic England, CADW, and the Clwyd Powys Archaeological Trust who act as archaeological advisors to Flintshire Council. The briefing that we received on the nature of the scheme, data gathering that has been carried out to date, the approach that will be followed during the production of the cultural heritage study, and the techniques that may be employed during any subsequent evaluation work reflects the information given in the Scoping Report. The subsequent discussion allowed APAS to highlight a number of points including the potential for palaeoenvironmental work, the archaeological potential

of the land either side of the Gowy valley, the sensitivity of the land around Shotwick medieval deer park and the Scheduled Castle (the latter possibly just within the 500m buffer around the potential pipeline easement), and issues concerning the reliability of geophysical survey on the regions drift geology. These observations were all received positively.

I hope that these observations are helpful but please get in touch if you wish to discuss matters in more detail.

Mark Leah

Development Management Archaeologist and Team Leader

Cheshire Archaeology Planning Advisory Service,

Economy and Housing

Cheshire West and Chester Council

Tel: [REDACTED]

Email: [REDACTED]

Location: Nicholas House, 1 Black Friars, Chester CH1 2NU

Visit: cheshirewestandchester.gov.uk

**21/02454/AAC Request for a formal opinion on the scope of an
Environmental Statement (ES) under Regulation 10 and 11 of the
Environmental Impact Assessment Regulations 2017: HyNet North West
Carbon Dioxide Pipeline**

(Lead Local Flood Authority response – 18th June 2021)

The proposal is to scope in water to consider impacts on the surface water and groundwater receptors to include Main Rivers, Ordinary Watercourses and WFD water bodies. We are in agreement with the proposed assessment requirements, but have the following specific comments:

Above ground installations, block valve stations and compound areas will require a flood risk assessment and drainage strategy in accordance with NPPF. Where development is proposed within Flood Zone 2 and 3 mitigation measures should be provided in accordance with NPPF and Environment Agency standing advice.

Where ordinary watercourses are crossed via trenched crossings, a Land Drainage Consent will be required for both the temporary and permanent works and mitigation measures provided through temporary diversion or pumping along with method statement for undertaking the works.

Potential for increased groundwater flood risk up gradient of longitudinal below ground structures should be assessed and mitigation measures provided to manage any temporary and permanent groundwater emergence at the surface.

The proposed development is generally within an area at low risk of surface water flooding but there are parts of the development which are at medium to high risk of surface water flooding which need to be considered as part of the layout to ensure any overland flow routes are retained.

Surface water management for the above ground works needs to follow the drainage hierarchy:

- Infiltration into ground
- Connection to the watercourse
- Connection to discharge water sewer and as a last resort;
- Connection to the combined sewer.

SuDS should be designed to control surface water as close to its source as possible. Well-designed sustainable drainage systems also provide opportunities to:

- reduce the causes and impacts of flooding,
- remove pollutants from urban run-off at source,
- combine water management with green space providing benefits for amenity, recreation and wildlife.

The use of SuDS should also help achieve the sustainability objectives of the National Planning Policy Framework (NPPF).

The suitability of sustainable drainage systems should be assessed in accordance with paragraphs 051, 079 and 080 of the revised NPPF Planning Practice Guidance for Flood Risk and Coastal Change (<https://www.gov.uk/guidance/flood-risk-and-coastal-change>).

Sustainable drainage systems should be designed in line with national Non-Statutory Technical Standards for SuDS (<https://www.gov.uk/government/publications/sustainable-drainage-systems-non-statutory-technical-standards>) and local policies ENV1, DM40, DM41, DM42 and DM43 of the Core Strategy.

Surface water attenuation requirements should be assessed that offer a reduction in surface water runoff rate in line with the Policy DM 41 (i.e. at least 30% betterment on brownfield flows and greenfield runoff for existing greenfield sites). Please note that all new connections to the watercourses shall comply with reduction of flows to greenfield runoff rates.

Surface water should be managed to ensure there is no increased surface water from the proposed development and runoff from extreme events should be managed such that adjacent third party land is not affected.

Hydraulic calculations and drawings to support the design need to be provided along with an assessment of overland flow routes for extreme events that is diverted away from buildings.

Maintenance of SuDS is essential for its proper operation and a clear management and maintenance plan for the lifetime of the works.

In considering a development that includes a sustainable drainage system, Cheshire West and Chester Council as local planning authority will want to be satisfied that the proposed minimum standards of operation are appropriate and that there are clear arrangements in place for ongoing maintenance. Information sought by Cheshire West and Chester Council would be no more than necessary, having regard to the nature and scale of the development concerned in line with NPPF Paragraph 081.

A management and maintenance plan for the lifetime of the development which shall include the arrangements for adoption by any public body or statutory undertaker, or any other arrangements to secure the operation of the sustainable drainage scheme throughout its lifetime should be provided.

Map: J

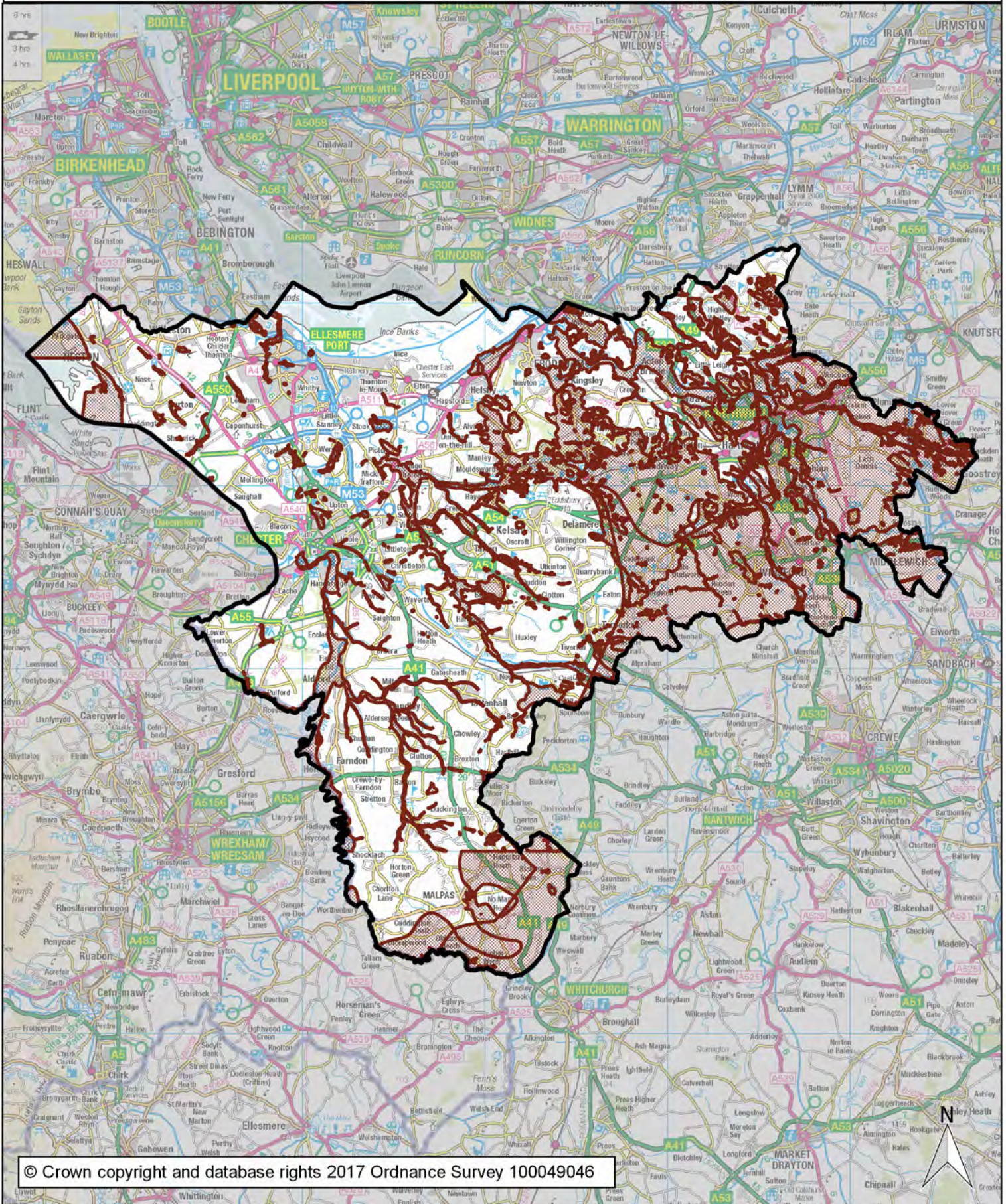
Local Plan: Cheshire West and Chester Local Plan (Part One) Strategic Policies

Policy number: ENV 9

Description: Minerals supply and safeguarding (Sand and Gravel MSA, Coal MSA and Salt MSA)

Amendment: No change

 ENV 9 Minerals Supply and Safeguarding



Flintshire County Council
County Hall
MOLD
CH7 6NF

Date: 29/06/2021
Our Ref: PLA0057900
Your Ref: 063069

Dear Sir/Madam

Grid Ref: SJ236705 333431 368957

Site: Cheshire England to Flintshire Wales Flintshire

Development: Consultation on the Scoping Request made on behalf of Liverpool Bay CSS Limited for an Order granting Development Consent for the HyNet

We refer to your consultation letter received in accordance with the above regulations. We have reviewed the documents available at this stage in the process and specifically the Scoping Request received:

Whilst we have no comments on the scoping opinion itself, we would advise that we have numerous wastewater and clean water assets crossing in close proximity to the site and would be grateful if the developer could contact us to discuss further so we can assess the impact on our assets.

We respectfully reserve the right to comment further on any matters and issues arising from ongoing and future consultation. However, we trust the above information is helpful at this stage and we look forward to continuing our engagement on the project prior and during the submission of an application to the Planning Inspectorate.

Finally, we would be grateful if all future correspondence relating to the project is directed to me at the above address. For any further information, please do not hesitate to contact me.

If you have any queries please contact the undersigned on 0800 917 2652 or via email at

Please quote our reference number in all communications and correspondence.

Yours faithfully,

Alaw Jones
Development Control Officer
Developer Services

Senior EIA and Land Rights Advisor
The Planning Inspectorate
3/18 Eagle Wing
Temple Quay House (2 The Square)
Temple Quay
Bristol
Avon
BS1 6PN

Our ref: SO/2021/121261/01-L01
Your ref: EN070007-000007-210603
Date: 02 July 2021

FAO Helen Lancaster

Dear Madam

**EIA SCOPING OPINION FOR HYNET NORTH WEST CARBON DIOXIDE PIPELINE
DCO NEW UNDERGROUND CARBON DIOXIDE PIPELINE AND ASSOCIATED
ABOVE GROUND INSTALLATIONS
FROM CHESHIRE, ENGLAND TO FLINTSHIRE, WALES**

Thank you for the submission of an Environmental Impact Assessment scoping report for the HyNet North West Carbon Dioxide Pipeline DCO, dated June 2021.

We have reviewed the scoping report and welcome the inclusion of a chapter on Land and Soils as well as Water Resources and flood risk.

The document describes the project as new underground carbon dioxide pipeline from Cheshire, England to Flintshire, Wales and associated Above Ground Installations (AGI) (the 'Proposed Development').

The Proposed Development will form part of the wider HyNet North West Project (the 'Project') some of which we have provided commentary on previously.

At this stage, as we understand the report, the proposal is at the pipeline corridor stage with no actual defined pipeline route having decided upon or confirmed. Those corridors are identified as Northern, Central and Southern.

At this high-level stage therefore we would like to offer the following advice.

Advice to applicant

Environmental permit

The Environmental Permitting (England and Wales) Regulations 2016 require a permit to be obtained for any activities which will take place:

- on or within 8 metres of a main river (16 metres if tidal)
- on or within 8 metres of a flood defence structure or culverted main river (16 metres if tidal)

Environment Agency
Richard Fairclough House Knutsford Road, Warrington, WA4 1HT.
Customer services line: 03708 506 506
www.gov.uk/environment-agency

Cont/d..

- on or within 16 metres of a sea defence
- involving quarrying or excavation within 16 metres of any main river, flood defence (including a remote defence) or culvert
- in a floodplain more than 8 metres from the river bank, culvert or flood defence structure (16 metres if it's a tidal main river) and you don't already have planning permission

For further guidance please visit <https://www.gov.uk/guidance/flood-risk-activities-environmental-permits> or contact our National Customer Contact Centre on 03708 506 506.

The applicant should not assume that a permit will automatically be forthcoming once planning permission has been granted, and we advise them to consult with us at the earliest opportunity.

We would welcome early consultation regarding potential permit applications for works affecting rivers, watercourses and the floodplain.

Water Framework Directive (WFD)

With any development alongside watercourses, consideration should be given to the requirements of the Water Framework Directive (WFD)

[Water Framework Directive assessment: estuarine and coastal waters - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/water-framework-directive-assessment-estuarine-and-coastal-waters)

This includes preventing overall deterioration in water quality and promoting improvement in the ecological status of any water body. Actions to achieve this are listed in the North West River Basin Management Plan (RBMP).

[North West river basin district river basin management plan - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/north-west-river-basin-district-river-basin-management-plan)

Where appropriate, a WFD Assessment should assess any potential impacts on the watercourse and demonstrate that the required enhancements will be delivered. In some cases the requirements of a WFD assessment can be incorporated into an Environmental Impact Assessment. Any development that has the potential to cause deterioration in classification under WFD or that precludes the recommended actions from being delivered in the future is likely to be considered unacceptable to us.

[Water supply, wastewater and water quality - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/water-supply-wastewater-and-water-quality)

Groundwater position statements

We would like to refer the applicant/enquirer to our groundwater position statements in '[The Environment Agency's approach to groundwater protection](https://www.gov.uk/guidance/the-environment-agencys-approach-to-groundwater-protection)', available from gov.uk.

This publication sets out our position for a wide range of activities and developments. Including:

- Waste management
- Discharge of liquid effluents
- Land contamination
- Ground source heat pumps
- Cemetery developments
- Drainage

Model Procedures and good practice

Due to the former land use(s), soil and /or groundwater contamination may exist at the site and the associated risks to controlled waters should be addressed by:

We recommend that developers should:

- Follow the risk management framework provided in Guidance on Land contamination risk management (LCRM), when dealing with land affected by contamination
- Refer to our [Guiding principles for land contamination](#) for the type of information that we require in order to assess risks to controlled waters from the site - the local authority can advise on risk to other receptors, such as human health
- Consider using the [National Quality Mark Scheme for Land Contamination Management](#) which involves the use of competent persons to ensure that land contamination risks are appropriately managed
- Refer to the [contaminated land](#) pages on gov.uk for more information

All investigations of land potentially affected by contamination should be carried out by or under the direction of a suitably qualified competent person and in accordance with BS 10175 (2001) Code of practice for the investigation of potentially contaminated sites.

As a more detailed assessment of the pipeline route is considered we would recommend that the LCRM framework in that the following should be considered:

1. A preliminary risk assessment which has identified:
 - all previous uses
 - potential contaminants associated with those uses
 - a conceptual model of the site indicating sources, pathways and receptors
 - potentially unacceptable risks arising from contamination at the site.
2. A site investigation scheme, based on (1) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.
3. The results of the site investigation and the detailed risk assessment referred to in (2) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.
4. A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in the remediation strategy in (3) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.

Where the remediation / redevelopment of the site will involve waste management issues we offer the following advice:

Waste on-site

The CL:AIRE Definition of Waste: Development Industry Code of Practice (version 2) provides operators with a framework for determining whether or not excavated material arising from site during remediation and/or land development works is waste or has ceased to be waste.

Under the Code of Practice:

- excavated materials that are recovered via a treatment operation can be reused on-site providing they are treated to a standard such that they are fit for purpose and unlikely to cause pollution
- treated materials can be transferred between sites as part of a hub and cluster project
- some naturally occurring clean material can be transferred directly between sites

Developers should ensure that all contaminated materials are adequately characterised both chemically and physically, and that the permitting status of any proposed on-site operations are clear. If in doubt, the Environment Agency should be contacted for

advice at an early stage to avoid any delays.

We recommend that developers should refer to:

- the [position statement](#) on the Definition of Waste: Development Industry Code of Practice
- The [waste management](#) page on GOV.UK

Waste to be taken off-site

Contaminated soil that is (or must be) disposed of is waste. Therefore, its handling, transport, treatment and disposal are subject to waste management legislation, which includes:

- Duty of Care Regulations 1991
- Hazardous Waste (England and Wales) Regulations 2005
- Environmental Permitting (England and Wales) Regulations 2016
- The Waste (England and Wales) Regulations 2011

Developers should ensure that all contaminated materials are adequately characterised both chemically and physically in line with British Standard BS EN 14899:2005 'Characterization of Waste - Sampling of Waste Materials - Framework for the Preparation and Application of a Sampling Plan' and that the permitting status of any proposed treatment or disposal activity is clear. If in doubt, the Environment Agency should be contacted for advice at an early stage to avoid any delays.

Dewatering

Dewatering is the removal/abstraction of water (predominantly, but not confined to, groundwater) in order to locally lower water levels near the excavation. This can allow operations to take place, such as mining, quarrying, building, engineering works or other operations, whether underground or on the surface. Any dewatering activities on-site could have an impact upon local wells, water supplies and/or nearby watercourses and environmental interests. This activity was previously exempt from requiring an abstraction licence. Since 1 January 2018, most cases of new planned dewatering operations above 20 cubic metres a day will require a water abstraction licence from us prior to the commencement of dewatering activities at the site.

More information is available on gov.uk:

<https://www.gov.uk/guidance/water-management-apply-for-a-water-abstraction-or-impoundment-licence#apply-for-a-licence-for-a-previously-exempt-abstraction>.

Regulatory position statements

If dewatering and discharging into surface water is required during development, the following Regulatory Position Statement will apply: 'Temporary dewatering from excavations to surface water.'

<https://www.gov.uk/government/publications/temporary-dewatering-from-excavations-to-surface-water>

Seeking further detailed technical advice and guidance

Given the likely technical issues regarding this phase of the development we have introduced a chargeable scheme whereby detailed technical advice and guidance can be sought from technical officers for the duration of the project.

We are keen to work with you in resolving any problems or issues that may occur so that any possible delays are minimised or avoided.

Should you wish us to undertake a detailed review of your reports or want further advice

to address technical issues, we can do this as part of our charged service.

Further engagement at the pre-application stage can speed up the formal planning application process and provide you with certainty as to what our response to your planning application will be. It should also result in a better quality and more environmentally sensitive development. As part of our charged for service we will provide a dedicated project manager to act as a single point of contact to help resolve any problems.

We currently charge £100per hour. We will provide you with an estimated cost for any further discussions or review of documents.

The terms and conditions of our charged for service are available upon request and we recommend that you contact the area Sustainable Places team at the following email address SPPlanning.RFH@environment-agency.gov.uk

I trust you find these comments useful in preparing a response on the scoping opinion. Should you wish to discuss anything in further detail please do not hesitate to contact me.

Yours faithfully

Ms DAWN HEWITT
Planning Advisor

Direct dial [REDACTED]

Direct e-mail [REDACTED]

From: [REDACTED]
To: [Hynet CO2 Pipeline](#)
Subject: Your Reference: EN070007-000007-210603 Our Reference: PE159168. Plant Not Affected Notice from ES Pipelines
Date: 09 June 2021 14:13:05

Hynet CO2 Pipeline
Planning Inspectorate

9 June 2021

Reference: EN070007-000007-210603

Dear Sir/Madam,

Thank you for your recent plant enquiry at: HyNet North West Carbon Dioxide Pipeline

I can confirm that ESP Utilities Group Ltd has no gas or electricity apparatus in the vicinity of this site address and will not be affected by your proposed works.

ESP Utilities Group Ltd are continually laying new gas and electricity networks and this notification is valid for 90 days from the date of this letter. If your proposed works start after this period of time, please re-submit your enquiry.

Important Notice

Please be advised that any enquiries for ESP Connections Ltd, formerly known as British Gas Connections Ltd, should be sent directly to us at the address shown above or alternatively you can email us at: PlantResponses@espug.com

ESP have provided you with all the information we have to date however, there may be inaccuracies or delays in data collection and digitisation caused by a range of practical and unforeseeable reasons and as such, we recommend the following steps are taken as a minimum before work is commenced that involves the opening of any ground and reference made to HSG47 (Avoiding danger from underground services).

A. Plans are consulted and marked up on site

B. The use of a suitable and sufficient device to locate underground utilities before digging (for example the C.A.T and Genny)

C. Trial holes are dug to expose any marked up or traced utilities in the ground

D. If no utilities are shown on any plans and no trace is received using a suitable and sufficient device, trial holes are dug nonetheless using hand tools at the location or at regular intervals along the location that the work is being carried out depending on the length of excavation work being undertaken

E. All location work is carried out by individuals with sufficient experience and technical knowledge who may choose to control this activity under a Safe System Of Work

Yours faithfully,

Plant Protection Team
ESP Utilities Group Ltd



Bluebird House
Mole Business Park
Leatherhead
KT22 7BA

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Andrew Farrow
Chief Officer (Planning, Environment & Economy)
Prif Swyddog (Cynllunio, Amgylchedd ac Economi)



Planning Inspectorate

(via e-mail to
hynetco2pipeline@planninginspectorate.gov.uk)

Your Ref/Eich Cyf	EN070007-000007-210603
Our Ref/Ein Cyf	063069
Date/Dyddiad	30/06/2021
Ask for/Gofynner am	Miss H Parish
Direct Dial/Rhif Union	██████████

Dear Sir/Madam,

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 – Regulations 10 and 11

Local Authority Consultation: Scoping Request made on behalf of Liverpool Bay CSS Limited (the Applicant) for an Order granting Development Consent for the HyNet North West Carbon Dioxide Pipeline ('the Proposed Development') proposed from Cheshire, England to Flintshire, Wales.

Thank you for your consultation letter of 3 June 2021 requesting the Council's advice on the scope of the EIA and proposed methodologies outlined in the submitted Scoping Report for the above proposed development.

We are in general agreement with the proposed scope and the assessment methodologies as set out within the applicant's Scoping Report. Responses from our consultees are summarised within the respective sections within this letter under each chapter topic heading as suggested within the Scoping Report. We would advise that the applicant should refer to, and expand upon these matters raised within the Environmental Statement, or any relevant supplementary information should a Development Consent Order for this proposed development be made.

The Council has taken into account its consultation responses and considered the specific characteristics of the proposed development, the type of development and the environmental features likely to be affected by the development. The County Council has undertaken consultation with internal consultees and local consultative bodies, as it is understood that the Planning Inspectorate will have consulted national bodies such as The Coal Authority, Network Rail and Natural Resources Wales. Although this advice seeks to ensure that any future Environmental Statement includes such information that is considered reasonably required to determine any future DCO application based on the current proposal, we would be obliged that you could stress to the applicant that further information may still be required once the Environmental Statement and application has been submitted.

County Hall, Mold. CH7 6NF
www.flintshire.gov.uk
Neuadd y Sir, Yr Wyddgrug. CH7 6NF
www.sirymfflint.gov.uk



The Council welcomes correspondence in Welsh or English
Mae'r Cyngor yn croesawu gohebiaeth yn y Gymraeg neu'r Saesneg

Introduction

Advice has been sought by the Planning Inspectorate on the scope of the EIA and the proposed methodologies in the submitted Environmental Impact Assessment Scoping Report for the new underground carbon dioxide pipeline from Cheshire, England to Flintshire, Wales, and associated Above Ground Installations (AGI) (the 'Proposed Development').

This Local Authority response relates only to the proposed development that lies within the administrative boundaries of Flintshire County Council in Wales.

The Proposed Development

It is understood that the Proposed Development will form part of the HyNet North West Project (the 'Project'). The aim of the Project is to reduce carbon dioxide emissions from industry, homes and transport and support economic growth in the North West of England and North Wales. The Project includes infrastructure to produce and distribute low carbon hydrogen. The hydrogen is produced using natural gas, with the resultant carbon dioxide emissions captured and stored.

It is also understood that the Proposed Development does not include infrastructure to produce hydrogen or to capture and store carbon dioxide emissions. The Proposed Development includes infrastructure to facilitate the transportation of carbon dioxide which will be captured from proposed hydrogen production facilities and existing industrial sources in the North West of England and North Wales and stored in existing depleted oil and gas fields in Liverpool Bay.

The Application will seek consent for the construction and operation of the following components which form part of the Carbon Capture and Storage (CCS) infrastructure:

- Grinsome Road Above Ground Installation (AGI) to Alcohols Site AGI carbon dioxide pipeline – a section of onshore pipeline (up to 20" in diameter) to transport CO₂ from the Grinsome Road AGI (located in the vicinity of the CF Fertilisers plant, Cheshire, England) to the Alcohols Site AGI (located within the Stanlow Refinery site east of Ellesmere Port, Cheshire, England);
- Alcohols Site AGI to Flint AGI carbon dioxide pipeline – a section of onshore pipeline (up to 36" in diameter) to transport CO₂ from the Alcohols Site AGI to the Flint AGI (located on land north-west of Connah's Quay and south of Flint, Flintshire, Wales);
- Grinsome Road AGI, Alcohols Site AGI, and Flint AGI;
- Block Valve Stations (BVS) located along;
 - o the existing Flint-Point of Ayr (PoA) pipeline; and
 - o the proposed Alcohols Site AGI to Flint AGI carbon dioxide pipeline;
 - o Other associated AGIs – this will include Cathodic Protection (CP) transformer rectifier cabinets

Description of Site and Surroundings

The proposed development forms a long linear application site and therefore crosses a number of community areas and ward boundaries from the Flintshire/Cheshire boundary through to the Point of Ayr (PoA). Within Flintshire, the Scoping Boundary is set out on the submitted documentation and it is noted that the route of the new build infrastructure and pipeline has not yet been finalised with the Scoping Report proposing a number of routes corridors for consideration. The scoping advice provides some commentary on the constraints which may be associated with the proposed routing options which may assist with the decision making process as to the location of the final new pipeline route and the associated AGIs.

It is understood that the proposal intends to utilise the existing Flint – PoA pipeline which is used at present to transport natural gas from the gas terminal at PoA. A number of Blocked Value Stations (BVS) are also proposed along the route at:-

- Coed-y-Cra
- Cornist Lane
- Pentre Halkyn
- Babell

It is noted that table 3-2: 'Location and surroundings of Proposed BVS' provides details of the respective 'Parish' in which the BVS is proposed to be located. Please note that the Local Government Act 1972 renamed Welsh parish council's as 'Community Councils'. For example, the proposed Coed-y-Cra BVS is located within the 'community of Flint Town'.

Please note, the Cornist BVS as proposed also lies within the boundary of Halkyn Community Council as well as Flint Town Council as it crosses the boundary and therefore this should be referenced within table 3-2.

Key Issues

The summary of key issues associated with the proposed development are listed at paragraph 4.10.1 of the Scoping Report and include: the contribution the proposal would have in relation to delivering low carbon energy projects and contribution to climate change mitigation, air quality, the impact on cultural heritage and any archaeology that may be present in the application site area, ecology and biodiversity, land, soils and contaminated land, landscape and visual impact, major accidents and disasters, materials (including minerals) and waste, noise and vibration, population and human health, traffic and transport, water resources and flood risk and the cumulative effect.

Compliance with the Welsh planning policy, guidance and legislation as well as Local Development Plan Policies and supplementary planning guidance should also be considered.

Planning Policy and the adopted development plan

It is noted that this project is a cross boundary project which would affect both England and Wales. Therefore, the section of the new pipeline and associated works with both the new and the existing pipeline that lie in Wales, should be considered against the Development Plan within Wales. I would draw the consultants' attention to the legislation in force in Wales as guidance and legislation are different for Wales than for England and this is not reflected in the submitted Scoping Report as there is very little reference to the relevant Welsh guidance/policy/legislation.

Some sections of the Scoping Report do not list the relevant Welsh policy or guidance in which the proposed development should be considered. Within some sections of the Scoping Report, there is no mention of the adopted Flintshire development plan and respective policies that the new build infrastructure section of pipe, the BVS and AGIs in Flintshire will be considered against.

The submitted environmental statement will therefore need to have regard for Planning Policy Wales (PPW) (edition 11, 2021) and any relevant legislation that is in force in Wales. Also the application should have regard to the respective and relevant policies within the Flintshire Unitary Development Plan (UDP). The Flintshire deposit Local Development Plan (LDP) is currently under examination. However, by the time this application is submitted, the Flintshire LDP could be adopted and therefore the applicant and its consultants should be made aware of the LDP policies which may be in place when the application is submitted and determined. The Development Plan for the section of the project that lies within Wales comprises Planning Policy Wales, (PPW) (edition 11, 2021) relevant Technical Advice Notes and also the Flintshire UDP or the Flintshire LDP, should it be adopted when this application is submitted, and any supplementary planning documents that may be relevant to the project.

The Wellbeing of Future Generations Act 2015 puts in place seven well-being goals guiding sustainable development. One of which endeavours to achieve 'A prosperous Wales' in which *"An innovative, productive and low carbon society which recognises the limits of the global environment and therefore uses resources efficiently and proportionately (including acting on climate change); and which develops a skilled and well-educated population in an economy which generates wealth and provides employment opportunities, allowing people to take advantage of the wealth generated through securing decent work."* The HyNet NW project would contribute to achieving the long term goal of the Wellbeing of Future Generations Act of achieving a prosperous Wales.

The specialist consultants commissioned for each respective section of the Environmental Statement should therefore be made aware that regard will need to be made for the development plan in Flintshire for the elements of the project that lie within Wales and any relevant legislation or guidance which should be considered.

Consultees

It is noted that a list of statutory and non-statutory consultees has been provided in the Scoping Report at paragraph 4.2.1. It is suggested that Network Rail should be added to this list and consulted as the proposed and existing pipeline may affect their assets. Likewise the same is suggested in relation to the utility companies that have assets in the area of the proposed and existing pipeline. The County Council has consulted the Clwyd-Powys Archaeological Trust (CPAT) and their response is summarised below. CPAT and Cheshire Archaeology should also be added to the list along with the Parish/Community Councils which the pipelines; both existing and proposed could potentially effect. It would also be advisable to consult neighbouring authority Denbighshire County Council due to the proximity to the Flintshire /Denbighshire County Council borders and the potential impact on the communities of Denbighshire. It is also noted that Cheshire West and Chester Council includes the former local authority area of Chester City Council which now no longer exists.

Air Quality and Noise and Vibration

The Flintshire County Council Environmental Health Officer (EHO) has reviewed the Scoping Report. He would like to support the ambitions of this project. The FCC EHO is satisfied that the scoping has identified those aspects of the proposal that would be of most concern for air quality and noise during both the construction and operational phases, and as a result the most appropriate mitigation measures can be incorporated into the project design as it progresses. The FCC EHO is happy to endorse the Scoping Report.

Technical Advice Note (TAN) 11: Noise should be added to the list of references and regard should be made to this Welsh Government guidance note as the detailed guidance for PPW (edition 11, 2021) when the noise impact is considered as part of the Environmental Statement.

Archaeology and Cultural Heritage

Comments from Clwyd-Powys Archaeological Trust (CPAT) have reviewed the Scoping Report and have the following comments:

- Para 4.2.1; it would be advisable to add Clwyd-Powys Archaeological Trust and Cheshire Archaeology to be added to the list of consultees.
- Para 4.2.3; although CPAT are non-statutory organisation (although they do maintain the statutory HER on behalf of Welsh Ministers), CPAT should also be consulted on the PEIR to support the statutory consultation anticipated for Q1 in 2022.
- Para 7.2.2; Cadw may require a 3km setting assessment buffer for the AGI (currently 1km). This would be worth confirming directly with Cadw.
- Para 7.3.1; The National Monuments Record (NMR) should also be listed here as an additional data source.
- Table 7-1. CPAT agree with the suggestions for which parts of the development are scoped in/out of the EIA for the constructional and operational phases.

- Para 7.7.1; the legislation listed in this section should also include Technical advice note (TAN) 24: The Historic Environment (May 2017) as the detailed guidance for PPW and the Historic Environment (Wales) Act 2016.
- Para 7.7.2; The HEBDA methodology for assessment should also include the following sources for consultation as a minimum; HER, NMR, National Library of Wales (cartographic and documentary sections + online title maps at <https://places.library.wales/>), relevant County Archives (Flintshire, Wrexham), NRW Lidar data and historic aerial photographic archives.

As part of the walkover survey a historic hedgerows survey should be completed to determine if hedgerows/field boundaries are classed as historic in accordance with the Hedgerow Regulations 1997 criteria or are otherwise important.

Finally, Technical Advice Note (TAN) 24: the Historic Environment should be mentioned in conjunction with Planning Policy Wales (PPW 11, 2021) under the last bullet point for this section.

Cadw, as the Welsh Government's historic environment service, has assessed the characteristics of this proposed development and its location within the historic environment. In particular, the likely impact on designated or registered historic assets of national importance. In assessing if the likely impact of the development is significant Cadw has considered the extent to which the proposals affect those nationally important historic assets that form the historic environment, including scheduled ancient monuments, listed buildings, registered historic parks, gardens and landscapes.

Cadw have also provided a response on this consultation and have provided a list of historic assets that are potentially affected by the proposal including Listed Buildings, Scheduled Ancient Monuments, and registered Historic Landscapes (letter enclosed and forwarded directly to the applicant for their information). Cadw have also noted that the Scoping Report produced by WSP has identified that whilst there will be no direct impact on any designated historic asset in Wales there is a potential impact on the settings of the above. It is therefore proposed to assess the scale of these impacts as part of the ES. Cadw concur that with this assessment.

However, the Scoping Report suggests that impact of the proposed development on settings of the designated historic assets in Wales will be assessed using the methodology outlined in the Welsh Government document "Setting of Historic Assets in Wales" (2017), whilst the impact of the proposed development on the settings of the designated heritage assets in Wales will be assessed using the methodology outlined in the Historic England document "The Setting of Heritage Assets" (2017). The use of similar but different methodologies to assess this impact could lead to comparable historic assets being assessed differently. As such it is recommended that the impact of the proposed development on the setting of all designated historic assets should be assessed using one methodology and, as the application will be determined by the UK Government, the assessment should follow the methodology outlined in the Historic England document "The Setting of Heritage Assets" (2017).

Ecology and Biodiversity

River Dee SSSI/SAC - There needs to be enough information in the ES to demonstrate that the River Dee crossing will not have impact on the SAC features principally migratory fish but also otter during construction and operation. Migratory fish can be sensitive to drilling/ piling vibrations. Ecological Surveys have been undertaken for the new Queensferry Bridge which may also be relevant to this project particularly as background information.

Dee Estuary SSSI/SPA/Ramsar - River Dee Floodplain fields in and around Sealand can be used by Dee Estuary bird assemblage although this is quite variable often depending on the crops planted, but for the purpose of this project Dee Estuary SPA/wintering birds should be scoped in, so that the HRA can demonstrate no effect on the designated features.

Talacre Dunes SSSI and part of the Dee Estuary SAC - Talacre Dunes are noted for the presence of Natterjack Toad and its habitat. While proposals in relation to the Eni gas terminal and pipeline amendments will involve a separate planning application that will be made to Flintshire, a commitment to the continued dune management would be useful to be referenced for inclusion in the HRA and ES.

Deeside and Buckley Newt Sites SAC - The Conservation Objectives for the site reference that “*Habitats located between SAC compartments are important for migration, dispersal and genetic exchange of the species, which in turn is of key importance to maintain the range and population of Great Crested Newt (GCN) in this locality*”. While the SAC would not be directly affected, habitats between SAC compartments would be and there needs to be reference to this within the assessment especially where GCN are recorded.

Non-statutory Wildlife Sites are not referenced in Table 8-1; in Flintshire these are predominantly the ancient woodlands, already listed on the constraints, but wildlife sites do include other habitats as listed in Section 7 Environment (Wales) Act 2016. *Section 7 – list of the habitats of principal importance for the purpose of maintaining and enhancing biodiversity*. Wildlife Site information is available from Cofnod.

Other TPOs may be relevant for example at Ewloe Green and Northop/Northop Hall.

In Wales, Planning Policy Wales (PPW) 11, sets out that “planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means that development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity” (para 6.4.5 refers). This policy and subsequent policies in Chapter 6 of PPW 11 respond to the Section 6 Duty of the Environment (Wales) Act 2016. WG Guidance on Biodiversity enhancement measures is due for consultation later this year. Technical Advice Note (TAN) 5: Nature Conservation and Planning as the detailed guidance for PPW (edition 11, 2021) should be added to the list of references and Flintshire UDP Policies.

It is assumed that Natural Resources Wales will respond directly to the Planning Inspectorate consultation in relation to ecological matters and biodiversity as no response has been received yet by the Planning Authority.

Land and Soil

The FCC Contaminated Land Officer is satisfied that the scoping report has identified that land contamination will be a particular concern associated with this project and that further, site specific land contamination assessments, remediation, reinstatement, the movement and deposition of materials and waste management will be required to be completed to enable the progression of the project. However, I would draw the consultants' attention to the legislation in force in Wales as guidance and legislation are different for Wales than for England and this is not reflected in the documents particularly in this section of the report. For example, Welsh Government Contaminated Land statutory guidance, Planning Policy Wales (edition 11, 2021) and The Contaminated Land (Wales) Regulations 2001 and the respective and relevant planning policies within the Flintshire UDP and deposit LDP which is currently under examination however, by the time this application is submitted could be adopted as stated above.

There are quite a few sites along the pipeline which will need much more consideration than has already been given in the Scoping Report. The Contaminated Land Officer is somewhat concerned that some issues don't appear to have been considered yet within the Scoping Report. For example, gas/ vapour/ groundwater monitoring infrastructure, landfills, the former MOD munitions factory in Deeside and lead mines. This can however be addressed in due course but some areas do need looking at in much more detail, on a site specific basis. The detail of the assessments and any mitigation measures may be incorporated into the project design as it progresses and the Contaminated Land Officer would be pleased to discuss the site specific assessments/ measures in due course.

Landscape and Visual

The Scoping Report covers the methodologies for landscape in Chapter 10 and trees in Chapter 4 between 4.11.4 and 4.11.7. The LVIA will probably focus on the local effects of the sections of small scale development, at least the Flintshire side of the border, and their anticipated effects at a local level.

It would be expected that an underground pipeline would have a much greater impact during the installation phase compared to the operational stage when only Above Ground Installations will be visible. The existing gas installation at Talacre is quite intrusive in the landscape because of the hillside to the south, the development's size and its contrast with the surrounding landscape. It will be interesting to see whether the gas installation at Talacre will be smaller as a result of its repurposing and consequently whether LVIA assesses the impact of the development as positive, negative or no change to the landscape?

The methodology for the field assessment of trees is in accordance with BS5837:2012 Trees in relation to Design, Demolition and Construction – Recommendations is considered satisfactory.

It is noted that Oakenholt Wood to the south of Flint is one the county's larger tracts of ancient woodland. The location for the proposed pipe intersects a small part of this ancient woodland to the south of the proposed Flint AGI's. This is shown on the Environmental Constraints Plan 3-12 Sheet 4.

Mineral safeguarding

The Proposals Maps of the Flintshire Unitary Development Plan shows the minerals safeguarding areas (MSA) which ensures that known mineral resources are safeguarded for future use. Policy MIN8 states that any non-mineral development within the MSA will require evidence as to what extent it may sterilise or restrict the working of mineral resources. Where evidence is not forthcoming, or demonstrates that there will be an unacceptable impact on mineral resources the application will be refused. However, where it is considered that the proposed development is of overriding importance, consideration will be given to the principle of pre-extraction of the mineral.

Deposit Local Development Policy EN23 states:-

Non-mineral development within Mineral Safeguarding Areas as defined on the proposals map will only be permitted where it can be demonstrated that:

- i. The mineral underlying the site does not merit extraction, or*
- ii. The need for the non-mineral development outweighs the need to protect the resource, or*
- iii. The mineral can be satisfactorily extracted prior to the non-mineral development, or*
- iv. The development is of a temporary nature or can be removed within the timescales within which the mineral is likely to be needed, and*
- v. Essential infrastructure that supports the supply of minerals would not be compromised or would be provided elsewhere.*

All applications for development, with the exception of householder applications, in these areas shall be supported by a Mineral Safeguarding Assessment. Proposals for non-mineral development on sites of 4ha or more, which are underlain by Category 1 sand and gravel shall be supported by a Prior Extraction Assessment.

The majority of the proposed new pipeline infrastructure would not affect mineral resources. However, it is noted that there is a mineral safeguarding area as defined on the constraints map of the Flintshire Unitary Development Plan and the Deposit Local Development Plan located between the areas where the indicative location of the Flint AGI (B) and indicative location of Flint AGI (C), and also under the proposed pipeline route to the Flint AGI (C). This areas is underlain by superficial glaciofluvial sand and gravel. Should either route option B or C be selective this would effectively sterilise the sand and gravel resources in this location and Policy MIN8 or EN23 would need to be complied with.

Therefore, from a mineral safeguarding perspective, route option A would be preferred as it would not affect known mineral resources. The other route options for the Flint AGI (B) and (C) would potentially sterilise known mineral resources and therefore evidence should be provided that the proposed development is of overriding importance, and/or prior extraction should be considered.

Other sections of the new pipeline infrastructure would also interact with mineral resources. A minerals safeguarding area, to protect superficial glaciofluvial sand and gravel is located to the north and north east of Ewloe. However the mineral resource in this location is largely already sterilised by virtue of the existing settlements in this location. The application should however demonstrate compliance with the relevant mineral safeguarding policy.

Areas of the proposed new pipeline in the Connah's Quay, Queensferry, Sandycroft and Sealand area is also underlain by brick clay and coal resources. The deposit LDP however does not seek to safeguard these mineral resources. However, the adopted UDP does and therefore parts of the proposed pipeline corridor in these areas lie in a mineral safeguarding area in the Flintshire UDP. Much of these mineral resources are also sterilised by the existing development. However some areas are not unconstrained by development and therefore compliance with the relevant UDP/LDP mineral safeguarding policy will need to be demonstrated.

The majority of the existing pipeline route lies within mineral safeguarding areas for limestone as it travels from Halkyn to Trelogan. However the pipeline is already in situ and has already sterilised the mineral along the route of the pipeline and the respective easement.

Traffic and Transportation

The Highways Authority has been consulted and has noted that it is envisaged that the construction phase of HyNet could have significant local impacts on highway operation even though the long term operation of HyNet will not. The Environmental Statement should include a Transport Assessment/Statement considering the potential degree of impact. This may include having to reinforce existing road crossings of the existing pipeline in addition to any new crossing protection on localised diversions of the PoA pipeline.

The proposed new pipeline infrastructure intersects part of the proposed A55 'red route' relief road just in the areas adjacent to Leadbrook Wood. It is understood that the Welsh Government has put this project on hold at present. However, the North and Mid Wales Trunk Road Agency should be consulted on the HyNet Project to ensure that the proposed new pipeline route does not affect the proposed Red Route or prevent it from being constructed in the future.

Public Rights of Way

Paragraph 15.3.10 states that “There are a number of PRow within the study area comprising footpaths, bridleways, restricted byways and byways open to all traffic (‘BOAT’) that are expected to interact with the Proposed Development. The likelihood and scale of impacts at individual PRow will be considered following an on-site review of existing conditions and assessment of construction traffic along routes. It is expected that crossing of PRow will require temporary closure, diversions and/or on-site management to mitigate impacts and minimise disruption to PRow users”

The Public Rights of Way team welcome the consideration and importance that appears to have been given to the PRow network and the impact the proposal would have on significant parts of the network.

The comments and diagram provided for Pipeline Construction Sequencing in Rural Areas indicates a minimum working area of around 28.5m. From an initial assessment of the documentation provided, the options given between the Flintshire/Cheshire County boundary to the connection in the Flint/Oakenholt area, would directly affect 40+ Public Rights of Way based on these workings.

Until a route is finalised it would be premature for us to provide comments for each and every potential PRow affected as this will be subject to change but as already identified, there would be a need for many temporary closures of public rights of way, some of which will be on routes more popular than others.

Owing to the scheme being a ‘rolling scheme’ across the PRow network, current legislation allows us to temporarily close PRow for a maximum period of 6 months. Given the projects proposed length of approximately 18 months and the duration of this that would be in Flintshire, it is anticipated that a minimum of 2 temporary closures (comprising multiple site locations within those closures) would be required.

There is no requirement to provide an alternative route while a route is temporarily closed but for routes of higher importance we would likely request alternatives so as to not detrimentally affect users.

On-site management to minimise risks to users and potentially safeguard safe passage for pedestrians while keeping PRow open would be welcome if it is achievable but this would depend on each site. We would require Risk Assessments and methodology of working for each specific PRow affected if temporary closures were not to be pursued and on-site management sought. Given that temporary closures would be required anyway, the safer option at most locations would seem to be a temporary closure.

It is anticipated that permanent diversions of PRow may be required at locations affected by BVS and potentially in Flint/Oakenholt for the proposed AGI site. Once the final locations onsite have been decided for the BVS and AGI we can make a more informed comment on the requirements and options available.

In the case of the Flint AGI (C), it is close to Public Footpath 66 in Flint (404/66/10) but even with a site size of 99m x 72m, there would appear to be ample space for the site without directly requiring a permanent diversion of the right of way (a temporary closure may still be required for construction of course).

With regard to Flint AGI (B), it would appear likely that a diversion may be required as the land parcel is smaller at this location.

For Flint AGI (A), the location appears to be in close proximity to 2 PRow's but the land parcels here are much larger and as per (C) there would potentially be options to avoid any need for diversions at this point if incorporated correctly.

With regard to the BVS, again, the proposed sites of 35m x 25m with a 3m high perimeter fence would potentially require PRow to be diverted but there may be scope to incorporate these into sites without diverting routes permanently. Each location would need to be assessed specifically upon a route being finalised.

From initial assessment of the plans, the Coed y Cra BVS (near Cornist Ganol) appears to be directly affected by 3 or 4 PRow's and would seemingly require a permanent diversion of the routes to facilitate the BVS.

The Cornist Lane BVS is similar to Coed y Cra in having several PRow's in the vicinity but the land parcels may be strategically convenient to avoid permanent diversions but this would have to be assessed in finer detail onsite.

The BVS proposed at Babell and Pentre Halkyn do not appear to affect any PRow's directly and no diversions would be expected or necessary here.

For any routes that would require permanent diversions, we would usually have to promote Public Path Diversion Orders under the Town and Country Planning Act. These would be subject to public representation/objection and if objections were received, these could add significant delays onto the project while each specific case is heard by Planning Inspectorate via a public inquiry/hearing or written representations. The delay could be years given the current timescales we experience with PINS.

Given the nature of this project, does Welsh Government have powers to impose diversions without the need for public consultation and the possible lengthy delays mentioned?

Water Resources and Flood Risk

All new developments of more than 1 dwelling house or where the construction area is 100 square meters or more, will require sustainable drainage systems (SuDS) for surface water. Therefore the BVS and the AGIs will required SuDS approval. The SuDS must be designed and built in accordance with Statutory SuDS Standards published by the Welsh Ministers and SuDS Schemes must be approved by the local authority acting in its SuDS Approving Body (SAB) role, before construction work begins. Statutory SuDS Standards for designing, constructing, operating and maintaining surface water drainage systems, available at;

<https://gov.wales/topics/environmentcountryside/epq/flooding/drainage/?lang=en>

More information and guidance can be found in the Welsh Government guidance document:

<https://gov.wales/sites/default/files/publications/2019-06/statutory-guidance.pdf>

It is assumed that Natural Resources Wales will respond directly to the Planning Inspectorate consultation in relation to water resources and flood risk as no response has been received by the Planning Authority.

Other Considerations

Sections of the pipeline potentially pass though Common Land of Halykn and that under the Commons Act 2006 works may require consent to construct works on common land under Section 38. A Wales specific guidance note is contained in the following link: <https://gov.wales/sites/default/files/publications/2019-01/commons-act-2006-guidance-on-applying-under-section-38.pdf>

Conclusion

The Council broadly agrees with the scope as set out in the submitted Scoping Report and accompanying documentation. The above outlines the matters which require modification, augmentation or clarification as part of any subsequent planning application and Environmental Statement. The format of the Environmental Statement should be presented using the same headings as presented within section 4.10 of the submitted EIA Scoping Report

As stated above, any application requiring development consent within Wales will be considered against the relevant Welsh National or Flintshire specific adopted Policies, guidance and legislation. Therefore each respective chapter should refer to Planning Policy Wales (edition 11, 2021), relevant Technical Advice Notes and Flintshire Unitary Development Plan Policies or the Flintshire LDP should it be adopted, and any Supplementary Planning Guidance documents that maybe relevant.

Should you wish to discuss the methodology, rational and scope of any future Environmental Statement please do not hesitate to contact my officer Miss H Parish.

Consultees

For your information, I attach the list of those consulted in regards to the Scoping Report.

Flintshire County Council Internal Consultees:-

Ecologist; Amanda Davies: - [REDACTED]
Highways Authority: - HighwaysDevelopmentControl@flintshire.gov.uk
Flintshire Environmental Protection Team; email: - pollution.control@flintshire.gov.uk
Contaminated Land Officer: - [REDACTED]
Tree/landscape Officer: - [REDACTED]
Conservation Officer: - [REDACTED] (no response provided)
Public Rights of Way Officer: - [REDACTED]

External Consultees

Clwyd and Powys Archeological Trust (CPAT); [REDACTED]
Cadw: Cadwplanning@gov.wales

Yours faithfully

[REDACTED]

Chief Officer (Planning, Environment & Economy)
Prif Swyddog (Cynllunio, Amgylchedd ac Economi)

CEMHD- Land Use Planning
NSIP Consultations
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Your ref: EN070007
Our ref: 4.2.1.6854.

HSE email: NSIP.applications@hse.gov.uk

Date: 16 June 2021

FAO Ben Jenkinson
EIA Advisor
The Planning Inspectorate
Temple Quay House
2 The Square
Temple Quay
Bristol
BS1 6PN
(By Email)

Dear Ben

Application by Liverpool Bay CCS Limited (the Applicant) for an Order granting Development Consent for the HyNet North West Carbon Dioxide Pipeline (the Proposed Development)

Thank you for your letter of 3 June 2021 regarding the information to be provided in an environmental statement relating to the above project. HSE does not comment on EIA Scoping Reports but the following information is likely to be useful to the applicant.

HSE's land use planning advice

Will the proposed development fall within any of HSE's consultation distances?

1. With reference to the document and associated appendices **Environmental Impact Assessment Scoping Report (Document Reference Number 0.6.1)** it is clear, owing to both the nature and scale of the proposed development, that the proposed development either originates, passes through and/or cut across a series of HSE public safety consultation zones associated with a number of Major Accident Hazard Installation(s) and Major Accident Hazard Pipeline(s).
2. It would appear that the location of Control Room(s), Construction Compound(s) and the like are yet to be determined, consequently HSE is currently not in a position to provide an indication of its' statutory Land Use Planning advice. However as a general point HSE will not advise against a proposed development, providing the proposed development does not introduce populations, either permanent or temporary, into any of HSE's public safety consultation zones which are assigned to individual Major Accident Hazard Installation(s) and/or Major Accident Hazard Pipeline(s).
3. Please note if at any time a new Major Accident Hazard Pipeline is introduced or existing Pipeline(s) are modified prior to the determination of a future application, then the HSE reserves the right to revise its advice. Likewise if prior to the determination of a future application, a Hazardous Substances Consent is granted for a new Major Hazard Installation or a Hazardous Substances Consent is varied for an existing Major Hazard Installation in the vicinity of the proposed project, then again the HSE reserves the right to revise its advice.

- a. Noting that this could be brought about by changes made to Regulations, whereby the proposed development (Carbon Dioxide Pipeline & AGIs) may itself at some future time be brought into the scope of Major Hazards regulations.
4. The Applicant notes that CO2 is not currently defined as a dangerous substance under the Control of Major Accident Hazards Regulations 1999 (COMAH) or as a dangerous fluid under the Pipelines Safety Regulations 1996 (Ref: Environmental Impact Assessment Scoping Report, Document Reference Number 0.6.1, Page 176 of 281)

Would Hazardous Substances Consent be needed?

5. The presence of hazardous substances on, over or under land at or above set threshold quantities (Controlled Quantities) may require Hazardous Substances Consent (HSC) under the Planning (Hazardous Substances) Act 1990 as amended. The substances, alone or when aggregated with others, for which HSC is required, and the associated Controlled Quantities, are set out in both The Planning (Hazardous Substances) Regulations 2015 & The Planning (Hazardous Substances) (Wales) Regulations 2015
6. Hazardous Substances Consent would be required if the proposed development site is intending to store or use any of the Named Hazardous Substances or Categories of Substances and Preparations at or above the controlled quantities set out in schedule 1 of these Regulations.
7. Further information on HSC should be sought from the relevant Hazardous Substances Authority.

Explosives sites

HSE has no comment to make in this regard, as there are no licensed explosive sites showing in the area of the proposed development.

Electrical Safety

No comment, from a planning perspective.

During lockdown, please send any further communication on this project directly to the HSE's designated e-mail account for NSIP applications at nsip.applications@hse.gov.uk.

Yours sincerely

Monica Langton
CEMHD4

From: [REDACTED]
To: [Hynet CO2 Pipeline](#)
Subject: FW: EN070007 - HyNet North West Carbon Dioxide Pipeline - EIA Scoping Notification and Consultation
Date: 15 June 2021 15:47:33
Attachments: [image004.png](#)
[Letter to stat cons_Scoping & Reg 11 Notification.pdf](#)
[Geotechnical Certification Process for Third Party Works.pdf](#)

Dear Sir/Madam,

Thank you for consulting Highways England in relation to the EIA Scoping note for a proposed North West Carbon Dioxide Pipeline. Highways England note that consultation has taken place with local Highway Authorities, and there is a commitment to engage with Highways England. We would welcome the opportunity for this engagement, including discussion around any transport impact and / or traffic management proposals which might affect the Strategic Road Network (SRN).

Highways England's document "*The strategic road network, Planning for the future - A guide to working with Highways England on planning matters*" makes reference to the need for EIAs and states that "*Assessment undertaken by the promoter of the development should be sufficiently comprehensive to establish the likely transport related environmental impacts, including air quality, light pollution and noise, and to identify the measures to mitigate these impacts. To avoid potential delay or challenge, transport assessments/statements and environmental statements/impact assessments should be mutually consistent and pay due regard to each other.*" As such we would expect the transport chapter of the EIA to reflect the information in any Transport Assessment.

The overall forecast demand on the SRN and surrounding local road network should be assessed and compared to the ability of the existing network to accommodate traffic. Assessments should be carried out for:

the development and construction phase;

and

the opening year, assuming full build out and occupation, and either a date ten years after the date of registration of the associated planning application or the end of the Local Plan period (whichever is the greater).

However, it is recognised in this instance that the traffic impacts will largely be generated in the development and construction phase only. Highways England are content with the proposed Traffic and Transport Study Area (Figure 15-1).

However, as the siting of compounds and haul routes has not fully been identified yet, the study area may need to change to encompass these factors should their locations potentially impact beyond the study area.

The EIA Scoping Document makes reference to numerous crossings of the Strategic Road Network, identifying that this would be achieved through trenchless technology. However, further detail is needed to understand exactly where these crossings are to be located. Any third party works involving trenchless installations under the Highways England road network will require geotechnical certification and would require a Section 50 Agreement. I have attached a document which outlines how this process links in with The Design Manual for Roads and Bridges (DMRB) standard CD 622, Managing Geotechnical Risk.

The EIA Scoping Note makes reference to construction compounds. Highways England are keen to understand where these compounds are likely to be located, along with the potential access/haul routes. Paragraph 15.2.3 states that construction traffic will need *to access working areas and construction compounds through temporary access points and potentially bespoke haul routes that would not have public access*. 15.4.1 goes on to say that *careful consideration of the micro-siting of these temporary access points will be a key feature in terms of reducing the risk of adverse effects, with access points needing to incorporate appropriate visibility splays, turning radii and speed limit reductions where necessary/appropriate*.

Highways England's guidance document Circular 02/2013 "The Strategic Road Network and the Delivery of Sustainable Development" states that *"new accesses to busy high speed strategic roads lead to more weaving and turning manoeuvres, which in turn create additional risk to safety and reduce the reliability of journeys, resulting in a negative impact on overall national economic activity and performance"*. As such we would be unlikely to approve any temporary access for construction traffic from the Strategic Road Network. Highways England are keen to work with the developer to understand potential transport impacts associated with the location of the compounds and haul routes.

Highways England are also keen to understand the anticipated timescales involved around this project, particularly in relation to potential traffic impacts on the Strategic Road Network as well as for any sub surface tunnelling at locations around the SRN

As previously stated, we are happy to liaise with the developer in relation to the proposed route of the pipeline around the Strategic Road Network and also to scope out the detailed elements of a Transport Assessment.

Kind regards

Ben

Benjamin Laverick, Assistant Spatial Planner

Highways England | Piccadilly Gate | Store Street | Manchester | M1 2WD

Web: 

From: Hynet CO2 Pipeline <hynetco2pipeline@planninginspectorate.gov.uk>

Sent: 03 June 2021 13:50

Subject: EN070007 - HyNet North West Carbon Dioxide Pipeline - EIA Scoping Notification and Consultation

Dear Sir/Madam,

Please see attached correspondence on the proposed HyNet North West Carbon Dioxide Pipeline.

Please note the deadline for consultation responses is **03 July 2021**, and is a statutory

requirement that cannot be extended.

Kind regards,

Ben Jenkinson

EIA Advisor

The Planning Inspectorate

Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6PN

<https://www.gov.uk/government/organisations/planning-inspectorate>

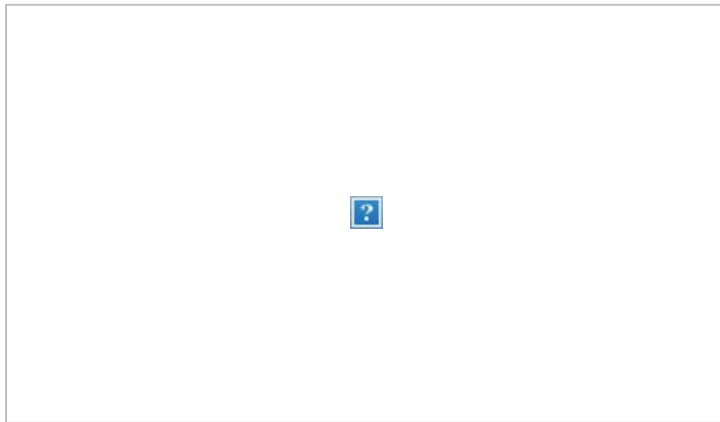
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Geotechnical Certification Process for Third Party Works Trenchless Installations Under Highways England Strategic Road Network

1. Introduction

All third-party works promoters and their sub-contractors who intend to work under Highways England's operational Strategic Road Network (SRN) and assets (e.g. depots, compounds, service areas, etc.) are required to consult and seek technical approval from Highways England prior to commencement of the site work. This guidance note provides a summary of Highways England's geotechnical certification process for third parties who are planning to undertake new service installation under the motorways, trunk roads or other Highways England assets.

2. Geotechnical Certification Process

The Design Manual for Roads and Bridges (DMRB) standard which sets out the geotechnical certification procedure is CD 622, Managing Geotechnical Risk [\(1\)](#). The key objective of CD 622 is to identify the geotechnical risks and manage those risks correctly. The following roles play a key part in the CD 622 process;

- Overseeing Organisation (i.e. Highways England) Geotechnical Advisor (OOGA)
- Designer's Geotechnical Advisor (DGA)

The geotechnical certification process may take several weeks and therefore it is prudent that the third-party scheme Project Manager allows sufficient time and cost as part of their planning process. It should be noted that the legal consent process is a separate process to the geotechnical certification process and that both processes need to be addressed by the scheme promoter.

3. CD 622 Geotechnical Reporting

At the inception of the CD 622 process, the third-party promoter is required to identify and nominate a suitably qualified and experienced geotechnical engineer for acceptance by the OOGA to fulfil the DGA role. The criteria for the DGA role are detailed in CD 622 and the candidate is expected to be familiar with the design and construction of roads and with various trenchless crossing techniques. Once appointed, the DGA must actively engage with the OOGA throughout the planning, interpretation and implementation of the geotechnical aspects of the proposed work including CD 622 reporting. There are five key geotechnical documents required to be produced under CD 622 comprising (in sequential order);

<http://www.standardsforhighways.co.uk/ha/standards/dmr/vol4/section1/hd2208.pdf>

SES Guidance Notes for Horizontal Directional Drilling and other Trenchless Installations.

- (i.) Statement of Intent (Sol)
- (ii.) Preliminary Sources Study report (PSSR) including Annex A
- (iii.) Ground Investigation Report (GIR)
- (iv.) Geotechnical Design Report (GDR)
- (iv.) Geotechnical Feedback Report (GFR)

It should be noted that CD 622 is a risk-based stepped approval process which means a geotechnical report submission must be certified before moving to the next. For straightforward schemes where the geotechnical risks are demonstrated in the Sol to be low, some submissions (with the exception of GFR) may be combined upon advance agreement with the OOGA. If following the desk study exercise (i.e. PSSR) a detailed ground investigation, survey, factual data and/or specialist geotechnical interpretation are required, it is anticipated this will incur additional time to the overall CD622 certification process. It is the responsibility of the third-party promoter and their Designer and Contractor to plan and procure these surveys as well as validating any asset data and to assess and manage the risks associated with the works in a timely manner.

4. Geotechnical Considerations

All geotechnical risks associated with the proposed service installation works that can affect stability of the earthworks and interacting with any other Highways England assets (e.g. bridges, pavement, drainage, lightings, signals, barriers and soft estates) are expected to be correctly managed via the CD622 process. For trenchless installation beneath the carriageway, it is important that any drilling and duct installation method does not result in significant deformation of the pavement [\(2\)](#) or adversely impact on the adjacent assets such as drainage and nearby verges. The relevant geotechnical reporting stages will need to demonstrate as a minimum (although not limited to):

- a) An understanding of the attendant geotechnical risks to the road infrastructure with respect to the selection of appropriate method(s) of installation (e.g. consideration of cover: diameter ratio, existing underground service utilities and structures, impact of works, etc). The geotechnical risks are to be captured in a risk register in tabulated format, with a demonstration of how each of the risks are being eliminated or mitigated.
- b) An understanding of the ground conditions, with a realistic ground model presented. Provide drawings showing the details of the design alignments (vertical and horizontal) of the proposed service route, the affected HE assets and the interpreted geological boundaries.

[\(2\)](#) *As a general rule, the proposed works should not worsen the existing condition of any HE asset, all in the effort to keep Highways England assets in good condition and to meet HE obligations with respect to safety and service provision. For road pavement, no permanent heave or settlement greater than 10mm over 3m length on the road surface are expected*

SES Guidance Notes for Horizontal Directional Drilling and other Trenchless Installations.

- c)** An assessment of the likely magnitude of settlement (including differential settlement) or heave and its implication on the affected asset.
- d)** An assessment of the stability of launch / reception pits and stability of the bore itself – in as much as they affect the stability and integrity of the SRN and Highways England assets.
- e)** Options and selection of an appropriate trenchless installation technique with justification and recognition by the installation contractor that the method of installation and means of monitoring and control (warning / trigger thresholds) detailed in the GDR can be achieved.
- f)** Means of monitoring slurry pressures and returns to demonstrate how the risk of blow-out and / or slurry loss is being managed.
- g)** A contingency plan for recovery of any problems related to the trenchless operation, such as might occur from excessive ground movement, slurry escapes into road drainage, drill becoming stuck, etc.
- h)** Provide as-built records comprising vertical and horizontal profiles of the service crossing and construction notes in the GFR including details of any problems encountered during the works and procedures used to resolve the problems.

5. USEFUL REFERENCES AND FURTHER READINGS

1. Highways Agency. 2008, Managing Geotechnical Risk, Standard HD 22, Design Manual for Roads and Bridges, Volume 4, Section 1, Part 2.
 2. Highways Agency. 2008, Guidance on the Trenchless Installation of Services Beneath Motorways and Trunk Roads, Standard HA 120, Design Manual for Roads and Bridge, Volume 4, Section 1, Part 8.
 3. Highways Agency. 2000, Implementation Standard for Trenchless Installation of Highway Drainage and Service Ducts, Standard SD 14, Manual of Contract Documents for Highway Works, Volume 5, Section 8, Part 1.
 4. Highways Agency. 2006, Series 8000 - Specification, Manual of Contract Documents for Highway Works, Volume 5, Section 8, Part 2.
 5. Highways Agency. 2006, Series 8000 - Method of Measurement, Manual of Contract Documents for Highway Works, Volume 5, Section 8, Part 4.
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 6. Highways England. 2017, Transmission Infrastructure, Standard TD72, Design Manual for Roads and Bridge, Volume 9, Section 3, Part 1.
-

Ms Helen Lancaster
Planning Inspectorate

Direct Dial: 0161 242 1412

Our ref: PL00750492
29 June 2021

Dear Ms Lancaster

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) - Regulations 10 and 11

Application by Liverpool Bay CCS Limited (the Applicant) for an Order granting Development Consent for the HyNet North West Carbon Dioxide Pipeline (the Proposed Development)

Thank you for your letter of 3 June 2021 consulting Historic England about the above EIA Scoping Report. The proposed development could, potentially, have an impact upon a number of designated heritage assets and their settings along the route of the proposed pipeline. We would expect the Environmental Report to contain a thorough assessment of the likely effects which the proposed development might have upon those elements which contribute to the significance of these assets.

We would also expect the Environment Report to consider the potential impacts which the proposals might have upon un-designated heritage assets. These ought to be included as they are valued components of the historic environment.

We would expect the assessment to clearly demonstrate that the extent of the proposed study area is of the appropriate size to ensure that all heritage assets likely to be affected by this development have been included and can be properly assessed. It is important that the Assessment is designed to ensure that all impacts are fully understood, using where necessary techniques such as photomontages to illustrate and assess setting impacts. Historic England would welcome the opportunity to assist in agreeing suitable viewpoints for these.

The submitted Scoping Report proposes an appropriate study area, in our view, with a 500m buffer around the route of the buried pipeline, and a 1km buffer around the confirmed locations of above-ground installations. Within this area the applicants appear to have identified all known designated heritage assets, as well as known un-designated heritage assets. In identifying these assets, they appear to have consulted appropriate sources of information, including the National Heritage List for England and the Cheshire Historic Environment Record. In this connection, it is important that Cheshire West and Chester's Conservation staff and the Cheshire Archaeology Planning Advisory Service are involved in the development of the assessment. They are best placed to advise on local historic environment issues and priorities, how the policy or proposal can be tailored to minimise potential adverse impacts on the historic environment, and the nature and design of any required mitigation measures, together



SUITES 3.3 AND 3.4 CANADA HOUSE 3 CHEPSTOW STREET MANCHESTER M1 5FW

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with opportunities for securing wider benefits for the future conservation and management of heritage assets. It appears from the information contained in the Scoping Report that they have been fully consulted on the work that has taken place to date, and we would expect them to continue to be so as the work proceeds.

The assessment should also take account of the potential impact which associated activities (such as construction activity, servicing and maintenance, and associated traffic) might have upon perceptions, understanding and appreciation of the heritage assets in the area. Assessment should also consider, where appropriate, the likelihood of alterations to drainage patterns that might lead to in situ decomposition or destruction of below ground archaeological remains and deposits, and can also lead to subsidence of buildings and monuments.

The proposed assessment methodology set out in sections 7.7 and 7.8 of the Scoping Report includes the production of a Historic Environment Desk-Based Assessment, with a site walkover and subsequent geophysical survey being carried out in order to assess the archaeological remains within the study area.

We strongly recommend that geophysical survey should not be carried out without first carrying out a geomorphological survey of the study area. This should take the form of a desk-based geoarchaeological assessment and deposit model. This is vital in order to understand the nature of the geology and deposits in the area, which will inform the choice of the correct geophysical survey method.

This area of Cheshire is low-lying and has the potential for deep deposits of peat and organic-rich alluvium, which could potentially seal former ground surfaces and archaeology which standard geophysical survey methods might not pick up, especially deposits deeper than 1 metre. That is why it is vital to carry out a geomorphological survey of the study area in order to inform the choice of geophysical technique. This may also mean that coring or test pitting may be required in advance of any geophysical work.

Peat and organic-rich alluvium are valuable historic environment resources due to their potential to contain palaeoenvironmental information (plant remains, pollen, insects etc.). Such burial environments are susceptible to degradation and geochemical changes including the dewatering of surrounding areas (mentioned in section 3.6.7). A preservation and palaeoenvironmental assessment should be carried out on any such deposits to assess their potential before any dewatering in the study area.

We have guidance to help with these areas of study, including guidance on geoarchaeology, deposit modelling design, and preserving archaeological remains:

<https://historicengland.org.uk/images-books/publications/geoarchaeology-earth-sciences-to-understand-archaeological-record/>

<https://historicengland.org.uk/images-books/publications/deposit-modelling-and-archaeology/>



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Historic England

<https://historicengland.org.uk/images-books/publications/preserving-archaeological-remains/>

We would be grateful if you would make the applicants aware of this guidance.

Yours sincerely,



Andrew Davison
Inspector of Ancient Monuments



SUITES 3.3 AND 3.4 CANADA HOUSE 3 CHEPSTOW STREET MANCHESTER M1 5FW

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Mollington Parish Council

Chairman

Councillor Roger Jones

Tel: [REDACTED]

Email: [REDACTED]

Parish Clerk

Mrs Pauline English

Helen Lancaster
Senior EIA Advisor
Environmental Services
Planning Inspectorate

Our Ref: MPC/LMR/PE

Your Ref: EN070007-000007-210603

Date: 30 June 2021

Dear Ms Lancaster

In response to the proposal to run a carbon dioxide pipeline through our village, Mollington Parish Council would like to make the following observations:

- 1) The proposed route which is marked blue on your interactive map seems to run to within a quarter of a mile of the centre of the village
- 2) It appears to run adjacent to properties in places, and near to a primary school of approximately 140 children and a pre-school/nursery of approximately 20 children.

Therefore:

- 3) We are concerned about the safety aspects of the scheme with the possible release of carbon dioxide into the environment, especially as we understand that the CO₂ is likely to be transported under pressure in a supercritical state.
- 4) We are very concerned about the effects on the local ecology, this being a semi-rural community with an abundance of wildlife, including great crested newts.
- 5) Access to the village is often difficult with narrow country roads and we feel that the added disruption from the construction and laying of the pipeline, with the associated facilities needed, would be unacceptable, paying particular attention to noise and restricted access to the school and for emergency vehicles.
- 6) The proposed route is liable to flooding. Earlier this year (2021) there was a severe flooding event with several properties affected and we feel that the works involved in laying the pipeline could further disrupt the drainage of water which the local residents and farmers currently work hard to mitigate.

We will welcome the opportunity to elaborate further on our concerns in person at your Public Consultation.

Yours sincerely

[REDACTED]
Pauline English
Parish Clerk



Land and Acquisitions

Anne Holdsworth
DCO Liaison Officer
Land and Property

Direct tel: + [REDACTED]

www.nationalgrid.com

SUBMITTED ELECTRONICALLY:
hynetco2pipeline@planninginspectorate.gov.uk

29 June 2021

Dear Sir/Madam

APPLICATION BY LIVERPOOL BAY CCS LIMITED (THE APPLICANT) FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE HYNET NORTH WEST CARBON DIOXIDE PIPELINE (THE PROPOSED DEVELOPMENT)

SCOPING CONSULTATION

I refer to your letter dated 3rd June 2021 in relation to the above proposed application. This is a response on behalf of National Grid Electricity Transmission PLC (NGET) and National Grid Gas PLC (NGG).

Having reviewed the scoping report, I would like to make the following comments:

National Grid infrastructure within / in close proximity to the order boundary

Electricity Transmission Infrastructure

National Grid Electricity Transmission has high voltage electricity overhead transmission lines and underground cables within the scoping area. The overhead lines and cables form an essential part of the electricity transmission network in England and Wales.

Overhead Lines

- 4ZB 400kV Bodelwyddan – Deeside – Pentir
- ZO 400kV Daines - Deeside
- ZK 400kV Deeside – Legacy – Trawsfynydd
- 4ZE 400kV Capenhurst - Frodsham
- YYS 132kV Capenhurst - Ince

Other Apparatus

Pilot cables alongside the A5117 highway.

Gas Transmission Infrastructure:

National Grid Gas has a high pressure gas transmission pipeline located within or in close proximity to the proposed order limits. The transmission pipeline forms an essential part of the gas transmission network in England, Wales and Scotland:

Gas Apparatus:

- Feeder 21 Mickle Trafford to Tee To Shotwick

I enclose plans showing the location of National Grid's:

- overhead lines;
- underground cables; and
- gas pipeline.

Specific Comments

Electricity Infrastructure:

- National Grid's Overhead Line/s is protected by a Deed of Easement/Wayleave Agreement which provides full right of access to retain, maintain, repair and inspect our asset
- Statutory electrical safety clearances must be maintained at all times. Any proposed buildings must not be closer than 5.3m to the lowest conductor. National Grid recommends that no permanent structures are built directly beneath overhead lines. These distances are set out in EN 43 – 8 Technical Specification for "overhead line clearances Issue 3 (2004)
- If any changes in ground levels are proposed either beneath or in close proximity to our existing overhead lines then this would serve to reduce the safety clearances for such overhead lines. Safe clearances for existing overhead lines must be maintained in all circumstances.
- The relevant guidance in relation to working safely near to existing overhead lines is contained within the Health and Safety Executive's (www.hse.gov.uk) Guidance Note GS 6 "Avoidance of Danger from Overhead Electric Lines" and all relevant site staff should make sure that they are both aware of and understand this guidance.
- Plant, machinery, equipment, buildings or scaffolding should not encroach within 5.3 metres of any of our high voltage conductors when those conductors are under their worse conditions of maximum "sag" and "swing" and overhead line profile (maximum "sag" and "swing") drawings should be obtained using the contact details above.

- If a landscaping scheme is proposed as part of the proposal, we request that only slow and low growing species of trees and shrubs are planted beneath and adjacent to the existing overhead line to reduce the risk of growth to a height which compromises statutory safety clearances.
- Drilling or excavation works should not be undertaken if they have the potential to disturb or adversely affect the foundations or “pillars of support” of any existing tower. These foundations always extend beyond the base area of the existing tower and foundation (“pillar of support”) drawings can be obtained using the contact details above.
- National Grid Electricity Transmission high voltage underground cables are protected by a Deed of Grant; Easement; Wayleave Agreement or the provisions of the New Roads and Street Works Act. These provisions provide National Grid full right of access to retain, maintain, repair and inspect our assets. Hence we require that no permanent / temporary structures are to be built over our cables or within the easement strip. Any such proposals should be discussed and agreed with National Grid prior to any works taking place.
- Ground levels above our cables must not be altered in any way. Any alterations to the depth of our cables will subsequently alter the rating of the circuit and can compromise the reliability, efficiency and safety of our electricity network and requires consultation with National Grid prior to any such changes in both level and construction being implemented.

Gas Infrastructure

The following points should be taken into consideration:

- National Grid has a Deed of Grant of Easement for each pipeline, which prevents the erection of permanent / temporary buildings, or structures, change to existing ground levels, storage of materials etc.

Pipeline Crossings:

- Where existing roads cannot be used, construction traffic should ONLY cross the pipeline at previously agreed locations.
- The pipeline shall be protected, at the crossing points, by temporary rafts constructed at ground level. The third party shall review ground conditions, vehicle types and crossing frequencies to determine the type and construction of the raft required.
- The type of raft shall be agreed with National Grid prior to installation.
- No protective measures including the installation of concrete slab protection shall be installed over or near to the National Grid pipeline without the prior permission of National Grid.
- National Grid will need to agree the material, the dimensions and method of installation of the proposed protective measure.
- The method of installation shall be confirmed through the submission of a formal written method statement from the contractor to National Grid.

- Please be aware that written permission is required before any works commence within the National Grid easement strip.
- A National Grid representative shall monitor any works within close proximity to the pipeline to comply with National Grid specification T/SP/SSW22.
- A Deed of Consent is required for any crossing of the easement.

Cable Crossings:

- Cables may cross the pipeline at perpendicular angle to the pipeline i.e. 90 degrees.
- A National Grid representative shall supervise any cable crossing of a pipeline.
- Clearance must be at least 600mm above or below the pipeline.
- Impact protection slab should be laid between the cable and pipeline if cable crossing is above the pipeline.
- A Deed of Consent is required for any cable crossing the easement.
- Where a new service is to cross over the pipeline a clearance distance of 0.6 metres between the crown of the pipeline and underside of the service should be maintained. If this cannot be achieved the service shall cross below the pipeline with a clearance distance of 0.6 metres.

General Notes on Pipeline Safety:

- You should be aware of the Health and Safety Executives guidance document HS(G) 47 "Avoiding Danger from Underground Services", and National Grid's specification for Safe Working in the Vicinity of National Grid High Pressure gas pipelines and associated installations - requirements for third parties T/SP/SSW22.
- National Grid will also need to ensure that our pipelines access is maintained during and after construction.
- Our pipelines are normally buried to a depth cover of 1.1 metres however; actual depth and position must be confirmed on site by trial hole investigation under the supervision of a National Grid representative. Ground cover above our pipelines should not be reduced or increased.
- If any excavations are planned within 3 metres of National Grid High Pressure Pipeline or, within 10 metres of an AGI (Above Ground Installation), or if any embankment or dredging works are proposed then the actual position and depth of the pipeline must be established on site in the presence of a National Grid representative. A safe working method agreed prior to any work taking place in order to minimise the risk of damage and ensure the final depth of cover does not affect the integrity of the pipeline.
- Excavation works may take place unsupervised no closer than 3 metres from the pipeline once the actual depth and position has been confirmed on site under the supervision of a National Grid representative. Similarly, excavation with hand held power tools is not

permitted within 1.5 metres from our apparatus and the work is undertaken with NG supervision and guidance.

To view the SSW22 Document, please use the link below:

<https://www.nationalgrid.com/uk/gas-transmission/land-and-assets/working-near-our-assets>

To download a copy of the HSE Guidance HS(G)47, please use the following link:

<http://www.hse.gov.uk/pubns/books/hsg47.htm>

Further Advice

We would request that the potential impact of the proposed scheme on National Grid's existing assets as set out above and including any proposed diversions is considered in any subsequent reports, including in the Environmental Statement, and as part of any subsequent application.

Where any diversion of apparatus may be required to facilitate a scheme, National Grid is unable to give any certainty with the regard to diversions until such time as adequate conceptual design studies have been undertaken by National Grid. Further information relating to this can be obtained by contacting the email address below.

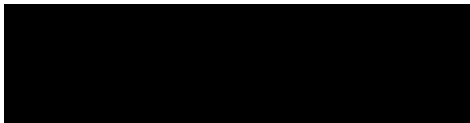
Where the promoter intends to acquire land, extinguish rights, or interfere with any of National Grid apparatus, protective provisions will be required in a form acceptable to it to be included within the DCO.

National Grid requests to be consulted at the earliest stages to ensure that the most appropriate protective provisions are included within the DCO application to safeguard the integrity of our apparatus and to remove the requirement for objection. All consultations should be sent to the following email address: box.landandacquisitions@nationalgrid.com

I hope the above is useful. If you require any further information please do not hesitate to contact me.

The information in this letter is provided notwithstanding any discussions taking place in relation to connections with electricity or gas customer services.

Yours faithfully



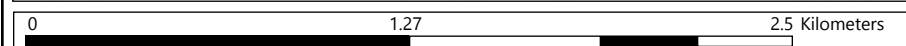
**Anne Holdsworth
DCO Liaison Officer, Land and Acquisitions**



Legend:

- Substations Commissioned
- OHL 400kV Commissioned
- OHL 275kV Commissioned
- OHL 132kV & Below Commissioned
- Buried Cable Commissioned
- Fibre Cable Commissioned
- Pilot Cable
- Cable Tunnel
- Gas Operational Boundary
- Gas Site Boundary
- Trial Hole
- Vantage Point
- Aerial Marker Post
- Pipe Crossing Point
- ▲ CP Test Post
- + Transformer Rectifier
- Pipeline Crossing Sleeve
- Nitrogen Sleeve
- Other Sleeves
- Pipe Line Control Point
- Named Pipeline Section
- River Crossings

Notes:
Hynet Plan 1

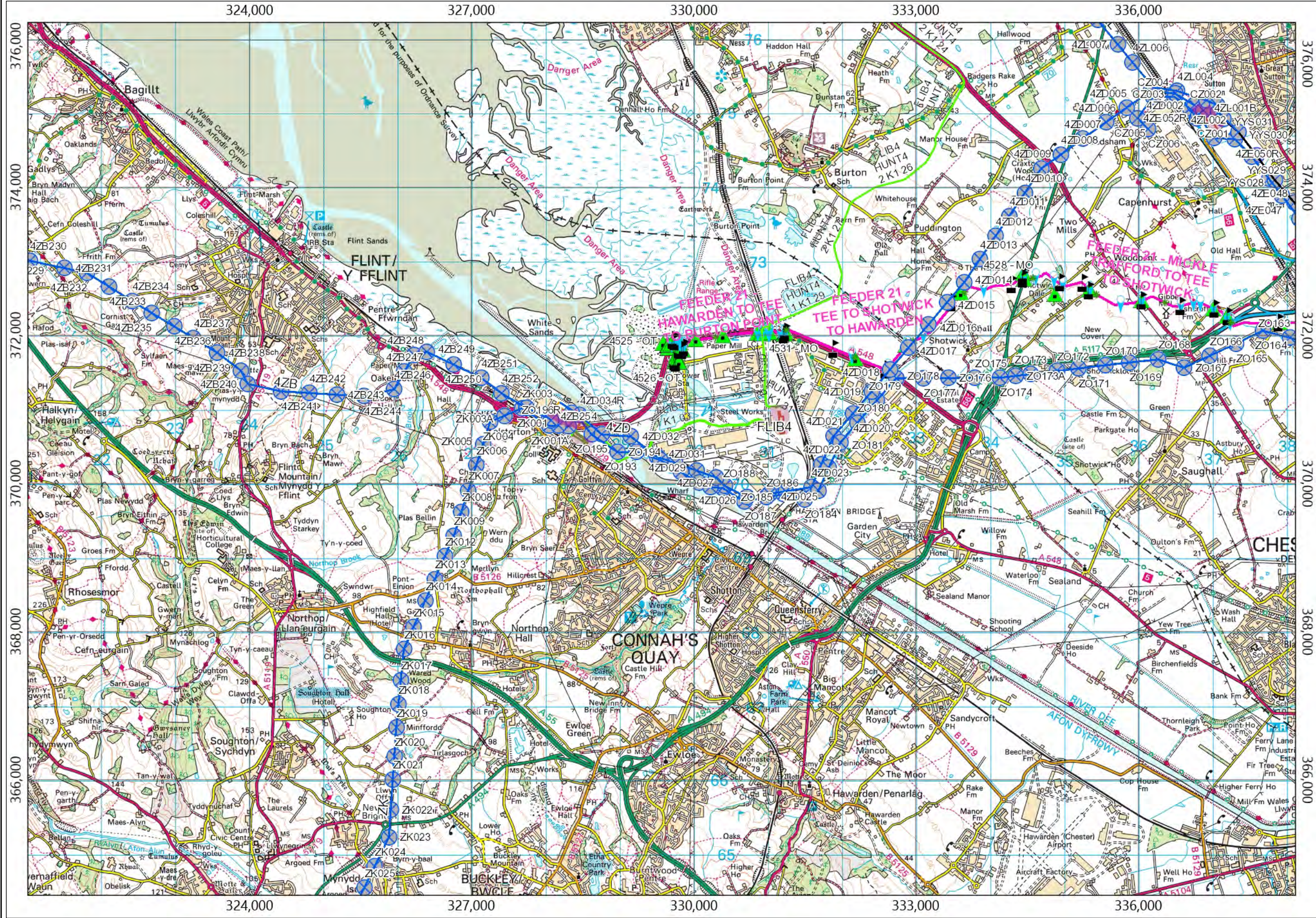


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Time: 15:31:10 Print by: Holdsworth, Anne

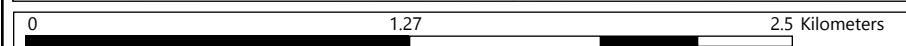


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- Legend:**
- Substations Commissioned
 - OHL 400kV Commissioned
 - OHL 275kV Commissioned
 - OHL 132kV & Below Commissioned
 - Towers Commissioned
 - Buried Cable Commissioned
 - Fibre Cable Commissioned
 - Pilot Cable
 - Cable Tunnel
 - Gas Operational Boundary
 - Gas Site Boundary
 - Trial Hole
 - Vantage Point
 - Aerial Marker Post
 - Pipe Crossing Point
 - CP Test Post
 - Transformer Rectifier
 - Pipeline Crossing
 - Sleeve
 - Nitrogen Sleeve
 - Other Sleeves
 - Pipe Line Control Point
 - Named Pipeline Section
 - River Crossings

Notes:
Hynet Plan 2

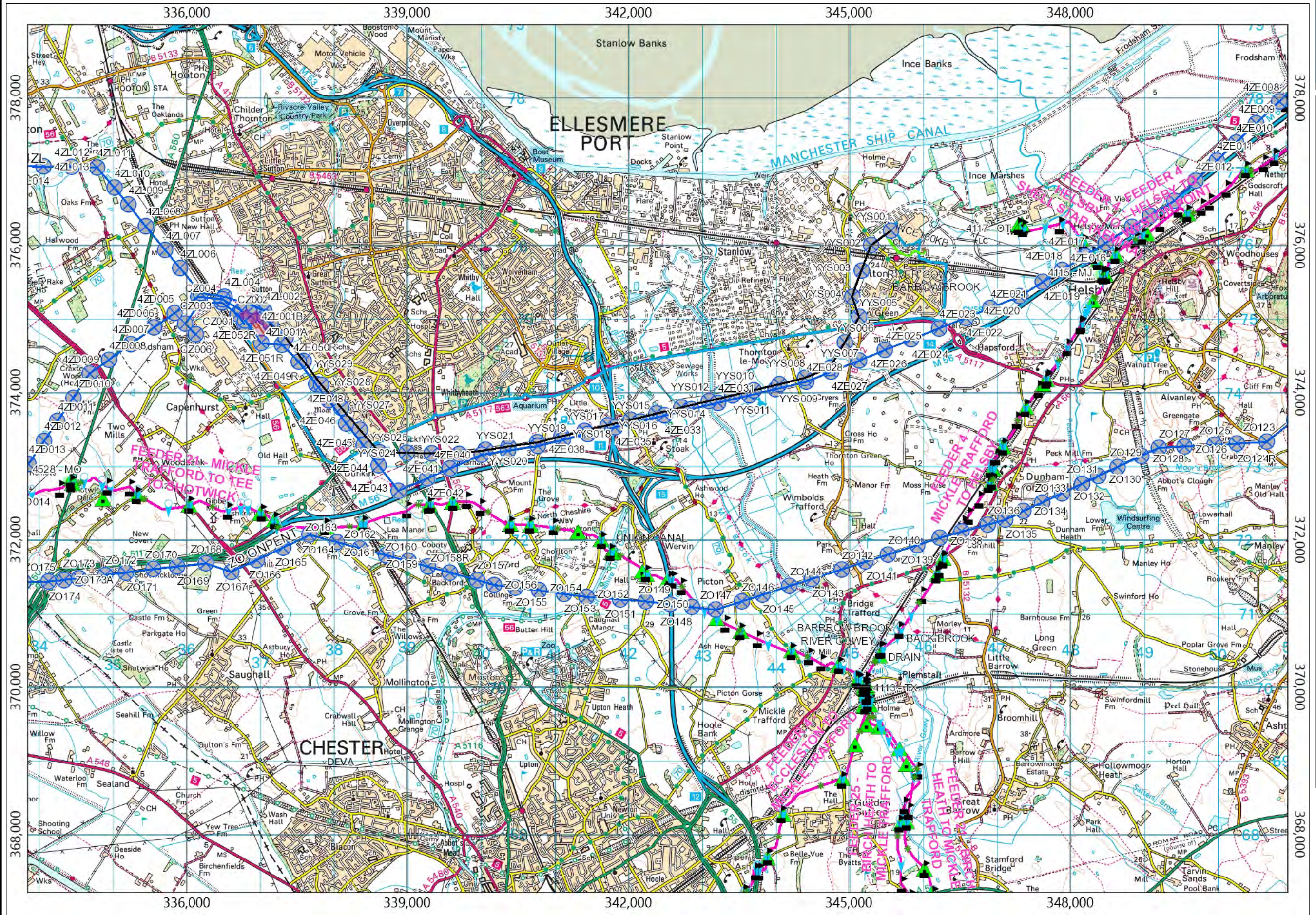


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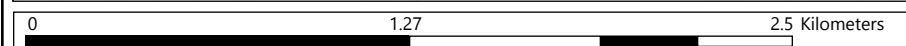
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Notes:
Hynet Plan 3



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Date: 01 July 2021
Our ref: 356001
Your ref: EN070007-00007-210603



FAO Helen Lancaster
On behalf of The Planning Inspectorate

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 3900

BY EMAIL ONLY

Dear Helen Lancaster

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11

Application by Liverpool Bay CSS Limited (the Applicant) for an Order granting Development Consent for the HyNet North West Carbon Dioxide (the Proposed Development)

Scoping consultation response.

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in your consultation dated 03 June 2021.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development. As the government's adviser for the natural environment in England, the following constitutes Natural England's formal statutory response in relation to the designated sites located within or adjacent to the English border. Natural Resources Wales will be providing a formal response on the designated sites located within Wales.

Case law¹ and guidance² has stressed the need for a full set of environmental information to be available for consideration prior to a decision being taken on whether or not to grant planning permission. The comments outlined below provides Natural England's advice on the scope of the Environmental Impact Assessment (EIA) for this development.

Should the proposal be amended in a way which significantly affects its impact on the natural environment then, in accordance with Section 4 of the Natural Environment and Rural Communities Act 2006, Natural England should be consulted again.

¹ Harrison, J in *R. v. Cornwall County Council ex parte Hardy* (2001)

² *Note on Environmental Impact Assessment Directive for Local Planning Authorities* Office of the Deputy Prime Minister (April 2004) available from <http://webarchive.nationalarchives.gov.uk/+http://www.communities.gov.uk/planningandbuilding/planning/sustainability/environmental/environmentalimpactassessment/noteenvironmental/>

1. General Principles

Schedule 4 of the Town & Country Planning (Environmental Impact Assessment) Regulations 2017, sets out the necessary information to assess impacts on the natural environment to be included in an ES, specifically:

- A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases.
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed development.
- An assessment of alternatives and clear reasoning as to why the preferred option has been chosen.
- A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the interrelationship between the above factors.
- A description of the likely significant effects of the development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium and long term, permanent and temporary, positive and negative effects. Effects should relate to the existence of the development, the use of natural resources and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment.
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.
- A non-technical summary of the information.
- An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.

It will be important for any assessment to consider the potential cumulative effects of this proposal, including all supporting infrastructure, with other similar proposals and a thorough assessment of the 'in combination' effects of the proposed development with any existing developments and current applications. A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.

2. Biodiversity and Geology

2.1 Ecological Aspects of an Environmental Statement

Natural England advises that the potential impact of the proposal upon features of nature conservation interest and opportunities for habitat creation/enhancement should be included within this assessment in accordance with appropriate guidance on such matters. Guidelines for Ecological Impact Assessment (EclA) have been developed by the Chartered Institute of Ecology and Environmental Management (CIEEM) and are available on their website.

EclA is the process of identifying, quantifying and evaluating the potential impacts of defined actions on ecosystems or their components. EclA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal.

The National Planning Policy Framework sets out guidance in S. 174-177 on how to take account of biodiversity interests in planning decisions and the framework that local authorities should provide to assist developers.

2.2 Internationally and Nationally Designated Sites

The ES should thoroughly assess the potential for the proposal to affect designated sites. European sites (e.g. designated Special Areas of Conservation and Special Protection Areas) fall within the scope of the Conservation of Habitats and Species Regulations 2017 (as amended). In addition paragraph 176 of the National Planning Policy Framework requires that potential Special Protection Areas, possible Special Areas of Conservation, listed or proposed Ramsar sites, and any site identified as being necessary to compensate for adverse impacts on classified, potential or possible SPAs, SACs and Ramsar sites be treated in the same way as classified sites.

Additionally land functionally linked to European sites should be assessed under a Habitats Regulation Assessment³. The term 'functional linkage' refers to the role or 'function' that land or sea beyond the boundary of a European site might fulfil in terms of ecologically supporting the populations for which the site was designated or classified. A number of authoritative decisions have considered the functionally linked land of European Sites as a material consideration in the decision-making process provided for by Habitat Regulation Assessments (Chapman, C. and Tyldesley, D. 2016)⁴. Taking a landscape-scale approach to the consideration of impacts on the features of protected sites, including any effects on functionally linked land, aligns well with not only the National Planning Policy Framework but also Natural England's own emerging [Conservation Strategy](#).

Under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended) an appropriate assessment needs to be undertaken in respect of any plan or project which is (a) likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and (b) not directly connected with or necessary to the management of the site.

Should a Likely Significant Effect on a European/Internationally designated site be identified or be uncertain, the competent authority (in this case the Local Planning Authority) may need to prepare an Appropriate Assessment, in addition to consideration of impacts through the EIA process.

Sites of Special Scientific Interest (SSSIs) and sites of European or international importance (Special Areas of Conservation, Special Protection Areas and Ramsar sites)

The development site is within and adjacent to the following designated nature conservation sites and may be functionally linked to the designated nature conservation sites:

- Mersey Estuary SPA
- Mersey Estuary Ramsar
- Dee Estuary SPA
- Dee Estuary Ramsar
- Dee Estuary SAC
- River Dee and Bala Lake SAC
- Midland Meres & Mosses Phase 1 Ramsar
- Midland Meres and Mosses Phase 2 Ramsar

Natural England Commissioned Reports, Number 207.

⁴ A [REDACTED] was commissioned and published by Natural England (Chapman & Tyldesley, 2016). CHAPMAN, C. & TYLDESLEY, D. 2016

- Mersey Estuary SSSI
- Dee Estuary SSSI
- River Dee SSSI
- Further information on the SSSI and its special interest features can be found at www.magic.gov. The Environmental Statement should include a full assessment of the direct and indirect effects of the development on the features of special interest within these sites and should identify such mitigation measures as may be required in order to avoid, minimise or reduce any adverse significant effects.
- European site conservation objectives are available on our internet site [REDACTED].
- Conservation advice packages are also available on our internet site [REDACTED].

Special Protection Areas (SPAs) are classified for rare and vulnerable birds, and for regularly occurring migratory species. The birds for which SPAs are designated may also rely on areas outside of the SPA boundary (known as functionally linked land). These supporting habitats may be used by SPA populations or come individuals of the population for some or all of the time. These supporting habitats can play an essential role in maintaining SPA bird populations, and proposals affecting them may therefore have the potential to affect the SPA.

It should be noted that the proposed development may impact habitats functionally linked to the Mersey Estuary SPA/Ramsar and the Dee Estuary SPA/Ramsar. It is advised a comprehensive desk based study and bird surveys are undertaken to identify and map the locations of functionally linked habitats likely to be affected by the proposed development. It is advised that the direct loss of functionally linked habitats and/or potential offsite impacts are considered in assessing what, if any, potential impacts the proposal may have on European sites.

Our concerns regarding potential impacts to functionally linked habitats also apply to the mobile features of the Dee Estuary SAC and the River Dee and Bala Lake SAC. The ES should assess impacts to functionally linked habitats including an assessment on potential impacts to migratory routes and spawning habitats for the SAC mobile features and potential impacts to air and water quality.

Based on the information provided in the EIA Scoping report, there is not enough information to scope out impacts during the Operational phase at this stage. As the development will be located within 600m of the Mersey Estuary SPA/Ramsar and 700m of the Dee Estuary SPA/Ramsar it is unknown if the development will be located within or close proximity to functionally linked SPA habitats. Further information is required in order to assess potential disturbance to the SPA birds during the operational phase.

The proposed development will be located within 600m of the Mersey Estuary SSSI and 700m of the Dee Estuary SSSI. Our concerns regarding the potential impacts upon the SSSI's coincides with our concerns regarding the potential impacts upon the Mersey Estuary SPA/Ramsar and Dee Estuary SPA/Ramsar as detailed above. Furthermore, our concerns regarding impacts to the mobile species for the Dee Estuary SAC also apply to the features of the River Dee SSSI.

2.3 Regionally and Locally Important Sites

The EIA will need to consider any impacts upon local wildlife and geological sites. Local Sites are identified by the local wildlife trust, geoconservation group or a local forum established for the purposes of identifying and selecting local sites. They are of county importance for wildlife or

geodiversity. The Environmental Statement should therefore include an assessment of the likely impacts on the wildlife and geodiversity interests of such sites. The assessment should include proposals for mitigation of any impacts and if appropriate, compensation measures. Contact the local wildlife trust, geoconservation group or local sites body in this area for further information.

2.4 Protected Species - Species protected by the Wildlife and Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 (as amended)

The ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law, but advises on the procedures and legislation relevant to such species. Records of protected species should be sought from appropriate local biological record centres, nature conservation organisations, groups and individuals; and consideration should be given to the wider context of the site for example in terms of habitat linkages and protected species populations in the wider area, to assist in the impact assessment.

The conservation of species protected by law is explained in Part IV and Annex A of Government Circular 06/2005 *Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System*. The area likely to be affected by the proposal should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES.

In order to provide this information there may be a requirement for a survey at a particular time of year. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and where necessary, licensed, consultants. Natural England has adopted [standing advice](#) for protected species which includes links to guidance on survey and mitigation.

We note that the bat survey methodology is still to be agreed with Natural England and Natural Resources Wales. It is acknowledged appropriate mitigation for any impacts will be developed once the results of the protected species surveys are known.

2.5 Habitats and Species of Principal Importance

The ES should thoroughly assess the impact of the proposals on habitats and/or species listed as 'Habitats and Species of Principal Importance' within the England Biodiversity List, published under the requirements of S41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act 2006 places a general duty on all public authorities, including local planning authorities, to conserve and enhance biodiversity. Further information on this duty is available here <https://www.gov.uk/guidance/biodiversity-duty-public-authority-duty-to-have-regard-to-conserving-biodiversity>.

Government Circular 06/2005 states that Biodiversity Action Plan (BAP) species and habitats, 'are capable of being a material consideration...in the making of planning decisions'. Natural England therefore advises that survey, impact assessment and mitigation proposals for Habitats and Species of Principal Importance should be included in the ES. Consideration should also be given to those species and habitats included in the relevant Local BAP.

Natural England advises that a habitat survey (equivalent to Phase 2) is carried out on the site, in order to identify any important habitats present. In addition, ornithological, botanical and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present. The Environmental Statement should include details of:

- Any historical data for the site affected by the proposal (e.g. from previous surveys);
- Additional surveys carried out as part of this proposal;
- The habitats and species present;

- The status of these habitats and species (e.g. whether priority species or habitat);
- The direct and indirect effects of the development upon those habitats and species;
- Full details of any mitigation or compensation that might be required.

The development should seek if possible to avoid adverse impact on sensitive areas for wildlife within the site, and if possible provide opportunities for overall wildlife gain.

The record centre for the relevant Local Authorities should be able to provide the relevant information on the location and type of priority habitat for the area under consideration.

We note paragraph 8.3.10. refers to the information sources included in the desk-based study, we advise local bird clubs are also contacted, for example the Cheshire and Wirral Ornithological Society (CAWOS) and the Dee Estuary Birding.

Ancient Woodland – addition to the S41 NERC Act paragraph

The S41 list includes six priority woodland habitats, which will often be ancient woodland, with all ancient semi-natural woodland in the South East falling into one or more of the six types.

Information about ancient woodland can be found in Natural England’s standing advice

Ancient woodland is an irreplaceable resource of great importance for its wildlife, its history and the contribution it makes to our diverse landscapes. Local authorities have a vital role in ensuring its conservation, in particular through the planning system. The ES should have regard to the requirements under the NPPF (Para. 175)² which states:

When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts);
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.

2.6 Contacts for Local Records

Natural England does not hold local information on local sites, local landscape character and local or national biodiversity priority habitats and species. We recommend that you seek further information from the appropriate bodies (which may include the local records centre, the local wildlife trust, local geoconservation group or other recording society and a local landscape characterisation document).

Local Record Centre (LRC) in Cheshire, Halton, Warrington and Wirral please contact:

Cedar House,
Caughall Road,
Chester,
CH2 1LH

3. Designated Landscapes and Landscape Character

Landscape and visual impacts

Natural England would wish to see details of local landscape character areas mapped at a scale appropriate to the development site as well as any relevant management plans or strategies pertaining to the area. The EIA should include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in

topography.

The EIA should include a full assessment of the potential impacts of the development on local landscape character using [landscape assessment methodologies](#). We encourage the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2013. LCA provides a sound basis for guiding, informing and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character, as detailed proposals are developed.

Natural England supports the publication *Guidelines for Landscape and Visual Impact Assessment*, produced by the Landscape Institute and the Institute of Environmental Assessment and Management in 2013 (3rd edition). The methodology set out is almost universally used for landscape and visual impact assessment.

In order to foster high quality development that respects, maintains, or enhances, local landscape character and distinctiveness, Natural England encourages all new development to consider the character and distinctiveness of the area, with the siting and design of the proposed development reflecting local design characteristics and, wherever possible, using local materials. The Environmental Impact Assessment process should detail the measures to be taken to ensure the building design will be of a high standard, as well as detail of layout alternatives together with justification of the selected option in terms of landscape impact and benefit.

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. In this context Natural England advises that the cumulative impact assessment should include other proposals currently at Scoping stage. Due to the overlapping timescale of their progress through the planning system, cumulative impact of the proposed development with those proposals currently at Scoping stage would be likely to be a material consideration at the time of determination of the planning application.

The assessment should refer to the relevant [National Character Areas](#) which can be found on our website. Links for Landscape Character Assessment at a local level are also available on the same page.

Heritage Landscapes

You should consider whether there is land in the area affected by the development which qualifies for conditional exemption from capital taxes on the grounds of outstanding scenic, scientific or historic interest. An up-to-date list may be obtained at www.hmrc.gov.uk/heritage/lbsearch.htm.

4. Access and Recreation

Natural England encourages any proposal to incorporate measures to help encourage people to access the countryside for quiet enjoyment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways are to be encouraged. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Relevant aspects of local authority green infrastructure strategies should be incorporated where appropriate.

Rights of Way, Access land, Coastal access and National Trails

The EIA should consider potential impacts on access land, public open land, rights of way and coastal access routes in the vicinity of the development. Consideration should also be given to the potential impacts on the adjacent/nearby public rights of way. Appropriate mitigation measures should be incorporated for any adverse impacts. We also recommend reference to the relevant Right of Way Improvement Plans (ROWIP) to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

5. Soil and Agricultural Land Quality

Impacts from the development should be considered in light of the Government's policy for the protection of the best and most versatile (BMV) agricultural land as set out in paragraph 170 of the NPPF. We also recommend that soils should be considered in the context of the sustainable use of land and the ecosystem services they provide as a natural resource, as also highlighted in paragraph 170 of the NPPF.

Soil is a finite resource which plays an essential role within sustainable ecosystems, performing an array of functions supporting a range of ecosystem services, including storage of carbon, the infiltration and transport of water, nutrient cycling, and provision of food.

The soil resource supports agriculture, arboriculture, gardens, parks, greenspaces, allotments, forests and woodland, and ecological habitats. It is therefore important that the soil resources are protected and sustainably managed.

The following issues should therefore be considered in detail as part of the Environmental Statement:

1. The degree to which soils are going to be temporarily and/or permanently disturbed and/or damaged as part of this development and whether 'Best and Most Versatile' (BMV) agricultural land is involved.
2. Natural England welcomes the intent to survey within the draft DCO boundary. This Agricultural Land Classification (ALC) and soil survey should extend to the full Study Area, where detailed existing ALC information is not available, to inform the EIA. This should normally be at a detailed level, e.g. one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, i.e. 1.2 metres.

For further information on the availability of existing ALC information see [magic](#). Refer to [Guide to assessing development proposals on agricultural land](#) for more information on undertaking the ALC survey. The survey data can inform the suitable soil handling methods and the reinstatement criteria, with temporarily disturbed BMV land returned to the same quality as far as practicable to minimise loss.

3. The ES should provide details of how any adverse impacts on agricultural land and soils can be avoided or minimised, and demonstrate how soils will be sustainably managed.

Natural England welcomes the proposal to prepare a Construction Environment Management Plan (CEMP). The CEMP should contain soil mitigation measures in line with the [Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites](#).

In order to retain the long term potential of the temporarily disturbed land and to safeguard soil resources as part of the overall sustainability of the whole development, it is important that the soil is able to retain as many of its important functions and services (ecosystem services) as possible through careful soil management during the construction phase and reinstatement.

Reference could usefully be made to [REDACTED] which comprises separate sections, describing the typical choice of machinery and method of their use for handling soils at various phases. The techniques described by Sheets 1-4 are recommended for the successful reinstatement of higher quality soils.

4. The method of assessing whether soils are in a suitably dry condition to be handled (i.e. dry and friable), and the avoidance of soil handling, trafficking and cultivation during the wetter winter period.
5. The effects on land drainage, agricultural access and water supplies, including other agricultural land in the vicinity.

6. Air Quality

Air quality in the UK has improved over recent decades but air pollution remains a significant issue; for example over 97% of sensitive habitat area in England is predicted to exceed the critical loads for ecosystem protection from atmospheric nitrogen deposition ([England Biodiversity Strategy](#), Defra 2011). A priority action in the England Biodiversity Strategy is to reduce air pollution impacts on biodiversity. The planning system plays a key role in determining the location of developments which may give rise to pollution, either directly or from traffic generation, and hence planning decisions can have a significant impact on the quality of air, water and land. The assessment should take account of the risks of air pollution and how these can be managed or reduced. Further information on air pollution impacts and the sensitivity of different habitats/designated sites can be found on the Air Pollution Information System (). Further information on air pollution modelling and assessment can be found on the Environment Agency website.

7. Climate Change Adaptation

Regulation 4(2) of the EIA Regulations requires the EIA to “*identify, describe and assess in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the proposed development*” on a range of factors, including climate.

The [England Biodiversity Strategy](#) published by Defra establishes principles for the consideration of biodiversity and the effects of climate change. The ES should reflect these principles and identify how the development’s effects on the natural environment will be influenced by climate change, and how ecological networks will be maintained. The Applicant may also want to have regard to the Institute of Environmental Management & Assessment (IEMA) (). The NPPF requires that the planning system should contribute to the enhancement of the natural environment ‘by establishing coherent ecological networks that are more resilient to current and future pressures’ (), which should be demonstrated through the ES.

8. Contribution to local environmental initiatives and priorities

This application may provide opportunities to incorporate features into the design which are beneficial to wildlife such as the incorporation of roosting opportunities for bats, creation and enhancement wet grassland habitats to support SPA bird features, the planting of native tree and hedgerow species to benefit the wider environment.

Natural England would expect the ES to identify opportunities to explore the inclusion of such measures to enhance biodiversity of the site. This is in accordance with Section 40(3) of the Natural Environment and Rural Communities Act (2006) which states that ‘conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat’. Biodiversity 2020: A strategy for England’s wildlife and ecosystem services and Making Space for Nature (2010) also provide strong drivers for the inclusion of biodiversity enhancements through the planning process.

We note paragraph 4.11.1. of the EIA Scoping document states the Biodiversity Net Gain assessment will be undertaken and ‘it will identify whether habitat compensation is required to demonstrate biodiversity benefits’ – given the size and scale of the proposal there should a minimum target of a net gain in biodiversity value and suitable enhancement measures should be recommended to achieve this aspiration. Biodiversity net gain will be a mandatory requirement as set out in the Environment Bill and will require nationally significant infrastructure projects to deliver biodiversity net gain a to ensure that new developments are built in a way which protects and enhances nature, creating new green spaces for local communities to enjoy.

9. Cumulative and in-combination effects

A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.

The ES should include an impact assessment to identify, describe and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have

been or will be carried out. The following types of projects should be included in such an assessment, (subject to available information):

- a. existing completed projects;
- b. approved but uncompleted projects;
- c. ongoing activities;
- d. plans or projects for which an application has been made and which are under consideration by the consenting authorities; and
- e. plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

We note paragraph 17.2.3 refers to the cumulative assessment of the whole 'Project' i.e. the proposed works to the existing pipeline and Hydrogen Production Infrastructure. It is important the impacts of the whole 'Project' are identified and assessed in accordance with the Conservation of Habitats and Species Regulations 2017 (as amended). We support the assessment of cumulative and in-combination impacts for the whole 'Project' and future individual development applications in the ES.

We would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us. For any queries relating to the specific advice in this letter only please contact Katie Finkill-Coombs at katie.finkill-coombs@naturalengland.org.uk. For any new consultations, or to provide further information on this consultation please send your correspondences to [REDACTED].

Yours sincerely

Katie Finkill-Coombs
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01/07/2021

Dear Sir/Madam,

**PLANNING ACT 2008 (AS AMENDED) AND THE INFRASTRUCTURE PLANNING
(ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 (THE EIA
REGULATIONS) – REGULATIONS 10 AND 11**

**EIA SCOPING OPINION CONSULTATION REGARDING AN APPLICATION BY
LIVERPOOL BAY CCS LIMITED FOR AN ORDER GRANTING DEVELOPMENT
CONSENT FOR THE HYNET NORTH WEST CARBON DIOXIDE PIPELINE**

Thank you for referring the above proposal for a scoping opinion, which we received on 03/06/21. Natural Resources Wales (NRW) has reviewed the information provided in the 'HyNet North West Carbon Dioxide Pipeline DCO Environmental Impact Assessment Scoping Report' and supporting information (Liverpool Bay CCS Ltd., June 2021, Revision 3).

Please note that the comments provided herein are made without prejudice to any further advice NRW may need to give, or decisions NRW may need to take, should different circumstances or new information emerge that NRW will need to take into account.

The comments provided in Annex I include those matters within NRW's remit that we consider will need to be taken into account and applied to the Environment Impact Assessment (EIA) and the resulting Environmental Statement (ES). In order to aid review, where possible our comments are provided under the chapter headings from the Scoping Report. For matters relating to English environmental interests we would defer to the advice of the Environment Agency (EA) and Natural England (NE).

Our comments only relate specifically to matters included on our checklist, *Development Planning Advisory Service: Consultation Topics* (September 2018), which is published on our [REDACTED]. We have not considered potential effects on other matters and do not rule out the potential for the proposed development to affect other interests.

The applicant should be advised that, in addition to development consent, it is their responsibility to ensure that they secure all other permits/consents/licences relevant to their development. Please refer to our [REDACTED] for further details.

Please do not hesitate to contact us if you require further information or clarification on any of the above.

Yours faithfully,

Chris Jones

Uwch Gyngorydd, Cynllunio Datblygu / Senior Advisor, Development Planning
Cyfoeth Naturiol Cymru / Natural Resources Wales

ANNEX I

NRW ADVICE AND COMMENTS ON “HyNet North West Carbon Dioxide Pipeline DCO Environmental Impact Assessment Scoping Report” and supporting information (Liverpool Bay CCS Ltd., June 2021, Revision 3)

Chapter 2: Overview of HyNet North West (The Project)

1. There should be careful consideration of what comprises the ‘project’ for the purposes of the EIA to ensure compliance with the EIA Regulations. It would not be an advisable approach to disaggregate what is substantively a single project. NRW is concerned at present that the development in the proposed DCO application is dependent, and to an extent predicated on, further infrastructure which will not be covered by the DCO and subject to a separate future application. Further, the applicant has indicated that the project entails a wider set of related works for which additional future consents will be required. As a result, NRW is not presently in a position to advise on whether the applicant has correctly addressed the scope of the project. We note that the applicant is proposing that an ‘intra-project’ assessment will be carried out for the proposed development with consideration of other aspects of the wider project by way of cumulative assessment. NRW advise that the applicant’s general approach of assessing the ‘proposed development’ for which the DCO is being sought as a distinct project could be acceptable in principle if the applicant can demonstrate that the proposed development can be justified on its own merits, and is not dependent on the other parts of the project. Whether this approach is correct is a judgment for the planning decision maker (Secretary of State for the DCO).
2. Furthermore, if the applicant’s approach is accepted by the SoS we advise that works subject to other consents would need to be considered cumulatively within the EIA and should not be scoped out because they do not fall within the DCO.

Chapter 5: Air Quality

3. Section 5.2: Study Area, para. 5.2.3
Although it is referred to as the “Study Area” in our view we understand that this encompasses the 200m screening distance for the affected road network (ARN).
4. Section 5.4: Design, Mitigation and Enhancement Measures, para. 5.4.1
We cannot currently advise on whether these are likely to be sufficient because it is stated that measures will be set out in the Register of Environmental Actions and Commitments. Standard generalised mitigation is bulleted, but nothing specific to the designated sites within the construction dust screening area (para. 5.2.2). We would wish to be consulted on any dust control management plan.
5. Section 5.2: Description of Likely Significant Effects, para. 5.5.2
We agree that increased dust is a risk to ecological receptors.

Table 5-1: Elements Scoped In or Out of Further Assessment

6. Block Valve Stations: The only reasons for scoping these out appear to be whether they fall outside of the screening criteria already used e.g. for construction dust (para. 5.2.2) and traffic assessment (para's 5.2.3 and 5.7.10). The ES should include robust justification to explain why these have been scoped out.

Section 5.7.10

7. We are satisfied that the screening criteria listed for traffic assessment follow Table 6.2 of IAQM 2017.

Chapter 8: Biodiversity; Tables 8-2 and 8-3

8. Any designated sites that fall within the relevant screening distances of the various construction activities should be scoped in. We agree that Connah's Quay Ponds and Woodland SSSI should be scoped in.

Chapter 8: Biodiversity

9. In general the EIA for this development should include sufficient information to enable the decision makers to determine the extent of any environmental impacts arising from the proposed scheme on legally protected species, including those which may also comprise notified features of designated sites affected by the proposals.
10. Evaluation of the impacts of the scheme should include: direct and indirect; secondary; cumulative; short, medium and long-term; permanent and temporary; positive and negative, and construction, operation and decommissioning phase and long-term site security impacts on the nature conservation resource, landscape and public access.

Description of the Project

11. Within the EIA, the proposed scheme should be described in detail in its entirety. This description should cover construction, operation and decommissioning phases as appropriate and include detailed, scaled maps and drawings as appropriate.

Illustrations within the Environmental Statement

12. Any maps, drawings and illustrations that are produced to describe the project should be designed in such a way that they can be overlaid with drawings and illustrations produced for other sections of the EIA, such as biodiversity.

Description of Biodiversity

13. The EIA must include a description of all the existing natural resources and wildlife interests within and in the vicinity of the proposed development, together with a detailed assessment of the likely impacts and significance of those impacts.

Significance and Favourable Conservation Status

14. We advise that the EIA considers significance (both alone and in-combination) and where applicable, conservation status. In respect of conservation status, we advise consideration is given to current conservation status (CCS), and demonstration of no likely detriment to maintenance of favourable conservation status (FCS) during construction, operation and decommissioning phases of the scheme.

Key Habitats

15. Any habitat surveys should accord with the NCC Phase 1 survey guidelines (NCC (1990) Handbook for Phase 1 habitat survey. NCC, Peterborough). We advise that Phase 1 surveys are undertaken and completed during the summer to ensure the best chance of identifying the habitats present. We also advise that Habitats Directive Annex 1 habitats are identified as part of this assessment.

Protected Species

16. We advise that the site is subject to assessment to determine the likelihood of protected species and that targeted species surveys are undertaken for all species scoped in. These should comply with current best practice guidelines and in the event that the surveys deviate, or there are good reasons for deviation, that full justification for this is included within the EIA.
17. Should protected species be found during the surveys, information must be provided identifying the species-specific impacts in the short, medium and long-term together with any mitigation and compensation measures proposed to offset the impacts identified. We advise that the EIA sets out how the long-term site security of any mitigation or compensation will be assured, including management and monitoring information and long-term financial, tenure, and management responsibility. Where the potential for significant impacts on protected species is identified, we advocate that a Conservation Plan is prepared for the relevant species and included as an Annex to the EIA.
18. Where a European Protected Species is identified and the development proposal is predicted to likely contravene the legal protection they are afforded, a licence should be sought from NRW. The EIA must include consideration of the requirements for a licence and set out how the works will satisfy the three requirements as set out in the Conservation of Habitats and Species Regulations 2017 (as amended). One of these requires that the development authorised will 'not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range'. These requirements are also translated into planning policy through Planning Policy Wales (PPW) February 2021, section 6.4.22 and 6.4.23 and Technical Advice Note (TAN) 5, Nature Conservation and Planning (September 2009). The relevant decision maker will take them into account when considering the EIA where a European Protected Species is present.

Local Biodiversity Interests

19. We recommend that the developer consults the local authority ecologists on the scope of the work to ensure that regional and local biodiversity issues are adequately considered, particularly those habitats and species listed in the relevant Local Biodiversity Action Plan, and areas that are considered important for the conservation of biological diversity in Wales.
20. NRW would expect the developer to contact other relevant people/organisations for biological information/records relevant to the site and its surrounds. These include the relevant Local Records Centre and any local ecological interest groups (e.g. bat groups, mammal groups).

Legislation and Policy Compliance Review

21. We advise that provisions of the EIA audit compliance in respect of relevant nature conservation legislation (UK and Wales) together with relevant local and national policies including BS 42020:2013.

Designated Sites

22. We advise that the scope of the ES considers:
 - i. The conservation objectives of the Deeside and Buckley Newt Sites SAC and Halkyn Mountain SAC;
 - ii. The citations and site management statements for Halkyn Mountain and Holywell Common SSSI and Connah's Quay Ponds and Woodlands SSSI (and any other relevant SSSI's).
23. We have concerns that Figure 3-12 (Appendix 2 of 3) showing the indicative route of the proposed pipeline appears to pass through Mynydd y Fflint / Flint Mountain SSSI. We advise that there would need to be clear justification for this and an explanation of how the proposed development would avoid any damage to the features of the SSSI. We advise that the proposed pipeline should avoid the SSSI boundary as much as possible. The potential impact of the works may be larger than the area of works due to the footprint of machinery *etc.* on sensitive grasslands, woodlands and wet ground, in addition to future maintenance works *etc.* after installation. The site is additionally sensitive as it has a stream running through it, within a valley below steep slopes, so is at risk of receiving construction-related pollution and runoff.
24. We note that the following comments refer to matters that are not within the current scope of the EIA for the proposed development. However, further to our advice in paragraph 1 about defining what comprises the 'project' for the purposes of the EIA to ensure compliance with the EIA Regulations, if it is agreed by the SoS that these aspects of the wider project are to be considered outside the scope of the EIA, the potential impacts to the designated sites should be considered cumulatively within the EIA. The existing pipeline runs through the Halkyn Mountain SAC/SSSI (in an area where calcareous heathland exists). Regarding the Dee Estuary SPA/Ramsar/SAC/SSSI at Point of Ayr, we are aware that the current Eni pipeline is

undergrounded at this general location. However, modifications to that pipework and the ecological consequences would need to be clearly established. Should the Competent Authority consider that there would be a Likely Significant Effect on the above National Site Network sites, in the first instance the applicant would need to demonstrate that there would be no Adverse Effect on Site Integrity.

25. Surveys are needed to understand any potential effects on bird species features, including those associated with the Dee Estuary SSSI, SPA and Ramsar site in Wales. We defer to Natural England for advice regarding the effects on mobile features from designated sites in England.
26. We advise at least two consecutive years of wintering bird surveys to account for interannual variation in use by features of the Dee Estuary SSSI, SPA and Ramsar site. This should include surveys during the high tide periods (*i.e.* two hours either side of high tide). We also advise that this should include nocturnal surveys to account for use of the area outside of daylight hours. The timing of these surveys should be September to March inclusive.
27. We note that section 8.3.10 on page 120 of the Scoping Report details organisations contacted for existing data. This may help to inform the survey requirements.
28. Table 8.2, page 118: The summary of features for the Dee Estuary SPA and Ramsar site appears to be incorrect. We advise the applicant to check this carefully.
29. Table 8.4, page 112: “Designated sites – national and international”. We advise that mobile species from nearby designated sites are relevant to consider here.

Marine biodiversity

30. While most of the proposed development is terrestrial and not directly within any marine habitats, we welcome that the applicant has identified some possible pathways to marine habitats and species.
31. The relevant marine protected sites have been identified in the Scoping Report, namely: Dee Estuary Ramsar site/SPA/SAC/SSSI, which all require scoping into the EIA.
32. We advise that the main issues that need addressing in the EIA (and HRA) for the marine sites, some of which are not covered in the Scoping Report, are as follows:
 - i. Any possible run off from the trench excavation and subsequent storage of the topsoil and subsoil. Possible pathways into watercourses from the storage areas which could leach into the Dee estuary Ramsar site/SAC/SPA/SSSI should be considered, as well as any associated impacts and mitigation to be used if the material is contaminated.
 - ii. There is reference to a Construction Environmental Management Plan (CEMP), a sediment management plan and silt screening in the Scoping

- Report. These should be addressed in the EIA/HRA/WFD compliance assessment.
- iii. The Scoping Report states that when the pipeline is completed, hydrostatic testing will be undertaken. However, there is no information about how and where the water will be discharged after the testing. This should be addressed in the EIA/HRA/WFD compliance assessment.
 - iv. The Scoping Report states that samples of the hydrostatic test water will be taken prior to and after use. However, there is no information about which contaminants will be analysed and, if located at the Point of Ayr, whether this will be released onto the saltmarsh or intertidal habitats. This should be addressed in the EIA/HRA/WFD compliance assessment.
 - v. Potential impacts from the introduction and/or spread of invasive non-native species (INNS) should be considered in the EIA and HRA and biosecurity measures should be implemented (including the production of a biosecurity risk assessment) to ensure that there is no possibility of any machinery transporting non-native species from previous work sites to the Dee sites. Note that Mitten crabs are present in the Dee and possibly the Mersey and if water is going to be abstracted from these water bodies for the hydrostatic testing, the risk of transferring Mitten crab to other areas will need to be considered.
 - vi. The oystercatchers and other bird species that are features of the Dee Ramsar site and SPA use fields around the Dee estuary for supplementary feeding during high tides and extreme weather conditions, and this should be considered in the EIA and HRA.
 - vii. Vibration from the drilling of the cable route under the Dee may affect some of the migratory fish species of the Dee SAC and this should be considered in the EIA and HRA. The methods, timings and duration of e.g. piling and directional drilling of watercourse crossings should be considered regarding fish migration.
 - viii. The exact details of the works being carried out from Flint to the Point of Ayr are not clear, so this could be covered in more detail in the EIA/HRA. Currently, the only aspects referred to are the Block Valve Stations at four sections along the existing pipeline, with no details of the work involved.
 - ix. The existing pipeline works from the Point of Ayr to the offshore field have not been included in the scope of the proposed development. The Scoping Report refers to *'Modifications to the existing Point of Ayr Gas Terminal site'* and *'Newbuild and repurposed onshore/offshore pipelines to transport Carbon Dioxide (between Cheshire, Flintshire, and offshore): A proposed network of underground onshore and buried subsea pipelines would transport CO2 produced and captured by future hydrogen producing facilities and existing industrial premises in North West England and North Wales for permanent offshore storage'*. As made clear above, NRW is concerned as to whether the scope of the project has been correctly identified given the possible interdependence between the proposed development and these works. If the SoS agrees with the applicant's approach, then the cumulative impacts of these works would need to be considered in the EIA. The planning decision maker will need to make a judgment on the correct approach to interpreting

the project and should therefore consider whether these works should be scoped into the EIA and HRA.

Chapter 10: Landscape and Visual

33. Our landscape planning advice relates to the proposed development's potential impact on the Clwydian Range and Dee Valley Area of Outstanding Natural Beauty's (AONB) landscape character, visual amenity and special qualities and its accordance with national policy.
34. Sufficient information has been submitted to ascertain the development parameters being assessed. We concur with the EIA Scoping Report, Chapter 10: Landscape and Visual, which indicates that the Clwydian Range and Dee Valley AONB will be scoped out of the EIA. However, should the height and visual characteristics of the proposed development parameters materially change, we would wish to be reconsulted regarding this.
35. Our detailed comments following review of the Scoping Report are as follows:
36. We consider the approach outlined in Section 10.2 (Study Area), para. 10.2.2 to be appropriate for considering the visual effects of the scale of development proposed.
37. We agree with the analysis in Section 3.6: Landscape Character (para. 10.3.6), which states: *"The AONB is 3km at closest from the nearest BVS, and whilst it is acknowledged they may be visible in views from some parts of the AONB, owing to the small scale and nature of the BVS, it is considered that they would not have the potential to cause significant effects on the special qualities of the AONB"*.
38. Table 10-2: Elements Scoped In or Out of Further Assessment, 6th row - Clwydian Range and Dee Valley AONB states: *"Upon initial desktop review, the 2km study area is proportionate to the type of Proposed Development. The proposed Flint AGI (Northop Road) is located approximately 5.8km away from the nearest AONB and 2therefore outside the study area of the main proposed features. Following a review of the Google Viewshed Tool based on a maximum 9m height Proposed Development described above, it is clear there is no inter-visibility between the nearby AONB and the Proposed Development. In addition, the BVS are 3km away from the nearest AONB with a maximum height of 3m height (for fencing). The AONB is therefore scoped out of the assessment"*.
39. We agree with this analysis. We consider that the scale of development and distance from the AONB would avoid significant visual effects being experienced from within this Designated Landscape. However, we advise that the scope of the landscape and visual impact assessment and location of viewpoints are discussed with the relevant Local Planning Authority's Landscape Officer/representative.

Chapter 12: Materials and Waste

40. Any waste materials generated during the proposed development must be disposed of satisfactorily and in accordance with Section 34 of the Environmental Protection Act 1990 and Natural Resources Wales relevant guidance on waste management.
41. Carriers transporting waste from the site must be registered waste carriers and the movement of any Hazardous Waste from the site must be accompanied by Hazardous Waste consignment notes.
42. If during construction/excavation works any contaminated material is revealed, then the movement of such material either on or off site must be done in consultation with NRW.
43. NRW should be contacted to discuss the necessity for an exemption or permit for any material imported to, treated on, and exported from the site.
44. The location of historic landfills to the site works must be checked before work commences.
45. Any facilities for the storage of oils, fuels or chemicals shall be sited on impervious bases and surrounded by impervious bund walls. The volume of the bunded compound should be 110% of the capacity of the tank, all filling points, gauges, vents and sight glasses must be located within the bund. Associated pipework should be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets should be detailed to discharge downwards into the bund, refuelling should be supervised at all times - and preferably done on an impermeable surface.

Chapter 16: Water Resources and Flood Risk

Hydrogeology (Groundwater)

Construction Phase:

46. The Scoping Report does not mention whether there are any groundwater dependent terrestrial ecosystems (GWDTEs), wet woodlands or other ecosystems that may be dependent on shallow groundwater within the proposed corridor/area of interest. If some dewatering is required in particular locations, these types of receptors would need to be considered.
47. There is no clear reference as to how dewatering will be performed. Groundwater abstractions above 20m³/day generally require a licence but exemptions may apply if the abstraction or series of abstractions last less than 6 months and if the dewatering will not result in impacts e.g. to local private water supplies (*i.e.* no reduction in flows and water quality) or negatively affect a particular ecosystem. It is unclear whether sheet-piles, for example, would be used as a hydraulic control measure to stop the ingress of water into sections of the excavation and if the sheet-

piles would then remain in the ground. Depending on their length, these types of structures can impede and alter the flow of shallow groundwater which may be currently relied upon by a Private Water Supply (PWS) or an ecosystem.

48. Therefore, a Dewatering Management Plan should be developed that provides a general framework for assessing the potential risks arising from dewatering, but also to act as a vehicle for more specific and detailed assessment. The Hydrogeological Impact Appraisal (HIA) for dewatering abstractions Science Report – SC040020/SR1 - [Dewatering HIA post edit \(publishing.service.gov.uk\)](#) is a useful reference document. Assessment of the risks that dewatering may pose to the environment should be performed and included as part of the EIA; this risk assessment is often referred to as an HIA.
49. The Scoping Report does not mention the need to assess groundwater levels (see above) particularly where these levels are expected to be shallow and where they may be supporting baseflow to watercourses, or particular habitats (e.g. wet woodlands or ancient woodlands) or private water supplies. EC7 Geotechnical requirements for ground investigations as EN 1997-2:2007 (E) states: *“For linear structures (roads, railways, channels, pipelines, dikes, tunnels, retaining walls), a spacing of 20m to 200m is required between ground investigation boreholes.”*
50. Therefore, a Groundwater Management and Monitoring Plan (e.g. nature, scope, locations and frequency of groundwater monitoring) should be developed for the proposed scheme and the monitoring data used to inform potential risks to the water environment, ecosystems and receptors such as PWS.
51. Section 16.7.10 of the Scoping Report states that: *“An assessment of the potential impacts of the Proposed Development on groundwater quality and quantity will be undertaken with respect to identified groundwater abstractions including licenced activities and private water supplies, and other groundwater dependent receptors.”*
52. This is a very high level and generic statement and an assessment of the potential impact of the Proposed Development on groundwater should be developed which describes not only the assessment method but also the assessment itself. Some of this is also addressed by the HIA (see above).
53. The Scoping Report does not specifically mention how the number and locations of PWS will be assessed and then screened in/out to determine which PWS may be at a greater/lesser risk from the pipeline. Conceptual Site Models for PWS that are deemed to be at greater risk from the proposed development should be developed and used as the basis for a risk assessment. In the worst case, trench dewatering may affect the flow and quality of the water that sources a PWS. A questionnaire may need to be developed that can be distributed to homeowners along the proposed development so that a more accurate assessment of PWS numbers can be determined.

Potential sources of contamination

54. Section 9.3.12 of the Scoping Report states: *“The Study Area includes predominantly agricultural land with several former / current industrial land uses which could potentially provide contamination legacy. The Study Area is understood to cross a number of historical landfills, presenting potential sources of contamination, from records reviewed. This includes most noticeably a landfill crossed by the Proposed Development located close to the crossing of the A550 Gladstone way. Though it is noted it should be possible to avoid the landfill site itself during carbon dioxide pipeline route optimisation. An additional historical landfill named Brook Hill Landfill Site, is located immediately after Pinfold Lane, between Ewloe Green and Northop Hall. Further landfills are noted to be present south of Station Road in Lea by Backford, and west of Cryers Lane in Thornton-le-Moors. Additional assessment of third-party information during the baseline will clarify”.*
55. We advise that other potential sources of contamination include:
- Oil/fuel/diesel leakage from heavy construction equipment and trucks. Heavy plant will be required to excavate and install the pipeline.
 - Possible water quality degradation from the use of chemicals such as bentonite for construction and/or the need for temporary slurry lagoons that may be required for the pipeline construction, notably at water crossing points where any impacts would be greatest.
 - Possible water quality degradation from stormwater runoff, including sediment impacts

Operational Phase:

56. The operational pipeline poses several risks that require more detailed assessment as part of the EIA. These risks include:
- i. The pipeline acting as a preferential drainage pathway, notably where it may divert flows away from watercourses or where it may alter the existing local groundwater flow-net that may support an ecosystem or private water supply. This risk increases depending on the nature of the materials that surround the pipeline and their relative compaction. Potential changes to drainage characteristics arising from the operational pipeline have not been discussed within the Scoping Report. It may be necessary that some degree of groundwater monitoring is continued in particular locations, notably to assess the effects during the early operational period.
 - ii. Impacts on soils, notably compaction arising from the use of heavy plant, can result in crop loss.
57. Section 3.6.19 ‘Reinstatement’ states: *“The ground will be reinstated with the stored topsoil and subsoil following trenching. If necessary, the subsoil will be ripped prior to topsoil placement if compaction has occurred. Topsoil will be spread in such a way as to ensure that it does not become compacted. All surplus construction materials will be removed on completion of the work.”*

58. However, [The installation of underground pipelines: effects on soil properties - Batey - 2015 - Soil Use and Management - Wiley Online Library](#) also recommends other measures, which include the installation of new drains.
59. The longer-term effects of leaking carbon dioxide from the proposed development have not been mentioned in the Scoping Report. We advise that potential impacts that may affect the local environment should be considered.

Flood Risk

60. We welcome that additional information and assessments in the form of a separate Flood Consequences Assessment (FCA) is scoped in to be produced in support of the ES. The development crosses areas of zone C1 and C2 of the Development Advice Map (DAM) from TAN15: Development and Flood Risk.
61. Any buildings or above ground installations (e.g. AGI's, BVS etc.) associated with the pipeline and shown to have a flood risk (as per NRW flood maps) will need to comply with the requirements of TAN15.
62. As the proposed revised TAN15 may affect FCA requirements and flood risk sustainability constraints we reserve the right to revisit any comments we make at this time.
63. The FCA will need to assess flood risk from the tidal river Dee and the other watercourses which are crossed by the development. The FCA should be based on readily available information including our Tidal Dee Flood Modelling Study (2020) which can be requested through contacting our data distribution team at: datadistribution@naturalresourceswales.gov.uk.
64. The proposed route crosses several main rivers. It should be ensured that the proposed development does not adversely affect NRW's ability to access and maintain the main rivers, which we may undertake using our permissive powers. We would welcome further discussions regarding this once a detailed layout is available. Flood Risk Activity Permits (FRAPs) will be required for all main river crossings that do not fall within the conditions of an exempt activity. Please see our webpage for further details: [Natural Resources Wales / Flood risk activity permits](#)
65. The Lead Local Flood Authority (LLFA), in this instance Flintshire County Council, are the lead authority on flood risk from surface water and flooding from ordinary watercourses. The developer should consult the LLFA's drainage engineers in respect to any issues relating to flooding issues from these sources and surface water drainage proposals.

Chapter 17: Cumulative Effects

66. We advise that works subject to other consents would need to be considered cumulatively within the EIA and should not be scoped out only because they do not fall within the DCO.

Water Framework Directive (WFD) Compliance Assessment

67. The WFD Compliance Assessment should assess potential impacts on all WFD elements. Bathing Waters Protected Areas and Shellfish Water Protected Areas will need to be considered in the WFD compliance assessment. The nearest bathing waters are at West Kirby and Prestatyn. The Scoping Report has correctly identified the Dee Transitional waterbody to be included in the WFD compliance assessment. If the SoS considers that the coastal works should be scoped into the EIA the North Wales Coastal waterbody should also be included, or considered cumulatively with the proposed development if the SoS agrees with the applicant's proposed approach.
68. The Dee Estuary is a classified Shellfish Water and any pollution or contaminated water running into the estuary could affect the shellfish classification. There is a cockle Regulating Order in the Dee estuary that supports 54 fishermen and any reduction in water quality could affect the fishery. This should be considered in the WFD compliance assessment.

NORTHOP COMMUNITY COUNCIL
Representing the Wards of Northop and Sychdyn

Ivy House,
Fron Park Road,
Holywell,
Flintshire
CH8 7UT

17th June 2021

The Planning Inspectorate,
Central Operations,
Temple Quay House,
2 The Square,
Bristol
BS1 6PN

Dear Ms Lancaster,

Re: Application by Liverpool Bay CCS Limited (the Applicant) for an Order granting Development Consent for the Hynet North West Carbon Dioxide Pipeline (the Proposed Development)

Northop Community Council has been identified as a consultation body and having been consulted have the following comments to make.

The Council would like to comment on the possible disruption that the construction traffic will cause to Northop village for the whole of the construction period. This is a concern, especially due to the fact that some roads may be unsuitable for such large construction vehicles which may be passing in very close proximity to some of the village properties. There is also the likelihood of increased the noise levels due to the movement of such large vehicles involved in the transport of construction vehicles and materials over a sustained period of time.

The Community Council would also like to raise the issue of whether there will be any compensation for Northop residents as a consequence of the likely disruption to their daily lives for a lengthy period of time.

For those properties within the Northop and Sychdyn area that will be directly affected with the pipeline crossing, can the Council have the assurances that every effort will be made to work with the land owners, to ensure the minimum disruption to their land and business operations.

We would be grateful if you would take these matters into consideration as part of the consultation process.

Yours Sincerely,

E-mail: [REDACTED]

Tel: [REDACTED]

From: [ONR Land Use Planning](#)
To: [Hynet CO2 Pipeline](#)
Subject: ONR Land Use Planning - Application EN070007 - HyNet North West Carbon Dioxide Pipeline - EIA Scoping Notification and Consultation
Date: 30 June 2021 10:55:53
Attachments: [image001.png](#)
[Letter to stat cons_Scoping & Req 11 Notification.pdf](#)

Dear Sir/Madam,

You requested that ONR inform you of the information we consider should be provided in the environmental statement for application EN070007-000007-210603. Our response is as follows:

- The applicant should take due cognizance of the nearby Capenhurst nuclear licensed site, operated by Urenco UK Ltd;
- Capenhurst is situated within the applicant's "5 km Buffer of Scoping Boundary" defined in "Appendix A – Supporting Figures (Part 3 of 3)" of the Scoping Report (the site centre point for Capenhurst for land use planning purposes is SJ365745); and
- The applicant should liaise with Urenco UK Ltd as appropriate.

Regards,

Eamonn Guilfoyle
Land Use Planning
Office for Nuclear Regulation
ONR-Land.Use-planning@onr.gov.uk



Public Health
England

Environmental Hazards and
Emergencies Department
Centre for Radiation, Chemical and
Environmental Hazards (CRCE)
Seaton House
City Link
London Road
Nottingham
NG2 4LA

nsipconsultations@phe.gov.uk

www.gov.uk/phe

Your Ref: EN070007-000007-
210603

Our Ref: 57496

Ms Helen Lancaster
Senior EIA Advisor
The Planning Inspectorate
Temple Quay House
2 The Square
Bristol BS1 6PN

2nd July 2021

Dear Ms Lancaster

**Nationally Significant Infrastructure Project
HyNet North West Carbon Dioxide Pipeline
Scoping Consultation Stage**

Thank you for including Public Health England (PHE) in the scoping consultation phase of the above application. Advice offered by PHE is impartial and independent.

PHE exists to protect and improve the nation's health and wellbeing and reduce health inequalities; these two organisational aims are reflected in the way we review and respond to Nationally Significant Infrastructure Project (NSIP) applications.

The health of an individual or a population is the result of a complex interaction of a wide range of different determinants of health, from an individual's genetic make-up, to lifestyles and behaviours, and the communities, local economy, built and natural environments to global ecosystem trends. All developments will have some effect on the determinants of health, which in turn will influence the health and wellbeing of the general population, vulnerable groups and individual people. Although assessing impacts on health beyond direct effects from for example emissions to air or road traffic incidents is complex, there is a need to ensure a proportionate assessment focused on an application's significant effects.

Having considered the submitted scoping report, we wish to make the following specific comments and recommendations:

Environmental Public Health

We recognise the promoter's proposal to include a health section. We believe the summation of relevant issues into a specific section of the report provides a focus which ensures that public health is given adequate consideration. The section should summarise key information, risk assessments, proposed mitigation measures, conclusions and residual impacts, relating to human health.

V1.0 March 2021

Compliance with the requirements of National Policy Statements and relevant guidance and standards should also be highlighted.

In terms of the level of detail to be included in an Environmental Statement (ES), we recognise that the differing nature of projects is such that their impacts will vary. The attached appendix summarises PHE's requirements and recommendations regarding the content of and methodology used in preparing the ES. Please note that where impacts relating to health and/or further assessments are scoped out, promoters should fully explain and justify this within the submitted documentation.

Recommendation

Our position is that airborne pollutants associated with road traffic, construction plant, or combustion, particularly particulate matter and oxides of nitrogen are non-threshold; i.e., an exposed population is likely to be subject to potential harm at any level and that reducing public exposures of non-threshold pollutants (such as particulate matter and nitrogen dioxide) below air quality standards will have potential public health benefits. We support approaches which minimise or mitigate public exposure to non-threshold air pollutants, address inequalities (in exposure), maximise co-benefits (such as physical exercise). We encourage their consideration during development design, environmental and health impact assessment, and development consent.

Human Health and Wellbeing

This section of PHE's scoping response, identifies the wider determinants of health and wellbeing we expect the Environmental Impact Assessment (EIA) to address, to demonstrate whether they are likely to give rise to significant effects. PHE has focused its approach on scoping determinants of health and wellbeing under four themes, which have been derived from an analysis of the wider determinants of health mentioned in the National Policy Statements. The four themes are:

- Access
- Traffic and Transport
- Socioeconomic
- Land Use

Having considered the submitted scoping report PHE wish to make the following specific comments and recommendations:

Population and Human Health

The scoping report does not identify a definition of health. The scoping report should accept the broad definition of health proposed by the World Health Organisation (WHO) and also include specific reference to mental health within the definition of health.

The scoping report does not mention mental health, but it is important that mental health has parity of esteem with physical health and wellbeing. Mental well-being is fundamental to achieving a healthy, resilient and thriving population. It underpins healthy lifestyles, physical health, educational attainment, employment and productivity, relationships, community safety and cohesion and quality of life. A scheme of this scale and nature has impacts on the over-arching protective factors, which are:

- Enhancing control
- Increasing resilience and community assets
- Facilitating participation and promoting inclusion.

The scoping report outlined the intention to have a separate chapter on population and human health and the study areas for population and human health has been defined using the Design Manual for Roads and Bridges (DMRB) guidance Volume 11, Section 3, Part 6, LA112 Population and Human Health.

Recommendations

The EIA should accept the broad definition of health proposed by the World Health Organisation (WHO) and also include specific reference to mental health within the definition of health.

Population and human health impacts should be considered explicitly within the cumulative effects assessment in order to identify any in combination effects.

Vulnerable Populations

An approach to the identification of vulnerable populations, other than deprivation and those with protected characteristics, has not been provided. The impacts on health and wellbeing and health inequalities of the scheme may have particular effect on vulnerable or disadvantaged populations.

Recommendations

The EIA should clearly identify the range of vulnerable populations that have been considered within the assessment. The findings should be cross referenced across the ES to ensure the comprehensive assessment of potential impacts for health and inequalities and where resulting mitigation measures are mutually supportive.

The final ES should therefore include suitable and sufficient data to identify the populations at risk, vulnerable populations, baseline data, assessment of significance, mitigation measures and proposals for monitoring.

Physical Activity and Active Travel

The scoping report identifies there is potential for adverse effects on the accessibility of publicly accessible routes for walkers, cyclists and horse-riders (WCHs). The assessment will identify likely routes taken by WCHs and set out the impact on WCH receptors according to change in journey length.

Active travel forms an important part in helping to promote healthy weight environments and as such it is important that any changes do not have a negative impact where possible.

Recommendation

In addition to assessing the impact on WCH receptors in terms of journey length, the potential for temporary diversions to create a barrier to access i.e. not accessible across the life course due to steepness, ground condition or physical barriers should also be considered.

Cross Referencing of Health Impacts Across Chapters

Whilst it is highly encouraging that Population and Human Health will have a separate chapter in the ES, human health is affected by several wider determinants of health. Although the effects on human health is considered in some other chapters (Land & Soil and Major Accidents & Disasters), this is not consistently cross referenced across the report. For example, chapters on: Air Quality, Landscape and Visual, Noise and Vibration; Traffic and Transport, Water Resources and Flood Risk, and Cumulative Effects.

Recommendation

To ensure health and wellbeing is considered consistently through the ES, there should be cross referencing to Chapter 14: Population and Human Health in all chapters.

Yours sincerely

For and on behalf of Public Health England
nsipconsultations@phe.gov.uk

Please mark any correspondence for the attention of National Infrastructure Planning Administration.

Appendix: PHE recommendations regarding the scoping document

Introduction

The Planning Inspectorate's Advice Note 11: Working with Public Bodies covers many of the generic points of interaction relevant to the Planning Inspectorate and Public Health England (PHE). The purpose of this Annex is to help applicants understand the issues that PHE expect to see addressed by applicants preparing an Environmental Statement (ES) as part of their Nationally Significant Infrastructure Planning (NSIP) submission.

We have included a comprehensive outline of the type of issues we would expect to be considered as part of an NSIP which falls under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations). PHE encourages applicants to contact us as early in the process as possible if they wish to discuss or clarify any matters relating to chemical, poison, radiation or wider public health.

General Information on Public Health England

PHE was established on 1 April 2013 to bring together public health specialists from more than 70 organisations into a single public health service. We are an executive agency of the Department of Health and are a distinct delivery organisation with operational autonomy to advise and support government, local authorities and the National Health Service (NHS) in a professionally independent manner.

We work closely with public health professionals in Wales, Scotland and Northern Ireland, and internationally.¹ We have specialist teams advising on specific issues and the potential impacts arising from environmental public health including chemicals, noise, air quality, ionising and non-ionising radiation.

PHE's NSIP roles and responsibilities

PHE is a statutory consultee in the NSIP process for any *applications likely to involve chemicals, poisons or radiation which could potentially cause harm to people and are likely to affect significantly public health.*² PHE will consider potential significant effects (direct and indirect) of a proposed development on population and human health and the impacts from chemicals, radiation and environmental hazards. We also consider other factors which may have an impact on public health, such as the wider determinants of health, health improvement and health inequalities (where PHE has a legal duty specified in the Health and Social Care Act 2012)³.

Under certain circumstances PHE may provide comments on radiation on behalf of the Scottish Government. If a proposer is submitting a planning application in Scotland which may require advice on radiation you are recommended to contact the appropriate Scottish Planning Authority for advice on how to proceed.

In the case of applications in Wales, PHE remains a statutory consultee but the regime applies to a more limited range of development types. For NSIP applications likely to affect land in Wales, an applicant should still consult PHE but, additionally will be required to consult the Welsh Government.

¹ <https://www.gov.uk/government/organisations/public-health-england/about#priorities>

² The Infrastructure Planning (Interested Parties and Miscellaneous Prescribed Provisions) Regulations 2015

³ <http://www.legislation.gov.uk/ukpga/2012/7/contents/enacted>

Environmental Impact Assessments – PHE Responsibilities

PHE has a statutory role as a consultation body under the EIA Regulations. Where an applicant has requested a scoping opinion from the Planning Inspectorate⁴, PHE will be consulted regarding the scope, and level of detail, of the information to be provided in the ES. PHE has a duty to make information available to the applicant.

PHE provides advice relating to EIA within this document and during the NSIP consultation stages. PHE encourages applicants to discuss the scope of the ES with us at an early stage to explore, for example, whether careful site selection or other design issues could minimise or eliminate public health impacts or to outline the requirement for, scope and methodology of any assessments related to public health. PHE's standard recommendations in response to EIA scoping consultations are below.

PHE's Recommendations to Applicants Regarding Environmental Impact Assessments

General Approach

PHE provides advice relating to EIA within this document and during the NSIP consultation stages. It is the role of the applicant to prepare the ES.

When preparing an ES the applicant should give consideration to best practice guidance such as the Government's Handbook for scoping projects: environmental impact assessment⁵, and Guidance: on Environmental Impact Assessment⁶

The [Planning Inspectorate's Advice Note Seven](#): Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements also provide guidance to applicants and other persons with interest in the EIA process as it relates to NSIPs. It is important that the submitted ES identifies and assesses the potential public health impacts of the activities at, and emissions from, the development.

Applicants are reminded that Section 5(2)(a) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 specifically includes a requirement that the EIA must identify, describe and assess in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the proposed development on population and human health.

PHE is of the opinion that this requirement encompasses the wider determinants of public health, as well as chemicals, poisons and radiation. Further information on PHE's recommendations and requirements is included below.

PHE understands that there may be separate sections of the ES covering the assessment of impacts on air, land, water and so on, but expects an ES to include a specific section summarising potential impacts on population and health. This section should bring together and interpret the information from other assessments as necessary. The health, wellbeing and population impacts section should address the following steps.

1. Screening: Identify any significant effects.

⁴ The scoping process is administered and undertaken by the Planning Inspectorate on behalf of the Secretary of State

⁵ <https://www.gov.uk/government/publications/handbook-for-scoping-projects-environmental-impact-assessment>

⁶ <https://www.gov.uk/guidance/environmental-impact-assessment#the-purpose-of-environmental-impact-assessment>

- a. Summarise the methodologies used to identify health impacts, assess significance and sources of information
 - b. Evaluate any reference standards used in carrying out the assessment and in evaluating health impacts (e.g., environmental quality standards)
 - c. Where the applicant proposes the 'scoping out' of any effects a clear rationale and justification should be provided along with any supporting evidence.
2. Baseline Survey:
- a. Identify information needed and available, evaluate quality and applicability of available information
 - b. Undertake assessment
3. Alternatives:
- a. Consideration of alternatives (including alternative sites, choice of process, and the phasing of construction) is widely regarded as good practice. Ideally, the EIA process should start at the stage of site selection, so that the environmental merits of practicable alternatives can be properly considered. Where this is undertaken, the main alternatives considered should be outlined in the ES⁷.
4. Design and assess possible mitigation
- a. Consider and propose suitable corrective actions should mitigation measures not perform as effectively predicted.
5. Impact Prediction: Quantify and Assess Impacts:
- a. Evaluate and assess the extent of any positive and negative effects of the development. Effects should be assessed in terms of likely health outcomes, including those relating to the wider determinants of health such as socio-economic outcomes, in addition to health outcomes resulting from exposure to environmental hazards. Mental health effects should be included and given equivalent weighting to physical effects.
 - b. Clearly identify any omissions, uncertainties and dependencies (e.g., air quality assessments being dependant on the accuracy of traffic predictions)
 - c. Evaluate short-term impacts associated with the construction and development phase
 - d. Evaluate long-term impacts associated with the operation of the development
 - e. Evaluate any impacts associated with decommissioning of the development
 - f. Evaluate any potential cumulative impacts as a result of the development, currently approved developments which have yet to be constructed, and proposed developments which do not currently have development consent
6. Monitoring and Audit
- a. Identify key modelling predictions and mitigation impacts and consider implementing monitoring and audit to assess their accuracy / effectiveness.

Any assessments undertaken to inform the ES should be proportionate to the potential impacts of the proposal, therefore we accept that, in some circumstances particular assessments may not be relevant to an application, or that an assessment may be adequately completed using a qualitative rather than quantitative methodology. In cases where this decision is made, the applicant should fully explain and justify their rationale in the submitted documentation.

⁷ DCLG guidance, 1999 <http://www.communities.gov.uk/documents/planningandbuilding/pdf/155958.pdf>

Human and Environmental Receptors

The applicant should clearly identify the development's location and the distance of the development to off-site receptors that may be affected by emissions from, or activities at, the development. Off-site receptors may include people living in residential premises; people working in commercial, and industrial premises and people using transport infrastructure (such as roads and railways), recreational areas, and publicly-accessible land.

Identify and consider impacts on residential areas and sensitive receptors (such as schools, nursing homes and healthcare facilities, as well as other vulnerable population groups such as those who are young, older, with disabilities or long-term conditions, or on low incomes) in the area(s) which may be affected by emissions, this should include consideration of any new receptors arising from future development

Consideration should also be given to environmental receptors such as the surrounding land, watercourses, surface and groundwater, and drinking water supplies such as wells, boreholes and water abstraction points.

Impacts Arising from Construction and Decommissioning

Any assessment of impacts arising from emissions or activities due to construction and decommissioning should consider potential impacts on all receptors and describe monitoring and mitigation during these phases. Construction and decommissioning will be associated with vehicle movements and cumulative impacts should be accounted for.

We would expect the applicant to follow best practice guidance during all phases from construction to decommissioning to ensure appropriate measures are in place to mitigate any potential negative impact on health from emissions (point source, fugitive and traffic-related) and activities. An effective Construction Environmental Management Plan (CEMP) (and Decommissioning Environmental Management Plan (DEMP)) will help provide reassurance that activities are well managed. The applicant should ensure that there are robust mechanisms in place to respond to any complaints made during construction, operation, and decommissioning of the facility.

Emissions to Air and Water

PHE has a number of comments regarding the assessment of emissions from any type of development in order that the ES provides a comprehensive assessment of potential impacts.

When considering a baseline (of existing environmental quality) and in the assessment and future monitoring of impacts these should:

- include an evaluation of the public health benefits of development options which reduce air pollution – even below limit values – as pollutants such as nitrogen dioxide and particulate matter show no threshold below which health effects do not occur;^{8, 9}
- consider the construction, operational, and decommissioning phases;
- consider the typical operational emissions and emissions from start-up, shut-down, abnormal operation and accidents when assessing potential impacts and include an assessment of worst-case impacts;
- fully account for fugitive emissions;

⁸ <https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution>

⁹

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/795185/Review_of_interventions_to_improve_air_quality.pdf

- include appropriate estimates of background levels (i.e., when assessing the human health risk of a chemical emitted from a facility or operation, background exposure to the chemical from other sources should be taken into account);
- encompass the combined impacts of all pollutants which may be emitted by the development with all pollutants arising from associated development and transport, considered in a single holistic assessment (i.e., of overall impacts);
- identify and consider impacts on residential areas and sensitive receptors (such as schools, nursing homes and healthcare facilities) in the area(s) which may be affected by emissions. This should include consideration of any new receptors arising from future development;
- identify cumulative and incremental impacts (i.e., assess cumulative impacts from multiple sources), including those arising from associated development, other existing and proposed development in the local area, and new vehicle movements associated with the proposed development; associated transport emissions should include consideration of non-road impacts (i.e., rail, sea, and air);
- compare predicted environmental concentrations to the applicable standard or guideline value for the affected medium. Where available, the most recent UK standards for the appropriate media (i.e., air, water, and/or soil) and health-based guideline values should be used when quantifying the risk to human health from chemical pollutants;
- where UK standards or guideline values are not available, or other reputable International bodies e.g. European Union or OECD:
 - If no standard or guideline value exists, the predicted exposure to humans should be estimated and compared to an appropriate health-based value (e.g., a Tolerable Daily Intake or equivalent);
 - This should consider all applicable routes of exposure (e.g., include consideration of aspects such as the deposition of chemicals emitted to air and their uptake via ingestion).
- include appropriate screening assessments and detailed dispersion modelling where this is screened as necessary;
- include Chemical Abstract Service (CAS) numbers alongside chemical names, where referenced in the ES;
- include consideration of local authority, Environment Agency, Natural Resources Wales, Defra national network, and any other local site-specific sources of monitoring data;
- when quantitatively assessing the health risk of genotoxic and carcinogenic chemical pollutants, PHE does not favour the use of mathematical models to extrapolate from high dose levels used in animal carcinogenicity studies to well below the observed region of a dose-response relationship. When only animal data are available, we recommend that the Committee on Carcinogenicity of Chemicals approach¹⁰ is used.

Whilst screening of impacts using qualitative methodologies is common practice (eg, for impacts arising from fugitive emissions such as dust), where it is possible to undertake a quantitative assessment of impacts then this should be undertaken.

PHE's view is that the applicant should appraise and describe the measures that will be used to control both point source and fugitive emissions and demonstrate that standards, guideline values or health-based values will not be exceeded due to emissions from the installation, as described above. This should include consideration of any emitted pollutants for which there are no set emission limits. When assessing the potential impact of a proposed installation on environmental quality, predicted environmental concentrations should be compared to the permitted concentrations in the affected media; this should include both standards for short and long-term exposure. Further to assessments of compliance with limit values, for non-threshold pollutants (ie, those that have no

¹⁰ <https://www.gov.uk/government/publications/cancer-risk-characterisation-methods>

threshold below which health effects do not occur) the **benefits** of development options which reduce population exposure should be evaluated.

Additional points specific to emissions to air

When considering baseline conditions (of existing air quality) and the assessment and future monitoring of impacts, these should include:

- consideration of impacts on existing areas of poor air quality e.g. existing or proposed local authority Air Quality Management Areas (AQMAs) or Clean Air Zones (CAZ). The applicant should demonstrate close working/consultation with the appropriate local authorities
- modelling using appropriate meteorological data (i.e. from the nearest suitable meteorological station and include a range of years and worst-case conditions)
- modelling taking into account local topography, congestion and acceleration

Additional points specific to emissions to water

When considering baseline conditions (of existing water quality) and the assessment and future monitoring of impacts, these should:

- include assessment of potential impacts on human health and not focus solely on ecological impacts
- identify and consider all routes by which emissions may lead to population exposure (e.g., surface watercourses, recreational waters, sewers, geological routes etc.)
- assess the potential off-site effects of emissions to groundwater (eg, on aquifers used for drinking water) and surface water (used for drinking water abstraction) in terms of the potential for population exposure
- include consideration of potential impacts on recreational users (eg, from fishing, canoeing etc.) alongside assessment of potential exposure via drinking water

Land Quality

We would expect the applicant to provide details of any hazardous contamination present on site (including ground gas) as part of a site condition report and associated risk assessment.

Emissions to and from the ground should be considered in terms of the previous history of the site and the potential of the site, during construction and once operational, to give rise to issues. Public health impacts associated with ground contamination and/or the migration of material off-site should be assessed in accordance with the Environment Agency publication Land Contamination: risk management¹¹ and the potential impact on nearby receptors; control and mitigation measures should be outlined.

Waste

The applicant should demonstrate compliance with the waste hierarchy (e.g. with respect to re-use, recycling or recovery and disposal).

For wastes arising from the development the ES should assess:

- the implications and wider environmental and public health impacts of different waste disposal options
- disposal route(s) and transport method(s) and how potential impacts on public health will be mitigated

If the development includes wastes delivered to the installation:

- Consider issues associated with waste delivery and acceptance procedures (including delivery of prohibited wastes) and should assess potential off-site impacts and describe their mitigation

¹¹ Available from <https://www.gov.uk/guidance/land-contamination-how-to-manage-the-risks>

Other Aspects

Within the ES, PHE would expect to see information about how the applicant would respond to accidents with potential off-site emissions (e.g., flooding or fires, spills, leaks or releases off-site). Assessment of accidents should: identify all potential hazards in relation to construction, operation and decommissioning; include an assessment of the risks posed; and identify risk management measures and contingency actions that will be employed in the event of an accident in order to mitigate off-site effects.

PHE would expect the applicant to consider the COMAH Regulations (Control of Major Accident Hazards) and the Major Accident Off-Site Emergency Plan (Management of Waste from Extractive Industries) (England and Wales) Regulations: both in terms of their applicability to the development itself, and the development's potential to impact on, or be impacted by, any nearby installations themselves subject to these Regulations.

There is evidence that, in some cases, perception of risk may have a greater impact on health than the hazard itself. A 2009 report¹², jointly published by Liverpool John Moores University and the Health Protection Agency (HPA), examined health risk perception and environmental problems using a number of case studies. As a point to consider, the report suggested: *"Estimation of community anxiety and stress should be included as part of every risk or impact assessment of proposed plans that involve a potential environmental hazard. This is true even when the physical health risks may be negligible."* PHE supports the inclusion of this information within ES' as good practice.

Electromagnetic Fields (EMF)

This advice relates to electrical installations such as substations and connecting underground cables or overhead lines. PHE advice on the health effects of power frequency electric and magnetic fields is available on the Gov.UK website.¹³

There is a potential health impact associated with the electric and magnetic fields around substations, overhead power lines and underground cables. The field strengths tend to reduce with distance from such equipment.

The following information provides a framework for considering the health impact associated with the electric and magnetic fields produced by the proposed development, including the direct and indirect effects of the electric and magnetic fields as indicated above.

Policy Measures for the Electricity Industry

A voluntary code of practice is published which sets out key principles for complying with the ICNIRP guidelines.¹⁴ Companion codes of practice dealing with optimum phasing of high voltage power lines and aspects of the guidelines that relate to indirect effects are also available.^{15, 16}

Exposure Guidelines

PHE recommends the adoption in the UK of the EMF exposure guidelines published by the International Commission on Non-ionizing Radiation Protection (ICNIRP). Formal advice to this effect, based on an accompanying comprehensive review of the scientific evidence, was

¹² Available from: [REDACTED]

¹³ <https://www.gov.uk/government/collections/electromagnetic-fields#low-frequency-electric-and-magnetic-fields>

¹⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/37447/1256-code-practice-emf-public-exp-guidelines.pdf

¹⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48309/1255-code-practice-optimum-phasing-power-lines.pdf

¹⁶ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/224766/powerlines_vcop_microshocks.pdf

published in 2004 by the National Radiological Protection Board (NRPB), one of PHE's predecessor organisations¹⁷

Updates to the ICNIRP guidelines for static fields have been issued in 2009 and for low frequency fields in 2010. However, Government policy is that the ICNIRP guidelines are implemented as expressed in the 1999 EU Council Recommendation on limiting exposure of the general public (1999/519/EC):¹⁸

Static Magnetic Fields

For static magnetic fields, the ICNIRP guidelines published in 2009 recommend that acute exposure of the general public should not exceed 400 mT (millitesla), for any part of the body, although the previously recommended value of 40 mT is the value used in the Council Recommendation. However, because of potential indirect adverse effects, ICNIRP recognises that practical policies need to be implemented to prevent inadvertent harmful exposure of people with implanted electronic medical devices and implants containing ferromagnetic materials, and injuries due to flying ferromagnetic objects, and these considerations can lead to much lower restrictions, such as 0.5 mT.

Power Frequency Electric and Magnetic Fields

At 50 Hz, the known direct effects include those of induced currents in the body on the central nervous system (CNS) and indirect effects include the risk of painful spark discharge on contact with metal objects exposed to electric fields. The ICNIRP guidelines published in 1998 give reference levels for public exposure to 50 Hz electric and magnetic fields, and these are respectively 5 kV m⁻¹ (kilovolts per metre) and 100 µT (microtesla). The reference level for magnetic fields changes to 200 µT in the revised (ICNIRP 2010) guidelines because of new basic restrictions based on induced electric fields inside the body, rather than induced current density. If people are not exposed to field strengths above these levels, direct effects on the CNS should be avoided and indirect effects such as the risk of painful spark discharge will be small. The reference levels are not in themselves limits but provide guidance for assessing compliance with underlying basic restrictions and reducing the risk of indirect effects.

Long Term Effects

There is concern about the possible effects of long-term exposure to extremely low frequency electric and magnetic fields, from power lines. In the NRPB advice issued in 2004, it was concluded that the studies that suggest health effects, including those concerning childhood leukaemia in relation to power frequency magnetic fields, could not be used to derive quantitative guidance on restricting exposure. However, the results of these studies represented uncertainty in the underlying evidence base, and taken together with people's concerns, provided a basis for providing an additional recommendation for Government to consider the need for further precautionary measures, particularly with respect to the exposure of children to power frequency magnetic fields.

The Stakeholder Advisory Group on ELF EMFs (SAGE)

SAGE was set up to explore the implications for a precautionary approach to extremely low frequency electric and magnetic fields (ELF EMFs), which include power frequency fields, and to make practical recommendations to Government:¹⁹

¹⁷

<http://webarchive.nationalarchives.gov.uk/20140629102627/http://www.hpa.org.uk/Publications/Radiation/NPRBArchive/DocumentsOfTheNRPB/Absd1502/>

¹⁸ http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/PublicHealth/Healthprotection/DH_4089500

¹⁹

Relevant here is SAGE's 2007 First Interim Assessment, which makes several recommendations concerning high voltage power lines. In responding, Government supported the implementation of low cost options such as optimal phasing to reduce exposure; however it did not support the option of creating corridors around power lines in which development would be restricted on health grounds, which was considered to be a disproportionate measure given the evidence base on the potential long term health risks arising from exposure. The Government response to SAGE's First Interim Assessment is available on the national archive website.²⁰

The Government also supported calls for providing more information on power frequency electric and magnetic fields, which is available on the PHE web pages.

Ionising Radiation

Particular considerations apply when an application involves the possibility of exposure to ionising radiation. In such cases it is important that the basic principles of radiation protection recommended by the International Commission on Radiological Protection²¹ (ICRP) are followed. PHE provides advice on the application of these recommendations in the UK. The ICRP recommendations are implemented in the Euratom Basic Safety Standards²² (BSS) and these form the basis for UK legislation, including the Ionising Radiation Regulations 1999, the Radioactive Substances Act 1993, and the Environmental Permitting Regulations 2016.

As part of the EIA process PHE expects applicants to carry out the necessary radiological impact assessments to demonstrate compliance with UK legislation and the principles of radiation protection. This should be set out clearly in a separate section or report and should not require any further analysis by PHE. In particular, the important principles of justification, optimisation and radiation dose limitation should be addressed. In addition compliance with the Euratom BSS and UK legislation should be clear.

When considering the radiological impact of routine discharges of radionuclides to the environment PHE would, as part of the EIA process, expect to see a full radiation dose assessment considering both individual and collective (population) doses for the public and, where necessary, workers. For individual doses, consideration should be given to those members of the public who are likely to receive the highest exposures (referred to as the representative person, which is equivalent to the previous term, critical group).

Different age groups should be considered as appropriate and should normally include adults, 1 year old and 10 year old children. In particular situations doses to the fetus should also be calculated²³.

The estimated doses to the representative person should be compared to the appropriate radiation dose criteria (dose constraints and dose limits), taking account of other releases of radionuclides from nearby locations as appropriate. Collective doses should also be considered for the UK, European and world populations where appropriate.

²⁰

http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_107124

²¹ These recommendations are given in publications of the ICRP notably publications 90 and 103 see the website at

²² Council Directive 96/29/EURATOM laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation.

²³ HPA (2008) Guidance on the application of dose coefficients for the embryo, fetus and breastfed infant in dose assessments for members of the public. Doc HPA, RCE-5, 1-78, available at

<https://www.gov.uk/government/publications/embryo-fetus-and-breastfed-infant-application-of-dose-coefficients>

The methods for assessing individual and collective radiation doses should follow the guidance given in 'Principles for the Assessment of Prospective Public Doses arising from Authorised Discharges of Radioactive Waste to the Environment August 2012'²⁴

It is important that the methods used in any radiological dose assessment are clear and that key parameter values and assumptions are given (for example, the location of the representative persons, habit data and models used in the assessment).

Any radiological impact assessment, undertaken as part of the EIA, should also consider the possibility of short-term planned releases and the potential for accidental releases of radionuclides to the environment. This can be done by referring to compliance with the Ionising Radiation Regulations and other relevant legislation and guidance.

The radiological impact of any solid waste storage and disposal should also be addressed in the assessment to ensure that this complies with UK practice and legislation; information should be provided on the category of waste involved (e.g. very low level waste, VLLW). It is also important that the radiological impact associated with the decommissioning of the site is addressed.

Of relevance here is PHE advice on radiological criteria and assessments for land-based solid waste disposal facilities²⁵. PHE advises that assessments of radiological impact during the operational phase should be performed in the same way as for any site authorised to discharge radioactive waste. PHE also advises that assessments of radiological impact during the post operational phase of the facility should consider long timescales (possibly in excess of 10,000 years) that are appropriate to the long-lived nature of the radionuclides in the waste, some of which may have half-lives of millions of years.

The radiological assessment should consider exposure of members of hypothetical representative groups for a number of scenarios including the expected migration of radionuclides from the facility, and inadvertent intrusion into the facility once institutional control has ceased.

For scenarios where the probability of occurrence can be estimated, both doses and health risks should be presented, where the health risk is the product of the probability that the scenario occurs, the dose if the scenario occurs and the health risk corresponding to unit dose.

For inadvertent intrusion, the dose if the intrusion occurs should be presented. It is recommended that the post-closure phase be considered as a series of timescales, with the approach changing from more quantitative to more qualitative as times further in the future are considered.

The level of detail and sophistication in the modelling should also reflect the level of hazard presented by the waste. The uncertainty due to the long timescales means that the concept of collective dose has very limited use, although estimates of collective dose from the 'expected' migration scenario can be used to compare the relatively early impacts from some disposal options if required.

²⁴ The Environment Agency (EA), Scottish Environment Protection Agency (SEPA), Northern Ireland Environment Agency, Health Protection Agency and the Food Standards Agency (FSA).

Principles for the Assessment of Prospective Public Doses arising from Authorised Discharges of Radioactive Waste to the Environment August 2012.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/296390/geho1202bklh-e-e.pdf

²⁵ HPA RCE-8, Radiological Protection Objectives for the Land-based Disposal of Solid Radioactive Wastes, February 2009

Noise from National Networks and Airports

Public Health England's mission is to protect and improve the nation's health and wellbeing and reduce health inequalities. Environmental noise can cause stress and disturb sleep, which over the long term can lead to a number of adverse health outcomes.^{26 27}

The Noise Policy Statement for England (NPSE)²⁸ sets out the government's overall policy on noise. Its aims are to:

- avoid significant adverse impacts on health and quality of life;
- mitigate and minimise adverse impacts on health and quality of life; and
- contribute to the improvement of health and quality of life.

These aims should be applied within a broader context of sustainable development, where noise is considered alongside other economic, social and environmental factors. PHE expects such factors may include²⁹:

- Ensuring healthy lives and promoting well-being for all at all ages;
- promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all;
- building resilient infrastructure, promoting inclusive and sustainable industrialisation and fostering innovation;
- reducing inequality; and
- making cities and human settlements inclusive, safe, resilient and sustainable.

PHE's consideration of the effects of health and quality and life attributable to noise is guided by the recommendations in the 2018 Environmental Noise Guidelines for the European Region²⁷ published by the World Health Organization, and informed by high quality systematic reviews of the scientific evidence^{28 30 31}. The scientific evidence on noise and health is rapidly developing, and PHE's recommendations are also informed by relevant studies that are judged to be scientifically robust and consistent with the overall body of evidence.

In line with its mission, PHE believes that Nationally Significant Infrastructure Projects (NSIP) should not only limit significant adverse effects, but also explore opportunities to improve the health and quality of life of local communities and reduce inequalities.

PHE also recognises the developing body of evidence showing that areas of tranquillity offer opportunities for health benefits through psychological restoration. NSIP applications need to demonstrate that they have given due consideration to the protection of the existing sound environment in these areas.

Further, more detailed, guidance on PHE's scoping advice for noise issues associated with road schemes is included in Appendix 3.

²⁶ World Health Organisation, *Environmental Noise Guidelines for the European Region*. 2018.

²⁷ Lercher, P., G. Aasvang, and Y.e. de Kluizenaar, *WHO Noise and Health Evidence Reviews*.

²⁸ DEFRA, *Noise Policy Statement for England*. 2010.

²⁹ United Nations. *Sustainable Development Goals*. 2020 [01/06/2020]; Available from:

³⁰ Clark, C., C. Crumpler, and A.H. Nottley, *Evidence for Environmental Noise Effects on Health for the United Kingdom Policy Context: A Systematic Review of the Effects of Environmental Noise on Mental Health, Wellbeing, Quality of Life, Cancer, Dementia, Birth, Reproductive Outcomes, and Cognition*. *Int J Environ Res Public Health*, 2020. **17**(2).

³¹ van Kamp, I., et al., *Evidence Relating to Environmental Noise Exposure and Annoyance, Sleep Disturbance, Cardio-Vascular and Metabolic Health Outcomes in the Context of IGCB (N): A Scoping Review of New Evidence*. *Int J Environ Res Public Health*, 2020. **17**(9).

Wider Determinants of Health

The World Health Organization (WHO's) defines health as “a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity” (WHO, 1948).

The health and wellbeing of an individual or a population is the result of a complex interaction of a wide range of different determinants of health, from an individual’s genetic make-up, to lifestyles and behaviours, and the communities, local economy, built and natural environments to global ecosystem trends. All developments will have some effect on the determinants of health, which in turn will influence the health and wellbeing of the general population, vulnerable groups and individual people.



Barton and Grant³²

PHE recognises that evaluating an NSIP’s impacts on health through the wider determinants is more complex than assessing a project’s direct impacts against clearly defined regulatory protections. The 2017 EIA Regulations clarify that the likely significant effects of a development proposal on population and human health must be assessed.

PHE’s expectations are that the proponent of an NSIP will conduct a proportionate and evidence-based assessment of the anticipated direct and indirect effects on health and wellbeing in line with the relevant regulatory and policy requirements. Consideration should be given to impacts during the construction, operation and decommissioning phase of NSIPs. Consideration should be given to the avoidance or mitigation of any negative impacts, as well as to how the NSIP could be designed to maximise potential positive benefits.

We accept that the relevance of wider determinants and associated impacts will vary depending on the nature of the proposed development. PHE has focused its approach on scoping determinants of health and wellbeing under four themes, which have been derived from an analysis of the wider determinants of health mentioned in the National Policy Statements.

The four themes are:

- Access
- Traffic and Transport
- Socioeconomic
- Land Use

³² Barton H, Grant M. A health map for the local human habitat. The Journal of the Royal Society for the Promotion of Health 2006; 126(6): 252-3.

PHE has developed a list of 21 determinants of health and wellbeing under these four broad themes. These determinants should be considered within any scoping report and if the applicant proposes to scope any areas out of the assessment, they should provide clear evidence-based reasoning and justification. Appendix 2 provides greater detail on the nature of each determinant.

Methodology

PHE will expect assessments to set out the methodology used to assess impacts on each determinant included in the scope of the assessment. In some instances, the methodologies described may be established and refer to existing standards and/or guidance. In other instances, there may be no pre-defined methodology, which can often be the case for the wider determinants of health; as such there should be an application of a logical evidence based impact assessment method that:

- identifies the temporal and geographic scope of assessment
- identifies affected sensitive receptors (general population and vulnerable populations) to impacts from the relevant determinant
- establishes the current baseline situation
- identifies the NSIP’s potential direct and indirect impacts on each population
- if impacts are identified, evaluates whether the potential effect is likely to be significant in relation to the affected population
- identifies appropriate mitigation to eliminate or minimise impacts or the subsequent effects on health and inequalities
- identifies opportunities to achieve benefits from the scheme for health and inequalities
- considers any in combination or cumulative effects
- identifies appropriate monitoring programmes

Currently there is no standard methodology for assessing the population and human health effects of infrastructure projects, but a number of guides exist, including:

- Institute of Environmental Management and Assessment, 2017: Health in Environmental Assessment, a primer for a proportionate approach;³³
- NHS London Healthy Urban Development Unit (HUDU), 2015. Healthy Urban Planning Checklist and Rapid Health Impact Assessment Tool;³⁴
- Wales Health Impact Assessment Unit, 2012: HIA a practical guide;³⁵
- National Mental Wellbeing Impact Assessment Development Unit 2011: Mental Wellbeing Impact Assessment Toolkit;³⁶

PHE expects assessments to follow best practice from these guides and from methodologies adopted within other successful health/environmental impacts assessments.

Determining Significant Effects

Neither the EIA regulations nor the National Policy Statements provide a definition of what constitutes a ‘significant’ effect, and so PHE have derived a list of factors which it will take into consideration in the assessment of significance of effects, as outlined below. These list of factors should be read in conjunction with guidance from the above guides.

33

[Redacted]

34 [Redacted]

35 [Redacted]

1. Sensitivity:

Is the population exposed to the NSIP at particular risk from effects on this determinant due to pre-existing vulnerabilities or inequalities (for example, are there high numbers in the local population of people who are young, older, with disabilities or long-term conditions, or on a low income)? Will the NSIP widen existing inequalities or introduce new inequalities in relation to this determinant?

2. Magnitude:

How likely is the impact on this determinant to occur? If likely, will the impact affect a large number of people / Will the impact affect a large geographic extent? Will the effects be frequent or continuous? Will the effects be temporary or permanent and irreversible?

3. Cumulative effects:

Will the NSIP's impacts on this determinant combine with effects from other existing or proposed NSIPs or large-scale developments in the area, resulting in an overall cumulative effect different to that of the project alone?

What are the cumulative effects of the impacts of the scheme on communities or populations. Individual impacts individually may not be significant but in combination may produce an overall significant effect.

4. Importance:

Is there evidence for the NSIP's effect on this determinant on health? Is the impact on this determinant important in the context of national, regional or local policy?

5. Acceptability:

What is the local community's level of acceptance of the NSIP in relation to this determinant? Do the local community have confidence that the applicants will promote positive health impacts and mitigate against negative health effects?

6. Opportunity for mitigation:

If this determinant is included in the scope for the EIA is there an opportunity to enhance any positive health impacts and/or mitigate any negative health impacts?

Vulnerable Groups

Certain parts of the population may experience disproportionate negative health effects as a result of a development. Vulnerable populations can be identified through research literature, local population health data or from the identification of pre-existing health conditions that increase vulnerability.

The effects on health and wellbeing and health inequalities of the scheme will have particular effect on vulnerable or disadvantaged populations, including those that fall within the list of protected characteristics. Some protected groups are more likely to have elevated vulnerability associated with social and economic disadvantages. Consideration should be given to language or lifestyles that influence how certain populations are affected by impacts of the proposal, for example non-English speakers may face barriers to accessing information about the works or expressing their concerns.

Equality Impact Assessments (EqIA) are used to identify disproportionate effects on Protected Groups (defined by the Equality Act, 2010), including health effects. The assessments and findings of the Environmental Statement and the EqIA should be cross referenced between the two documents, particularly to ensure the assessment of potential impacts for health and inequalities and that resulting mitigation measures are mutually supportive.

The Wales Health Impact Assessment Support Unit (WHIASU), provides a suggested guide to vulnerable groups

Age related groups

- Children and young people
- Older people

Income related groups

- People on low income
- Economically inactive
- Unemployed/workless
- People who are unable to work due to ill health

Groups who suffer discrimination or other social disadvantage

- People with physical or learning disabilities/difficulties
- Refugee groups
- People seeking asylum
- Travellers
- Single parent families
- Lesbian, gay or transgender people
- Black and minority ethnic groups
- Religious groups

Geographical groups

- People living in areas known to exhibit poor economic and/or health indicators
- People living in isolated/over-populated areas
- People unable to access services and facilities

Mental Health

PHE supports the use of the broad definition of health proposed by the World Health Organisation (WHO). Mental well-being is fundamental to achieving a healthy, resilient and thriving population. It underpins healthy lifestyles, physical health, educational attainment, employment and productivity, relationships, community safety and cohesion and quality of life. NSIP schemes can be of such scale and nature that they will impact on the over-arching protective factors, which are:

- Enhancing control
- Increasing resilience and community assets
- Facilitating participation and promoting inclusion.

There should be parity between mental and physical health, and any assessment of health impact should include the appreciation of both. A systematic approach to the assessment of the impacts on mental health, including suicide, is required. The Mental Well-being Impact Assessment (MWIA) could be used as a methodology. The assessment should identify vulnerable populations and provide clear mitigation strategies that are adequately linked to any local services or assets

Perceptions about the proposed scheme may increase the risk of anxiety or health effects by perceived effects. "Estimation of community anxiety and stress should be included as part of every risk or impact assessment of proposed plans that involve a potential environmental hazard.

Evidence Base and Baseline Data

Baseline population / community health data (quantitative and qualitative) should be sufficient to represent current health status and identify areas or groups with poor health or inequalities. This should provide sufficient information on the physical and mental health and wellbeing and social determinants of health for the affected populations and any vulnerable groups identified.

A baseline health assessment could include:

- General population data (including size, density, age, gender, income and employment, socio-economic status, crime and disorder etc, health status.)
- Environmental information (housing, transport, access to services, provision and access to green space, tranquillity or sound environment)
- Data on behaviour, such as levels of physical activity, smoking, car usage, walking and cycling
- Surveys of local conditions
- Local concerns and anxieties (where documented)
- Secondary analysis of existing local data
- Resident surveys or consultations
- Health status, particularly of the population groups already identified as vulnerable and likely to benefit or be harmed by the proposal. This should include mental health and suicide.
- Quality of life indicators (if available / relevant)
- Local people's views of the area and of the services provided (community engagement exercises)

There will be a range of publicly available health data including:

- National datasets such as those from the Office of National Statistics,
- PHE, including the fingertips data sets,
- Non-governmental organisations,
- Local public health reports, such as the Joint Strategic Needs Assessment and Health and Wellbeing Strategies;
- Consultation with local authorities, including public health teams
- Information received through public consultations, including community engagement exercises

There should be a narrative which interprets the data collected in the context of the project. A list of tables and data is not sufficient, so the report should consider:

- Are particular groups or vulnerable groups likely to be impacted more than others and is this clearly described and explained?
- What indicators within the current health baseline that are worse than England average/ local ward or LSOA levels?
- What are the levels of inequality in the study area?
What are the potential inequalities in the distribution of impacts?

Mitigation

If the assessment has identified that significant negative effects are likely to occur with respect to the wider determinants of health, the assessment should include a description of planned mitigation measures the applicant will implement to avoid or prevent effects on the population.

Mitigation and/or monitoring proposals should be logical, feasible and have a clear governance and accountability framework indicating who will be responsible for implementation and how this will be secured during the construction and/or operation of the NSIP.

Any proposed mitigation should have sufficient detail to allow for an assessment of the adequacy of the proposed mitigation measures.

Positive Benefits from the Scheme

The scale of many NSIP developments will generate the potential for positive impacts on health and wellbeing; however, delivering such positive health outcomes often requires specific enabling or enhancement measures. For example, the construction of a new road network to access an NSIP site may provide an opportunity to improve the active transport infrastructure for the local

community. PHE expects developments to consider and report on the opportunity and feasibility of positive impacts. These may be stand alone or be considered as part of the mitigation measures.

Replacement Publicly Accessible Space or Community Assets

The replacement of community assets provides opportunity for positive impacts and the design, location and operation of the replacement asset should be considered in consultation with user, the local community and agencies.

Any replacement recreational land, open space or other community assets should be located and designed to:

- Not unreasonably extend journey times or increase transport costs, or result in too many people being prevented from travelling sustainably due to unsuitable walking or cycling routes.
- Ensure that accessibility planning has been properly taken into account and that the proposal will not adversely impact on disadvantaged groups.
- Meet identified community needs which may go beyond direct replacement but can be reasonably incorporated
- Provide acceptable recreational amenity, including noise environment, for outdoor spaces associated with the individual community facilities
- The design of the sites should be carried out in consultation with the local community. It should incorporate features and designs to enable access and use across the life course.
- The PEIR should contain sufficient detail regarding the location and design in order to determine the acceptability of the replacement facilities.
- Quality, quantity and accessibility should be determined against defined criteria agreed with stakeholders. The following evidence based assessment tools should be considered:

The quality of the provision of replacement green space should be assessed, for example by the use of:

[Building with Nature](#) - There are 6 wellbeing standards, which are:

- Accessible
- Inclusive
- Seasonal enjoyment
- Locally relevant
- Socially sustainable
- Distinctive

The [ANGSt standards](#) address amount, access and quality

The [ORVaL tool](#) - This tool works on areas that are currently publicly accessible and looks at welfare values for this area. The site functionality allows users to investigate how altering the land cover, features or the area of existing recreation sites will change usage and welfare values. This allows a comparison between existing and the proposed sites. Contact should be made with the ORVaL team to establish the functionality of the tool relevant to the DCO and interpretation of the findings³⁷.

[Green Flag Award](#)- a robust framework for assessing the quality of public green spaces of all types and sizes.



Employment

NSIP schemes have the potential to negatively impact through the relocation or loss of local businesses. Equally they can offer an opportunity for new business activity and employment both at the construction stage and operation of the development approved by the DCO.

There is clear evidence that good work improves health and wellbeing across people's lives and protects against social exclusion. Conversely, unemployment is bad for health and wellbeing, as it is associated with an increased risk of mortality and morbidity. For many individuals, in particular those with long-term conditions such as mental health problems, musculoskeletal (MSK) conditions and disabilities, health issues can be a barrier to gaining and retaining employment. Employment rates are lowest among disabled people, with only 51.3% in work, meaning there is a substantial employment rate gap in the UK between disabled and non-disabled people (81.4% in employment). Among these working age disabled people in the UK, 54% have a mental health or MSK condition as their main health condition³⁸. Enabling people with health issues to obtain or retain work, and be productive within the workplace, is a crucial part of the economic success and wellbeing of every community and industry.

It is important that people are supported to gain employment and maintain economic independence for themselves and their families, especially as they age. This is of particular importance for individuals with long-term conditions and disabilities, due to the barriers they face in gaining employment and retaining a job.

Where relevant any assessments should include:

- The impact of business relocation in order to identify the likely level of job losses within the study area
- The proposed support mechanisms to be established for business owners and employees
- A clear strategy and action plan that addresses barriers to employment within the local population and those that cease employment due to the DCO.

Compulsory Purchase

NSIP schemes can involve the compulsory acquisition of property from land take. Mitigation will involve supporting home-owners and tenants in understanding and utilising the compensation and support offered through the compensation policies.

The impacts from compulsory acquisition of land and property can affect health and wellbeing, including mental health, for example from home, school and employment relocation and loss of employment. This will be particularly relevant to sensitive receptors within communities, many of which will form part of the private rented sector.

Compensation and support can be an important element of mitigation, but developers should consider opportunities to work through partners and local Voluntary, Community and Social Enterprise (VCSE) organisations. These organisations offer the potential for engagement with vulnerable groups and may gain greater acceptance by the wider community.

Any compulsory purchase support schemes should ensure sufficient competency in public health, including public mental health, in order to help support local communities. The aim would be to establish a workforce that is confident, competent and committed to:

- promote good physical and mental health across the population
- prevent mental illness and suicide

³⁸ [PHE \(Jan 2019\). Guidance - Health matters: health and work \(https://publichealthmatters.blog.gov.uk/2019/01/31/health-matters-health-and-work/\)](https://publichealthmatters.blog.gov.uk/2019/01/31/health-matters-health-and-work/)

- improve the quality and length of life of people living within affected communities

The Public mental health leadership and workforce development framework³⁹ published by PHE offers a skills framework for the wider public health workforce. As well as the competences in this framework. Health Education England (HEE) have published a course content guide entitled Public Mental Health Content Guide For introductory courses or professional development in mental health and wellbeing⁴⁰.

Monitoring

PHE expects an assessment to include consideration of the need for monitoring and the ES should clearly state the principles on which the monitoring strategy has been established, including monitoring in response to unforeseen impacts or effects.

It may be appropriate to undertake monitoring where:

- Critical assumptions have been made in the absence of supporting evidence or data
- There is uncertainty about whether significant negative effects are likely to occur and it would be appropriate to include planned monitoring measures to track their presence, scale and nature.
- There is uncertainty about the potential success of mitigation measures
- It is necessary to track the nature of the impact or effect and provide useful and timely feedback that would allow action to be taken should negative effects occur

The monitoring strategy should set out:

- Monitoring methodologies
- Data sources, particularly if being obtained from third parties or open access data
- Assessment methods
- Publication methodology
- Reporting frequency
- Temporal and geographic scope

For very large controversial schemes it may be worth considering the need to have an independent organisation undertake / report on the monitoring and the need for academic robustness.

Community Based Reports

Large complex schemes that involve significant effects on communities or significant cumulative effects can benefit from identifying impacts and reporting at an individual community level. This assists in the identification of the overall potential effects across a range of impacts. These community level reports will also aid local communities to engage with consultations by providing relevant and accessible information.

How to contact PHE

If you wish to contact us regarding an existing or potential NSIP application please email: nsipconsultations@phe.gov.uk

³⁹ [REDACTED]

Appendix 2

Table 1 – Wider determinants of health and wellbeing

Health and wellbeing themes			
Access	Traffic and Transport	Socioeconomic	Land Use
Wider determinants of health and wellbeing			
<p>Access to :</p> <ul style="list-style-type: none"> • local public and key services and facilities. • Good quality affordable housing. • Healthy affordable food. • The natural environment. • The natural environment within the urban environment. • Leisure, recreation and physical activities within the urban and natural environments. 	<ul style="list-style-type: none"> • Accessibility. • Access to/by public transport. • Opportunities for access by cycling and walking. • Links between communities. • Community severance. • Connections to jobs. • Connections to services, facilities and leisure opportunities. 	<ul style="list-style-type: none"> • Employment opportunities, including training opportunities. • Local business activity. • Regeneration. • Tourism and leisure industries. • Community/social cohesions and access to social networks. • Community engagement. 	<ul style="list-style-type: none"> • Land use in urban and/or /rural settings. • Quality of Urban and natural environments

1) Access

- a. Access to local, public and key services and facilities
 Access to local facilities can increase mobility and social participation. Body mass index is significantly associated with access to facilities, including factors such as the mix and density of facilities in the area. The distance to facilities has no or only a small effect on walking and other physical activities. Access to recreational facilities can increase physical activity, especially walking for recreation, reduce body weight, reduce the risk of high blood pressure, and reduce the number of vehicle trips, the distances travelled and greenhouse gas emissions.

Local services include health and social care, education, employment, and leisure and recreation. Local facilities include community centres, shops, banks/credit unions and Post Offices. Services and facilities can be operated by the public, private and/or voluntary sectors. Access to services and facilities is important to both physical and mental health and wellbeing. Access is affected by factors such as availability, proximity to people's place of residence, existence of transport services or active

travel infrastructure to the location of services and facilities, and the quality of services and facilities.

The construction or operation of an NSIP can affect access adversely: it may increase demand and therefore reduce availability for the existing community; during construction, physical accessibility may be reduced due to increased traffic and/or the blockage of or changes to certain travel routes. It is also possible that some local services and facilities are lost due to the land-take needed for the NSIP.

Conversely if new routes are built or new services or facilities provided the NSIP may increase access. NSIPs relating to utilities such as energy and water can maintain, secure or increase access to those utilities, and thereby support health and wellbeing.

b. Access to good-quality affordable housing

Housing refurbishment can lead to an improvement in general health and reduce health inequalities. Housing improvements may also benefit mental health. The provision of diverse forms and types of housing is associated with increased physical activity. The provision of affordable housing is strongly associated with improved safety perceptions in the neighbourhood, particularly among people from low-income groups. For vulnerable groups, the provision of affordable housing can lead to improvements in social, behavioural and health related outcomes. For some people with long term conditions, the provision of secure and affordable housing can increase engagement with healthcare services, which can lead to improved health-related outcomes. The provision of secure and affordable housing can also reduce engagement in risky health-related behaviours. For people who are homeless, the provision of affordable housing increases engagement with healthcare services, improves quality of life and increases employment, and contributes to improving mental health.

Access to housing meets a basic human need, although housing of itself is not necessarily sufficient to support health and wellbeing: it is also important that the housing is of good quality and affordable. Factors affecting the quality of housing include energy efficiency (eg effective heating, insulation), sanitation and hygiene (eg toilet and bathroom), indoor air quality including ventilation and the presence of damp and/or mould, resilience to climate change, and overcrowding. The affordability of housing is important because for many people, especially people on a low income, housing will be the largest monthly expense; if the cost of housing is high, people may not be able to meet other needs such as the need for heating in winter or food. Some proposals for NSIPs include the provision of housing, which could be beneficial for the health and wellbeing of the local population. It is also possible that some housing will be subject to a compulsory purchase order due to the land-take needed for an NSIP.

c. Access to affordable healthy food

Access to healthy food is related to the provision of public and active transport infrastructure and the location and proximity of outlets selling healthier food such as fruit and vegetables. For the general population, increased access to healthy, affordable food through a variety of outlets (shops, supermarkets, farmers' markets and community gardens) is associated with improved dietary behaviours, including attitudes towards healthy eating and food purchasing behaviour, and improved adult weight. Increased access to unhealthier food retail outlets is associated with increased weight in the general population and increased obesity and unhealthy eating behaviours among children living in low-income areas. Urban agriculture can improve attitudes towards healthier food and increase fruit and vegetable consumption.

Factors affecting access to healthy affordable food include whether it is readily available from local shops, supermarkets, markets or delivery schemes and/or there are opportunities to grow food in local allotments or community gardens. People in environments where there is a high proportion of fast food outlets may not have easy access to healthy affordable food.

d. Access to the natural environment

Availability of and access to safe open green space is associated with increased physical activity across a variety of behaviours, social connectedness, childhood development, reduced risk of overweight and obesity and improved physical and mental health outcomes. While the quantity of green space in a neighbourhood helps to promote physical activity and is beneficial to physical health, eg lower rates of mortality from cardiovascular disease and respiratory disease in men, the availability of green environments is likely to contribute more to mental health than to physical health: the prevalence of some disease clusters, particularly anxiety and depression, is lower in living environments which have more green space within a 1-km radius.

The proximity, size, type, quality, distribution, density and context of green space are also important factors. Quality of green space may be a better predictor of health than quantity, and any type of green space in a neighbourhood does not necessarily act as a venue for, or will encourage, physical activity. 'Walkable' green environments are important for better health, and streetscape greenery is as strongly related to self-reported health as green areas. Residents in deprived areas are more likely to perceive access to green space as difficult, to report poorer safety, to visit the green space less frequently and to have lower levels of physical activity. The benefits to health and wellbeing of blue space include lower psychological distress.

The natural environment includes the landscape, waterscape and seascape. Factors affecting access include the proximity of the natural environment to people's place of residence, the existence of public transport services or active travel infrastructure to the natural environment, the quality of the natural environment and feelings of safety in the natural environment. The construction of an NSIP may be an opportunity to provide green and/or blue infrastructure in the local area. It is also possible that green or blue infrastructure will be lost due to the land-take needed for the NSIP.

e. Access to the natural environment within the urban environment

Public open spaces are key elements of the built environment. Ecosystem services through the provision of green infrastructure are as important as other types of urban infrastructure. It supports physical, psychological and social health, although the quality, perceptions of safety and accessibility of green space affects its use. Safe parks may be particularly important for promoting physical activity among urban adolescents. Proximity to urban green space and an increased proportion of green space are associated with decreased treatment of anxiety/mood disorders, the benefits deriving from both participation in usable green space near to home and observable green space in the neighbourhood. Urban agriculture may increase opportunities for physical activity and social connections.

A view of 'greenery' or of the sea moderates the annoyance response to noise. Water is associated with positive perceptive experiences in urban environments, with benefits for health such as enhanced contemplation, emotional bonding, participation and physical activity. Increasing biodiversity in urban environments, however, may promote the introduction of vector or host organisms for infectious pathogens, eg green connectivity may potentiate the role of rats and ticks in the spread of disease,

and bodies of water may provide habitats for mosquitoes.

The natural environment within the urban environment includes the provision of green and blue space in towns and cities. Factors involved in access include the proximity of the green and/or blue space to people's place of residence, the existence of transport services or active travel infrastructure to the green and/or blue space, the quality of the green and/or blue space and feelings of safety when using the green and/or blue space. The construction of an NSIP may be an opportunity to provide green and/or blue infrastructure in the local urban environment. It is also possible that green or blue infrastructure in the urban environment will be lost due to the land-take needed for the NSIP.

- f. Access to leisure, recreation and physical activity opportunities within the urban and natural environments.

Access to recreational opportunities, facilities and services is associated with risk factors for long-term disease; it can increase physical activity, especially walking for recreation, reduce body mass index and overweight and obesity, reduce the risk of high blood pressure, and reduce the number of vehicle trips, the distances travelled and greenhouse gas emissions. It can also enhance social connectedness. Children tend to play on light-traffic streets, whereas outdoor activities are less common on high-traffic streets. A perception of air pollution can be a barrier to participating in outdoor physical activity⁴¹. However, the health co-benefits from physical activity outweigh the adverse effects of air pollution. There is a positive association between urban agriculture and increased opportunities for physical activity and social connectivity. Gardening in an allotment setting can result in many positive physical and mental health-related outcomes. Exercising in the natural environment can have a positive effect on mental wellbeing when compared with exercising indoors.

Leisure and recreation opportunities include opportunities that are both formal, such as belonging to a sports club, and informal, such as walking in the local park or wood. Physical activity opportunities include routine activity as part of daily life, such as walking or cycling to work, and activity as part of leisure or recreation, such as playing football. The construction of an NSIP may enhance the opportunities available for leisure and recreation and physical activity through the provision of new or improved travel routes, community infrastructure and/or green or blue space. Conversely, construction may reduce access through the disruption of travel routes to leisure, recreation and physical activity opportunities.

2) **Traffic and Transport**

- a. Accessibility

Walkability, regional accessibility, pavements and bike facilities are positively associated with physical activity and negatively related to body weight and high blood pressure, and reduce the number of vehicle trips, the distances travelled and greenhouse gas emissions. Body mass index is associated with street network accessibility and slope variability.

Accessibility in relation to transport and travel has several aspects including whether potential users can gain physical access to the infrastructure and access to the

⁴¹ Annear, M., Keeling, S., Wilkinson, T., Cushman, G., Gidlow, B., & Hopkins, H. (2014). Environmental influences on healthy and active ageing: A systematic review. *Ageing & Society*, 34 (4), 590-622. Available at

services the infrastructure provides. The design and operation of transport infrastructure and the associated services should take account of the travel needs of all potential users including people with limited mobility. People whose specific needs should be considered include pregnant women, older people, children and young people and people with a disability. Other aspects of transport infrastructure affecting accessibility include safety and affordability, both of which will affect people's ability to travel to places of employment and/or key local services and facilities and/or access their social networks.

b. Access to / by public transport

Provision of high-quality public transport is associated with higher levels of active travel among children and among people commuting to work, with a decrease in the use of private cars. Combining public transport with other forms of active travel can improve cardiovascular fitness. Innovative or new public transport interventions may need to be marketed and promoted differently to different groups of transport users, eg by emphasising novelty to car users while ensuring that the new system is seen by existing users as coherently integrated with existing services.

Transport facilitates access to other services, facilities and amenities important to health and wellbeing. Public transport is any transport open to members of the public including bus, rail and taxi services operated by the public, private or community sectors. For people who do not have access to private transport, access to public transport is important as the main agency of travel especially for journeys >1 mile. Access to public transport is not sufficient, however, and access by public transport needs to be taken into account: public transport services should link places where people live with the destinations they need or want to visit such as places of employment, education and healthcare, shops, banks and leisure facilities. Other aspects of access to public transport include affordability, safety, frequency and reliability of services.

c. Opportunities for / access by cycling & walking

Walking and cycling infrastructure can enhance street connectivity, helping to reduce perceptions of long-distance trips and providing alternative routes for active travel. Awareness of air pollution could be a barrier to participating in active travel, however those that choose to walk or cycle often experience lower exposure to pollution, and create less pollution than those in vehicles⁴². Prioritising pedestrians and cyclists through changes in physical infrastructure can have positive behavioural and health outcomes, such as physical activity, mobility and cardiovascular outcomes. The provision and proximity of active transport infrastructure is also related to other long-term disease risk factors, such as access to healthy food, social connectedness and air quality.

Perceived or objective danger may also have an adverse effect on cycling and walking, both of which activities decrease with increasing traffic volume and speed, and cycling for leisure decreases as local traffic density increases. Health gains from active travel policies outweigh the adverse effects of road traffic incidents. New infrastructure to promote cycling, walking and the use of public transport can increase the time spent cycling on the commute to work, and the overall time spent commuting among the least-active people. Active travel to work or school can be associated with body mass index and weight, and may reduce cardiovascular risk factors and improve cardiovascular outcomes. The distance of services from cycle paths can have an adverse effect on cycling behaviour, whereas mixed land use, higher densities and

⁴² Defra 2019, Clean Air Strategy 2019. Available at <https://www.gov.uk/government/publications/clean-air-strategy-2019>

reduced distances to non-residential destinations promote transportation walking.

- d. **Links between communities**
Social connectedness can be enhanced by the provision of public and active transport infrastructure and the location of employment, amenities, facilities and services.
- e. **Community severance**
In neighbourhoods with high volumes of traffic, the likelihood of people knowing and trusting neighbours is reduced.
- f. **Connections to jobs**
The location of employment opportunities and the provision of public and active transportation infrastructure are associated with risk factors for long-term disease such as physical activity. Good pedestrian and cycling infrastructure can promote commuting physical activity. Improved transport infrastructure has the potential to shift the population distribution of physical activity in relation to commuting, although a prerequisite may be a supportive social environment. Mixed land use, higher densities and reduced distances to non-residential destinations promote transportation walking.

The ease of access to employment, shops and services including the provision of public and active transport are important considerations and schemes should take any opportunity to improve infrastructure to promote cycling, walking and the use of public transport

- g. **Connections to services, facilities and leisure opportunities**
Mixed land use, higher densities and reduced distances to non-residential destinations promote transportation walking. Access to recreational opportunities and the location of shops and services are associated with risk factors for long-term disease such as physical activity, access to healthy food and social connectedness. Increased distance of services from cycle paths can have an adverse effect on cycling behaviour.

3) **Socio Economic**

- a. **Employment opportunities including training opportunities**
Employment is generally good for physical and mental health and well-being, and worklessness is associated with poorer physical and mental health and well-being. Work can be therapeutic and can reverse the adverse health effects of unemployment for healthy people of working age, many disabled people, most people with common health problems and social security beneficiaries. Account must be taken of the nature and quality of work and its social context and jobs should be safe and accommodating. Overall, the beneficial effects of work outweigh the risks of work and are greater than the harmful effects of long-term unemployment or prolonged sickness absence. Employment has a protective effect on depression and general mental health.

Transitions from unemployment to paid employment can reduce the risk of distress and improve mental health, whereas transitions into unemployment are psychologically distressing and detrimental to mental health. The mental health benefits of becoming employed are also dependent on the psychosocial quality of the job, including level of control, demands, complexity, job insecurity and level of pay: transition from unemployment to a high-quality job is good for mental health, whereas transition from unemployment to a low-quality job is worse for mental health than being unemployed. For people receiving social benefits, entry into paid employment

can improve quality of life and self-rated health (physical, mental, social) within a short time-frame. For people receiving disability benefits, transition into employment can improve mental and physical health. For people with mental health needs, entry into employment reduces the use of mental health services.

For vocational rehabilitation of people with severe mental illness (SMI), Supported Employment is more effective than Pre-vocational Training in helping clients obtain competitive employment; moreover, clients in Supported Employment earn more and work more hours per month than those in Pre-vocational Training.

b. Local Business Activity

It is important to demonstrate how a proposed development will contribute to ensuring the vitality of town centres. Schemes should consider the impact on local employment, promote beneficial competition within and between town centres, and create attractive, diverse places where people want to live, visit and work

In rural areas the applicant should assess the impact of the proposals on a prosperous rural economy, demonstrate how they will support the sustainable growth and expansion of all types of business and enterprise in rural areas, promoting the development and diversification of agricultural and other land based rural businesses.

c. Regeneration

Following rebuilding and housing improvements in deprived neighbourhoods, better housing conditions are associated with better health behaviours; allowing people to remain in their neighbourhood during demolition and rebuilding is more likely to stimulate life-changing improvements in health behaviour than in people who are relocated. The partial demolition of neighbourhoods does not appear to affect residents' physical or mental health. Mega-events, such as the Olympic Games, often promoted on the basis of their potential legacy for regeneration, appear to have only a short-term impact on mental health.

d. Tourism and Leisure Industries

The applicant should assess the impact of the proposed development on retail, leisure, commercial, office, tourism, cultural, community and residential development needed in town centres. In rural locations assessment and evaluation of potential impacts on sustainable rural tourism and leisure developments that benefit businesses in rural areas, communities and visitors should be undertaken.

e. Community / social cohesion and access to social networks

The location of employment, shops and services, provision of public and active transport infrastructure and access to open space and recreational opportunities are associated with social connectedness. Access to local amenities can increase social participation. Neighbourhoods that are more walkable can increase social capital. Urban agriculture can increase opportunities for social connectivity. Infrastructure developments, however, can affect the quality of life of communities living in the vicinity, mediated by substantial community change, including feelings of threat and anxiety, which can lead to psychosocial stress and intra-community conflict.

f. Community engagement

Public participation can improve environmental impact assessments, thereby increasing the total welfare of different interest groups in the community. Infrastructure development may be more acceptable to communities if it involves substantial public participation.

4) Land Use

a. Land use in urban and / or rural settings

Land-use mix including infrastructure:

Land use affects health not only by shaping the built environment, but also through the balance of various types of infrastructure including transport. Vulnerable groups in the population are disproportionately affected by decisions about land use, transport and the built environment. Land use and transport policies can result in negative health impacts due to low physical activity levels, sedentary behaviours, road traffic incidents, social isolation, air pollution, noise and heat. Mixed land use can increase both active travel and physical activity. Transportation walking is related to land-use mix, density and distance to non-residential destinations; recreational walking is related to density and mixed use. Using modelling, if land-use density and diversity are increased, there is a shift from motorised transport to cycling, walking and the use of public transport with consequent health gain from a reduction in long-term conditions including diabetes, cardiovascular disease and respiratory disease.

b. Quality of urban and natural environments

Long-term conditions such as cardiovascular disease, diabetes, obesity, asthma and depression can be moderated by the built environment. People in neighbourhoods characterised by high 'walkability' walk more than people in neighbourhoods with low 'walkability' irrespective of the land-use mix. In neighbourhoods associated with high 'walkability' there is an increase in physical activity and social capital, a reduction in overweight and blood pressure, and fewer reports of depression and of alcohol abuse. The presence of walkable land uses, rather than their equal mixture, relates to a healthy weight. Transportation walking is at its highest levels in neighbourhoods where the land-use mix includes residential, retail, office, health, welfare and community, and entertainment, culture and recreation land uses; recreational walking is at its highest levels when the land-use mix includes public open space, sporting infrastructure and primary and rural land uses. Reduced levels of pollution and street connectivity increase participation in physical activity.

Good-quality street lighting and traffic calming can increase pedestrian activity, while traffic calming reduces the risk of pedestrian injury. 20-mph zones and limits are effective at reducing the incidence of road traffic incidents and injuries, while good-quality street lighting may prevent them. Public open spaces within neighbourhoods encourage physical activity, although the physical activity is dependent on different aspects of open space, such as proximity, size and quality. Improving the quality of urban green spaces and parks can increase visitation and physical activity levels.

Living in a neighbourhood overlooking public areas can improve mental health, and residential greenness can reduce the risk of cardiovascular mortality. Crime and safety issues in a neighbourhood affect both health status and mental health. Despite the complexity of the relationship, the presence of green space has a positive effect on crime, and general environmental improvements may reduce the fear of crime. Trees can have a cooling effect on the environment – an urban park is cooler than a non-green site. Linking road infrastructure planning and green infrastructure planning can produce improved outcomes for both, including meeting local communities' landscape sustainability objectives.

Appendix 3

NSIP National Networks – Road schemes (scoping stage)

Public Health England Generic Response: Noise and Public Health

Guiding principles

Public Health England's mission is to protect and improve the nation's health and wellbeing and reduce health inequalities. Environmental noise can cause stress and disturb sleep, which over the long term can lead to a number of adverse health outcomes [1, 2]. The Noise Policy Statement for England (NPSE) [3] sets out the government's overall policy on noise. Its aims are to:

- avoid significant adverse impacts on health and quality of life;
- mitigate and minimise adverse impacts on health and quality of life; and
- contribute to the improvement of health and quality of life.

These aims should be applied within a broader context of sustainable development, where noise is considered alongside other economic, social and environmental factors. PHE expects such factors may include [4]:

- Ensuring healthy lives and promoting well-being for all at all ages;
- promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all;
- building resilient infrastructure, promoting inclusive and sustainable industrialisation and fostering innovation;
- reducing inequality; and
- making cities and human settlements inclusive, safe, resilient and sustainable.

PHE's consideration of the effects of health and quality and life attributable to noise is guided by the recommendations in the 2018 Environmental Noise Guidelines for the European Region [1] published by the World Health Organization, and informed by high quality systematic reviews of the scientific evidence [2, 5, 6]. The scientific evidence on noise and health is rapidly developing, and PHE's recommendations are also informed by relevant studies that are judged to be scientifically robust and consistent with the overall body of evidence.

In line with its mission, PHE believes that Nationally Significant Infrastructure Projects (NSIP) should not only limit significant adverse effects, but also explore opportunities to improve the health and quality of life of local communities and reduce inequalities.

PHE also recognises the developing body of evidence showing that areas of tranquillity offer opportunities for health benefits through psychological restoration. NSIP applications need to demonstrate that they have given due consideration to the protection of the existing sound environment in these areas.

Significance of Impacts

Determining significance of impacts is an essential element of an Environmental Impact Assessment, and therefore significance needs to be clearly defined at the earliest opportunity by the Applicant. PHE recommends that the definition of significance is discussed and agreed with relevant stakeholders, including local authority environmental health and public health teams and local community representatives, through a documented consultation process. PHE recommends that any disagreement amongst stakeholders on the methodology for defining significance is acknowledged in the planning application documentation and could inform additional sensitivity analyses.

For noise exposure, PHE expects assessments of significance to be closely linked to the associated impacts on health and quality of life, and not on noise exposure per se (in line with the NPSE). The latest revision of the Design Manual for Roads and Bridges (DMRB) Table 3.49 LA111 [7] includes

proposed values for the Lowest Observable Adverse Effect Level (LOAEL) and Significant Observable Adverse Effect Level (SOAEL)⁴³ for operational noise, and these values are likely to inform judgements on significance of impact. Whilst DMRB does not explicitly reference the underpinning evidence that informed these numbers, the night time LOAEL and SOAEL of 40 dB L_{night} (outside, free-field) and 55 dB L_{night} (outside, free-field) respectively, correspond to the guideline value and interim target proposed in the WHO Night Noise Guidelines (2009) [8]. The Night Noise Guidelines emphasized that the interim target was “not a health-based limit value by itself. Vulnerable groups cannot be protected at this level”.

The daytime SOAEL of 68 dB LA_{10,18hr} (façade) appears to be derived from the relative noise level in the Noise Insulation Regulations (NIR) [9], which is linked to the provision of enhanced noise insulation for new highway infrastructure. The NIR does not explicitly refer to the underpinning evidence on which the relevant noise level is based, and there is a lack of good quality evidence linking noise exposure expressed in the LA₁₀ metric to health effects. Therefore, it is helpful to convert these levels to L_{den} and LA_{eq,16hr} metrics, which are more widely used in the noise and health literature. Assuming motorway traffic, a level of 68 dB LA_{10,18hr} (façade) is approximately equivalent to 44 free-field outdoor levels of 69dB L_{den} (or 45 64LA_{eq,16hr}). The corresponding internal noise levels are⁴⁶ approximately 54dB LA_{eq,16hr} (open windows), 48dB LA_{eq,16hr} (tilted windows) and 36dB LA_{eq,16hr} (closed windows).

For construction noise the latest revision of the DMRB makes reference to Section E3.2 and Table E.1 in Annex E (informative) of BS 5228-1:2009+A1:2014 [10] for the definition of SOAELs. Table E.1 of BS 5228-1:2009+A1:2014 provides examples of threshold values in three categories, based on existing ambient values. Threshold values are higher when ambient noise levels are higher. Daytime (07:00-19:00, weekdays) thresholds can be traced back to principles promoted by the Wilson Committee in 1963 [11]: “Noise from construction and demolition sites should not exceed the level at which conversation in the nearest building would be difficult with the windows shut.” The Wilson committee also recommended that “Noisy work likely to cause annoyance locally should not be permitted between 22.00 hours and 07.00 hours.” BS 5228 states that these principles have been expanded over time to include a suite of noise levels covering the whole day/week period taking into account the varying sensitivities through these periods.

With reference to the noise exposure hierarchy table in the Planning Practice Guidance (Noise) [14], PHE is not aware of good quality scientific evidence that links specific noise levels to behavioural/attitudinal changes in the general population. Reactions to noise at an individual level are strongly confounded by personal, situational and environmental non-acoustic factors [16, 17], and large inter-personal variations are observed in the reaction of a population to a particular noise level [18-21]. For these reasons PHE is not able to provide evidence-based general recommendations for SOAELs that are able to achieve the aims and objectives of the Noise Policy Statement for England and the Planning Practice Guidance on noise. DMRB allows for project specific LOAELs and SOAELs to be defined if necessary, and PHE recommends that for each scheme the Applicant gives careful consideration of the following:

- The existing noise exposure of affected communities – in particular, consideration of any designated Noise Important Areas identified in proximity to the scheme;
- The size of the population affected – for example an effect may be deemed significant if a large number of people are exposed to a relatively small noise change;

⁴³ As defined in the Noise Policy Statement for England [3] and the Planning Practice Guidance [14].

⁴⁴ Using equation 4.16 from [22], assuming free-field levels; $L_{A10,18hr}(\text{free-field}) = L_{A10,18hr}(\text{façade}) - 2.5\text{dB(A)}$ as per CRTN [13].

⁴⁵ Using conversion factors in para. 2.2.13 Transport Analysis Guidance (TAG) Unit A3 [15]

⁴⁶ Using external – internal level differences reported by Locher et al. (2018) [12], based on measurements at 102 dwellings in Switzerland in 2016.

- The relative change in number and type of vehicle pass-bys;
- Changes in the temporal distribution of noise during day/evening/night, or between weekdays and weekends;
- Soundscape and tranquillity, in particular the value that communities put on the lack of environmental noise in their area, or conversely, on the lack of public areas within walking distance that are relatively free from environmental noise;
- Opportunities for respite (predictable periods of relief from noise), either spatially or temporally;
- Cumulative exposure to other environmental risk factors, including other sources of noise and air pollution,
- Local health needs, sensitivities and objectives.

The WHO Environmental Noise Guidelines (2018) do not define LOAELs for environmental noise sources, partly because the scientific evidence suggests that there is no clear threshold where adverse impacts on health and quality of life cease to occur in the general population. Based on the systematic reviews that informed the 2018 WHO Environmental Noise Guidelines [2], the daytime operational noise LOAEL quoted in DMRB is equivalent to approximately 8% of the population Highly Annoyed⁴⁷, and the night time LOAEL is equivalent to approximately 2% of the population Highly Sleep Disturbed⁴⁸. Therefore, the impact assessment should acknowledge that adverse health effects will occur beyond the assessment threshold (LOAEL). PHE recommends that the Applicant explains what its chosen SOAELs for a specific scheme mean in population health terms in a similar fashion.

PHE does not believe that the current scientific evidence supports the modification of SOAELs and UAELs based on the existing noise insulation specification of residential dwellings, and in particular whether enhanced sound insulation avoids significant adverse effects on health and quality of life. See also sections on Mitigation and Step Changes in Noise Exposure.

Health Outcomes

PHE encourages the applicant to present noise exposure data in terms of the Lden metric (in addition to Leq and L10), to facilitate interpretation by a broad range of stakeholders. This is because most recent scientific evidence on the health effects of environmental noise is presented in terms of Lden [1, 5, 6]. PHE believes that quantifying the health impacts associated with noise exposure and presenting them in health-based metrics allows decision makers to make more informed decisions.

For transportation sources, PHE recommends the quantification of health outcomes using the methodology agreed by the Interdepartmental Group on Costs and Benefits - Noise subgroup [IGCB(N) [23] (currently under review)), and more recent systematic reviews [1, 5, 6]. PHE believes there is sufficient evidence to quantify the following health outcomes: long-term annoyance, sleep disturbance, ischaemic heart disease (IHD), and potentially stroke⁴⁹ and diabetes⁵⁰. Effects can be expressed in terms of number of people affected, number of disease cases, and Disability Adjusted Life Years (DALYs). THE IGCB(N) guidance can also be used to translate these effects into monetary terms.

⁴⁷ 55 dB LA_{10,18hr} (façade) is approximately equal to 57 dB L_{den} (free-field), assuming motorway traffic [13, 22]. Applying the exposure-response function presented in Guski et al., 2017 [19] for road traffic noise and annoyance (excluding Alpine and Asian studies), approximately 8% of a population is highly annoyed at 57 dB L_{den}.

⁴⁸ Applying the exposure-response function presented in Basner et al., 2018 [20] for road traffic noise and sleep disturbance gives the result that approximately 2% of a population is highly sleep disturbed at 40 dB L_{night}.

⁴⁹ A literature review commissioned by Defra [6] identified nine longitudinal studies on road traffic noise and incidence of stroke, and eight longitudinal studies on road traffic noise and stroke mortality.

⁵⁰ A literature review commissioned by Defra [6] identified four longitudinal studies on road traffic noise and incidence of diabetes.

Some health outcomes, namely annoyance and self-reported sleep disturbance, can be influenced by the local context and situation. In these cases, it would be preferable to use exposure-response functions (ERFs) derived in a local context. However, PHE is not aware of any ERFs for road traffic being available for a UK context from data gathered in the last two decades. Therefore, in PHE's view the ERFs presented in the WHO-commissioned systematic reviews offer a good foundation for appraisal of the health effects associated with road traffic noise [2]. For annoyance, the average curve derived excluding Alpine and Asian studies may be considered more transferable to a UK context. For metabolic outcomes, no ERF was published in the WHO ENG 2018. A recent meta-analysis of five cohort studies of road traffic noise and incidence of diabetes was reported by Vienneau in 2019 [24].

Where schemes have the potential to impact a large number of people, PHE expects the Applicant to carry out literature scoping reviews to ensure that the most robust and up-to-date scientific evidence is being used to quantify adverse effects attributable to the Scheme.

PHE expects to see a clear outline of the steps taken to arrive at the final judgement of significance based on these health outcomes, including a description of local circumstances and modifiers anticipated, and how reasonably foreseeable changes in these circumstances will be dealt with during the assessment process.

Identification and Consideration of Receptors

The identification of noise sensitive receptors in proximity to the proposed scheme - or route options - is essential in providing a full assessment of potential impacts. Examples of noise sensitive receptors include but are not limited to:

- Noise Important Areas
- Residential areas
- Schools, hospitals and care homes
- Community green and blue spaces and areas valued for their tranquillity, such as local and national parks
- Public Rights of Way (PRoWs)

Noise Important Areas (NIAs) are areas with the highest levels of noise exposure at a national level and as such require very careful consideration in terms of protection from increased noise levels as well as opportunities for noise mitigation that can lead to an improvement in health and quality of life. DMRB requires a list of noise mitigation measures that the project will deliver in Noise Important Areas. PHE supports this requirement - new development should offer an opportunity to reduce the health burden of existing transport infrastructure, particularly for those worst affected. PHE would encourage this approach to extend beyond NIAs, in line with the third aim of NPSE [3].

Baseline Sound Environment

The greater the understanding of the baseline sound environment, the greater the potential for the assessment to reflect the nature and scale of potential impacts, adverse or beneficial, associated with the Scheme. PHE recommends that traditional averaged noise levels are supplemented by a qualitative characterisation of the sound environment, including any particularly valued characteristics (for example, tranquillity) and the types of sources contributing to it [25].

PHE recommends that baseline noise surveys are carried out to provide a reliable depiction of local diurnal noise variations for both weekdays and weekends, in a variety of locations, including the difference between day (07:00-19:00), evening (19:00-23:00) and night-time (23:00-07:00) periods. This is particularly important if there are areas within the scheme assessment boundary with atypical traffic day/evening/night distributions. Achieving these aims is likely to require long-term noise monitoring in multiple locations for a period greater than seven days. This information should be used to test the robustness of any conversions between noise metrics (e.g. converting from LA10,18hr to LAeq,2300-0700 and Lden).

PHE suggests that a variety of metrics can be used to describe the sound environment with and without the scheme – for example, levels averaged over finer time periods, background noise levels expressed as percentiles, and number of event metrics (e.g. N65 day, N60 night) – and that, where possible, this suite of metrics is used to inform judgements of significance. There is emerging evidence that intermittency metrics can have an additional predictive value over traditional long-term time-averaged metrics for road traffic noise [27].

Mitigation

PHE expects decisions regarding noise mitigation measures to be underpinned by good quality evidence, in particular whether mitigation measures are proven to reduce adverse impacts on health and quality of life. For interventions where evidence is weak or lacking, PHE expects a proposed strategy for monitoring and evaluating their effectiveness during construction and operation, to ensure the effectiveness of said measures.

With regards to road traffic noise, low-noise road surfaces, acoustic barriers, traffic management and noise insulation schemes can all be considered. Priority should be given to reducing noise at source, and noise insulation schemes should be considered as a last resort. PHE expects any proposed noise insulation schemes to take a holistic approach which achieves a healthy indoor environment, taking into consideration noise, ventilation, overheating risk, indoor air quality and occupants' preference to open windows. There is, at present, insufficient good quality evidence as to whether insulation schemes are effective at reducing long-term annoyance and self-reported sleep disturbance [28], and initiatives to evaluate the effectiveness of noise insulation to improve health outcomes are strongly encouraged.

PHE notes the suggestion in DMRB methodology that post-construction noise monitoring cannot provide a reliable gauge for reference against predicted impacts of operational noise. The issues highlighted in DMRB relate to noise exposure, and not to health outcomes. PHE suggests that monitoring of health and quality of life can be considered pre and post operational phases, to ascertain whether mitigation measures are having the desired effect for local communities. PHE expects consideration of potential adverse effects due to noise and vibration during construction and recommends that a full and detailed Construction Environmental Management Plan (CEMP) is developed and implemented by the Applicant and/or the contractor responsible for construction. PHE recommends that the CEMP includes a detailed programme of construction which highlights the times and durations of particularly noisy works, the measures taken to reduce noise at source, the strategy for actively communicating this information to local communities, and procedures for responding effectively to any specific issues arising.

There is a paucity of scientific evidence on the health effects attributable to construction noise associated with large infrastructure projects [5, 6] where construction activities may last for a relatively long period of time. PHE recommends that the Applicant considers emerging evidence as it becomes available and reviews its assessment of impacts as appropriate.

Green Spaces and Private Amenity Areas

PHE expects proposals to take into consideration the evidence which suggests that quiet areas can have both a direct beneficial health effect and can also help restore or compensate for the adverse health effects of noise in the residential environment [29-31]. Research from the Netherlands suggests that people living in noisy areas appear to have a greater need for areas offering quiet than individuals who are not exposed to noise at home [29]. Control of noise at source is the most effective mitigation for protecting outdoor spaces; noise insulation schemes do not protect external amenity spaces (such as private gardens and balconies or community recreation facilities and green spaces) from increased noise exposure.

PHE expects consideration to be given to the importance of existing green spaces as well as opportunities to create new tranquil spaces which are easily accessible to those communities exposed to increased noise from the scheme. These spaces should be of a high design quality and have a sustainable long-term management strategy in place.

Step-changes in Noise Exposure and the Change-effect

The Applicant should take into consideration the “change-Effect”, i.e. the potential for a real or anticipated step-change in noise exposure to result in attitudinal responses that are greater or lower than that which would be expected in a steady state scenario [28, 32]. Where a perception of change is considered likely, PHE recommends that the change-effect is taken into account in the assessment for the opening year of the proposed development. For longer term assessments, the effects of population mobility need to be taken into consideration.

Community Engagement and Consultation Feedback

PHE recommends that public consultations carried out during the planning application process clearly identify the predicted changes to the sound environment during construction and operation of the Scheme, the predicted health effects on neighbouring communities, proposed noise mitigation strategies and any proposed measures for monitoring that such mitigation measures will achieve their desired outcomes.

PHE encourages the Applicant to use effective ways of communicating any changes in the acoustic environment generated by the scheme to local communities. For example, immersive and suitably calibrated audio-visual demonstrations can help make noise and visual changes more intuitive to understand and accessible to a wider demographic. If the proposed scheme will have an impact over a relatively large geographical area, the Applicant should consider community-specific fact-sheets and/or impact maps, which are easily accessible to all individuals both in hard copy and online. If online, search functionality can potentially be included, for example, by postcode.

References:

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Proposed DCO Application by Liverpool Bay CCS Limited for HyNet North West Carbon Dioxide Pipeline

Royal Mail response to EIA Scoping Consultation

Under section 35 of the Postal Services Act 2011, Royal Mail has been designated by Ofcom as a provider of the Universal Postal Service. Royal Mail is the only such provider in the United Kingdom. The Act provides that Ofcom's primary regulatory duty is to secure the provision of the Universal Postal Service. Ofcom discharges this duty by imposing regulatory conditions on Royal Mail, requiring it to provide the Universal Postal Service.

Royal Mail's performance of the Universal Service Provider obligations is in the public interest and should not be affected detrimentally by any statutorily authorised project. Accordingly, Royal Mail seeks to take all reasonable steps to protect its assets and operational interests from any potentially adverse impacts of proposed development.

Royal Mail and its advisor BNP Paribas Real Estate have reviewed the EIA Scoping consultation document (Revision 03) dated June 2021. This infrastructure proposal has been identified as having potential for impact on Royal Mail operational interests. However, at this time Royal Mail is not able to provide a consultation response due to insufficient information being available to adequately assess the level of risk to its operation and the available mitigations for any risk. Therefore, Royal Mail wishes to reserve its position to submit a consultation response/s at a later stage in the consenting process and to give evidence at any future Public Examination, if required.

In the meantime, any further consultation information on this infrastructure proposal and any questions of Royal Mail should be sent to:

Holly Trotman [REDACTED], Senior Planning Lawyer, Royal Mail Group Limited

Daniel Parry Jones ([REDACTED]), Director, BNP Paribas Real Estate

Please can you confirm receipt of this holding statement by Royal Mail.

End

From: [REDACTED]
To: [Hynet CO2 Pipeline](#)
Cc: [Planningsouth](#)
Subject: RE: HyNet North West Carbon Dioxide Pipeline scoping opinion consultation
Date: 30 June 2021 11:48:56
Attachments: [image007.png](#)
[image008.jpg](#)
[image009.jpg](#)
[HyNet Proposed Pipeline SPM Assets UMV 06.21.pdf](#)
[HyNet Proposed Pipeline SPM Assets Plan 2 06.21.pdf](#)

Helen

Thank you for the below consultation.

I have reviewed the proposals as set out in the Scoping Report and provide comments for SP Energy Networks who operate and manage the electricity network up to 132kV on behalf of the licenced network operator, SP Manweb, for the area including the application site. In the area covered by the proposals in relation to the new pipeline, this network comprises a range of high voltage assets such as substations and high voltage overhead lines and underground cables which are shown on the SPM Assets plans attached. These assets will be protected by various land rights.

An understanding of protecting this infrastructure is really appreciated as we continue our drive to maintain a network that is capable of meeting the increase in demand from an all-electric economy. We've started a process of an ambitious investment to meet the UK and devolved Governments decarbonisation targets for Net Zero. The next decade will be crucial in preparing the grid for these changes and this is why we are very interested in being able to comment on proposals which may undermine maintaining and developing a suitable future grid network.

Whilst the proposals support the above objectives and noting that SP Energy Networks is a supporting partner of this scheme, it is important that the proposed EIA scoping acknowledges the need to protect SP Manweb network assets and land rights.

Having reviewed the EIA Scoping Report, it is noted that there is no reference to acknowledging the need to avoid impacts on SPM network. There is a section Special Crossings in Chapter 3 where para 3.6.22 refers to road and railway crossings. It is suggested that this para also makes reference to other critical services including the electricity network that will be crossed and what measures there will be to avoid such infrastructure.

Following the scoping report consultation I have contacted the applicants and requested a copy of a services plan that they may have already prepared or a shape file of the proposals from which I can plot the SPM assets. Whilst I have not yet had a response, I hope to be engaging more with them in due course and will keep you up to date. I will forward a copy of this response to the applicant.

Thanks

Steve Edwards
cid:image001.gif@01CA4CB9.702F4FD0



Land & Planning

Senior Environmental PlannerTel: [REDACTED]



Internal Use

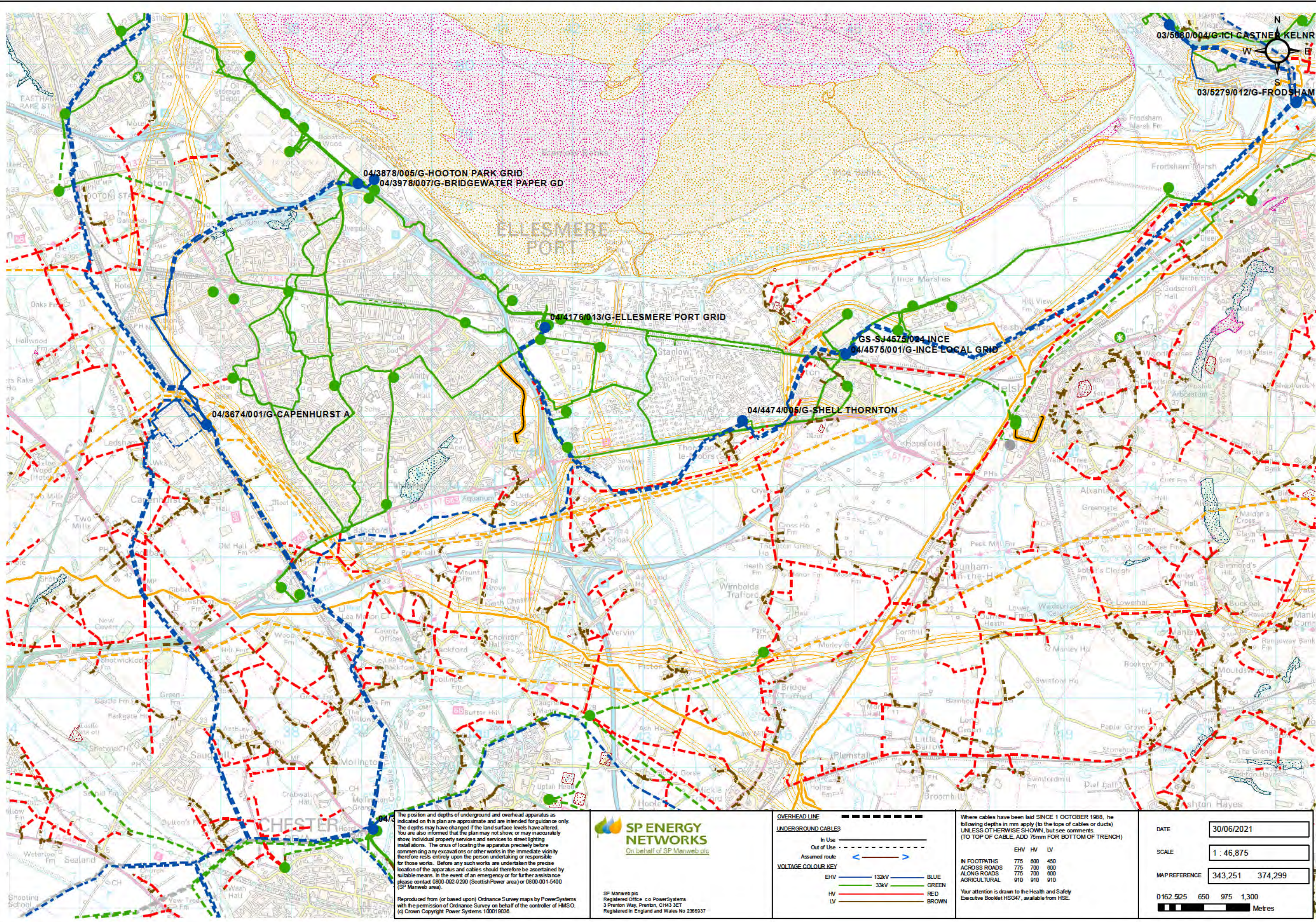
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04/3878/005/G-HOOTON PARK GRID
04/3978/007/G-BRIDGEWATER PAPER GD

03/5680/004/G-ICI CASTNER KELNR
03/5279/012/G-FRODSHAM

ELLESMERE
PORT

04/4176/013/G-ELLESMERE PORT GRID

GS-SJ4575/024 INCE
04/4575/001/G-INCE LOCAL GRID

04/3674/001/G-CAPENHURST A

04/4474/005/G-SHELL THORNTON

CHESTER

The position and depths of underground and overhead apparatus as indicated on this plan are approximate and are intended for guidance only. The depths may have changed if the land surface levels have altered. You are also informed that the plan may not show, or may inaccurately show, individual property services and services to street lighting installations. The onus of locating the apparatus precisely before commencing any excavations or other works in the immediate vicinity therefore rests entirely upon the person undertaking or responsible for those works. Before any such works are undertaken the precise location of the apparatus and cables should therefore be ascertained by suitable means. In the event of an emergency or for further assistance please contact 0800-062-9200 (Scottish Power area) or 0800-001-5400 (SP Manweb area).

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SP Manweb plc
Registered Office: c/o PowerSystems
3 Prenton Way, Prenton, CH43 3ET
Registered in England and Wales No 236937

OVERHEAD LINE	
In Use	—————
Out of Use	- - - - -
Assumed route	—————>

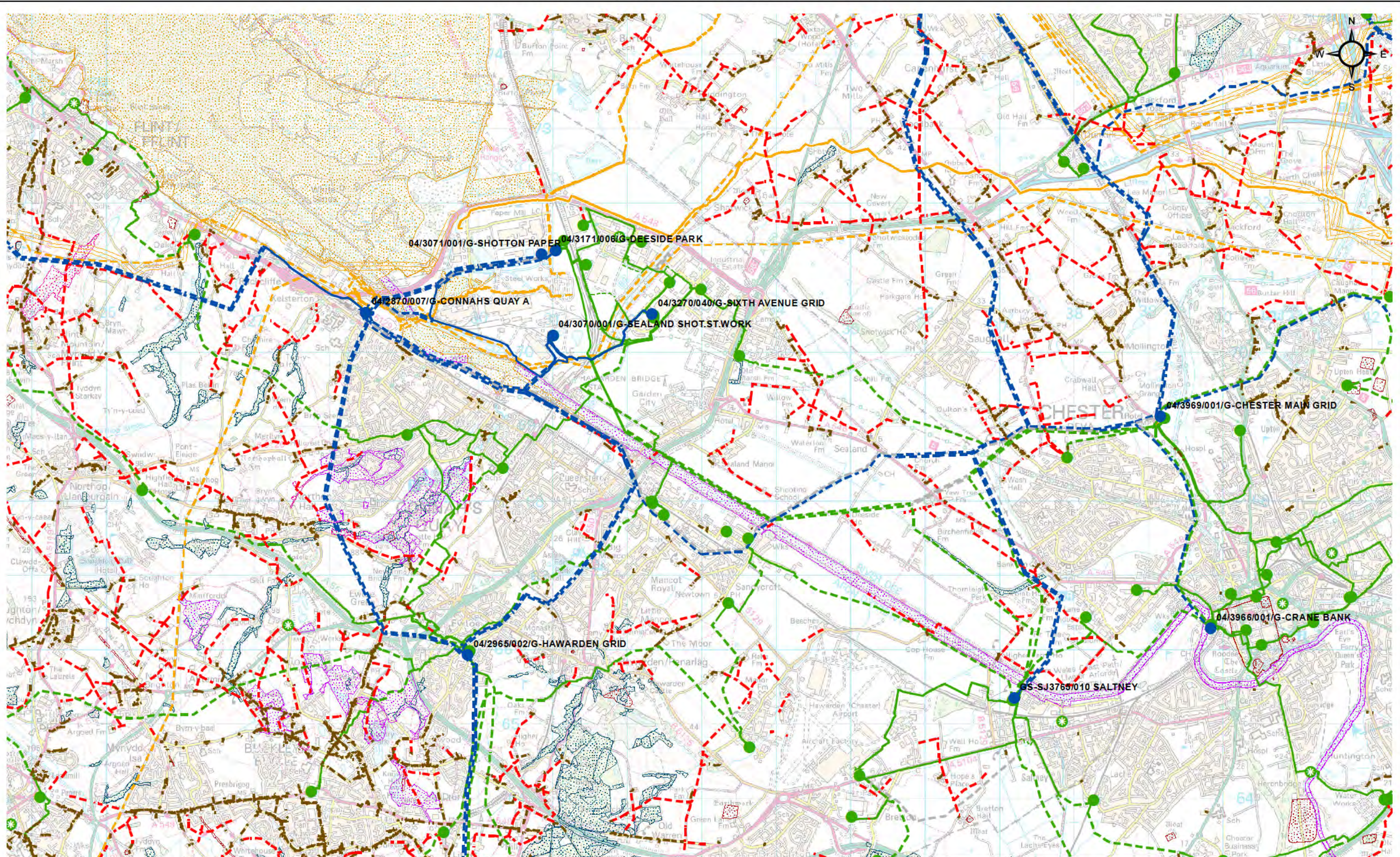
VOLTAGE COLOUR KEY	
EHV	132kV BLUE
HV	33kV GREEN
LV	RED BROWN

Where cables have been laid SINCE 1 OCTOBER 1988, the following depths in mm apply (to the tops of cables or ducts) UNLESS OTHERWISE SHOWN, but see comments. (TO TOP OF CABLE, ADD 75mm FOR BOTTOM OF TRENCH)

	EHV	HV	LV
IN FOOTPATHS	775	600	450
ACROSS ROADS	775	700	600
ALONG ROADS	775	700	600
AGRICULTURAL	910	910	910

Your attention is drawn to the Health and Safety Executive Booklet HSG47, available from HSE.

DATE	30/06/2021
SCALE	1 : 46,875
MAP REFERENCE	343,251 374,299
	0162 525 650 975 1,300
	Metres



The position and depths of underground and overhead apparatus as indicated on this plan are approximate and are intended for guidance only. The depths may have changed if the land surface levels have altered. You are also informed that the plan may not show, or may inaccurately show, individual property services and services to street lighting installations. The onus of locating the apparatus precisely before commencing any excavations or other works in the immediate vicinity therefore rests entirely upon the person undertaking or responsible for those works. Before any such works are undertaken the precise location of the apparatus and cables should therefore be ascertained by suitable means. In the event of an emergency or for further assistance please contact 0800-062-9200 (Scottish Power area) or 0800-001-5400 (SP Manweb area).

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SP ENERGY NETWORKS
On behalf of SP Manweb plc

SP Manweb plc
Registered Office: c/o PowerSystems
3 Preston Way, Preston, CH43 3ET
Registered in England and Wales No 236937

OVERHEAD LINE	

UNDERGROUND CABLES	
In Use	—————
Out of Use	- - - - -
Assumed route	—————>
VOLTAGE COLOUR KEY	
EHV	132kV BLUE
HV	33kV GREEN
LV	RED BROWN

Where cables have been laid SINCE 1 OCTOBER 1988, the following depths in mm apply (to the tops of cables or ducts) UNLESS OTHERWISE SHOWN, but see comments. (TO TOP OF CABLE, ADD 75mm FOR BOTTOM OF TRENCH)

	EHV	HV	LV
IN FOOTPATHS	775	600	450
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ALONG ROADS	775	700	600
AGRICULTURAL	910	910	910

Your attention is drawn to the Health and Safety Executive Booklet HSG47, available from HSE.

DATE	30/06/2021
SCALE	1 : 46,875
MAP REFERENCE	332,962 368,108
	0 162 325 650 975 1,300
	Metres



The Coal
Authority



INVESTOR IN PEOPLE



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Learning Partner

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Email: planningconsultation@coal.gov.uk

Web: www.gov.uk/coalauthority

For the Attention of: Ms H Lancaster - Senior EIA Advisor
on behalf of the Secretary of State

[By Email: hynetco2pipeline@planninginspectorate.gov.uk]

17 June 2021

Dear Ms Lancaster

EN070007-000007-210603

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017(the EIA Regulations) – Regulations 10 and 11

Application by Liverpool Bay CCS Limited (the Applicant) for an Order granting Development Consent for the HyNet North West Carbon Dioxide Pipeline (the Proposed Development)

Scoping consultation and notification of the Applicant's contact details and duty to make available information to the Applicant if requested

Thank you for your notification of 03 June 2021 seeking the views of the Coal Authority on the above EIA Scoping request.

The Coal Authority is a non-departmental public body sponsored by the Department of Business, Energy & Industrial Strategy. As a statutory consultee, the Coal Authority has a duty to respond to planning applications and development plans in order to protect the public and the environment in mining areas.

We note that the applicant is aware that parts of the site where new build infrastructure is required falls within the Development High Risk Area as defined by the Coal Authority. The Environmental Impact Assessment Scoping Report, June 2021 prepared by WSP UK Ltd (Section 9: Land and Soil) informs that the risk from coal mining legacy will be assessed and addressed in line with current best practice guidance (CIRIA C758D – Abandoned mine workings manual).

Accordingly, we would expect this Chapter, as part of any formal EIA submitted, to form the Coal Mining Risk Assessment, or equivalent report, for the relevant sections of the project site and to consider in detail the potential risks posed to the development by the coal mining legacy present on / within the site.

We would request that in the event that any mine entries are present where new build infrastructure is required, the layout affords due consideration of these mining features and avoids these areas where possible / practicable:

<https://www.gov.uk/government/publications/building-on-or-within-the-influencing-distance-of-mine-entries>

I hope this is helpful but please do not hesitate to contact me if you would like to discuss this matter further.

Yours sincerely



Deb Roberts *M.Sc. MRTPI*

Planning & Development Manager

Disclaimer

The above consultation response is provided by The Coal Authority as a Statutory Consultee and is based upon the latest available data on the date of the response, and electronic consultation records held by The Coal Authority since 1 April 2013. The comments made are also based upon only the information provided to The Coal Authority by the Local Planning Authority and/or has been published on the Council's website for consultation purposes in relation to this specific planning application. The views and conclusions contained in this response may be subject to review and amendment by The Coal Authority if additional or new data/information (such as a revised Coal Mining Risk Assessment) is provided by the Local Planning Authority or the Applicant for consultation purposes.

Your ref: EN070007

Our ref:

Date: 30/06/2021

By email to: NIEnquiries@planninginspectorate.gov.uk

Dear Sir / Madam

Location: Cheshire, England to Flintshire, Wales

Proposal : HyNet North West Carbon Dioxide Pipeline by Liverpool Bay CCS Limited

Thank you for allowing United Utilities the opportunity to comment on the EIA Scoping Opinion concerning the proposal to build a new underground carbon dioxide pipeline from Cheshire, England to Flintshire, Wales together with associated above ground installations.

We understand that proposals are currently at an early stage, and so far we have conducted just an initial review of the application, including the United Utilities assets and infrastructure present within the proposed application boundaries. We will be able to provide a more accurate review and guidance once more detailed proposals and design details have been drawn up.

Please see the following comments that will need to be considered prior to the submission of a planning application for the proposed development.

Surface Water Drainage

In line with National Planning Practice Guidance, any surface water flow from the proposed above ground installations should be discharged in the following order of priority:

1. An adequate soakaway or some other form of infiltration system.
2. An attenuated discharge to surface water body.
3. An attenuated discharge to public surface water sewer, highway drain or another drainage system.
4. An attenuated discharge to public combined sewer.

There should be no requirement for surface water drainage to discharge to public sewer.

Wherever practicable, Sustainable Drainage Systems (SuDS) should be implemented in accordance with the CIRIA SuDS manual. Managing surface water through the use of SuDS can provide benefits in water quantity, water quality, amenity and biodiversity.

We would expect the Environmental Impact Assessment to be submitted as part of the planning application for the proposed development to include a Flood Risk and Drainage Strategy that takes the above into full consideration.

United Utilities' Assets and Property Interests

Water Mains

The proposed red-edge development area contains 3 large diameter Trunk Mains, 3 water supply mains and 8 raw water mains, including the Dee Aqueduct, and we may not permit building over them.

As we need unrestricted access for operating and maintaining water mains, we will generally not permit development over or in close proximity to the mains. We require an access strip as detailed in our 'Standard Conditions for Works Adjacent to Pipelines', a copy of which is enclosed.

The applicant must comply with our Standard Conditions document. This should be taken into account in the final proposed development layout, or a diversion may be necessary. Unless there is specific provision within the title of the property or an associated easement, any necessary disconnection or diversion required as a result of any development will be at the applicant's expense.

If considering a water mains diversion, the applicant should contact United Utilities at their earliest opportunity as they may find that a diversion is not possible, or the cost of mains diversion is prohibitive in the context of their development scheme.

The Water Industry Act 1991 affords United Utilities specific rights in relation to the maintenance, repair, access and protection of our water infrastructure.

- Sections 158 and 159, outlines the right to inspect, maintain, adjust, repair or alter our mains. This includes carrying out any works incidental to any of those purposes. Service pipes are not our property and we have no record of them.
- Under Section 174 of the Act it is an offence to intentionally or negligently interfere with any resource main or water main that causes damage to or has an effect on its use or operation.

It is in accordance with this statutory provision that we provide standard conditions to assist developers when working in close proximity to our water mains.

We recommend the developer contacts United Utilities as early as possible for advice on identifying the exact location of the water mains and to discuss requirements to ensure water main access and protection. Early liaison is particularly important to discuss proposals around

the Dee Aqueduct, as a crossing of this pipeline, rather than a diversion may be necessary. Please contact **Sara Livesey** at [REDACTED]

Both during and post construction, there should be no additional load bearing capacity on the mains without prior agreement from United Utilities. This would include earth movement and the transport and position of construction equipment and vehicles. The applicant should therefore give careful consideration to the implications of any changes in proposed land levels. Any such changes will need to be agreed with United Utilities. Our standard conditions document includes details of trees and shrubbery suitable for planting in the vicinity of a water main.

Public Sewers

3 large diameter rising main sewers and 2 gravity sewers are situated in the proposed development area, and we may not permit building over them.

We will require an access strip width in accordance with the minimum distances specified in 'Sewers for Adoption', for maintenance or replacement. This should be incorporated into any future site layout.

Deep rooted shrubs and trees should not be planted in the vicinity of the public sewer and overflow systems.

We recommend the developer contacts United Utilities as early as possible to discuss requirements to ensure sewer access and protection. Please contact [REDACTED]

Where United Utilities' assets exist, the level of cover to the water mains and public sewers must not be compromised either during or after construction.

It is the applicant's responsibility to investigate the possibility of any United Utilities' assets potentially impacted by their proposals and to demonstrate the exact relationship between any United Utilities' assets and the proposed development.

The starting point would be to obtain a utility map. A number of providers offer a paid for mapping service including United Utilities. To find out how to purchase a sewer and water plan from United Utilities, please visit the Property Searches website [REDACTED]. You can also view the plans for free, which may be more useful for yourselves to enable you to look at the full length of the proposed development site. To make an appointment to view our sewer records at a particular Local Authority please contact them direct, alternatively applicants can view the water and the sewer records at our Lingley Mere offices based in Warrington. Please ring 0370 751 0101 to book an appointment.

We would expect to see plans showing the proposals in relation to any existing United Utilities assets and infrastructure as part of the planning application.

Property Interests

Two parcels of land within United Utilities ownership, including a small Wastewater Treatment Works lie within the proposed development boundary.

The applicant must contact our Property Services team prior to submission of the planning application to discuss how the proposals may affect land within our ownership.

According to our records some of our assets referred to above are also subject to legal easements. These are in addition to our statutory rights for inspection, maintenance and repair.

They have restrictive covenants that must be adhered to. It is the responsibility of the developer to obtain a copy of the document, available from United Utilities Legal Services or Land Registry and to comply with the provisions stated within the document. Under no circumstances should anything be stored, planted or erected on the easement width. Nor should anything occur that may affect the integrity of the pipes or United Utilities legal right to 24 hour access. The applicant should contact our Property Services team to discuss how the proposals affect our easements.

United Utilities Property Services can be contacted at PropertyGeneralEnquiries@uuplc.co.uk.

I hope the above information is useful. If you have any questions at all, don't hesitate to contact me.

Yours faithfully

Gemma Gaskell
Town Planner
Planning, Landscape and Ecology