HyNet North West

APPLICANT'S RESPONSES TO WRITTEN REPRESENTATIONS

HyNet North West Carbon Dioxide Pipeline

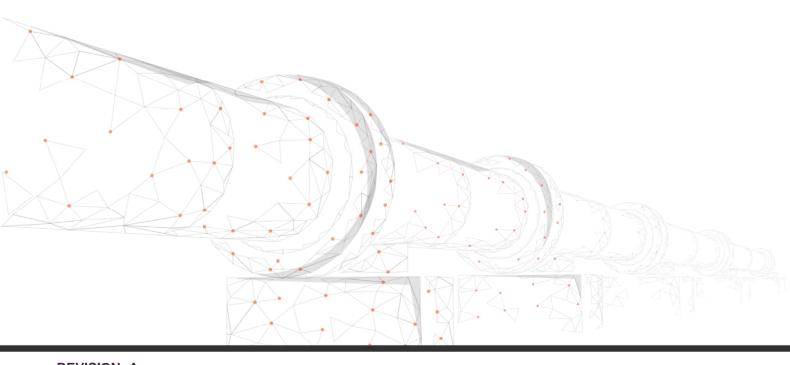
Planning Act 2008

The Infrastructure Planning (Examination Procedure) Rules 2010 Rule 8(1)(c)

Document Reference Number D.7.19 **Applicant:** Liverpool Bay CCS Limited

PINS Reference: EN070007

English Version



REVISION: A

DATE: May 2023

DOCUMENT OWNER: WSP

PUBLIC

QUALITY CONTROL

Document Reference		D.7.19			
Document Owner		WSP			
Revision	Date	Comments	Author	Approver	Authoriser
Α	May 2023	Deadline 2	Various	AV	AH

TABLE OF CONTENTS

1.	INTRODUCTION1
	1.1. Purpose of this document1
	1.2. The DCO Proposed Development1
2.	APPLICANT'S RESPONSE2
TΑ	ABLES
	ble 2.1 – Comments on the Written Representations submitted at Deadline 1 by Canal and ver Trust [REP1-055]
	ble 2.2 – Comments on Written Representations submitted at Deadline 1 by Cheshire West d Chester Council (CWCC) [REP1-061]6
	ble 2.3 – Comments on the Written Representations submitted at Deadline 1 by Rostons on half of Emma Clare Craven-Smit-Milnes and Anthony David Wynne Griffith [REP1-079]28
	ble 2.4 – Comments on Written Representations submitted at Deadline 1 by Environment ency [REP1-062]30
	ble 2.5 – Comments on the Written Representations submitted at Deadline 1 by Historic gland [REP1-064]48
	ble 2.6 – Comments on the Written Representations submitted at Deadline 1 by Rostons on half of John Horace George Gletcher [REP1-080]50
	ble 2.7 – Comments on Written Representations submitted at Deadline 1 by National hways [REP1-069]53
	ble 2.8 – Comments on the Written Representations submitted at Deadline 1 by Natural gland57
	ble 2.9 – Comments on the Written Representations submitted at Deadline 1 by Natural sources Wales71
	ble 2.10 - Comments on the Written Representations Submitted at Deadline 1 by Network il [REP1-072]101
	ble 2.11 – Comments on the Written Representations submitted at Deadline 1 by Peel NRE
	ble 2.12 – Comments on the Written Representations submitted at Deadline 1 by Rostons on half of Richard Benjamin Jones [REP1-081]114
	ble 2.13 – Comments on the Written Representations submitted at Deadline 1 by Stephens own LLP on behalf of Stephen Oultram and Catherine Oultram116

Table 2.14 – Comments on the Written Representations submitted at Deadline	1 by Woodland
rust	118

1. INTRODUCTION

1.1. PURPOSE OF THIS DOCUMENT

- 1.1.1. This document has been prepared on behalf of Liverpool Bay CCS Limited ('the Applicant') and relates to an application ('the Application') for a Development Consent Order (DCO) that has been submitted to the Secretary of State (SoS) for Energy Security & Net Zero (ESNZ) under Section 37 of the Planning Act 2008 ('the PA 2008'). The Application relates to the carbon dioxide (CO2) pipeline which constitutes the DCO Proposed Development.
- 1.1.2. This document provides the Applicant's response to Written Representations submitted at Examination **Deadline 1.**

1.2. THE DCO PROPOSED DEVELOPMENT

- 1.2.1. HyNet (the Project) is an innovative low carbon hydrogen and carbon capture, transport and storage project that will unlock a low carbon economy for the North West of England and North Wales and put the region at the forefront of the UK's drive to Net-Zero. The details of the project can be found in the main DCO documentation.
- 1.2.2. A full description of the DCO Proposed Development is detailed in Chapter 3 of the 2022 Environmental Statement (ES) (as submitted with the DCO application) [APP-055]. The previously submitted ES is hereafter referred to as the '2022 ES'.
- 1.2.3. Following the Preliminary Meeting on 20 March 2023 and the Applicant's submission of its Notification of Intention to Submit a Change Request [AS-060] on 21 March 2023, the Applicant submitted a Change Request on 27 March 2023. The Applicant's Change Request includes '2023 ES Addendum Change Request 1' [CR1-124 to CR1-126] and ES Addendum Chapter 3 provides an update to the description of the DCO Proposed Development [APP-055] resulting from the proposed design changes and clarifications to assessments.

2. APPLICANT'S RESPONSE

- 2.1.1. This chapter provides the Applicant's response to Written Representations submitted at Deadline 1.
- 2.1.2. The Applicant has not responded to the addendum to the Written Representation submitted by CWCC at Deadline 1A [REP1A-004]. Given the Applicant's existing commitment to respond to the Written Representations received at Deadline 1, and taking into account it's desire to respond comprehensively, the Applicant considers it appropriate to respond to the addendum at Deadline 3.

Table 2.1 – Comments on the Written Representations submitted at Deadline 1 by Canal and River Trust [REP1-055]

Reference	Written Representation	Applicant's Response
1. Proposed (Compulsory Acquisition	
2.1.1	The Applicant has failed to demonstrate that there is a compelling case in the public interest for the land/rights to be acquired in the manner sought (as required by S122(3) of the 2008 Act). Such powers are intended to be used as a matter of last resort and the Applicant has failed to use reasonable efforts to voluntarily acquire the land and rights they require from the Trust; and	The Applicant has demonstrated that there is a compelling case in the public interests for the land/rights to be acquired. This is set out in the Statement of Reasons [CR1-020]. The Applicant is continuing to engage and negotiate with the landowner with the aspiration of reaching a voluntary agreement as set out in the schedule of negotiations.
2.1.2	The Applicant has failed to comply with guidance issued by the Department for Communities and Local Government, "Planning Act 2008: Guidance related to procedures for the compulsory acquisition of land" (September 2013) (as amended) (the 'Guidance') in seeking to use powers of compulsory acquisition. We consider that the Trust's consent should be required prior to the compulsory acquisition of Trust's land or undertakings. As set out below, the Trust are further prejudiced in relation to this matter as the draft Order does not contain any protective provisions for the Trust to safeguard and protect our undertakings.	The Applicant has advised the Trust that it is happy in principle to include suitable protective provisions in favour of the Trust. The discussion on the precise wording of these provisions is ongoing.
2. The Draft L	Development Consent Order	,
2.1.3	There are a number of provisions within the draft DCO which will impact on the Trust and interests it seeks to protect and promote as owner and operator of the Shropshire Union Canal and associated infrastructure. The Trust have concerns with Article 6 (limits of deviation); Article 19 (discharge of water); Article 21 (survey and investigate land); Part 5 powers of acquisition and Article 24 (compulsory acquisition of land); Article 26 (compulsory acquisition of rights and restrictive covenants); Article 29 (private rights); Article 31 (acquisition of subsoil); Article 34 (temporary use of land); Article 36 (statutory undertakers) and Article 39 (removal of hedgerows).	The limits of deviation allow deviation from the indicative depth stated or shown on any drawing or cross section in the application. These limits of deviation given are for the worst case across all of the project and not just the canal crossing. For the canal crossing the Applicant has already agreed, in both the SoCG (see document [REP1-030], line TRUST 3.3.1) and the draft protective provisions that the minimum crossing depth under the canal will be 3.52m from the top of trenchless installation to the base of the canal as per the Canal & River Trust Code of Practice. Article 6 would not override this specific agreement.
		On articles 6, 19, the Applicant has responded to these points in detail in its response to the Trust's Deadline 1 Written Representation [REP1-059].
		On the CA powers, the Applicant notes the objection in principle and continues to seek to agree protective provisions to resolve this.
		On Articles 21, 31 and 34 the Applicant cannot find any detail of the concern with the drafting and would be grateful if the Trust could elaborate.
3. Draft Prote	ctive Provisions	
2.1.4	The draft Order [APP-024) did not contain any protective provision for the Canal & River Trust as a statutory undertaker, at Schedule 10, Part 2. The amended draft DCO [AS-017] does now appear to contain the intention to include protective provisions for the Trust.	The Applicant has advised as documented in the SoCG with the Trust [REP1-030] the Trust that it is happy in principle to include suitable protective provisions in favour of the Trust. The discussion on the precise wording of these provisions is ongoing.

HyNet Carbon Dioxide Pipeline
Page 3 of 123

Reference	Written Representation	Applicant's Response
	To aid the Examination we provided the Applicant with a set of protective provisions on 13th January 2023 which would resolve and satisfy our principal concerns. The protective provisions have been adapted from the Keadby 3 (Carbon Capture Equipped Gas Fired Generating Station) Order 2022 (made 7 December 2022), being the most recent NSIP to be examined and which contains provisions relevant to the Trust land and assets. For ease of reference, we provide a copy of these at Appendix C to our Deadline One response.	
	The applicant has not provided a response to the Trust to these protective provisions	
4. The Trust's	Third Party Works Code of Practice	
2.1.5	The Trust considers that the protective provisions for the Trust should require compliance with its Canal & River Trust Third Party Works Code of Practice (CoP) affecting our interests. The Applicant has agreed with the Trust that any works that interface with our waterways would be carried out in accordance with the Trusts CoP and indeed application forms have already been provided to the Trust in relation to Work No.18. The Trust requires an express obligation from the Applicant to have regard to the CoP in the detailed design, construction and approval of all the relevant works affecting the canal to be included in the protective provisions for the Trust.	The Applicant has agreed and as stated under Trust 3.5.3 in the draft SoCG with the Trust [REP1-030] that any works that interface with its waterways would be carried out in accordance with the Canal and River Trust Third Party Works Code of Practice and that the requirement will be secured by way of a Protective Provision in the draft DCO [REP1-004].
5. Surface wa	nter drainage to the canal	
2.1.6	The Trust would object to any surface water drainage to the canal (or watercourse which is culverted under the canal), without our prior consent. The Trust is not a land drainage authority, and such discharges are not granted as of right. Any discharges to our waterways would be subject to internal review within the Trust including in terms of hydrology, heritage and environment to consider quality, quality and design of outfalls. The works to construct and install the surface water discharge to our waterways must comply with the Code of Practice.	Article 19(3) provides for consent to be required. (3) The undertaker must not discharge any water into any watercourse, public sewer or drain except with the consent of the person to whom it belongs; and such consent may be given subject to such terms and conditions as that person may reasonably impose but must not be unreasonably withheld or delayed. (emphasis added). The Applicant does not understand how the drafting can be read as circumventing any need for consent.
6. Environme	ntal Mitigation and the Outline Landscape Environmental Management Plan	
2.1.7	The Trust would have concerns in relation to landscaping planting potentially having an adverse impact on the structural integrity of the canal, especially if planted too close; has no root containment; or if inappropriate species are selected. The Trust would welcome a requirement for the applicant to consult with the Trust in relation to any canalside landscaping/planting as part of the Schedule 2, Part 1 Requirements 11 (Landscape and Ecological Management Plan).	THE ADDICAL WILCOMINE ID ENGAGE WILLING THAT OF HERE HAUGES

HyNet Carbon Dioxide Pipeline
Page 4 of 123

Reference	Written Representation	Applicant's Response
7. The Const	ruction Environment Management Plan	
2.1.8	The Trust would welcome a requirement for the applicant to consult with the Trust in relation to any canalside CEMP's to protect our watercourses and any watercourse which might flow into or under our assets, as part of the Schedule 2, Part 1 Requirements 5 (Construction Environment Management Plan).	The Applicant will continue to engage with The Trust prior to submitting Detailed CEMPs to the relevant planning authority for approval as secured by Requirement 5 of the dDCO [REP1-004].
8. The Const	ruction Traffic Management Plan	
2.1.9	The Trust would welcome a requirement for the applicant to consult with the Trust in relation to the final construction traffic management plan, insofar as it relates to the crossing of our waterway, as part of the Schedule 2, Part 1 Requirements 6 (Construction Traffic Management Plan).	The Applicant will continue to engage with The Trust prior to submitting a Detailed CTMP as secured by Requirement 6 of the dDCO [REP1-004].
9. Landscape	e and Visual Impact	
2.1.10	Insofar as the works relate to the canal corridor and would be visible from the canal, the Trust are satisfied that the visual impact on the canal corridor would be limited. There would be some localised short-term impact but we consider that the mitigation planting/landscaping would be able to compensate for any harm caused. The Trust no longer have concerns in relation to this matter.	The Applicant acknowledges the response and has no further comments.

Table 2.2 – Comments on Written Representations submitted at Deadline 1 by Cheshire West and Chester Council (CWCC) [REP1-061]

Reference	Witten Representation	Applicant's Response			
Environmental	Environmental Statement				
2.2.1	The Council is in general agreement with much of the identified effects and mitigation contained within the ES. There are however a number of areas where it's considered critical that certain further detail is secured particularly in relation to the content of the final Construction Environmental Management Plan (CEMP), Landscape Ecological Mitigation Plan (LEMP) and in relation to the exceptions allowing 24 hour working. This is further discussed below and as part of the draft DCO	The Applicant refers CWCC to the responses below.			
	comments below.				
Economic Imp	pacts				
The Council recognises the Project's wider potential economic benefits in the region however there are some concerns raised in regard to the localised impacts. The Project has the potential for direct and indirect impacts upon existing local businesses including the delivery of safeguarded sites in the Local Development Plan (LDP). The DCO limits for Ince AGI access (identified in Schedule 1 Part 1 of the DCO under 'Work no.3') cuts across an approved plot and building of the Protos Plastics Park approved under planning permission 21/04076/FUL. This site is safeguarded through the Local Development Plan for employment uses and the DCO would sterilise part of the site	The Applicant notes this response from CWCC. In respect to the Protos Plastics Park, the Applicant refers to the responses given to [REP1-075] (document reference: D.7.16) and [REP1-074] (document reference: D.7.19) submitted at Deadline 2, regarding the site based impacts to the Protos Plastics Park and to the Peel SoCG [REP1-027] to be reissued at Deadline 2, in which these their concerns (including site access and potential sterilisation) are being addressed with that particular IP through frequent commercial discussions The Applicant notes the infrastructure delivered by the DCO proposal will be critical for the future development of businesses in Cheshire (as well as Flintshire). A number of the land-owning businesses impacted directly or indirectly are to some extent reliant on the development for their future plans. In the Ince-Stanlow area companies such as Peel NRE, Essar Oil UK, and Encirc, are land owners directly impacted but either require the CO ₂ pipeline to be constructed for it to be used to transport CO ₂ from their / their tenants' production facilities or plan to use Low Carbon Hydrogen (from the Stanlow Manufacturing Complex), which requires 97% of CO ₂ to be captured and transported using the CO ₂ pipeline.				
	Looking further into the future, the CO ₂ Transport Pipeline will be an asset for local industry and land owners and (as part of future developments and conditional on future consents being given) is likely to attract businesses to develop and/or expand their operations in the region, including the Protos Plastics Park.				
		In general response to Economic Impact, the Applicant would like to draw the ExA's and CWCC's attention to the Applicant's Response to the ExA's ExQ1 at Deadline 1 [REP1-044] Q1.16.1 (Pages 106-107), which outline the economic benefit to the region the development will provide (as summarised in the text below):			
		 42,000 jobs created / maintained in North West England and North Wales Creation / maintenance of 55,000 UK jobs by 2030 6,000+ UK Construction jobs in any given year until at least 2030 			

HyNet Carbon Dioxide Pipeline
Page 6 of 123

Reference	Witten Representation	Applicant's Response
Heritage		
2.2.3	With regards to heritage, whilst details of planting and materials are required to be provided by the Outline Landscape Management Plan (OLEMP) [AS-055] it is noted that any further requirement for mitigation to be directed by further Heritage Impact Assessments is not specified within the OLEMP or the Register of Environmental Actions and Commitments (REAC) [AS-054] or directly provided for in the wording of the draft DCO Requirements. For this reason, it is considered that for all permanent above ground installations, further heritage assessments including appropriate mitigation should be	The Applicant can confirm that the tracked change REAC [AS-054] only details the updates made to the REAC for that Examination submission. For that submission, the complete REAC is reference [AS-053]. The Applicant would refer CWCC to the version of the REAC [REP1-015] issued at deadline 1, and also as updated at Deadline 2. The REAC includes a commitment (D-CH-001) which states: "Archaeological works where required will be undertaken in consultation with the relevant Archaeological Advisor (the LPA, Historic England or Cadw), and in accordance with an approved archaeological Written Scheme of Investigation (WSI)." and a second commitment to fence off the Elton scheduled monument (NHLE 1012122) (secured within Requirement 10 of the dDCO [REP1-004]).
	provided for within the OCEMP or specifically required within the final DCO Requirement 5.	The potential effects as a result of the AGIs are detailed in 2.12.4 in the Applicant's Response to the Relevant Representation from CWCC [REP1-042], which indicates where the full impact assessment can be found. Furthermore, this response details the proposed mitigation, which can be found in paragraph 8.10.8 of Chapter 8 of the 2022 ES [APP-060] and [CR1-124], which states "Permanent impacts to the setting of the historic assets will be mitigated through the planting of vegetative screening around upstanding aspects of the proposed AGI and BVS installations to reduce the impact of the visual intrusion within the landscape." As stated in the Outline Landscape and Ecological Management Plan [APP-229], the detail of the planting and materials will be produced by the appointed construction contractor during the detailed design stage.
Mineral Safeg	uarding	
2.2.4	The Project will directly impact several Mineral Safeguarding Areas (MSAs) for sand and gravel. The desk-based Minerals Resource Assessment (MSA) [APP-131& APP132] identifies the pre-extraction of such mineral would not be economically viable but incidental extraction is. It is noted that detailed ground investigations of their actual depth and quality have not been undertaken. In consideration of the finite nature of the sand and gravel reserves and in view of the fact that such materials will also likely be required as part of the construction of the development itself such that incidental extraction would be a viable option, the Council ask that a minerals management plan form a clear part of the development's CEMP and therefore be included as part of the OCEMP [AS-055] and directly required as part of the wording of any Requirement of the DCO and particularly Requirement 5.	The Applicant considers that commitment D-MW-006 of the REAC [CR1-109 and REP1-015], as secured by Requirement 5 of the dDCO [REP1-004], in relation to following guidance within the Materials Management Plan (MMP), would include the re-use of suitable mineral resources such as sand and gravel incidentally extracted during construction. An Outline MMP will be submitted before the end of Examination.
Trees		
2.2.5	The potential loss of up to 6 veteran trees is of significant concern. Veteran trees are irreplaceable, and their loss cannot be mitigated against therefore the Council would advise that all veteran trees are retained, and protection measures are put in place as part of the CEMP and LEMP. The tree protection	As part of early design commitments, efforts have been made by the Applicant to avoid sensitive habitats and features, wherever possible, including Ancient Woodland and veteran trees. For example, Commitment D-BD-008 in the REAC [CR1-109 and REP1-015] states 'Design of the DCO

HyNet Carbon Dioxide Pipeline
Page 7 of 123

Reference	Witten Representation	Applicant's Response
	measures for all other trees should also form part of any approved LEMP and CEMP.	effects on Ancient Woodland present within the Order Limits.' Through this approach, the Applicant has sought to avoid direct impacts (i.e. the felling of trees) to ancient woodland, specifically at Northop, and maintain the integrity of the woodland.
		Areas of ancient woodland have been avoided and removed from the Order Limits and/or buffered wherever practicable from construction. This also includes the ancient woodlands of concern that the Trust has referenced.
		The latest design refinements as set out in the Change Request and assessed in the ES addendum [CR1-124] have reduced the number of veterans trees to be directly removed to zero. Three veteran trees are assessed as being 'at risk of removal but aiming to retain' due to potential root encroachment, however mitigation will be implemented to allow their protection. As such, the ES addendum [CR1-124] states that the 'Proposed Development will seek to protect and retain all veteran trees during construction'. Mitigation will be detailed within a site-specific Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP). which will be approved by the Local Planning Authority as committed to in the REAC (D-LV-014), as secured by the CEMP within Requirement 5 of the dDCO [REP1-004].
		Further detail regarding mitigation is under discussion between the Applicant and the with Woodland Trust, with the intent to reach an agreed position in a SOCG (document reference: D.7.2.24) to be submitted at Deadline 3.
Biodiversity		
2.2.6	The Council reserves the right to comment on Biodiversity matters and comments will be submitted as an Addendum to this Written Representation (if required) at Deadline 1A.	The Applicant acknowledges the response and refers the Council to the BNG Strategy Update (document reference: D.7.23) issued at Deadline 2. The Applicant and has no further comments.
Land Contamir	nation	
2.2.7	The ground investigation reports [APP-135-137] identify that further contamination investigation is required around the Stanlow Refinery area (made ground). Whilst it is noted that the requirement for a suitable remediation strategy is to be produced following the additional ground investigation under the OCEMP [AS-055] it is however noted that there is no mention of the requirement for the validation of remediation works which is an essential part of any remediation plan. Similarly, this requirement is needed for unexpected contamination under draft DCO Requirement 9.	Regarding the Stanlow Manufacturing Complex site, the Applicant is currently engaging with the site owner, Essar Oil UK, as documented in the SoCG [REP1-032], regarding the handover conditions and responsibilities for any necessary remediation of any contaminated land prior to construction. The Applicant will revert to the CWCC once these agreements are in place prior to any ground investigation work commencement.
		In more general terms and excluding the specific site above, Environment Agency 'Land Contamination Risk Management', LCRM (2021) guidance requires that a remediation strategy includes details of how the remediation will be verified through a verification report (part of the remediation strategy).
		The Applicant proposes to add reference to the inclusion of a verification report within the remediation strategy requirement in REAC [CR1-109 and REP1-015] commitment D-LS-021.
2.2.8	Without the requirements for validation / verification reporting for any necessary remediation of both identified and unidentified contamination the Council raises concern as to demonstrating that necessary remediation has been undertaken. It is therefore asked that that the OCEMP [AS-055] and draft DCO Requirement	remediation strategy includes details of how the remediation will be verified through a verification report (part of the remediation strategy).

Reference	Witten Representation	Applicant's Response
	9 is amended to require the approval of validation reporting for any necessary remediation.	The Applicant has added reference to the inclusion of a verification report within the remediation strategy requirement in REAC [CR1-109 and REP1-015] commitment D-LS-021.
		The Applicant updated Requirement 9 of the draft DCO [REP1-004] at Deadline 1 to include the submission of a verification report following completion of the works to the relevant planning authority.
Cumulative Im	pacts	
2.2.9	The Council is satisfied with the methods proposed to assess the combined and cumulative impacts as set out within in ES Chapter 19 [APP-071]. The four	The Applicant welcomes CWCC's response regarding the Applicant's approach to cumulative impact assessment.
	staged approach appears to be consistent with PINS Guidance Note 17. However, the basis for the inclusion of other projects (i.e. scale, proximity to the pipeline or date range) within table 19 of Chapter 19 of the ES is not clear. The following project is considered to have a significant cumulative impact and should be included: • Roften Works site, Hooton Road, Hooton, Ellesmere Port: Residential development comprising 265 residential units and a care home together with access from Hooton Road (17/02741/FUL) (As of April 2022, 137 dwellings remain to be constructed under the approved planning permission).	In relation to the Council's representation an element of the detailed approach, the Applicant would direct the Council to paragraph 19.5.14 of Chapter 19: Combined and Cumulative Effects of the 2022 ES [APP-071] and the Environmental Statement Addendum Change Request [CR1-124], which outlines the criteria for the basis of inclusion of a development in the long-list (Table 2 of Appendix 19.1 of the 2022 ES [APP-172]). These Other Developments are selected for inclusion in the short-list and further assessment (Table 3 of Appendix 19.1 of the 2022 ES [APP-172]) based on these criteria as well as further development information, status, the nature of the DCO Proposed Development and professional judgement. Additional justification for the inclusion or exclusion Other Developments from the short-list is provided at this stage.
		The identified Other Development (17/02741/FUL) is located over 10km from the nearest point of the DCO Proposed Development. Therefore, in line with the methodology stated for the Inter-Project Effects Assessment of the 2022 ES [APP-071] and of the Environmental Statement Addendum Change Request [CR1-124], the development would not be included in the long-list of Other Developments (Table 2 of Appendix 19.1 of the 2022 ES [APP-172]) as it falls outside of the maximum Zone of Influence (ZOI) (Table 1 of Appendix 19.1 of the 2022 ES [APP-172]) and would not need further assessment.
2.2.10	The Council notes that the combined effects with other projects may also not have been adequately considered, these include national projects such as HS2 in terms of impacts on MSAs, waste generation and transport. Similarly, there is little information available as to how other nationally significant infrastructure projects including the Cadent Hydrogen Pipe has been accounted for, with impacts arising from matters including its Pipe location and HAGIs (which would have potential for some physical overlap near to the Hydrogen production plan plant and the pipeline offshoot to the Protos Site) potentially giving rise to likely significant environmental impacts.	The Applicant would like to refer paragraph 19.5.1 of Chapter 19: Combined and Cumulative Effects of the 2022 ES [APP-071], and the Environmental Statement Addendum Change Request [CR1-124], and Table 1 of Appendix 19.1 of the 2022 ES [APP-172], the Study Area for the Cumulative Inter-Project Effects Assessment has been determined via the identification of Zones of Influence (ZOI) for likely significant effects. The ZOI for local and regional transport used for the assessment is taken from Figure 17.1 of the 2022 ES [APP-211] and extends as far east as Helsby. For waste generation (and Mineral Safeguarding Areas (MSAs)) the ZOI was reduced to 10km for practicable and proportionate assessment purposes. As a result of the extent of these ZOIs, HS2 projects have not been scoped into the long-list (Table 2 of [APP-172]) or short-list (Table 3 of [APP-172]) of the Inter-Project Effects Assessment as the HS2 Phase 2b: Crewe to Manchester (the nearest HS2 works to the DCO Proposed Development) are approximately 20 km from the DCO Proposed Development.
		In addition, the residual effects of Chapter 14 Materials and Waste of the 2022 ES [APP-066], and the Environmental Statement Addendum Change Request [CR1-124], concluded Minor Adverse residual effects in relation to material resource consumption and landfill capacity. As no residual effects in relation to MSAs are anticipated, no inter-project effect would occur. Regarding waste generation, mitigation measures detailed in Chapter 14 of the ES [APP-066] such as Waste Management Plans and

HyNet Carbon Dioxide Pipeline
Page 9 of 123

Reference	Witten Representation	Applicant's Response
		conformance to the waste Hierarchy are legal requirements as secured by Requirement 5(2)(h) of the DCO [AS-016]. It is assumed that HS2 would comply with these requirements and would include equivalent mitigation measures, minimising their effects on landfill capacity. As a result, a measurable incombination effects between the DCO Proposed Development and HS2 are not anticipated.
		As per Table 2, Table 3 and Table 4 of Appendix 19.1 of the 2022 ES [APP-172], the Cadent Hydrogen Pipe project (PINS reference: EN060006) is included in the Inter-Project Effects Assessment (referred to as the 'Hynet North West Hydrogen Pipeline' with development ID 1g). The assessment considered potential inter-project effects during both the construction and operation stages and was informed primarily by development 1g's EIA Scoping Report submitted to the Inspectorate on 26 January 2022. The construction stage assessed Biodiversity, Land and Soils, Landscape and Visual, Materials and Waste, Noise and Vibration, Population and Human Health, Traffic and Transport and Water Resources and Flood Risk. The conclusions of the construction stage assessment were limited to Minor Adverse inter-project effects on all assessed topics. The operational stage assessed Cultural Heritage, Landscape and Visual and Water Resources and Flood Risk. The conclusions of the operational stage assessment were limited to Minor Adverse inter-project effects in relation to Water Resources and Flood Risk, with other effects being determined to be Negligible. This assessment considers that development 1g is adjacent and overlapping the Order Limits for the DCO Proposed Development. The Applicant acknowledges that Table 2 of Appendix 19.1 [APP-172] contains an error, the distance from the DCO Proposed Development has been incorrectly marked as '<0.1km'. This is an erratum and will be marked 'Adjacent', as assessed, and will be amended in an updated ES towards the end of examination. The Applicant is also in discussion with Cadent regarding measures to ensure traffic management measure proposals during construction of the two projects are coordinated.
2.2.11	In respect to paragraph 19.5.31 and 19.5.35 of Chapter 19 of the ES, the Council would suggest that a more holistic approach to the mitigation measures proposed is necessary, where the Applicant has failed to fully assess a project, on the grounds of information not being publicly available should be provided. The concerns relate particularly to where the mitigation relates to other nationally significant infrastructure projects which although not publicly available, would be available to the Applicant. The Applicant should provide more detail and where information has not been made available, justify why data has not been provided.	The Applicant would like to refer to paragraph 3.1.4 of the Planning Inspectorate's Advice Note Seventeen (August 2019) "acknowledges that the availability of information necessary to conduct the CEA will depend on the current status of the 'other existing development and/or approved development'. The applicant should clearly state any assumptions or limitations in relation to the 'other existing development and/or approved development' data collected.". Advice Note Seventeen's Table 2 outlines details on assigning certainty based on the implicit assumption that a decreasing level of detail will be available the early in the life cycle the Other Development is. The Inter-Project Effects Assessment (in Appendix 19.1 of the 2022 ES [APP-172]) conforms to the principles of Advice Note Seventeen, assigning tiers of certainty for each Other Development. In addition, those Other Developments assessed as part of the Inter-Project Effects Assessment (Tables 4 and 5 of Appendix 19.1 of the 2022 ES [APP-172]) detail the information available on the Other Development used to inform the assessment (for example, a submitted EIA Scoping Report). In conformance with this acknowledgement of varying information and certainty in Advice Note Seventeen, it would not be proportionate for the Applicant to request further information, including details on mitigation measures, on Other Development that are not publicly available. Such requests would in many cases, particularly for NSIPs would not be practicable to action and provided

HyNet Carbon Dioxide Pipeline
Page 10 of 123

Reference	Witten Representation	Applicant's Response
		information would not be able to be treated with the same certainty as those publicly available details sourced through the relevant consenting authority.
Draft Developr	ment Consent Order	
2.2.12	Article 2 Commence Issue The exemptions listed in the definition should not include any operational works Amendment Required/Comment The "erection of fencing to site boundaries or marking out of site boundaries, installation of amphibian and reptile fencing, the diversion or laying of services and environmental mitigation measures" should be excluded.	The Applicant understands that CWCC is seeking the deletion of the quoted wording from the exceptions. The Applicant does not agree and refers to the Applicant's Response to ExA's ExQ1, Q1.19.9 (page 121) [REP1-044]. The Applicant considers that the activities listed have very limited potential to have an impact which do not require detailed controls to be in place.
2.2.13	Article 6 Limits of Deviation Issue Art 6(1)(b) allows the undertakers to deviate the pipeline works vertically upwards to a limit of not less than 1.2m below the surface of the ground (except where ground conditions make this impracticable in which case the upward limit is 0.452m below the surface of the ground. Art 6(2) provides that the limits mentioned above do not apply if the SoS is satisfied that deviation in excess of these limits would not give rise of any materially new or materially different environmental effects to those identified in the environmental statement. Amendment Required/Comment CWCC reserves their position on this.	
2.2.14	Article 8 Disapplication of legislation Issue Art 8(1)(c) disapplies s23 (prohibition on obstructions etc in watercourses) and s30 (authorisation of drainage works in connection with a ditch) of the Land Drainage Act 1991. Amendment Required/Comment The application does not provide sufficient details as to the drainage being proposed and without this detail the CWCC cannot agree to the disapplication of the consent process. A mechanism for the approval of these detail needs to be included within the DCO or a side agreement.	The permanent surface water drainage design requires to be approved under Requirement 8 (Surface Water Drainage) of the dDCO [REP1-004]. In line with the ethos and objective of the DCO regime, a separate consent should not be required where this can be addressed through the DCO.

Reference	Witten Representation	Applicant's Response
2.2.15	Article 10 Street Works Issue	The Applicant notes that the dDCO [REP1-004] provides for street works to be undertaken without further consent, as the street where works are known to be needed are included within and the works authorised by the DCO.
	Art 10(1) provides the undertaker with the ability to undertake works to streets (as specified in Part 1 (Streets subject to street works) and Part 2 (Streets subject to temporary street works) of Schedule 3) without the consent of the street authority.	The Applicant had anticipated that the local highway authority would seek protections on these points and included the first draft of the PPs to demonstrate it had considered that and provide a starting point for discussion, however it has had no comments on these from the authority.
	Amendment Required/Comment	
	If any such works within a street, for which the street authority will be liable, are to be retained, there needs to be a mechanism for the street authority to inspect and approve these works before taking liability for them. Additionally, there is no requirement for the undertaker to ensure that the street is restored to the reasonable satisfaction of the street authority (NB. Note that this is included in Art 11(3) but not in Art 10).	
2.2.16	Article 10(3) Street Works	The Applicant is willing to add an explicit provision stating that any consent may be issued subject to
	Issue	reasonable conditions.
	Art 10(3) allows the undertaker to carry out additional works within a street with the consent of the street authority.	
	Amendment Required/Comment	
	The application for consent should allow for the street authority to make recommendations or amendments to the proposed works, as may be necessary, for the purposes of ensuring highway safety and the safe movement of traffic.	
2.2.17	Article 10(5) Street Works	The Applicant notes that the article follows standard, well precedented drafting, including the use of
	Issue	'made' and on the time limit. The Secretary of State has repeatedly determined the wording used to be suitable and sufficiently clear, including in the very recently made A47 Wansford to Sutton DCO
	Art 10(5) imposes a timescales for the street authority to respond to an application for consent for works as being "42 days beginning with the date on which the application was made"	(February 2023), which include in article 14(4) "If a street authority which receives an application for consent under paragraph (3) fails to notify the undertaker of its decision before the end of the period of 28 days beginning with the date on which the application was made , it is deemed to have granted
	Amendment Required/Comment	consent". (emphasis added)
	The period of 42 days is too short and CWCC require a minimum of 70 days to consider any such application. The timescales are ambiguous as there is no definition for an application being "made". In addition, the timescales are too short. We would suggest using "within 70 days of receiving an application for consent" in line with the wording used in Art 14(7).	Article 10(5) only applies where a need to undertake works on a street outside the order limits arises, ie something is required which the Applicant cannot reasonably foresee at this time and has not included in the order limits. The most likely circumstances would therefore be works being required in connection with works the Order Limits, but which need to extend beyond the red line. It is not reasonable in such circumstances for consent applications to take 70 days to be determined, especially where that would delay the completion of other works.

Reference	Witten Representation	Applicant's Response
		The Applicant would strongly object to the period being changed to 70 days as being inappropriately long, and much longer than the period in other recently granted DCOs. The UK Government has set an ambitious target for the delivery of track 1 decarbonisations projects, including this application. The Applicant considers that over two months to consider an application for street works in the context of the DCO project and the Government delivery targets is not reasonable.
2.2.18	Article 11 Power to alter layout etc of streets Issue	The Applicant is willing to add an explicit provision stating that any consent may be issued subject to reasonable conditions.
	Art 11 (2) allows the undertaker to temporarily or permanently alter the layout of any street whether or not within the Order limits. The street authority's consent is required for these works under Art 11(4). Art 11(5) requires the street authority to respond to any application for consent "before the end of the period of 42 days beginning with the date on which the application was made".	The Applicant refers to its response to the comments on wording and timescales under Article 10. The Applicant would strongly object to the period being changed to 70 days as being inappropriately long, and much longer than the period in other recently granted DCOs.
	Amendment Required/Comment	
	Where works are being carried out permanently to the street and the street authority will be liable for those works in the future, there needs to be a mechanism for the street authority to inspect and authorise these works. The application for consent should allow for the street authority to make recommendations or amendments to the proposed works, as may be necessary, for the purposes of ensuring highway safety and the safe movement of traffic. The timescales are ambiguous as there is no definition for an application being "made". In addition, the timescales are too short. CWCC would suggest using "within 70 days of receiving an application for consent" in line with the wording used in Art 14(7).	
2.2.19	Article 13 Temporary restriction of public rights of way Issue The local highway authority has to notify the undertaker whether any diversion "is satisfactory within 28 days of being requested in writing to do so".	The Applicant refers to its response to the comments on wording and timescales under Article 10. The Applicant would strongly object to the period being changed to 70 days as being inappropriately long, and much longer than the period in other recently granted DCOs.
	Amendment Required/Comment	
	The timescales are ambiguous as it is not clear when the request is made or notified to the local highway authority. In addition the timescales are too short. CWCC would suggest using "within 70 days of receiving an application for consent" in line with the wording used in Art 14(7).	
2.2.20	Article 14 Temporary restriction of use of streets Issue	The Applicant refers to its response to the comments on wording and timescales under Article 10. The Applicant would strongly object to the period being changed to 70 days as being inappropriately long, and much longer than the period in other recently granted DCOs.

HyNet Carbon Dioxide Pipeline
Page 13 of 123

Reference	Witten Representation	Applicant's Response
	In Art 14(7) the street authority must notify the undertaker of its decision "within 42 days of receiving an application for consent".	
	Amendment Required/Comment	
	These timescales are too short. CWCC require 70 days.	
2.2.21	Article 15 Access to works	The Applicant refers to its response to the comments on wording and timescales under Article 10. The Applicant would strongly object to the period being changed to 70 days as being inappropriately long,
	Issue	and much longer than the period in other recently granted DCOs.
	In Art 15(2) the street authority must notify the undertaker of its decision "before the end of the 42 day period beginning with the date on which the application was made".	
	Amendment Required/Comment	
"made". In addition, the timescales are too	The timescales are ambiguous as there is no definition for an application being "made". In addition, the timescales are too short. We would suggest using "within 70 days of receiving an application for consent" in line with the wording used in Art 14(7).	
2.2.22	Article 18(1) Traffic regulation	The Applicant has no objection to adding wording requiring representations to be taken into account as
	Issue	set out in the A417 DCO.
	Art 18 allows the undertaker to make, revoke, amend or suspend traffic regulation orders at any time, for the purposes of, or in connection with, the construction of the authorised development. The traffic authority is to be consulted and their consent is required (such consent not to be unreasonably withheld or delayed).	
	Amendment Required/Comment	
	There is no flexibility to allow the traffic authority to impose conditions or to take into consideration any representation made. Such flexibility is included within other DCO's such as the A417 DCO. The power to make such orders is available "at any time". As the power is limited to the construction of the authorised development, it should specify that the power conferred by article 18(1) may only be exercised for a limited period (e.g. any time prior to the expiry of 12 months from the completion of the construction works for the authorised development).	
2.2.23	Article 18(3) and 18(7) Traffic regulation Issue	The Applicant refers to its response to the comments on wording and timescales under Article 10. The Applicant would strongly object to the period being changed to 70 days as being inappropriately long, and much longer than the period in other recently granted DCOs.

HyNet Carbon Dioxide Pipeline
Page 14 of 123

Reference	Witten Representation	Applicant's Response
	The timescales for the notice of intention in Art 18(3)(a) are specified as being "not less than 42 days". Article 18(7) requires the traffic authority to notify the undertaker of its decision "within 42 days of receiving an application".	
	Amendment Required/Comment	
	These timescales are too short and CWCC requires 70 days for both Art 18(3)(a) and 18(7).	
2.2.24	Article 18(5) Traffic regulation Issue	The Applicant has no objection to including a time limitation. The Applicant notes that the precedent cited (A417) provides for a limit of 24 months not 12 as suggested.
	Art 18(5) provides that "Any prohibition, restriction or other provision made under this article may be suspended, varied or revoked by the undertaker from time to time by subsequent exercise of the powers of paragraph (1) at any time."	
	Amendment Required/Comment	
	The power to make such orders is available "at any time". This should be limited to specified period (e.g. within a period of 24 months from the opening of the authorised development).	
2.2.25	Article 19 Discharge of Water	Article 19 is concerned with the rights to discharge, i.e. land rights, it does not infringe on the LLFA's
	Issue	remit as a regulator. The Applicant notes that permanent drainage design is subject to approval under
	Insufficient details of the proposed works have been provided in order for CWCC to confirm whether these provisions are agreed.	requirement 8 and that the drainage strategy requires attenuation to the equivalent of greenfield run-off rate, which could not create new flood risk.
	Amendment Required/Comment	
	CWCC need to ensure there is no flood risk in connection with the undertakers use of powers under Article 19. At present, LLFA do not have sufficient information to confirm whether the wording of Art 19 can be agreed.	
2.2.26	Article 21 Authority to survey and investigate the land Art	The Applicant notes that the article follows standard, well precedented drafting, including the time limit.
	Issue	The Applicant would strongly object to the period being changed to 70 days as being inappropriately
	21(7) the timescale for notifying the undertaker of its decision is "within 28 days	long for the powers concerned which would authorise works of survey and investigation which would be necessary to inform other works, including for example preparing management plans which then need to
	of receiving the application for consent".	be discharged, creating the risk of consequential delay. The Applicant considers that over two months to
	Amendment Required/Comment	consider an application for access for surveys is not reasonable.
	The timescale is too short and CWCC requires 70 days.	
2.2.27	Part 5, Articles 24-32 Powers of acquisition	The Applicant acknowledges the response from CWCC has no further comments at this time regarding this matter.

Reference	Witten Representation	Applicant's Response
	Amendment Required/Comment	
	CWCC has had limited contract from the Applicant regarding the compulsory acquisition of its land. CWCC will review its position and update the Examining Authority at a later deadline.	
2.2.28	Article 34 Temporary use of land for carrying out the authorised development Issue	The Applicant notes that this power is primarily related to land ownership and possession and not the regulation of streets/highways in their statutory status which is addressed by other articles.
	Art 34(1) includes wide powers to not only temporarily use land (subsection 1 (a)) but also to:	The Applicant does not agree and refers to the explanation set out at paragraph 4.120 of the Explanatory Memorandum [REP1-006].
	(b) remove any buildings, agricultural plant and apparatus, drainage, fences, debris and vegetation from that land;	As regards street works, the Applicant is not aware of a circumstance where permanent works are required outside the limits of the plots where subsurface acquisition is sought. However, if a permanent
	(c) construct temporary works (including the provision of means of access), structures and buildings on that land;	work such as ground strengthening is required, the inclusion of that in this article is entirely standard a very well-precedence. Requiring acquisition for this would be contrary to the principle requiring permanent land take to be minimised.
	(d) use the land for the purposes of a working site with access to the working site in connection with the authorised development; and	The Applicant had anticipated that the local highway authority would seek protections on street works points and included a first draft of the PPs to demonstrate it had considered that and provide a starting
	(e) construct any permanent works specified in relation to that land in column(4) of Part 1 of Schedule 7 (land of which only temporary possession may be taken), or any other mitigation works in connection with the authorised development;	point for discussion, however it has had no comments on these from the authority.
	(f) construct any works, or use the land, as specified in relation to that land in column 3 of Schedule 7, or any mitigation works;	
	(g) construct such works on that land as are mentioned in Part 1 of Schedule 1 (authorised development); and	
	(h) carry out mitigation works required pursuant to the requirements in Schedule 2.	
	Art 34(3) and 34(4) relate to the temporary possession ceasing, the removal of temporary works and restoring the land, save that the undertaker is not required to:	
	(a) replace a building, or structure removed under this article;	
	(b) remove any drainage works installed by the undertaker under this article;	
	(c) remove any new road surface or other improvements carried out under this article to any street specified in Schedule 3 (streets subject to streets works)	
	(d) restore the land on which any permanent works (including ground strengthening works) have been constructed under paragraph (1)(e); or	

Reference	Witten Representation	Applicant's Response
	(e) remove any measures installed over or around statutory undertakers' apparatus to protect that apparatus from the authorised development.	
	Amendment Required/Comment	
	It is not clear how the use of temporary powers can be extended to allow for the construction of permanent works over the land (art 34(1) and for those works not to be removed (art 34(4). If land is required for permanent works, these should be included within the compulsory acquisition powers and should be subject to the appropriate compensation for the acquisition of that land. Where any works are carried out to a street and these works are not being removed/land restored, the highway/street authority must have the right to inspect and approve the works before being required to maintain the street (art 34(4)(c)).	
Schedule 2, Par	rt 1, Requirements	
2.2.29	2 Time Limits Issue 2(2) "Notice of commencement of the authorised development must be given to the relevant planning authorities within 7 days of the date on which the authorised development is commenced". Amendment Required/Comment CWCC requires 14 days advance notice of the commencement of development so as to allow officers time to ensure compliance,	The Applicant notes that the DCO as drafted [REP1-004] requires notification within 7 days of commencement occurring, not in advance. The Applicant agrees to amend the provision to notice 14 days in advance.
2.2.30	3 Stages of authorised development Issue "The authorised development may not commence until a written scheme setting out all stages of the authorised development including a plan indicating when each stage will be constructed has been submitted to each relevant planning authority." The requirement does not require the submitted scheme to be approved or for the undertaker to undertake the development in accordance with the submitted approved stages. Amendment Required/Comment Suggested wording: No part of the authorised development may commence until a written scheme setting out all stages of the authorised development	As set out in the Applicant's Response to ExA's ExQ1 Q1.19.44 [REP1-044], the submission of stages is proposed to give the LPAs visibility of the planned approach to the development. It is intended to assist the LPA in planning their work load by giving them warning of when applications would be made. It is not submitted for approval. The development will be carried out with multiple work fronts and with some elements, such as complex trenchless crossings carried out ahead of the main pipeline spread.

Reference	Witten Representation	Applicant's Response
	submitted to and approved in writing by each relevant planning authority. The authorised development shall then be undertaken in accordance with the approved stages plan unless approved in writing by each relevant planning authority in accordance with Requirement 17.	
2.2.31	4(1) Scheme Design – Above ground development Issue The requirement only allows for above ground elements to be in "general accordance with the general arrangement plans". Amendment Required/Comment The wording "in general accordance" is too vague and unenforceable. CWCC request that the words "general" be removed from the Requirement and replaced with "substantially".	It is noted that 'substantially' was removed at the direction of the ExA and the Applicant will not add that at this stage.
2.2.32	It is not clear what the "environmental effects" include. No definition is provided in Requirement 2 (Interpretation). Importantly, it is not clear who determines whether any changes cause "materially new or materially different environmental effects". What mechanism is there for determining this? Amendment Required/Comment Recommend a definition for the term "environmental effects". The mechanism for determining whether any changes are "material" needs to be included otherwise this will be a self-approved process with no input from the relevant authority.	This is standard wording in DCOs and has been approved repeatedly by the Secretary of State, including in insertions made on their behalf at determination stage. The Applicant notes that for details to be approved, the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 apply and when details are submitted for approval the LPA is required to consider if they are within the scope of the ES or if further environmental information is required. For other elements, failure to comply with a DCO is a criminal offence and the undertaker will have to take a view on materiality in that context. Where the relevant LPA disagrees, its enforcement powers would be available to it.
	4(1) Scheme Design - Changes to above ground development Issue The need for approval of detailed design is welcomed. However, it is unclear how this will tie in with the CEMP and LEMP. Amendment Required/Comment CWCC request that the wording be amended to include a requirement for the detailed design be based upon the mitigation outlined within the CEMP and LEMP.	Where relevant the detailed design will be based upon relevant mitigation measures that are identified within 2022 ES and subsequent ES Addendum Change Request 1 [CR1-124]. Where relevant these commitments are also included in the Outline LEMP [APP-229], the Outline CEMP [REP1-017] and the Outline OMEMP [REP1-051]. The draft DCO [REP1-004] includes provisions to ensure the full versions of these management plans are in accordance with the outline versions including the working methods and mitigation measures to be applied during design, construction and operation (dependent on plan). The draft DCO also includes provisions to ensure that no materially new or materially different environmental effects from those assessed in the ES arise as part of the Proposed DCO Development. This would mean that mitigation measures and their performance criteria, as assessed in the ES, have to be applied in order to ensure

HyNet Carbon Dioxide Pipeline
Page 18 of 123

Reference	Witten Representation	Applicant's Response
		there are no material changes to the effects. It is therefore not considered necessary to include a requirement for the detailed design be based upon the mitigation outlined within the CEMP and LEMP as this is already provided for in the draft DCO.
2.2.33	5(2) (a – m) CEMP – Working Methods and Mitigation Measures Issue Specific measures for construction works are missing including plant and equipment detail; night-time noise levels; minerals safeguarding, and identified contamination. Amendment Required/Comment Include the following additional measures: • mineral safeguarding plan, • protection and replacement planting of all significant trees and hedgerows (not just ancient woodland), • specification of noise limits (day and night) • heritage mitigation measures • biodiversity survey reporting and monitoring strategies • contamination • mechanism for review	The detailed CEMP, secured by Requirement 5 of the dDCO [REP1-004], will include the details of those measures raised by the IP including working methods and mitigation measures to ensure the reduction of potential adverse impacts as a result of construction works.
2.2.34	8(3) Water Discharge Issue Requires details to be submitted but not approved in writing. Amendment Required/Comment Rewording to: "No discharge of water under article 19 (discharge of water) must be made until details of the location and rate of discharge have been submitted and approved in writing by the relevant planning authority"	This was added to the requirement at Deadline 1, please see [REP1-005] for a tracked version of the dDCO.
2.2.35	9 Contaminate d land and Groundwater Issue This is missing a requirement for the submission and approval of a validation report. Amendment Required/Comment CWCC require the Requirement to be revised to include validation reporting and for the details to be approved by CWCC.	This was added to the requirement at Deadline 1, please see [REP1-005] for a tracked version of the dDCO.
2.2.36	11 (1) LEMP	The Applicant considers that such a split would be entirely artificial and leads to unnecessary duplication and a risk of inconsistency. The LEMP will cover prescriptions for a range of elements such as;

Reference	Witten Representation	Applicant's Response
	Combining ecology and Landscape will involve a lot of details, which if included together has the potential to miss important elements Amendment Required/Comment CWCC recommends that the details be split into landscape and ecological matters or for them to be set out in separate requirements.	woodland, native shrub planting, hedgerows and species rich grassland. All these elements contribute to both landscape and ecological value but require a single management regime, agreed by the respective disciplines, to maximise environmental benefits. For example, hedgerow restoration and reinforcement can serve more than one purpose, reinstating landscape boundary features and providing ecology benefits. Trying to allocate a separate landscape and ecology management regime to the hedgerow would be potentially contradictory and confusing. The Applicant notes that the outline LEMP [APP-229] provides what must be included in the detailed plan and therefore can be used as a check that all the required matters have been covered in any detailed plan submitted.
2.2.37	It is not clear whether the landscape part include measures to protect Heritage. Amendment Required/Comment Detail inclusion of heritage matters	Cultural heritage matters are not specifically normally included in Landscape and Ecological Mitigation Plans. However permanent impacts to the setting of the historic assets will be mitigated through the planting of vegetative screening around the proposed AGI and BVS installations to reduce the impact of the visual intrusion within the landscape. Details of this planting, and any specified materials and pallets to be used, to ensure the permanent design is integrated within the landscape will be included in the LEMP. Specific mitigation measures relevant to cultural heritage and archaeology are included within the REAC [REP1-015 and CR1-109], as secured by the CEMP within Requirement 5 of the DCO [REP1-004] and within the Outline Archaeological Written Scheme of Investigation [APP-223] as secured by Requirement 10 of the DCO [REP1-004].
2.2.38	11(2) LEMP – Inclusion Issue Missing heritage measures Amendment Required/Comment Detail inclusion of heritage matters	The Applicant refers CWCC to the response to 2.2.37 above.
2.2.39	11(2)(c) LEMP – Inclusion Issue There is no definition for "existing features" Amendment Required/Comment A definition should be added which should include updated ecological survey, reporting to the appropriate bodies and monitoring strategies.	This is standard wording in DCOs and has been approved repeatedly by the Secretary of State.
2.2.40	12 Ecological surveys Issue	The requirement for EPS surveys does not imply an absence of or negate any need for any other surveys. The other surveys which are required are specified in the relevant plans, including the Outline LEMP [APP-229]. The only reason that EPS are singled out is that the LPA is not normally the licensing

Reference	Witten Representation	Applicant's Response
	In Requirement 12 only ecological surveys referred to be carried out prior to works, are for European protected species.	authority, and it is common for the inclusion of this to be sought by licencing bodies in the DCO [REP1-004] as they are not the approving body for the detailed plans, unlike the LPA.
	Amendment Required/Comment	
	European sites, international sites and nationally protected habitats and species should also be included in this requirement, in addition to non-statutory sites (Local Wildlife Sites) as well if appropriate. Mitigation, compensation and obtaining appropriate licences if required, should also be stipulated here.	
2.2.41	Issue The requirement restricts hours of constructions "except in the event of emergency" and provides definition of "emergency" as "means a situation where, if the relevant action is not taken, there will be adverse health, safety, security or environmental consequences that in the reasonable opinion of the undertaker would outweigh the adverse effects to the public (whether individuals, classes or generally as the case may be) of taking that action". This definition of "emergency" is not considered acceptable as it would allow for uncontrolled out of hours construction works. **Amendment Required/Comment** CWCC would prefer a scheme for out of hours work to be submitted to the	The exception for emergencies is necessary as where works are required to protect life, health safety, the environment or property it should not be a criminal offence to undertake those. That is not agreed to be a reasonable position for a DCO to create. The Applicant strongly objects to any deletion of this.
	relevant authority for approval. The blanket exception for "emergency" needs to be removed or redefined.	
2.2.42	13(3) Construction Hours Issue List of operations allowed outside approved working hours including trenchless construction techniques and works required to mitigate delays due to extreme weather conditions etc. this is too open and has the potential to result in unacceptable noise impacts.	The Applicant does not agree that a scheme is required for the works (a), (b) and (d). It is known that some working outside standard hours is required, for example on trenchless crossings make no sense to require a scheme for works already known. Trenchless crossings once commenced cannot be halted except in an emergency. It is inappropriate for activities which are known to need continuous working not to be provided for on the face of the DCO. The drafting of this requirement follows precedent where such exceptions are routinely included.
	Amendment Required/Comment Revise wording of Requirements to require any working outside of agreed hours only as part of an approved scheme.	The Applicant will agree to amend the DCO so that working for what is currently (c) would require approval under a scheme but maintains that allowing 24 hour working for (a), (b) and (d) is necessary and appropriate.
2.2.43	13(4)(a) Construction Hours Issue	The Applicant does not agree and notes that all works will be subject to noise controls through the CEMP and where appropriate COPA prior approvals. A scheme is not necessary as noise controls are already provided for under other requirements.

HyNet Carbon Dioxide Pipeline
Page 21 of 123

Reference	Witten Representation	Applicant's Response
	The requirement provides that "nothing in subpara. (1) preclude the receipt of oversized deliveries to site and the undertaking on non-intrusive activities".	The requested deletion of 'outside the Order Limits' is not understood as that is not considered by the Applicant to make sense. The definition provides that non-intrusive activities are those which cause a
	Non-intrusive activities as defined in subpara. (5) would need further clarification and tighter links to prevailing noise limits and most importantly the character of the noise, duration, frequency, maximum levels.	discernible impact outside the Order Limits – there can be no activity which does not cause an impact inside as the person carrying out can clearly discern it, they will not be working in the dark for example. The definition is there to stop task lighting 'spilling' outside the order limits, not prevent a worker turning on lights inside a kiosk.
	Amendment Required/Comment	
	Revise wording of Requirements to require any working outside of agreed hours only as part of an approved scheme.	
	The wording "outside the Order limits" in the "non-intrusive activities" definition needs to be deleted.	
2.2.44	13(4)(b) Construction Hours	The Applicant disagrees and notes that start up and shut down hours are routinely allowed outside the
	Issue	core hours as they are include activities such as staff arrival, briefings, tool box talks, health and safety checks and numerous other activities which do not have the impacts of the main construction. The
	The requirement provides that "nothing in subpara. (1) preclude start-up and shut-down activities up to an hour either side of the core working hours and undertaken in compliance with the CEMP".	Applicant is willing to discuss the wording of this to address any concerns regarding the scope of activity allowed but does not agree a scheme is required for the types of activities listed.
	CWCC also advise that start up and shut down activities should be very much part of the core hours of operation and is not separate.	
	Amendment Required/Comment	
	Revise wording of Requirement to require any working outside of agreed hours only as part of an approved scheme.	
2.2.45	16 Restoration of Land	This requirement is a reserve power to allow the LPA to require restoration in default or where there is
	Issue	an issue. The primary mechanism for controlling restoration is the land agreements which will include for example schedules of condition before possession is taken, the details of restoration, which will in the
project)], any land within the Order limits which is used temporaril connection with construction must be reinstated to a condition fit if use, or such other condition as the relevant planning authority may within 12 months of completion of the authorised project." "fit for its former use" is not precise or enforceable and would not	"Subject to article 34 (temporary use of land for carrying out the authorised project)], any land within the Order limits which is used temporarily for or in connection with construction must be reinstated to a condition fit for its former use, or such other condition as the relevant planning authority may approve, within 12 months of completion of the authorised project."	main be to the former use. Drainage would be reinstated in its former location. Deterioration in land would be a compensatable issue not a planning one. Aftercare of agricultural land once returned to the landowners use is not appropriate or reasonable as it would not only interfere with the land agreements between the landowner and Applicant but would require the Applicant to control land for longer than necessary, to interfere with the landowners use, to take rights for longer than necessary and it is
	"fit for its former use" is not precise or enforceable and would not secure return the higher grades of agricultural land back to their former grading / condition including drainage etc.	accordingly disproportionate to move from the control of the landowner to the LPA.
	Requirement 16 as a whole is not precise or enforceable and does not require the approval of a scheme of restoration and aftercare.	
	Amendment Required/Comment	

Reference	Witten Representation	Applicant's Response
	The requirement to reinstate should be on a section or phase basis, not the whole project, as that will increase the time to restoration of habitats (and alter the biodiversity net gain result).	
2.2.46	17 Post construction environment al management plans	The Applicant has no objection to splitting this into two requirements.
	Issue	Restoration aftercare from construction is addressed above. Restoration of decommissioning would be
	"Operational and maintenance management" and "decommissioning" are distinctly separate stages of the project. These should be covered in separate requirements.	covered by the DEMP under Requirement 17(3) of the dDCO [REP1-004].
	Furthermore, the scheme does not provide or require details of restoration aftercare.	
	Amendment Required/Comment	
	CWCC advise that the requirement be split into two requirements for the approval of schemes for restoration and aftercare and one for decommissioning.	
	CWCC require details of restoration and aftercare to be provided to the relevant planning authority for approval. This could be incorporated under Requirement 17 or alternatively a detailed scheme could be included Requirement 16.	
2.2.47	17(1) and 17(3) Post construction environmental management plans	This was added to the requirement at Deadline 1, please see [REP1-005].
	Issue	
	Requirement 17(1) requires the submission of an operational and maintenance environment management plan.	
	Requirement 17(3) requires the submission of a DEMP.	
	Amendment Required/Comment	
	For these requirements to be acceptable, CWCC require these plans to be submitted for approval by the relevant planning authority and to be implemented in accordance with the approved plans.	
2.2.48	19(4) Amendments	The Applicant is happy to make this amendment.
	Issue	
	The requirement provides for a "42 days" notification period. There is no ability to agree extension of time.	
	Amendment Required/Comment	

HyNet Carbon Dioxide Pipeline
Page 23 of 123

Reference	Witten Representation	Applicant's Response
	CWCC would advise the use of the standard period for decision of 16 Weeks and the inclusion of a provision to agree an extension of time i.e. "within such longer period as may be agreed by the undertaker and the host authorities in writing"	
Schedule 2: Pa	art 2: Applications made under requirements (pp. 70-72)	
2.2.49	21(1) Applications made under requirements Issue The requirement provides that notice of a decision is required within 42 days. This period is too short and not in accordance with standard timescales for determining applications. Amendment Required/Comment In line with Article 27 of the DMPO and EIA Regs, CWCC consider a 16 week period to be reasonable.	The Applicant is aware that CWCC do not agree with the period sought however the Applicant notes that the 42-day period is the same as that in the Southampton to London Pipeline Order, The Applicant is willing to amend the period to 56 days (8 weeks) as requested by FCC but considers the 16 week period sought to be unreasonably long. The Applicant notes that article 27(2) of the Town and Country Planning (Development Management Procedure) (England) Order 2015 provides "The authority must give notice to the applicant of their decision on the application within a period of 8 weeks beginning with the day immediately following that on which the application is received by the authority, or such longer period as may be agreed by the applicant and the authority in writing." The 16 week period stated applies to applications for full planning permission for developments requiring EIA, not applications for discharge of conditions and is an inappropriate comparison in this circumstance. The applications are the equivalent of discharge of conditions not a full planning application. The principle of development is established, policy compliance assessed and the EIA impacts considered in the DCO process, that work is not required to be undertaken at discharge stge. The 5 and 8 week periods are a more reasonable comparison for determining details under requirement. It is noted that the Norfolk Vanguard and Norfolk Boreas orders allowed 8 weeks (56 days) not 16. The Applicant submits it is inappropriate to delay a NSIP through deemed refusal just where a LPA has failed to deal with an application timeously.
2.2.50	21(2) Applications made under requirement s - deemed approval Issue This requirement includes the deemed approval for applications submitted pursuant to a requirement. This is too onerous. Amendment Required/Comment CWCC consider "deemed approval" should not be included within Article 21.	The Applicant submits it is inappropriate to delay a NSIP through deemed refusal just where a LPA has failed to deal with an application timeously.
2.2.51	22 Multiple relevant authorities Issue The requirement provides 20 days for discharging authorities to comment on applications relating to multiple authorities within "20 days".	The Applicant would be willing to add the flexibility requested to agree a longer timescale but will note agree to extend the period.

HyNet Carbon Dioxide Pipeline
Page 24 of 123

Reference	Witten Representation	Applicant's Response
	Timescale is short and doesn't allow any agreed extensions of time.	
	This is in effect a pre-app to and between the two authorities – the need for timescales at all is questioned. If a timescale is accepted there should at very least be the ability to agree an extension of time.	
	Amendment Required/Comment	
	Advise the removal of this Requirement or provide a reasonable extended period of time [e.g. within 40 days and ability to agree an extension of time i.e. "within such longer period as may be agreed by the undertaker and the host authorities in writing"	
2.2.52	23(2) Further Information	Where consultation is needed on a requirement that would be stated in the requirement and known upfront. That is stated in sub-paragraph (3).
	Issue	The Applicant will not agree to remove this wording but would be willing to amend the period to 10 days.
	"(2) If the relevant authority considers further information is necessary and the requirement does not specify that consultation with a requirement consultee is required, the relevant authority must, within 5 business days of receipt of the application, notify the undertaker in writing specifying the further information required. Notification required in 5 business days to specify further information required."	The Applicant will not agree to remove this wording but would be willing to amend the period to 10 days
	Even for internal consultees it is not considered reasonable to only allow 5 working days for notification for further information. Notwithstanding the admin time, consultees will need time to fully review the provided material to be able to advise if further information will be required. This is not considered reasonable and significant concern is raised by CWCC.	
	Amendment Required/Comment	
	CWCC may not know whether they need to consult a requirement consultee within the first 5 days. CWCC recommend that this be amended to a more reasonable length of time (e.g. 21 days) or removed in its entirety.	
2.2.53	23(3) Further Information	Where consultation is needed on a requirement that would be stated in the requirement and known
	Issue	upfront. That is stated in sub-paragraph (3).
	"(3) If the requirement specifies that consultation with a requirement consultee is required, the relevant authority must issue the consultation to the requirement consultee within five business days of receipt of the application and must notify the undertaker in writing specifying any further information requested by the requirement consultee within five business days of receipt of such a request and in any event within 21 days of receipt of the application."	The Applicant will not agree to remove this wording.

Reference	Witten Representation	Applicant's Response
	The 5 day timescales for issuing the consultation and reverting to the undertaker as to whether further information is required is not appropriate where external consultation is needed.	
	Requiring a specified timescale for consultation of external bodies is not considered reasonable or necessary. This can be adequately dealt with under an agreed extension of time under Schedule 2 Part 2 (19(1)).	
	Amendment Required/Comment	
	CWCC advise this be amended to a more reasonable length of time (35 days).	
2.2.54	23(4) Further Information Issue	The discharging authority has the ability to ask for further information, within the timescales stated, not at any time thereby delaying determination unpredictably and with an impact on delivery of the NSIP. The
	"(4) If the relevant authority does not give the notification mentioned in sub paragraphs (2) or (3) or otherwise fails to request any further information within the timescales provided for in this paragraph, it is deemed to have sufficient information to consider the application and is not thereafter entitled to request further information without the prior agreement of the undertaker."	Applicant does not agree that this standard wording should be deleted.
	This is not considered reasonable – If insufficient info has been provided the host authority should have the right to ask for further information as deemed necessary. If this was to remain in place the Host Authority, if missing it's 5-day notice period, would have no choice but to refuse the requirement application – this would be counterproductive.	
	Amendment Required/Comment	
	Advise this requirement is removed.	
Schedules 3 &	ι 4	
2.2.55	All parts	This change will be made in the next revision of the dDCO.
	Issue	
	"In the County of Cheshire West and Chester"	
	Amendment Required/Comment	
	Reword: "In the Borough of Cheshire West and Chester"	
Schedule 10 -	Protective Provisions	
2.2.56	Part 7 Protective Provisions – Local highway authorities Issue	The Applicant had anticipated that the local highway authority would seek protections on street works points and included a first draft of the PPs to demonstrate it had considered that, was happy in principle

HyNet Carbon Dioxide Pipeline
Page 26 of 123

Referen	ence	Witten Representation	Applicant's Response
		The details of the protective provisions were not negotiated with CWCC prior to being included within the DCO. These are being discussed with the applicant.	to progress such PPs and provide a starting point for discussion, however it has had no comments on these from the authority.
		Amendment Required/Comment	
		CWCC reserve the right to comment on the protective provisions.	

Table 2.3 – Comments on the Written Representations submitted at Deadline 1 by Rostons on behalf of Emma Clare Craven-Smit-Milnes and Anthony David Wynne Griffith [REP1-079]

Reference	Witten Representation	Applicant's Response
2.3.1	Solar Farm To lease the land for the development of a solar farm, an indicative plan is located in Appendices 2 (see attached). As you can see the presence of the pipeline sterilises a considerable area in particular has a bearing on the location of a proposed substation to connect into the grid. Should this substation not be able to be positioned it will have a detrimental impact on the viability of the project. This opportunity prevents a significant diversified income stream to the business. We have requested that the following amendments by the developer:	The Applicant will continue to work with the landowner and solar developer regarding the proposed layout of the solar site. The Applicant notes that the likelihood of the pipeline impacting the proposed substation is low. Engagement is ongoing around this matter. The Applicant has previously advised the landowner that the easement corridor cannot be reduced, and portable solar panels cannot be positioned over the easement area. This is noted in the Schedule of Negotiations of Land Interests [REP1-009].
	 Reduction in the easement corridor to maximise the easement corridor and put those 6m rather than 24m. We have also requested that portable solar panels be allowed to be positioned over the easement area, which could be moved when access is required for emergency work, as necessary. 	
2.3.2	Impact on Agricultural Business The cattle enterprise currently has approximately 500 head of cattle, consisting of 250 in-calf heifers and 250 yearling heifers as replacement for the farming enterprises dairy enterprise, which both graze the land and are fed on fodder produced from the fields. The loss of the additional land from the pipeline will mean that this enterprise is no longer viable.	The Applicant will continue to engage with the landowner to mitigate any loss of land for the dairy farm business during the construction of the pipeline. If any land is lost, compensation will be assessed on a case-by-case basis in accordance with the Compensation Code.
2.3.3	It is an accepted principle that the large-scale excavations including the separation and replacement of topsoil from subsoil has a significant impact upon the productive capacity and structure of agricultural land following the reinstatement of the land post works, even in "ideal" conditions. • When conditions are less favourable especially during periods of extremely wet weather as we are now prone to suffer and the use of heavy plant and construction equipment across agricultural land during the works during its reinstatement will cause long lasting, or in the worst case, irreparable damage to the soil structure, particularly if the subsoil becomes mixed with the topsoil, as landowners have experienced on this project with contractors carrying out ground investigation surveys and leaving the land in poor condition. • These principles apply to all agricultural land affected by the routes. In the land at Cryers Lane and Thornton Manor, given the wet nature of the land in this area, this damage could be mitigated by ensuring that works are restricted to summer months and restrictions are placed upon the	The Applicant has prepared an Outline Soil Management Plan [APP-227] which provides guidance on the stripping, storage and replacement of soils to prevent damage to soils. The detailed Soil Management Plan will be approved by the Local Planning Authority under Requirement 5(2)(f) of the dDCO [REP1-004] prior to undertaking any works which will set out best practice to prevent irreparable damage to the soil structure. The Applicant is in ongoing discussions with the relevant landowners. Subsequent investigative works have been monitored to ensure soil has been reinstated correctly.

HyNet Carbon Dioxide Pipeline
Page 28 of 123

Reference	Witten Representation	Applicant's Response
	developer to ensure that works only take place during dry conditions and works are halted during period of prolong and heavy rainfall.	
2.3.4	We understand that the project seeks to acquire an area of our land in order to mitigate the environmental impact of their scheme. This will have a detrimental impact upon the remainder of the holding by reducing its overall value. There is also a concern that with this land essentially being rewilded its status will change and upon the end of the lease period the mitigation land and surrounding land may be prejudiced by changes in planning and environmental regulations. We request that the developer not be granted compulsory purchase powers for the acquisition of land to mitigate their impact and instead need to acquire such land on the open market.	The Applicant is continuing commercial negotiations with the landowner. The Applicant has applied the mitigation hierarchy during the development of the design of the DCO Proposed Development to date and has sought to avoid impacts where possible. Where this has not been possible, appropriate mitigation has been devised with areas, within the Order Limits, selected for the implementation of mitigation on the basis of tying into and enhancing existing habitats and green infrastructure and green corridors within the wider landscape. The Applicant has additionally applied the principles of the mitigation hierarchy through ensuring mitigation is implemented within the vicinity/area of impacts arising from construction. This coordinated approach of adopting mitigation areas provides greater benefits than discrete pockets of trees/habitats located sporadically within fields (i.e. reduces the impacts across a larger number of fields). Mitigation is necessary to make the development acceptable in planning terms and forms part of the NSIP. It is accordingly necessary and appropriate that compulsory powers are available for this element of the works. Otherwise, projects would not be consentable unless land required for mitigation was already secured ahead of consent, giving landowners a ransom position. This is the very issue compulsory powers are intended to prevent arising.

Table 2.4 – Comments on Written Representations submitted at Deadline 1 by Environment Agency [REP1-062]

Reference	Written Representation	Applicant's Response			
Summary	Summary				
2.4.1	From a biodiversity perspective, it is unclear how the impacts of noise and vibration during construction works on the aquatic environment, in particular fish, has been assessed.	An assessment of Likely Significant Effects during the Construction Stage is provided within Table 9.11 of Chapter 9 – Biodiversity [AS-025]. Potential impacts and effects arising from construction, including both noise and vibration, have been assessed for relevant Ecological Receptors including fish, aquatic macroinvertebrates, macrophytes, as well as Statutory and Non-statutory designated sites.			
		A reasonable worst-case scenario has been applied to potential impacts arising from noise and vibration upon ecological receptors, with mitigation prescribed to ameliorate/avoid any potential impacts. The Applicant defers to its response to Q1.14.1 (iii) (page 101) in the Applicant's Response to ExA's ExQ1 [REP1-044]. The Applicant has included provision for the creation of a Noise and Vibration Plan, to be developed at the detailed design stage (D-NV-001 and D-NV-002 of Outline Construction Environmental Management Plan [CR1-119 and REP1-017]). The plan will include consideration of appropriate construction techniques/methods to avoid impacts from noise and vibration (for example, pressed or bored driving methods).			
		As detailed within the response to Q1.14.1 in the Applicant's Response to ExA's ExQ1 [REP1-044], the Applicant has included the need for consideration of "soft startspress or vibratory pile driving methods and phased or intermittent work schedules" alongside consideration of seasonal timings of works in respect of protected species (see D-BD-057 and D-BD-058 respectively of [CR1-119 and REP1-017]).			
		Further, item D-BD-058 within the REAC [REP1-015 and CR1-109] outlines seasonal timings of works to avoid risk of impacts to fish populations to account for sensitive life cycle stages (migration and spawning), as secured in the CEMP within Requirement 5 of the dDCO [REP1-004].			
2.4.2	With regards to determining ground conditions for the proposed scheme, we advise that the additional ground investigation and risk assessment work intended to be undertaken will determine whether there are requirements for remedial works and wider consenting / permitting considerations, particularly with regards to new emerging contaminants of concern if found to be present.	The Applicant notes that additional ground investigation and risk assessment in line with REAC commitments D-LS-020 and D-LS-021, as secured in the CEMP within Requirement 5 of the dDCO [REP1-004], will be undertaken by the proposed contractor at detailed design stage and will identify any additional remedial works that are required.			
2.4.3	To establish the impacts of each abstraction on water features identified, where an abstraction licence is required for proposed dewatering activities, a Hydrogeological Impact Assessment (HIA) will need to be undertaken to determine appropriate mitigation measures.	The Applicant acknowledges that where an abstraction licence is required for dewatering activities then a HIA will be required to determine appropriate mitigation.			
	determine appropriate mitigation measures.	A Dewatering Management Plan is included within Requirement 5 of the draft DCO [REP1-004] which will provide a framework for assessing the potential risks from dewatering activities and act as a vehicle for			

HyNet Carbon Dioxide Pipeline
Page 30 of 123

Reference	Written Representation	Applicant's Response
		more specific detailed assessment (i.e. the HIA) based on current guidance. The Dewatering Management Plan will be produced by the Construction Contractor.
		As set out in the Other Consents and Licences document [REP1-011], the Applicant will submit an appropriate application after the DCO is made.
2.4.4	We advise that wider consents and permitting requirements potentially required to be obtained from the EA are fully established.	The Applicant acknowledges that the required consents will need to be fully established with the EA. As set out in the Other Consents and Licences document [REP1-011], the Applicant will submit an appropriate application after the DCO has been consented.
2.4.5	We advise amendments to the scope of the Water Framework Directive (WFD) Assessment [APP-165] are required.	The Applicant notes this response and is in discussions with the EA on this matter.
2.4.6	We advise consideration is given to whether the proposed scheme could contribute to and / or deliver the relevant WFD mitigation measures (Annex 2).	The Applicant has assessed whether the DCO Proposed Development could contribute to and / or deliver the relevant WFD mitigation measures within the Water Framework Directive (WFD) Assessment [APP-165], this includes a specific commitment to allow for the future denaturalisation of the planform of the River Gowy in the REAC [CR1-109 and REP1-015].
		It is noted that WFD mitigation measures for the River Gowy, the Stanney Mill Brook and Finchetts Gutter will not be prevented from being implemented as concluded in the WFD Assessment [APP-165].
2.4.7	We would highlight that an Emergency Plan to address how potential pollution spillages will be managed should be included in the Outline Construction Environmental Management Plan (OCEMP) [APP-225].	The Applicant refers to Section 4.2 of the Outline CEMP [REP1-017 and CR1-119], which sets out pollution incident control procedures, as secured by Requirement 5 of the dDCO [REP1-004].
		The Applicant will prepare an emergency plan which covers potential emergency scenarios, as secured through the CEMP and the OMEMP under Requirements 5 and 17 of the dDCO [REP1-004] respectively. During the preparation of the emergency plan the Applicant will engage with the emergency services to agree the proposed response to a loss of containment event.
2.4.8	It is unclear at this time whether the proposed scheme may impact sites with existing Environmental Permits regulated by the EA. We note there is an intention for the surface water drainage proposals for the Stanlow Above Ground Infrastructure (AGI) to connect to the wider Essar Stanlow Refinery effluent network and advise further information is required to determine whether such proposals are feasible.	It is proposed to provide SuDS features as part of the below ground drainage network including filter drains, filter channels, land drains and vortex separator, delivered as part of the DCO Proposed Development. This is in line with the SuDS train as laid out by the LLFA. Water quality is optimised through the LFFAs recommended guidelines. The exact point of connection into the existing infrastructure will be determined at detailed design stage.
		The Applicant is also in frequent discussion with the landowner, Essar Oil UK, and refers to the SoCG with Essar that was issued at Deadline 1 [REP1-032].
2.4.9	In addition, the pipeline route is located within the permitted boundary for the Gowy Landfill. Whilst we note that waste is not stored within the area of the proposed pipeline route, we require further information to determine whether	During the consultations and discussions to date between the Applicant and the Gowy Landfill operator there has not been any indication of any issues with the underground drainage and monitoring

Reference	Written Representation	Applicant's Response
	the existing infrastructure to facilitate the permitted activities will be impacted as a result of the scheme.	infrastructure that currently exists which is believed to be located south of the proposed pipeline development area. This will be confirmed with the Gowy Landfill operator.
2.4.10	With regards to the draft DCO [APP-024], under Part 2 ('Principle Powers') the 'Limits of Deviation' indicate the potential depth of the pipeline may be shallower than the EA's guidance for pipeline crossings below watercourses and existing flood defences. Understanding the fluvial dynamics of the proposed scheme area may also influence depths for the pipeline and should be considered as part of the determination.	The Applicant has considered fluvial dynamics (i.e. hydromorphology of watercourses) within the assessment. The potential for lateral adjustment of watercourses was taken into account in the design and selection of watercourse crossings. The Applicant identified specific pipeline depth requirements for the River Gowy and the Alltami Brook where the watercourses naturally have a more sinuous planform than the present modified river profiles. The Applicant will ensure that the depth of pipeline placement will allow for the future naturalisation of these watercourses (REAC Item D-WR-055 and D-WR-056) [REP1-015 and CR1-109], as secured in the CEMP within Requirement 5 of the dDCO [REP1-004].
2.4.11	We are aware under Article 8(1) of the draft DCO [APP-024] that the intended disapplication provision would disapply the North West Region Land Drainage Byelaws (made 17 th November 1977). Whilst we have no objections, in principle, we would request a short form of protective provisions in favour of the EA in Schedule 10 of the draft DCO.	The Applicant awaits the EA's suggested protective provisions for consideration.
ES Chapter 9	- Biodiversity [APP-061]	
2.4.12	As highlighted in our response to ExQ1, we are satisfied with the baseline surveys that have been undertaken to support ES Chapter 9 Biodiversity [APP-061]. As noted under our response to EXQ1 Q1.14.1, whilst noise and vibration from the construction of the proposed development is recognised as potentially impacting the aquatic environment and / or fish, it is not clear how this has been assessed at this time. Therefore, we request further clarification on how this has been assessed and therefore, establish whether the mitigation	Please also see response to Q2.4.1 above, and Q1.14.1 jn the Applicant's Comments on Responses to ExA's ExQ1 (document reference: D.7.16). An assessment of Likely Significant Effects during the Construction Stage is provided within Table 9.11 of Chapter 9 – Biodiversity [AS-025]. Potential impacts and effects arising from construction, including both noise and vibration, have been considered within the relevant Ecological Receptors including fish, aquatic macroinvertebrates, macrophytes, as well as Statutory and Non-statutory designated sites.
	measures these impacts are appropriate.	A reasonable worst-case scenario has been applied to potential impacts arising from noise and vibration upon ecological receptors, with mitigation prescribed to ameliorate/avoid any potential impacts. The Applicant defers to its response to Q1.14.1 (iii) (page 101) in the Applicant's Response to ExA's ExQ1 [REP1-044]. The Applicant has included provision for the creation of a Noise and Vibration Plan, to be developed at the detailed design stage (D-NV-001 and D-NV-002 of Outline CEMP [REP1-017 and CR1-119]).
ES Chapter 1	1 - Land and Soils [APP-063]	
2.4.13	The majority of the pipeline corridor (Sections 1 to 3 in ES Figure 18.2 Superficial and Bedrock Geology [APP-219]) occupies land that appears not to have had any form of current or historic industrial land use, and therefore, the likelihood of adverse concentrations of contamination which may pose a risk to 'controlled waters' is low. However, ES Chapter 11 Land and Soils [APP-063] and associated appendices (ES Appendix 11.1 Phase 1 Land and Soils	The Applicant agrees with the statement in row 2.4.13. There have been some areas where access was not possible at the time that the ground investigation was undertaken. These areas will be investigated to confirm the ground conditions. From the desk studies and the investigation that has so far taken place no significant contamination is anticipated, however there is always potential for contamination, even in unlikely locations, and The Applicant is aware of this. Any further ground investigation will be undertaken

Reference	Written Representation	Applicant's Response
	(Contaminated Land) Baseline Report [APP-117 to APP-120] and ES Appendix 11.6 Ground Investigation Report [APP-135 to APP-137]) identify that further ground investigation is needed either to confirm that the land does not have any adverse concentrations of contamination or where historic activity is identified, the exact land conditions are known.	in line with REAC commitments D-LS-020 and D-LS-021[REP1-015 and CR1-109], as secured in the CEMP within Requirement 5 of the dDCO [REP1-004],
2.4.14	We advise the latter of the two scenarios is particularly important for 'Section 1' (as shown in ES Figure 18.2 Superficial and Bedrock Geology [APP-219]) of the pipeline, where the proposed development will be located within the current Stanlow Manufacturing area. We are aware of the land contamination issues which may impact the construction and post-operational phases of the pipeline project. In this location, we are also aware that the general range of contaminants of concern that are identified in the current Ground Investigation Report [APP-135 to APP-137] do not include new and emerging contaminants of concern, including Per and Polyfluoroalkyl Substances (PFAS).	The Applicant notes that Per and Polyfluoroalkyl Substances (PFAS) should be added to future ground investigation and subsequent contamination assessments within the Stanlow manufacturing complex. The Applicant would like to refer the EA to the response given to Q2.4.16 in this document.
2.4.15	In areas identified as having the possibility of PFAS, as recognised in paragraph 15.2.1 of ES Appendix 11.6 Ground Investigation Report [APP-135 to APP-137] for the Stanlow area, we advise that these emerging contaminants of concern are added to the list of suitable determinants that require testing. We welcome the intention under the REAC [APP-222] to undertake additional investigation and assessment at the Stanlow Manufacturing Complex. However, we advise this is carried out at the earliest opportunity as the presence of PFAS, in certain circumstances, requires specialist Cont/d 26 treatment / additional permitting requirements. Therefore, it would be beneficial to understand the nature and scale of PFAS contamination if found to be present to ensure additional considerations / mitigation that may be required are fully considered.	The Applicant notes that PFAS should be added to future ground investigation and subsequent contamination assessments within the Stanlow manufacturing complex. The Applicant acknowledges the EA advice that the PFAS assessment should be performed at the earliest opportunity to ensure additional considerations / mitigation that may be required are fully considered. The Applicant would like to refer the EA to the response given to Q2.4.16 in this document.
2.4.16	Wider to the proposed investigation on PFAS in the Stanlow Manufacturing area, where additional ground investigation work and assessment has been identified within ES Appendix 11.6 Ground Investigation Report [APP-135 to APP-137], we advise this work is undertaken to inform the DCO Examination Process and establish where further work (i.e. remedial requirements) may be necessary. As the nature and scale of contamination will be fully understood, this will determine measures that will need to be considered as part of the REAC and the OCEMP [APP-225] at this stage.	The Applicant is currently engaging with the site owner, Essar Oil UK, as documented in the SoCG [REP1-032], regarding the handover conditions and responsibilities for any necessary remediation of any contaminated land prior to construction. The Applicant will revert to the EA once these agreements are in place prior to any ground investigation work commencement.
2.4.17	Further to the above, we would recommend under D-LS-022 of the REAC [APP-222], that further narrative on the decision to characterise contaminants which fall under the relevant GAC as being suitable for re-use within the DCO	The Applicant has updated D-LS-022 of the REAC [REP1-015 and CR1-109] to ensure areas of made ground are suitable for use at their destination location and in accordance with the MMP, as secured by the CEMP within Requirement 5 of the dDCO [REP1-004].

Reference	Written Representation	Applicant's Response
	proposed development. Reuse criteria must be considered in terms of being fit for purpose and suitable for use at their destination location. Where this location is close to a sensitive receptor, this classification may not be adequate without further suitable risk assessment.	
ES Chapter 18	3 - Water Resources and Flood Risk [APP-070]	
2.4.18	We note Table 18.2 includes elements that have been scoped-out of the assessment under the Water Resources and Flood Risk chapter. For groundwater, whilst we agree that secondary (undifferentiated) aquifer (paragraph 18.6.11) are generally of low sensitivity, due to the variable nature of the deposits, and where higher permeability deposits may occur in continuity with surface water courses, they can often be locally important form an important source of baseflow. We would, therefore, advise consideration is given as to whether this should be scoped-in to the assessment to ensure the impacts of the pipeline construction on these deposits are considered as part of any dewatering assessment or groundwater management plan.	The Applicant notes that Secondary Undifferentiated aquifers tend to have only a minor value due to the variable characteristics of the rock type. Notwithstanding this, the Applicant acknowledges the EA's advice and will incorporate such aquifers within ES prior to the end of Examination. Where there is a requirement for dewatering at a site on such an aquifer type, then an assessment of potential impacts will be undertaken in line with a Dewatering Management Plan, as secured by Requirement 5 of the dDCO [REP1-004].
2.4.19	Further to the above, we note in paragraph 18.6.37 and 18.6.38 of ES Chapter 18 Water Resources and Flood Risk [APP-070], the BGS Hydrogeological Map of Clwyd and the Cheshire Basin has been utilised to support groundwater investigations which was published in 1989. It represents an estimate of the groundwater levels at that time. This should not be relied on as a contemporary estimate of current groundwater levels in the aquifer for site-specific work. Groundwater levels will rise and fall over time in response to increases and decreases in abstraction and recharge. Site-specific data should be used in any assessments for groundwater management and dewatering.	The Applicant acknowledges this issue in Section 18.5.34 of Chapter 18 Water Resources and Flood Risk of the ES [APP-070], which notes that historic data may not be representative of current conditions. Where there is a requirement for dewatering, then site-specific groundwater level data will be collected to inform the assessment of impacts. A Groundwater Management and Monitoring Plan is included within Requirement 5 of the draft DCO [REP1-004] and will detail the groundwater monitoring strategy where any proposed dewatering activities are proposed.
2.4.20	Similarly, the Environment Agency Groundwater Contours are an estimate of groundwater levels based on regional scale groundwater level monitoring network data at a point in time (paragraph 18.6.38). The last update to this monitoring data is from September 2017. They provide an estimate and should not be used for site-specific assessments.	See response above to row 2.4.19.
2.4.21	We acknowledge a high-level Hydrogeological Risk Assessment has been produced as part of Appendix 18.2 Summary of Effects [APP-164]. However, this information does not currently include sufficient detail to assess the impacts of each proposed abstraction along the route. A HIA is required to assess the potential impacts of the dewatering operation on any water features identified in support of an abstraction licence. The HIA will include an	The Applicant acknowledges that where an abstraction licence is required for dewatering activities then a HIA will be required to determine appropriate mitigation. As set out in the Other Consents and Licences document [REP1-011], the Applicant will submit an appropriate application after the DCO is consented. A Dewatering Management Plan is secured through Requirement 5 of the draft DCO [REP1-004] which will provide a framework for assessing the potential risks from dewatering activities and act as a vehicle for more specific detailed assessment (i.e. HIA), based on current guidance. The Dewatering Management Plan will be produced by the Construction Contractor.

HyNet Carbon Dioxide Pipeline
Page 34 of 123

Reference	Written Representation	Applicant's Response
	assessment of any necessary mitigation measures that will be required should an impact be identified.	
2.4.22	We advise the Environment Agency position statement on the Temporary Dewatering from Excavations to Surface Water: RPS261 only applies to the discharge of uncontaminated rainwater that has accumulated in open excavations (paragraph 18.10.6 and 18.10.7). It does not apply to excavations where the abstracted water is wholly or mainly a groundwater infiltrating into the excavation. On abstraction licence exemptions (paragraph 18.10.7), an exemption only applies to an abstraction from a 'sump or excavation' as it is only intended to cover shallow workings. We advise the wording is amended to reflect the potential requirements for consents and permits for the dewatering activities where it is not clear at this time that exemptions would apply.	The Applicant acknowledges that RPS261 relates to the temporary discharge of uncontaminated water (wholly or mainly rainwater) from excavations to surface water and that de-watering of groundwater will require an abstraction licence unless exemptions apply. It is referenced here as guidance to be adopted in developing the Dewatering Management Plan secured through Requirement 5 of the draft DCO [REP1-004] and applied according to circumstances.
2.4.23	We would highlight, in relation to the comment under paragraph 18.6.68 of ES Chapter 18 Water Resources and Flood Risk [APP-070] on the role of the Ince pumping station, it should be noted that this asset is considered as a legacy land drainage pumping station only, with neither capacity nor remit to prevent fluvial flood risk of Ince Marsh under extreme flood conditions and request this is recognised as part of the assessment.	The Applicant acknowledges this information from the Environment Agency. The Flood Risk Assessment has taken into consideration the various scenarios involving the use of the pumps in this area. The Flood Risk Assessment has also included mitigation measures to prevent impacts of flooding to the proposed AGI.
2.4.24	Further to the above, we have additional detailed technical comments with regards to ES Appendix 18.3 - Water Framework Directive (WFD) Assessment [APP-165] and ES Appendix 18.4 Flood Risk Assessment (FRA) [APP-166-167] specifically. We advise where amendments are made to these reports that this is reflected within the ES Chapters where applicable.	The Applicant acknowledges the response from the EA and has no further comments at this time.
ES Appendix	18.3 - Water Framework Directive (WFD) Assessment [APP-165]	
2.4.25	Further to our responses under Q1.4.3 and Q1.4.4, we would highlight that the RBMPs were updated in December 2022 which should be reflected within the WFD Assessment [APP-165]. We expect no significant changes in the WFD element level classification between 2019 and 2022 as included within the current WFD Assessment [APP-165]. However, we would highlight to the applicant that updated data will be available on the Catchment Data Explorer, in line with the recent RBMP updates. This is anticipated to be accessible by mid-May.	The Applicant acknowledges that the RBMPs were updated in December 2022. The Applicant had already submitted the DCO Application prior to the updates being published in the RBMPs; therefore, the updates to the RBMPs were not included within the Water Framework Directive Assessment [APP-165]. However, the Applicant considers that the updates made to the RBMPs in December 2022 would not result in any material change to the outcomes of the WFD assessment undertaken. The Applicant acknowledges that the Environment Agency points out that WFD classification data will be updated on Catchment Data Explorer by mid-May. The Applicant used data published at the time of assessment and submission of the DCO Application to undertake the assessment of potential impacts and WFD compliance.

Reference	Written Representation	Applicant's Response
		The Water Framework Directive Assessment [APP-165] would be updated with the new data prior to construction to support relevant permit applications.
2.4.26	We are satisfied with the hydromorphology surveys undertaken in October 2021 and November 2021 to inform the WFD Assessment [APP-165]. We note the aquatic surveys undertaken and as detailed under ES Appendix 9.9 Aquatic Ecology (Watercourses) Survey Report [APP-113] has been used to support the WFD Assessment [APP-165]. We are satisfied with the survey methods used where the results seem to present a fair reflection of the current state of the water bodies impacted by the proposed scheme.	The Applicant acknowledges that the Environment Agency is satisfied with the hydromorphology and aquatic ecology surveys undertaken to inform the WFD assessment [APP-165].
2.4.27	We would highlight the WFD quality element for river water bodies is 'macrophytes & phytobenthos' not 'macrophytes and phytoplankton'. This is an important distinction since the former are bottom dwelling and largely fixed while the latter are free-floating and highly mobile (especially where there is any flow). However, we would not normally use phytobenthos on lowland, high alkalinity rivers as the relationship between phytobenthos community composition and nutrient status tends to break down at high alkalinity. We would request further commentary is provided to establish why phytoplankton has been utilised as a WFD quality element in this instance.	The Applicant acknowledges that the WFD quality element 'macrophytes & phytobenthos' is misnamed within WFD assessment [APP-165] and will be renamed correctly. Phytoplankton was not utilised as a WFD quality element to inform the WFD assessment.
2.4.28	Table 3.4 of the WFD Assessment provides the scope of WFD quality elements for the Operational Stage of the DCO development where 'macrophytes and phytoplankton' have been scoped-out of the assessment for 'culvert replacement and extension' and the 'drainage and outfall' proposals. We advise that macrophytes and phytobenthos Cont/d 28 (phytoplankton if this is to remain as part of the WFD quality element) have the potential to be impacted by such proposals and advise this is 'scoped-in' to the WFD assessment.	Culvert Replacement and Extension works are proposed on a single culverted field drainage ditch, Elton Lane Ditch 1, characterised by an artificial channel, extensive shading from terrestrial vegetation and very poor potential to support macrophytes. Further macrophyte surveys were scoped out for the baseline condition given the low ecological value of this field ditch, see Appendix 9.9 Aquatic Ecology (Watercourses) Survey Report [APP-113], superseded by Appendix 9.9 Aquatic Ecology (Watercourses) Survey Report [CR1-080]. The extension to the culverted section of ditch is to facilitate construction phase access across the ditch, and as such considered to be a minor extension only of the existing condition. The Applicant subsequently scoped these works out for the WFD quality element 'macrophytes and phytobenthos'. With reference to the Outline Surface Water Drainage Strategy [CR1-112], surface water discharge from
		the 'drainage and outfall' proposals is considered clean and will not impact WFD quality element 'macrophytes and phytobenthos'. Furthermore, the headwall of the outfalls would be to a new open channel which would connect to the nearby watercourse; therefore, no structures on watercourses are proposed for the drainage network.
2.4.29	We note Table 5.11 establishes WFD mitigation measures in relation to the DCO proposed development. The table indicates that the only structural modifications proposed are open cut crossings, however, we would advise the proposed new outfalls and culverting are also considered physical	The Applicant acknowledges that open-cut crossings are considered for physical modifications to the channel. The Applicant excluded proposed outfalls due to the proposal to set-back outfalls from the bankface and therefore not add direct physical modification to the channel [CR1-111]. In addition,

Reference	Written Representation	Applicant's Response
	modifications to the water body. Therefore, the 'Justification' section should refer to such works to ensure mitigation measures for these proposals are fully recognised.	temporary culverts would be removed post-construction and therefore not pose a permanent physical modification.
2.4.30	Whilst it is acknowledged that temporary culverts may be required for construction works, we advise this should only be considered where it is necessary and where alternative solutions are deemed not feasible. Paragraph 1.3.24 suggests the existing culvert on Elton Land Ditch 1 will be replaced by a longer culvert for access purposes for the operational stage. We request further details on the necessity for the new culvert at Ince Marshes and whether alternative provisions for access could be provided.	The Applicant confirms that temporary culverts will be used only where necessary to execute the construction activities. The existing culvert at Elton Land Ditch 1 will be replaced as it is not wide enough to allow safe construction and operational vehicle access to the Ince AGI. Alternative provisions for access were considered, however the field where Ince AGI will be located is surrounded by drainage ditches on all sides. Any alternative access arrangement would require a new culvert.
2.4.31	Further to the above, and as highlighted in our response to the ExQ1, we request the applicant uses the baseline surveys and associated understanding of fluvial dynamics to:	The Applicant has considered fluvial dynamics to inform pipeline alignment and minimum depth of cover as far as practicable, taking into account wider environmental and engineering-related constraints. Evidence of local dynamics and hydromorphology was accounted for, in particular for the River Gowy under item D-WR-055 of the REAC [REP1-015 and CR1-109].
	 Inform appropriate pipeline alignment and minimum depth of cover, including evidence that local dynamics, particularly hydromorphology, have been accounted for; 	The Applicant has considered wider enhancement within the study area to offset potential impacts to contribute towards good status by providing offsetting riparian enhancements [CR1-008].
	 Identify wider enhancement within the study area to offset impact, contribute to the attainment of 'good' status under the WFD; and Support / contribute to the delivery of WFD mitigation measures (i.e. the renaturalisation of the Gowy) as outlined in Annex 2. 	The Water Framework Directive assessment [APP-165] and D-WR-055 of the REAC [REP1-015 and CR1-109] takes into account the future reconnection of the River Gowy with its floodplain.
2.4.32	As highlighted in our response to ExQ1, we recognise the opportunity to contribute / deliver WFD mitigation measures as part of the proposed scheme could potentially support the provision of additional Biodiversity Net Gain (BNG).	The Applicant acknowledges this response and will engage further with the Environment Agency to discuss this matter.
ES Appendix	18.4 Flood Risk Assessment (FRA) [APP-166-167]	1
2.4.33	The FRA outlines the intended pipeline crossings for watercourses (Table 1) and existing flood defences (Table 2). There are 10 confirmed 'main river' crossings, 9 of which are confirmed as using open-cut techniques and the crossing below the River Gowy will be undertaken by trenchless (directional drilling) method. We advise the trenchless method for the River Gowy should also include a design to ensure construction extends below the adjacent flood defence embankments in existence at this location.	The Applicant notes this design requirement from the Environment Agency and has no further comments at this time.

Reference	Written Representation	Applicant's Response
2.4.34	We accept the overall considerations, proposed mitigation and conclusions presented in the FRA in line with the requirements of associated planning policy / guidance. It is accepted that the proposed development is classified as 'Essential Infrastructure' under the National Planning Policy Framework's Flood risk vulnerability classification (Annex 3). The assessment of flood risk relating to the AGIs and Block Valve Stations (BVS) to facilitate the scheme are considered appropriate. We note the proposed slab level for the Ince AGI will be raised as a flood protection measure within the defended tidal floodplain, which we deem as acceptable in principle.	The Applicant acknowledges the response from the Environment Agency and has no further comments.
2.4.35	Where the FRA does defer to further detailed design approval in relation to areas where the pipeline intersects with the 'main river' network and associated flood risk assets / infrastructure, it is accepted and acknowledged that additional applications for Flood Risk Activity Permits (FRAPs) and / or exemptions in relation to both temporary and permanent works will be made.	
Outline Const	truction Environmental Management Plan (OCEMP) [APP-225] and Other Conse	ents and Licences [APP-046]
2.4.36	We welcome the intention to produce a suite of management plans / reports as part of a CEMP to establish how risks to the environment will be minimised during the construction of the proposed scheme and included as Requirement (5) under the draft DCO [APP-024].	The Applicant acknowledges the response from the Environment Agency and has no further comments.
2.4.37	We recognise the OCEMP [APP-225] and OCEMP Appendix 1 Outline Soil Management Plan [APP-226] are currently high-level documents. We accept that these documents will be subject to change, particularly once the detailed designs are realised, however, at this time we request details from the additional ground investigation and assessment work to be undertaken are used to inform the OCEMP. As highlighted under our comments to 'ES Chapter 11 - Land and Soils [APP-063], the additional investigation / assessment will inform requirements for the OCEMP, particularly with regards to determing what consents / permits may be required and providing outline considerations for overall material management.	The Applicant notes the comments made and confirms that the additional ground investigation results will, where required, inform, and update the OCEMP [REP1-017 and CR1-119] as required. Further investigation works will be undertaken at the detailed design stage by the Construction Contractor.
2.4.38	Further to the additional work, we advise that the OCEMP includes provision to include an Emergency Plan to address how potential pollution spillages will be managed during construction works as a stand-alone document / annex to the CEMP. Appropriate procedures, training and equipment should be provided for the site to adequately control and respond to any emergencies including the clean up of spillages, to prevent environmental pollution from the site	The Applicant refers to Section 4.2 of the Outline CEMP [REP1-017 and CR1-119], which sets out pollution incident control procedures, as secured by Requirement 5 of the dDCO [REP1-004]. The Applicant will prepare an emergency plan which covers potential emergency scenarios, as secured through the CEMP and the OMEMP under Requirements 5 and 17 of the dDCO [REP1-004] respectively.

Reference	Written Representation	Applicant's Response
	operations. Such measures as outlined above should be considered within the REAC and CEMP.	During the preparation of the emergency plan the Applicant will engage with the emergency services to agree the proposed response to a loss of containment event.
		The Applicant also refers the EA to the response to Q2.4.7 in this document.
2.4.39	As identified in our responses to the ExQ1 and under our comments to ES Chapter 18 - Water Resources and Flood Risk [APP-070], the main risk to groundwater and any groundwater dependant water features is from the anticipated dewatering activities during the construction phase. The applicant has been made aware of the need to carry out a detailed HIA for each proposed dewatering abstraction and the requirement to obtain an abstraction licence in advance of carrying out any dewatering unless an exemption applies.	A Dewatering Management Plan is included within Requirement 5 of the draft DCO [REP1-004] which will provide a framework for assessing the potential risks (i.e. set out in the HIA) from dewatering activities and act as a vehicle for more specific detailed assessment, based on current guidance. The Dewatering Management Plan will be produced by the Construction Contractor. As set out in the Other Consents and Licences document [REP1-011], the Applicant will submit an appropriate application after the DCO is made.
2.4.40	We expect that further detail on the locations where dewatering is proposed will be provided in the Dewatering Management Plan and the Groundwater Monitoring and Management plan at the detailed design stage as part of the CEMP. The Plans will need to provide a detailed assessment of where an abstraction licence will be required, or where it is anticipated that dewatering can take place under Regulation 5 of the Water Abstraction and Impoundment (Exemptions) Regulations 2017.	A Dewatering Management Plan is included within Requirement 5 of the draft DCO [REP1-004] which will provide a framework for assessing the potential risks from dewatering activities and act as a vehicle for more specific detailed assessment, based on current guidance. The Dewatering Management Plan will be produced by the Construction Contractor.
2.4.41	Where an exemption applies we would expect the Dewatering Management Plan to include an assessment of the likely hydrogeological impacts of the abstraction on water features and water users along with any proposed mitigations to demonstrate compliance with the conditions of the exemption. Whilst the impact of this dewatering is expected to be short term, it is important to ensure that all water features are protected throughout the construction phase of the development.	A Dewatering Management Plan is included within Requirement 5 of the draft DCO [REP1-004] which will provide a framework for assessing the potential risks from dewatering activities (as set out in the HIA) and act as a vehicle for more specific detailed assessment, based on current guidance. The Dewatering Management Plan will be produced by the Construction Contractor.
2.4.42	Where any abstraction or dewatering takes place on / in land affected by contamination, or where groundwater may be contaminated, it will need to be ensured that this contaminated water is disposed of in an appropriate manner or treated to such an extent that its discharge back to the environment will not have a negative impact on the receptor. The applicant is aware an Environmental Permit for this discharge activity may be required.	The Applicant acknowledges the response from the Environment Agency and has no further comments.
2.4.43	We welcome the recognition that an impoundment licence may be needed for the proposed construction works, particularly in relation to the open cut watercourse crossings. If an impoundment licence is required in the England section of the scheme, this will need to be obtained from the EA. Therefore, we advise the EA are recognised in the Other Consents and Licences [APP-046]	The Applicant acknowledges that any required impoundment licence would need to be obtained from the Environment Agency. The Applicant can confirm that this is captured in the Other Consents and Licences [REP1-011].

Reference	Written Representation	Applicant's Response
	document as the consenting organisation for impoundment licences for the England section of the scheme.	
2.4.44	We advise the Other Consents and Licences [APP-046] document recognises that an Environmental Permit for waste activities may potentially be required under the Environmental Permitting (England and Wales) Regulations 2016 from the EA as the consenting body for the England section of the scheme.	Reference to Environmental Permits for waste activities have been included in the Other Consents and Licences [REP1-011] document.
2.4.45	If there is an intention to store imported waste material, this will need to be addressed within the Materials Management Plan and Waste Management Plan anticipated to be produced as part of the detailed CEMP. The storage of such material will likely require permission from the EA in the form of an Environmental Permit unless storage is strategically planned in multiple locations that would fall within waste exemption limits. If there is an intention to store waste materials near a watercourse, we advise the usual policy is to rotate every 12 months to a different location.	The Applicant's appointed Construction Contractor will be responsible for producing and implementing the Materials Management Plan and Waste Management Plan as secured through Requirement 5 in the dDCO [REP1-004]. Where an Environmental Permit is required for waste related activities, the appointed Construction Contractor will be responsible for ensuring permits are obtained (where necessary) prior to the commencement of the relevant works and as set out in the Other Consents and Licences [REP1-011] document.
2.4.46	It is not clear whether the Environmental Protection (Duty of Care) Regulations 1991 has been considered with regards to off-site movements of waste. The regulators for the duty of care are the EA in England and Natural Resources Wales (NRW) in Wales and local authorities. The code of practice applies to if the developer produces, carries, keeps, disposes of, treats, imports or has control of waste in England or Wales. We advise the applicant considers this piece of legislation with regards to the management of waste as part of the construction activities and is reflected within the CEMP, where it is recognised a Material Management Plan and Waste Management Plan is intended to be produced.	The Applicant's appointed Construction Contractor will be required to ensure all current regulations are adhered to during the construction works. The Contractor will be required to adhere to the Environmental Protection (Duty of Care) Regulations 1991 and ensure waste documentation and records are completed and held, as the regulations required.
2.4.47	In addition, we welcome the acknowledgment within the Other Consents and Licences [APP-046] document with regards to FRAP requirements under the Environmental Permitting (England and Wales) Regulations 2016. However, we would advise that a FRAP may not be required for 'all' temporary and permanent works as highlighted.	The Applicant acknowledges the response from the Environment Agency and has no further comments.
2.4.48	We advise under the Environmental Permitting (England and Wales) Regulations 2016, a FRAP or registered exemption is required for any activities which will take place:	The Applicant acknowledges that a FRAP application will be required for activities that will take place within the zones indicated by the Environment Agency as set out in the Other Consents and Licences document [REP1-011].
	• on or within 8 metres of a main river (16 metres if tidal)	

HyNet Carbon Dioxide Pipeline
Page 40 of 123

Reference	Written Representation	Applicant's Response
	on or within 8 metres of a flood defence structure or culverted main river (16 metres if tidal)	
	• 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)	
2.4.49	Certain activities are also potentially excluded from the requirement to obtain a FRAP or registered exemption. Further to the above, an Environmental Permit, or registered exemption, is required for discharges that include polluting / contaminative substances to surface water or to ground. We advise this is clarified and separated from the requirements for FRAPs within Table 2.1 (No. 15) of the Other Consents and Licences [APP-046] document.	The Applicant acknowledges the response from the Environment Agency and has no further comments.
2.4.50	We would advise the applicant understands the permitting / consenting requirements for the scheme and seek pre-application advice at the earliest opportunity.	
Outline Surfa	ce Water Drainage Strategy [APP-241]	
2.4.51	The Outline Surface Water Drainage Strategy [APP-231] provides an overview of the potential surface water drainage proposals for the AGIs as part of the proposed development. We note the surface water drainage proposals for the Stanlow AGI (paragraphs 6.3.14 to 6.3.24) is intended to connect to the wider existing Essar Stanlow Refinery's effluent network.	The Applicant acknowledges the response from the Environment Agency and has no further comments.
2.4.52	It is not clear at this time whether this is a feasible option and would request further clarification on the potential implications on the existing effluent network. The EA are involved in the regulation of the Stanlow Refinery site with particular regards to the Environmental Permits associated with the discharge activities. Therefore, if the intention is to connect to the existing drainage system where the outfall is managed under an existing Environmental Permit, further assessment on the suitability of discharging to this network may be required. Further to this, it will be the operator's responsibility to seek a variation of the existing Environmental Permit to include alterations to the existing effluent network if the drainage from the Stanlow AGI is to be incorporated.	The Applicant acknowledges the response from the Environment Agency. The redevelopment of the Essar Stanlow Refinery for the Hydrogen Production Plant (HPP) proposal is taken account into the proposed Stanlow AGI. Further clarification on the existing effluent network will be provided at detailed design stage by Essar Oil UK and/or the Applicant and is an active point under discussion in the SoCG [REP1-032] between the parties.
2.4.53	We advise for all surface water drainage proposals that approved Document Part H of the Building Regulations 2010 establishes a hierarchy for surface	The Applicant acknowledges the response from the Environment Agency.

Reference	Written Representation	Applicant's Response
	water disposal. The first option for surface water disposal should be the use of SUDS which encourage infiltration, such as, soakaways or infiltration trenches. In all cases, it should be established that these options are feasible, can be adopted, properly maintained and would not lead to any other environmental problems. This should be informed by the ground investigation and assessment work for the proposed scheme. Where the intention is to dispose to soakaway, such proposals should be shown to work through an appropriate assessment carried out under Building Research Establishment (BRE) Digest 365.	The hierarchy for surface water disposal has been applied to the surface water drainage design. SuDS treatment methods have been identified and optimised to satisfy the pollution control requirements stated in various policies. For Ince AGI; Rock Bank BVS; Mollington BVS; Aston Hill BVS*; and Flint AGI*.
		The sole use of infiltration techniques across the whole development sites is not considered viable because of the geology of the sites. In line with the drainage hierarchy, the developments are proposed to discharge to a watercourse.
		For:
		 Northop Hall AGI*; and Cornist Lane BVS*.
		Soakage tests have been undertaken however current data is insufficient to calculate infiltration rate as per BRE 365 standard. Further testing will be done at detailed design stage and if such subsequent tests confirm infiltration is suitable, then drainage strategy will adopt soakaway. In the Outline Surface Water Drainage Strategy [CR1-111], the approach of discharging to a watercourse is considered.
		For:
		 Pentre Halkyn BVS*; and Babell BVS*.
		In line with the drainage hierarchy, traditional infiltration techniques have been considered, however because of the ground condition, these are not viable discharge methods. There is no watercourse, surface water sewer, highway drain or combined sewer in close proximity to the site. Therefore, the development is proposed to discharge via drainage field infiltration system. Further infiltration testing will be done at detailed design stage.
		*Note these sites are in Wales, but have been given in this response for completeness and consistency.
2.4.54	In regards to 'Section 1' (as shown in ES Figure 18.2 Superficial and Bedrock Geology [APP-219]) specifically, we would advise that, given the likely ground conditions that will be encountered, no infiltration of surface water drainage into the ground is likely to be possible other than with agreement from the relevant authority. Agreement may be given for those parts of the pipeline project where it has been demonstrated that there is no resultant unacceptable risk to 'controlled waters'.	Ince AGI; Staplow AGI:

HyNet Carbon Dioxide Pipeline
Page 42 of 123

Reference	Written Representation	Applicant's Response
		Cornist Lane BVS*.
		The developments are proposed to discharge to either a watercourse or existing drainage network.
		For:
		Pentre Halkyn BVS*
		There is no watercourse, surface water sewer, highway drain or combined sewer in close proximity to the site. Therefore, the development is proposed to discharge via drainage field infiltration.
		Water quality is controlled via proposed SuDS components before discharging into the ground. The drainage proposal has followed Simple Index Approach (SIA) suggested by The SuDS Manual CIRIA C753 to evaluate the water quality. The designed total pollution mitigation index has exceeded the pollution hazard index. Further details can be found in the Outline Surface Water Drainage Strategy - Section 7 Surface Water Quality Control [CR1-111].
		For:
		Babell BVS*
		There is no watercourse, surface water sewer, highway drain or combined sewer in close proximity to the site. Therefore, the development is proposed to discharge via drainage field infiltration system. However, it is noted that at the north of the field there is a service chamber cover, however no further information is known hence it cannot be utilised in the Outline Surface Water Drainage Strategy [CR1-111]. This opportunity could be explored further during detailed design and, if considered viable, further engagement with the SAB (and any other stakeholder, as considered necessary) would be undertaken regarding any amendment to the drainage design.
		Water quality is controlled via proposed SuDS components before discharging into the ground. The current drainage proposal has followed Simple Index Approach (SIA) suggested by The SuDS Manual CIRIA C753 to evaluate the water quality. The designed total pollution mitigation index has exceeded the pollution hazard index. Further details can be found in the Outline Surface Water Drainage Strategy - Section 7 Surface Water Quality Control [CR1-111].
		*Note these sites are in Wales, but have been given in this response for completeness and consistency.
2.4.55	In addition, where surface water drainage is collected from areas that may be subject to contamination, such as, fuel storage areas, industrial sites and the AGIs, it will need to be ensured that this water is not discharged to ground without prior treatment to remove any hazardous substances. Any SUDS features employed in the treatment train should be lined or set in impermeable ground to prevent the discharge of contamination to ground. We advise the applicant to review position statements G1 & G10 to G13 of the 'Environment Agency's Approach to Groundwater Protection'.	The Applicant notes water quality is controlled via proposed SuDS components before discharging into the watercourse/ground. Surface water run off passes through lined gravelled area, filter drain, vortex separator and lined detention pond before discharging. The current drainage proposal has followed Simple Index Approach (SIA) suggested by The SuDS Manual CIRIA C753 to evaluate the water quality. The designed total pollution mitigation index has exceeded the pollution hazard index.
		Further details can be found in the Outline Surface Water Drainage Strategy - Section 7 Surface Water Quality Control [CR1-111].
Gowy Landfill		<u>.I</u>

Reference	Written Representation	Applicant's Response
2.4.56	We advise that the permitted boundary of the Gowy Landfill is located within the DCO Order Limits and along the proposed pipeline route. We are aware the north of the site, where the pipeline route is proposed, is not used for waste storage. However, we are aware that there is underground drainage and monitoring infrastructure within this area to facilitate the associated permitted activities.	The Applicant notes that during the consultations and discussions to date between the Applicant and the Gowy Landfill operator there has not been indicated to be any issues with the underground drainage and monitoring infrastructure that currently exists which is believed to be located south of the proposed pipeline development area. This will be confirmed with the Gowy Landfill operator.
2.4.57	We request clarification on whether the applicant has consulted the permit holder and established whether the pipeline route will affect the operator's ability to monitor and / or whether the pipeline route could impact the operator's ability to comply with their existing Environmental Permit.	The Applicant will confirm with the Gowy Landfill operator that there is no conflict with the operator's ability to comply with their existing Environmental Permit.
Control of Ma	jor Accident Hazards (COMAH) sites	
2.4.58	We are aware the pipeline scheme is located in close vicinity or within COMAH establishment site boundaries (Exolum Pipieline System Ltd at Backford North and the Stanlow Manufacturing Complex / Refinery respectively). The COMAH Regulations 2015 places a general obligation on the duty holder to ensure all measures necessary are taken to prevent major accidents and to limit their consequences for human health and the environment. The provisions of the COMAH Regulations 2015 are enforced by the Competent Authority (CA), the Health and Safety Executive (HSE), and relevant environmental regulator, which is the Environment Agency (EA) in England.	The Applicant acknowledges the response from the Environment Agency and has no further comments.
2.4.59	The Stanlow AGI is proposed to be located on the Stanlow Manufacturing Complex / Refinery where Essar Oil (UK) Ltd operates an upper-tier COMAH establishment. It is noted in ES Appendix 13.2 ES Risk Record [APP-134], under 'risk record 7', mitigation measures against potential damage to the Stanlow AGI in the event of a major accident at the Refinery has been considered. This includes interface management between the undertaker and the Stanlow Refinery operator (Essar Oil (UK) Ltd).	
2.4.60	Exolum Pipeline System Ltd, operates an upper-tier COMAH establishment at Backford North in proximity to the proposed development. It is noted under 'risk record 15' that mitigation measures against potential damage to the Rock Bank BVS in the event of a major accident at the Backford North COMAH establishment (formerly CLH Pipeline System Ltd) has been considered.	

Reference	Written Representation	Applicant's Response
2.4.61	Overall, we welcome the considerations detailed in ES Appendix 13.2 ES Risk Record [APP-134] with regards to the Stanlow Manufacturing Complex and Backford North COMAH establishments.	
Draft Develop	ment Consent Order (DCO) [APP-024]	
2.4.62	We have the following initial comments and requests for clarification on the draft DCO [APP-024]:	The Applicant acknowledges the response from the Environment Agency and has no further comments.
	With regards to potential depths of the pipeline, we understand such proposals will be established at the detailed design stage. However, we note the following within Part 2 ('Principle Powers') of the draft DCO [APP-024] included under the 'Limits of deviation' as follows:	
2.4.63	Limits of deviation	The EA's guidance is noted.
	6.— (1) In carrying out or maintaining the authorised development, the undertaker may — (b) deviate the pipeline works vertically upwards to a limit of not less than 1.2 metres below the surface of the ground (except where ground conditions make compliance with this upwards limit impracticable in which case the upwards limit is 0.452 metres below the surface of the ground);	The Applicant cannot provide any specific locations where the depth may be reduced at this stage as that will be determined at detailed design stage having regard to all of the constraints and survey results in determining routing and any individual constraints on depth. However, the Applicant is happy at this stage to commit to the EA that no crossing under a watercourse or flood defence for which it is responsible will be at a depth of less than 1.2m from the top of the pipe to the bed of the watercourse or base of the flood defence without that lesser depth being approved by the EA in advance. The Applicant suggests that this could be secured in the Protective Provisions to be agreed.
2.4.64	From the information currently presented, it is not clear where the pipeline will need to be located at shallower depths above 1.2m below the surface of the ground. We would highlight that the EA's guidance requirements for pipeline crossings below all watercourses, rivers and assets require a minimum 1.2m of cover between the hard bed of the watercourse / river to the crown of the pipe. Therefore, we request further information is provided to determine where ground conditions may influence the depth of the pipeline to ensure crossings below watercourses and existing flood defences are no higher than 1.2m above ground.	
2.4.65	Further to establishing where ground conditions may impact the depth of the pipe at certain locations, as highlighted under our comments on ES Chapter 18 - Water Resources and Flood Risk [APP-070] and the WFD Assessment [APP-165], an understanding on fluvial dynamics (i.e. hydromorphology of watercourses) affected by the proposed development may also influence /	The Applicant has considered fluvial dynamics (i.e. hydromorphology of watercourses) within the assessment. The potential for lateral adjustment of watercourses was taken into account in the design and selection of watercourse crossings. The Applicant identified specific pipeline depth requirements for the River Gowy and the Alltami Brook where the watercourses naturally have a more sinuous planform than the present modified river profiles. The Applicant will ensure that the depth of pipeline placement will

HyNet Carbon Dioxide Pipeline
Page 45 of 123

Reference	Written Representation	Applicant's Response
	establish appropriate depths for the pipeline to ensure impacts on the environment are minimised.	allow for the future naturalisation of these watercourses under REAC Item D-WR-055 and D-WR-056 [REP1-015 and CR1-109].
2.4.66	We are aware under Article 8(1) that the intended disapplication provision would disapply the North West Region Land Drainage Byelaws (made 17th November 1977), in so far as the construction of any work or the carrying out of any operation for the purposes of or in connection with, the construction of the authorised development or any maintenance of any part of the authorised development, is concerned. As highlighted in our response to ExQ1 Q1.19.20, we have no objections, in principle, to the disapplication of these byelaws. However, we would request a short form of protective provisions in favour of the EA in Schedule 10 of the draft DCO where we will aim to provide suggested wording to the applicant in advance of Deadline 2.	The Applicant awaits the EA suggested protective provisions for consideration.
2.4.67	Whilst a majority of the pipeline route appears to be located through undeveloped or agricultural land, there remains the possibility that unsuspected contamination may exist which may not be identified during the main phases of ground investigation and assessment. In this circumstance it is important to fully understand the nature of the unsuspected ground conditions or anomalies that may have been found and deal with them in a way that does not introduce further risk or adverse impacts on the environment. Therefore, we welcome this consideration within the draft DCO [APP-024] under Requirement 9 (Contaminated land and groundwater).	
2.4.68	However, we would advise that draft DCO Requirement 9 does not take into account the current and anticipated ground investigation / risk assessment work. Our current understanding from the information submitted does not conclude that remedial works will not be required prior to construction and therefore, we do not agree at this time that considerations to deal with unsuspected contamination only under Requirement 9 is acceptable. As highlighted in our response to the ExQ1 (Q1.9.1; Q1.10.4; Q1.10.9; Q1.10.10), the additional ground investigation / assessment work is essential in determining whether remediation and / or additional work / considerations will be required prior to the commencement of construction works.	The Applicant notes that additional ground investigation and risk assessment in line with REAC commitments D-LS-020 and D-LS-021 [REP1-015 and CR1-109] will be undertaken by the Construction Contractor at detailed design stage and will identify any additional remedial works that are required.
2.4.69	Further to the above, we wish to highlight to the ExA under 'Schedule 2 – Requirements', in addition to draft Requirement 8 (Surface water drainage), the EA ask to be a consultee on Requirements 5 (Construction environmental management plan) and 9 (Contaminated land and groundwater). In addition we would wish to be consulted on Requirement 11 (Landscape and ecological	

HyNet Carbon Dioxide Pipeline
Page 46 of 123

Reference	Written Representation	Applicant's Response
	management plan), in so far as this relates to proposals associated with watercourses / flood defence assets.	
	watercourses / flood deferice assets.	

Table 2.5 – Comments on the Written Representations submitted at Deadline 1 by Historic England [REP1-064]

Reference	Written Representation	Applicant's Response
2.5.1	Historic England Advice	The Applicant welcomes Historic England's feedback and has no further comments.
	The Proposed Development has the potential to impact, both directly and indirectly, on cultural heritage, including both designated and undesignated heritage assets, along its route. Our comments, in line with our statutory remit, concern that part of the Proposed Development situated in England.	
	The application is supported by a number of documents containing reference to cultural heritage. These include:	
	 the Draft Development Consent Order (document reference: APP-024); the Environmental Statement, of which Chapter 8 (APP-060) deals specifically with cultural heritage, with a number of appendices – Appendix 8.1 (Historic Environment Desk Based Assessment, in three parts, APP-084, APP-085 and APP-086); Appendix 8.2 (Gazetteer, APP-087); Appendix 8.3 (Aerial Photographs and LiDAR, APP-088); Appendix 8.4 (Geophysical Survey, APP-089); and Appendix 8.5 (Geoarchaeological Deposit Model, APP-090). the Register of Environmental Actions and Commitments (REAC) at APP-222, which contains specific commitments regarding cultural heritage; and the Outline Archaeological Written Scheme of Investigation (APP-223), which sets out the parameters for dealing with the assessment, investigation and mitigation of the impacts of the Proposed Development on archaeological sites and deposits. 	
	Historic England considers that Chapter 8 of the ES provides an appropriate assessment of the cultural heritage resource within the defined study area, and of the direct and indirect impacts of the Proposed Development upon it and sets out suitable measures for the mitigation of identified impacts. We are satisfied with the range of surveys carried out by the applicants in order to inform the compilation of this chapter, which appear to have been carried out in accordance with current best practice.	
	Chapter 8 of the ES identifies a limited number of "sensitive receptors" — designated heritage assets which have the potential to be impacted upon by the construction of the Proposed Development. In England, these include the Moated site, fishpond and connecting channel at Elton, a scheduled monument (National Heritage List for England entry number 1012122), two conservation areas, and four Grade II listed buildings. Mitigation proposed includes avoidance of direct impacts on the scheduled monument and the listed buildings, with a commitment to leave a 30m buffer around the scheduled monument recorded at 8.10.6 and set out in the REAC (APP-222) at DCH-002.	

HyNet Carbon Dioxide Pipeline
Page 48 of 123

Reference	Written Representation	Applicant's Response
	This appears to be an appropriate measure for the protection of the scheduled monument, as do the commitments to carry out further archaeological evaluation and recording of undesignated archaeological remains and deposits which may be impacted by the construction of the Proposed Development. These commitments are recorded at 8.10.5 of the ES, and D-CH-001 of the REAC. Visual impacts upon the settings of designated heritage assets would largely be limited to the construction phase of the Proposed Development.	
	Historic England considers that the measures proposed for the identification of previously unknown archaeological remains, and for the mitigation of identified impacts upon designated and undesignated heritage assets, and their settings, are appropriate. The Outline Archaeological Written Scheme of Investigation (OAWSI, APP-223) is a robust document, which accords with current best practice. We are broadly in agreement with the proposals for post-excavation analysis and recording set out at 3.5.2 and succeeding paragraphs, though we would flag up the need for initial evaluation to be carefully designed and targeted, in order that the significance of each site identified is properly assessed.	
	Finally, we consider that the Draft Development Consent Order (APP-024) includes appropriate provision for the assessment, identification, and mitigation of the impacts of the Proposed Development. These are included at:	
	 PART 4 (Supplemental Powers), 21-(1)(c), giving authority to survey and investigate land, including carrying out archaeological investigations; PART 6 (Miscellaneous and General) 44-(1), requiring the undertaker to submit copies of, amongst other documents, the ES, the REAC, and the Outline AWSI, for certification that they are true copies of the documents referred to in the Order; and SCHEDULE 2 (Requirements), which sets out requirements for the conducting of archaeological mitigation at 10-(1) to 10-(5). 	
	Detailed provision for the mitigation of impacts upon specific archaeological sites and deposits cannot be agreed until the results of field evaluation are known. However, we consider that the documents submitted in support of the application set out an appropriate framework for doing so.	
	Given that, in our opinion, the application includes appropriate measures for properly identifying and mitigating the impact of the Proposed Development upon cultural heritage, Historic England has no objection to the granting of the Development Consent Order requested by the applicants.	

HyNet Carbon Dioxide Pipeline
Page 49 of 123

Table 2.6 – Comments on the Written Representations submitted at Deadline 1 by Rostons on behalf of John Horace George Gletcher [REP1-080]

Reference	Witten Representation	Applicant's Response
2.6.1	Pipeline Route The route of the pipeline passes through the middle of all fields on the block of land and will affectively remove this area from the farm which totals 44 acres. We have requested that the developer seek to move the pipeline to the northern or southern boundary of the property, and its location to the southern boundary would greatly mitigate the impact on the land.	The Applicant will continue to engage with the landowner to mitigate the impacts of the pipeline route on their land. The Applicant notes the Order Limits incorporate the northern boundary of the landowner's property. The Applicant confirms that post construction the permanent impact on the IP's land will be restricted to an area of 3.1 acres, with the remaining area available for agricultural use. The Applicant also confirms that during construction a corridor of 32 m will be required, which limits the area impact in phase to approximately 4.1 acres.
2.6.2	Impact On Farm Business The farm currently extends to 330 acres with the affected land totalling 44 acres which is approximately 14 percentage of the holding. The loss of this land in conjunction with the size of the dairy herd of 300 cattle will have the following impacts. From the 1 January 2023 the Welsh Government have imposed an annual limit of 170 kilograms per hectare limit for nitrogen, which is average over the holding. It is for nitrogen from livestock manure either directly deposited by the animal or by spreading and from I August 2024 there will also be closed period for the spreading of nitrogen fertilizer which includes slurry and other organic manures. Due to the loss of land the farm would need to acquire an additional 44 acres where they would be able to spread slurry. Spare land is not easily available in close proximity of the farm and there will be additional costs incurred in carter slurry to such sites. Alternatively, increase storage capacity would have to be installed at the farm byway of a new slurry store to provide additional capacity to mitigate the loss of land. Due to the loss of land the farm, which is used for grazing and silage production there will be shortfall in fodder available to the dairy herd which will have to be brought in. The farm does not have a silage clamp and relies on bail grass fed via round bails. The import of additional forage from other farms proposes a biosecurity risk of importing deceases from other cattle herds. This is of a particular concern with regards to the impact of TB affecting the dairy herd. The farms TB status is currently clear and if this were to change as a result of imported TB in forage the farm would be unable to sell or move cattle. Furthermore, given the extremes in weather conditions and the recent droughts	
	there may not be the option of purchasing in additional forage from other farms as there will not be the grass available to harvest, which would have a knock-on impact of the profitability on the farming enterprise and would result in cattle being sold. The presence of the pipeline crosses each field entrance and	If land is lost compensation will be assessed on a case-by-case basis in accordance with the Compensation Code.

HyNet Carbon Dioxide Pipeline
Page 50 of 123

Reference	Witten Representation	Applicant's Response
	following the works these areas will continue to be trafficked my cattle and farm machinery if the land is to be accessed, this will result in significant soil structure and water logging of the land, which posses several issues. Firstly, mud will be taken onto the road and cause a health and safety issue to passing traffic. Secondly, due to the poor condition of the soil, it will remain muddy and unproductive, reducing the productivity capacity of the farm and also leaving cattle walking through muddy areas, necessitating additional cleaning when being brought back to be housed.	
2.6.3	Impact On Soil Structure The land is affected, not just by the construction of the pipeline but also a large construction compound for the construction of the Northrop Hall AGI. It is an accepted principle that large scale excavations, including the separation and replacement of topsoil from subsoil has a significant impact upon the productive capacity in yield potentials over agricultural land following the reinstatement of the land post works, even in ideal weather conditions. When conditions are less variable, particularly during periods of extremely wet weather, as we are now prone to suffer, the use of heavy planting and construction equipment across agricultural land during the works and during its reinstatement will cause long lasting or in a worse case scenario, repair damage to the soil structure, particularly if the soil becomes mixed with the topsoil. This damage could be mitigated by ensuring that the developer limits excavation works to summery months and that works are delayed when periods of heavy rain are forecast, and we would request that the examining authority apply such conditions along the length of the route.	The Applicant has prepared an Outline Soil Management Plan [APP-227] which provides guidance on the stripping, storage and replacement of soils to prevent damage to soils. The detailed Soil Management Plan will be approved by the Local Planning Authority under Requirement 5 of the dDCO [REP1-004] prior to undertaking any works which will set out best practice to prevent irreparable damage to the soil structure.
2.6.4	Land Drainage Issues Given the presence of the AGI, major construction compound and a significant length of pipeline affecting this land, we are extremely concerned that the damage to the soil structure and run off from the AGI site will cause flooding and water logging to the land. A culvert underneath the A55 has been identified as an outlet for such water and we have requested that the Developer carry out detailed drainage surveys, however unfortunately we have not received any response from Hynet on this issue. The Bletcher's are extremely concerned that should drainage issues and flooding continue to affect the land post construction, it will effectively reduce the forage producing capability of the holding which will have a knock on effect on cow numbers and in turn, profitability.	The Applicant would seek to continue to engage with Mr Bletcher and will reference the documents highlighted below during these ongoing engagements. The Applicant has prepared an Outline Soil Management Plan [APP-227] which provides guidance on the stripping, storage and replacement of soils to prevent damage to soils. The detailed Soil Management Plan will be approved by the LPA under Requirement 5 of the DCO [REP1-004] prior to undertaking any works which will set out best practice to prevent irreparable damage to the soil structure. An Outline Surface Water Drainage Strategy [CR1-111] has been prepared in accordance with the requirements of the LLFA and the SAB to ensure there is no increase in surface water flood risk.

Reference	Witten Representation	Applicant's Response
2.6.5	SUMMARY & CONCLUSION It is clear to see that the land and property at severely affected by both the pipeline and the presence of the construction compounds. Whilst we are not in favour of the scheme, if it were to take place, there are a number of issues that impact upon the farming business which could be mitigated, and we would urge both the examining authority and the developer to put in place measures to mitigate these works in advance of construction.	

Table 2.7 – Comments on Written Representations submitted at Deadline 1 by National Highways [REP1-069]

Reference	Written Representation	Applicant's Response
Objection		
2.7.1	National Highways does not object to the principle of the Authorised Development (subject to the objections at 2.2 being resolved). This Written Representation will detail National Highways' key objections, which are summarised below:	The Applicant acknowledges the response from National Highways and has no further comments.
2.7.2	In order for National Highways to be in a position to withdraw its objection, National Highways requires: (a) the inclusion of protective provisions in the Order for its benefit; (b) agreements with the Applicant that regulate i. the manner in which rights over the Plots are acquired and the relevant works are carried out including terms which protect National Highways' statutory undertaking and agreement that compulsory acquisition powers will not be exercised in relation to such land; and ii. the carrying out of works in the vicinity of the SRN to safeguard National Highways' statutory undertaking; and (c) Confirmation that the Construction Environment Management Plan ("CEMP") will address National Highways' drainage infrastructure concerns and that National Highways will be consulted in respect of any subsequent changes to the CEMP prior to being approved by the Local Planning Authority.	Please refer to the responses below in rows 2.7.3 to 2.7.13.
Protective Prov	visions	
2.7.3	The draft DCO does not include any protective provisions for the benefit of National Highways. Discussion with the Applicant on the form of protective provisions is ongoing. The latest copy of the protective provisions is included at Appendix 1.	The Applicant has agreed in principle that protective provisions will be included. The drafting of those is under negotiation.
	National Highways has specific requirements where works are proposed to the highway (including street furniture). These include securing:	
	 Bonds, cash deposits and commuted sums to ensure that National Highways is not exposed financially as a consequence of the Applicant's works; Road space booking procedures to ensure that network occupancy requirements are managed effectively for the safety of the public and contractors; Detailed design information to appropriately consider and approve the specification of works in accordance with technical standards; Appropriate maintenance obligations and defects liability periods; 	

Reference	Written Representation	Applicant's Response
	 Collateral warranties from contractors and designers in respect of works undertaken on behalf of the Applicant; Restrictions on the commencement of works and the use of powers until detailed design specifications are agreed and safety implications have been satisfactorily addressed; Handover of maintenance responsibilities; Payment of all reasonable fees incurred by National Highways in respect of the Authorised Development; Indemnities for any loss incurred by National Highways in respect of the Authorised Development; Dispute resolution provisions. 	
2.7.4	While negotiations with the Applicant on protective provisions are in progress, in the absence of an agreement that safeguards its interests, National Highways requests that the Examining Authority (ExA) recommend that the attached protective provisions are included within the DCO.	
2.7.5	Without these protective provisions in the form required by National Highways being secured in the draft DCO, National Highways considers that the Authorised Development will have a serious detrimental impact on the operation of the strategic road network and could prevent National Highways from discharging its statutory licence obligations.	
2.7.6	Until such provisions are secured and the issues surrounding compulsory acquisition of plots and the content and regulation of the CEMP approved by National Highways are resolved to the satisfaction of National Highways, National Highways is unable to withdraw its objection to the DCO.	
Compulsory A	cquisition	
2.7.7	The Book of Reference ("BoR") identifies plots (the details of which are set out in the SoCG) ("Plots") of land owned or occupied by National Highways in respect of which compulsory acquisition powers to acquire new rights are sought. The compulsory acquisition powers sought are described in the BoR as being the permanent acquisition of land (in some cases the subsurface only), the permanent acquisition of rights and the temporary possession of land ("Compulsory Powers"). National Highways notes that the Compulsory Powers are sought in relation to land forming part of the SRN being the M53 and M56, including acquisition of the subsurface of the carriageway itself at two locations where the pipeline crosses the SRN.	
2.7.8	To safeguard National Highways' interests and the safety and integrity of the SRN, National Highways objects to the inclusion of the Plots in the Order and	There are a number of plots owned by National Highways over which powers are sought for the construction, operation and maintenance of the project. It is understood that these, in some cases,

Reference	Written Representation	Applicant's Response
	to Compulsory Powers being granted in respect of them and to any other powers affecting National Highways in the Order. The Plots constitute land acquired by National Highways for the purpose of its statutory undertaking. National Highways considers that there is no compelling case in the public interest for the Compulsory Powers and that the Secretary of State, in applying section 127 of the Planning Act 2008, cannot conclude that the permanent acquisition of land forming the SRN and the creation of new rights and restrictions over all of the Plots can be created without serious detriment to National Highways' undertaking. No other land is available to National Highways to remedy the detriment. National Highways is under a duty to preserve its statutory duties and protect its own legal position and must preserve and maintain the integrity of the SRN. National Highways also objects to all other compulsory powers in the Order that affect, and may be exercised in relation to, National Highways' property and interests.	constitute part of National Highways' strategic road network (SRN), and held by National Highways as part of its statutory undertaking. However, the Applicant understands that given the nature of the land and rights sought, rights in these plots can be acquired without serious detriment to National Highways' undertaking. There are no plots owned by National Highways and form part of the operational area of the SRN that are required for permanent acquisition of land. Plots 2-09, 2-10, 5-09, 6-07, 9-07, 9-08, 9-09, 9-10, 9-11, 9-12, 9-13 are owned by National Highways and are required for the project for permanent acquisition of subsurface, acquisition of rights or temporary possession, but these do not form part of the SRN. Plots 5-06 and 7-05 are owned by National Highways and form part of the SRN, are required for acquisition at subsurface. It is not expected that this acquisition will have serious detriment to National Highway's undertaking.
2.7.9	The Applicant is seeking powers to permanently possess or acquire land or rights in National Highways operational land for the purposes of the Scheme. It is unclear from the BoR what comprises "subsurface" which is the element of the freehold being sought in respect of some of the Plots. National Highways must carry out its statutory duty of maintaining the integrity and safety of the SRN and so to compulsorily acquire the "subsurface" and limit in any way the safe running of the SRN compromises the ability of National Highways to do so.	The subsurface, under the highway, comprises a strata of land below the surface within which the pipeline will be installed using trenchless installation. The installation under the SRN is anticipated to be well below the target minimum depth of 1.2m. The Applicant does not agree that use of section 50 would be suitable as the trenchless installation is at considerable depth, and arguably below the indicative 'two spits' depth of the highway (or street) status. It will be within the underlying ownership of the subsoil (which belongs to NH but as owner, not as statutory function of highway status).
2.7.10	National Highways objects in particular to the permanent acquisition of the subsoil in plot 5-06 (Permanent acquisition of subsurface of 9818 square metres of motorway and verges (M56), and woodland lying to the north of Thornton Green Lane, Thornton-le-Moors, plot 5-09 (Permanent acquisition of subsurface of 1375 square metres of public road and verges (Thornton Green Lane), Thornton-le-Moors and plot 7-05 (Permanent acquisition of subsurface of 7207 square metres of motorway and verges (M53, Wervin)) which comprise land forming part of the SRN being the M53 and M56.	The Applicant notes that section 61 of the Highways Act is not disapplied (it was in an earlier draft of the dDCO [APP-024] but that has been deleted [AS-016]) and NH's consent under that provision will be required for these works, protecting its interest as highway authority and providing the control over the works sought. The Applicant has agreed in principle that protective provisions will be included. The drafting of those is under negotiation. The Applicant has provided a detailed paper to NH setting out the rationale for the approach being taken. That demonstrates that the Applicant, not being a statutory undertaker, cannot rely on the standard easement approach as it does not have an undertaking to form the benefited property. An easement would accordingly have to be tied to a benefitted property. As the Applicant is only seeking to acquire leases voluntarily for the pipe, the nearest property it is seeking to own which could be the benefitted
2.7.11	National Highways believes it cannot be said that the Applicant's case for compulsory acquisition has been satisfactorily made out as in our view the same end result could be achieved pursuant to section 50 of the New Roads and Street Works Act 1991. Compulsory acquisition is intended to be a measure of last resort once all efforts to negotiate have failed and National Highways would welcome the opportunity to discuss the Applicant's requirements rather than it simply relying on compulsory acquisition. It is critical to the operation of the strategic road network, the safety of the travelling public	property would be a surface site and at some distance. These are not immediately adjacent to the SRI and there are intervening landownerships. Easements tied to those properties would therefore have questionable legal validity and would not be acceptable to the Applicant.

HyNet Carbon Dioxide Pipeline
Page 55 of 123

Reference	Written Representation	Applicant's Response
	and to ensure the proper efficient use of public resources that the Authorised Development proceeds in consultation and agreement with National Highways and with the appropriate protections in place, as set out in this submission.	
2.7.12	National Highways is aware of other applicants promoting pipework and cabling and none have asked for permanent acquisition of subsoil within the SRN (Sheringham and Dudgeon Extension, Medworth EfW Combined Heat and Power Facility, Sunnica Energy Farm, Cambridge Waste Water Plant Relocation Project) so it is unclear why a different approach has been adopted here.	
Drainage Infra	structure	
2.7.13	National Highways is also concerned with the drainage infrastructure in Plots 5-13, 5-14, 5-22 and 5-23. National Highways' drainage infrastructure is located within these Plots and if open cut trench is carried out without suitable mitigation or a full awareness of where the infrastructure is, it could be damaged, resulting in a material risk to road users. National Highways requests that the CEMP ensures that any existing outfalls from the M56 motorway will be maintained during the works to ensure the discharges from the SRN are not impeded. National Highways also requests that the DCO is amended so that any changes to the CEMP are consulted on with National Highways prior to being agreed.	•

Table 2.8 – Comments on the Written Representations submitted at Deadline 1 by Natural England

Reference	Written Representation	Applicant's Response
International o	designated sites: Dee Estuary SPA/Ramsar; Mersey Estuary SPA/Ramsar; and Natio	nal designated sites: Dee Estuary SSSI; Mersey Estuary SSSI
2.8.1	Impacts on functionally linked land - Wintering birds	See Applicant's response to 2.8.1 within Applicant's Response to the Relevant Representations [REP1-
	The following comments relate to details within the Habitats Regulations Assessment – Information to Inform An Appropriate Assessment (Document reference: D.6.5.6).	042] , Table 2-56, row 2.56.1.
	There is reference to the Dee Estuary SAC within the text (4.2.1 and 6.2.7) in relation to birds however as this site is not designated for any bird features, we advise the text is updated accordingly.	
	It is stated that bird surveys were carried out with a minimum of one visit per month throughout October to February and two visits per month during March to September. This is considered limited survey effort with regards to passage and wintering birds.	
	Natural England has previously provided advice on bird survey methodologies to WSP on 11 February 2021, stating that wintering bird surveys are expected to include two surveys per month during October to March and passage surveys should include weekly visits between September to November (or March to May), surveys are to be undertaken at different tide states. We note that survey effort was increased for Transect 2 in the location of the River Dee crossing to two surveys per month.	
	We advise further information is required within the HRA to explain the reduced survey effort and if sufficient additional data is available to enable a robust assessment of impacts to wintering birds.	
2.8.2	Impacts in on functionally linked land - Noise disturbance impacts on wintering birds	See Applicant's response to 2.8.2 within Applicant's Response to the Relevant Representations [REP1-042], Table 2-56, row 2.56.2 and 2.56.3.
	We do not agree with the conclusions for the Mersey Estuary SPA/Ramsar and Dee Estuary SPA/Ramsar regarding noise disturbance to wintering birds. Additional detail is required regarding expected noise levels during works in close proximity to SPA birds in order to rule out impacts.	
	We note that a distance of 300m is stated beyond which noise disturbance impacts are not expected to occur, however we advise this will depend on the type of works to be undertaken, and consideration should be given to any high disturbance works including piling and hydraulic breaking that may be required.	
2.8.3	In-combination effects	See Applicant's response to 2.8.3 within Applicant's Response to the Relevant Representations [REP1-042], Table 2-56, row 2.56.4.

HyNet Carbon Dioxide Pipeline
Page 57 of 123

Reference	Written Representation	Applicant's Response
	Appendix B of the HRA includes an In-combination Assessment Summary and considers other schemes that form part of the HyNet North West project, although some schemes have limited information available at this stage, we advise that the in-combination assessment continues to be updated as more information becomes available. It is important that other schemes within the HyNet North West project are considered as fully as possible.	
Protected Spec	cies	
2.8.4	Impacts to otter	The Applicant acknowledges this response and has no further comments.
	Natural England continues to review the recently submitted updated Riparian Mammals Survey Report and will provide further advice on this in due course.	
2.8.5	Impacts to water vole	The Applicant acknowledges this response and has no further comments.
	Natural England continues to review the recently submitted updated Riparian Mammals Survey Report and will provide further advice on this in due course.	
2.8.6	Impacts to bats – Bat Activity Survey	The Applicant acknowledges this response. See Applicant's response to 2.8.6 within Applicant's
	Natural England continues to review the recently submitted updated Bat Activity Survey Report and will provide further advice in due course.	Response to the Relevant Representations [REP1-042], Table 2-56, row 2.56.7.
	Our advice within our relevant representations highlighted areas that would benefit from further clarification to aid in a future EPSL application should one be required, this advice is set out below for completeness.	
	Roost Designation	
	Within the preliminary bat roost assessment surveys (Paragraph 2.3.1) there are 3 types of roost that the designations were grouped into; Maternity, /Transitional, and Hibernation. It is noted that within the scheme's definition of a Summer/Transitional roost, satellite roosts are included. Please be aware that, satellite roosts are viewed in the same way as impacting a Maternity roost would (timings of works and provided for loss of roost etc).	
	It is further noted that this is the only point in the survey report where Hibernation roosts are referred to. Further clarification on the hibernation potential of the features onsite should be provided, and then further clarification on whether Hibernation surveys were carried out, if required per Best Practice Guidelines.	
	Survey Methodology and Results	
	It is welcomed that the survey methodology used has followed best practice guidelines where possible with regards to the presence/absence surveys.	

Reference	Written Representation	Applicant's Response
	Within Annex E, Table 7 - Confirmed Bat Roosts, it is stated that T325-327 have potential emergences along the tree line. It is recommended that the scheme provide clarity on this as it develops- does this indicate individuals observing multiple trees within one survey or was this an incidental observation during surveys on individual trees? If the former, please provide clarity as to whether this approach was applied across additional tree surveys, or just this one occasion?	
	Further Survey/Information	
	The above comments are on the basis of all of the surveys carried out so far. It is highly recommended that the full survey effort on all potential roosting features be carried out and added to the results. In addition, it would be beneficial to provide figures with the locations of the surveyors present, in addition to providing detailed statistics on the IR Camera's used (Resolution, Frames per Second etc). Annex F – Table 8 and 9, should also contain timings of the surveys and the time of sunset/sunrise included.	
2.8.7	Impacts to bats – Bat and Hedgerow Assessment	The Applicant acknowledges this response. See Applicant's response to 2.8.7 within Applicant's
	Natural England continues to review the recently submitted updated Bats and Hedgerows Assessment and will provide further advice in due course.	Response to the Relevant Representations [REP1-042], Table 2-56, row 2.56.8.
	Our advice within our relevant representation highlighted some areas that required clarification within the earlier assessment and these are set out below for completeness.	
	<u>Discount Parameters</u>	
	In section 2.2.11 and Table 3 (including footnote), the scheme states that parameters were developed that discounted hedgerows with a BHSA score of good, excellent, or not assessed yet hedgerows from the survey requirements. Within this, one of the discount parameters is "Over 50% of hedgerow located within 50m of main roads", where "Main roads" are defined by expert opinion from field ecologists, based on experience of the development, traffic and street lighting. It is recommended that the scheme provide further clarity on the parameters it used to define what a "main road" is, including consideration of expert opinion. This is because many roads are still used as flight corridors and linear features by bats, depending on their specific use. This information will thus provide important context as to whether "main roads" are a suitable discount parameter.	
	In addition to this, due to how hedgerows have been defined (continuing past intersections if they continue in the same direction), further clarity on hedgerow range definition would be welcomed. Where sections of a single	

Reference	Written Representation	Applicant's Response
	hedgerow outside of the established 50m range that meet an intersection and continue onwards (and thus still count as the same hedgerow as defined in the report)- have these been discounted, despite potential for bats to access it whilst not coming within the 50m range of the main road?	
	Static Detector Survey Methodology	
	In paragraph 2.3.5 and 2.3.7, it is noted that the sound analysis carried out on the data collected by the surveys was done using an auto-analysis software and only 10% of data has been manually analysed. This is considered a limitation within the approach, as it renders species identification on a site less reliable, due to inaccuracy of the software (outside of Common and Soprano pipistrelle). That is to say, software identification often misses occurrences that human corroboration does not- such as when multiple species are passing at once, as only the loudest bat with the most calls is identified, or both/all bats are mis-identified entirely.	
	Individual static detectors and grouped static detectors were deployed. It is recommended that the scheme provide the specific parameters that the statics covered, and whether this is extended to multiple hedgerows at once.	
	Field Survey Methodology	
	In paragraph 2.4.4 it is stated that further surveys will be carried out if DEFRA thresholds were met. While it is noted that applying DEFRA methods to 60 mins of survey effort instead of 90 was discussed in August 2021, please note that- as discussed in this advice- further information on the justification for this approach would be welcomed alongside any reference to the modifications applied. For example, were these thresholds were proportionately reduced to reflect the reduced survey effort? The scheme also state that survey timings were also subject to change dependent on the presence of Annex 2 species. Further information on the specifics of this change would also be welcomed in this explanation.	
	Static Survey Results/Progress	
	The early results for the static deployments have highlighted the presence of a potential number of vulnerable, woodland-adapted species, and Annex 2 species present on the site. Any further information on whether this has been used to update and improve the design of the crossing-point surveys proposed (in line with previous feedback of the length of surveys needing to be lengthened should these species be found on the site) would be welcomed.	

HyNet Carbon Dioxide Pipeline
Page 60 of 123

Reference	Written Representation	Applicant's Response
	In Annex F, please note that weather data from the deployments should be included in future submissions of the report (e.g., Rain, Wind and Temperature).	
	We welcome that pre-commencement surveys will be carried out to update baseline surveys during the bat survey season (May-August inclusive) and prior to construction commencement. These should follow Best Practice Guidelines where possible.	
	Further to this we also welcome the use of faux hedgerows to maintain linear features and minimise fragmentation and isolation during the construction phase of the development. It is noted that the faux hedgerows will be maintained until the "excellent" hedgerow replacement planting has been established and planting of "good" hedgerow completed. We note this could imply the risk that for a portion of time, there will be potentially no established hedgerow in place for the "good" hedgerows, which constitute a significant proportion of sites hedgerows. As the scheme develops, we recommend further clarity on whether this is the case, and if so, how the loss of the hedgerow during this time will be mitigated for.	
2.8.9	Impacts on great crested newt Our advice within our relevant representation highlighted some areas that required clarification, and these are set out below for completeness.	The Applicant acknowledges this response. See Applicant's response to 2.8.9 within Applicant's Response to the Relevant Representations [REP1-042], Table 2-56, row 2.56.9.
	Is it noted that the scheme combines the use of licensing in Wales, District Level Licensing (DLL) in England, and traditional bespoke licensing in the section of the scheme in England where DLL's red zone is in operation. The following comments pertain to those ponds within England's DLL red zone, to be licensed under traditional bespoke licensing, unless otherwise stated.	
	The following comments related to Appendix 9.2 Great Crested Newt Report Volume III (Document reference: D.6.3.9.2).	
	HSI Surveys	
	The proposed HSI survey methodology broadly follows best practice guidelines published in The Great crested newt Mitigation Guidelines (GCNMG). Natural England's Wildlife Licensing Service had previously given advice (dated 15th March 2021) that, when applying for a bespoke EPS mitigation licence, HSI survey methodology should always be used in combination with presence/absence surveys and- where likely absence is not established-population size class surveys. The scheme's acknowledgement of this under section 2.7.6 is welcomed.	

Reference	Written Representation	Applicant's Response
	Presence/Absence Surveys	
	The proposed presence absence survey methods outlined in section 2.5 align with best practice and are welcomed.	
	However, under notes and limitations in section 2.7.5, the scheme details that some presence/likely absence surveys were undertaken in temperatures below 5°C, which deviates from best practice.	
	The scheme details that, "as alternative methods were used, e.g., torching, netting, refuge search, egg search, the surveys are considered valid". Please note that, as described in our email of 28/03/2022 to the consultants, WSP, Natural England do have concerns about the validity of data collected in temperatures colder than 5°C. In section 5.6.3. of the GCNMG, it is explicitly stated the Torch survey results are highly variable in temperatures lower than 5°C. Further to this, as an ectothermic (cold blooded) species, GCN are less likely to be active during colder temperatures, rendering survey results from methodologies such as netting and refuge search less valid in colder temperatures.	
	Please note that in support of a GCN mitigation licence application, surveys where this was the case should be clearly marked, and the scheme should provide further information as to why these surveys could not be conducted in optimum conditions, and how these constraints will be accounted for in consideration of results and approaches.	
	Population Size Class Assessments	
	The proposed population class survey methods outlined follow some best practice, in that a total number of 6 surveys were to be conducted. However, it should be noted that the best practice guidelines detail that population size class assessment should be undertaken using torch survey and bottle trapping for ponds, so that a count of GCN in ponds may be made. Please ensure that any population size class assessments (to be undertaken following established GCN presence) will be made using these methods.	
	For any population size class assessments which have already been attempted, and cannot be repeated, the scheme may wish to consider utilising the information they have available to come up with a "reasonable maximum scenario" of GCN population size class under licensing policy 4 (further guidance linked here).	
	Results	
	As noted above, this scheme combines 3 licensing regimes (Licensing in Wales, District Level Licensing [DLL] in England, and Bespoke Mitigation	

HyNet Carbon Dioxide Pipeline
Page 62 of 123

Reference	Written Representation	Applicant's Response
	Licensing in England) in this approach. While Table 6 differentiates between waterbody survey results in Wales and waterbody survey results in England, it is recommended that waterbody survey results in England are further subdivided by those within DLL, and those which fall under bespoke mitigation licensing (red zone). This will allow a thorough assessment to be made of all survey results in Table 6 pertaining to waterbodies within the red zone.	
	In section 2.7.7, the scheme notes that ponds on Chester Zoo make use of data collected by the zoo for monitoring purposes, so as not to over-trap these water bodies. While data sharing to prevent over-trapping is generally welcomed, surveys on ponds 166, 167, 168, 169, 170, 171, and 172 unfortunately do not follow best practice guidelines for the purposes of informing development, given these were typically subject to one, although in some cases two, survey methodologies.	
	Therefore, although presence has been confirmed at waterbodies 166, 167, 169, and 171 respectively, the survey information currently provided is not enough to confirm likely absence at waterbodies 166, 168, 170, and 172 respectively. Further to this, the survey effort at 166, 167, 169, and 171 is not sufficient to predict population size class in these ponds. The scheme may wish to consider further survey effort in collaboration with Chester Zoo, which adheres to the best practice guidelines for development mitigation, while also preventing double-trapping of newts.	
	In this case, the risk of not having sufficient data to adequately predict the scheme's impacts on GCN is considered higher than the risk of over-trapping.	
	Ponds 42, 47, 48, 49, and 52 were subject to public health and safety/ access constraints to surveying ponds as described in section 2.7.11 and 2.7.12. These constraints are appropriately addressed by combining further information and treating these waterbodies as likely present, described within 2.7.13.	
	Upon review of the information in Table 2, Section 2, and Table 8 (Annex C), the following is noted:	
	The surveys conducted on waterbodies 43, 45, 46 are broadly conducted within best practice guidelines and deemed acceptable surveys	
	 Waterbodies 51 and 53 appear to have had some constraints around turbidity, please note that further justification as to the validity of these surveys, and how the results would be interpreted in light of this constraint, would likely be required in support of a bespoke licence application. 	

HyNet Carbon Dioxide Pipeline
Page 63 of 123

Reference	Written Representation	Applicant's Response
	Waterbodies 47 and 52 had some surveys undertaken, but following constraints outlined in 2.7.11 and 2.7.12 respectively, have been assessed in combination with other information as likely present in 2.7.13. This is an acceptable approach.	
	 Waterbody 142 appears in Table 8 to have had fewer methods used during its last two surveys than best practice advises, but Table 2 provides some insight into why this might be. In a licence application, it is recommended that a clear line of ecological justification is provided per pond. 	
	 Water bodies 54 and 112 dried out in April, before any GCN presence had been recorded. Please note that desk or multiple years' data should be utilised in cases like these in order to justify whether this is a typical or rare occurrence and design an approach accordingly. 	
	 For the reasons outlined above, surveys at Chester Zoo waterbodies 166, 167, 169, and 171 are sufficient to confirm GCN presence, but not determined population size class. 	
	 Also, for reasons outlined above, surveys at Chester Zoo waterbodies 166, 168, 170, and 172 are not sufficient to confirm GCN absence. 	
	It is recommended that any bespoke licence application clearly outlines the approach to that bespoke EPS Mitigation licence, DLL, and the survey buffer/logic applied to ponds within the red zone.	
	Please note that for ponds within the red zone, survey effort should take into account the metapopulations of any ponds within the red zone and prevent fragmentation of these as far possible. Metapopulations can be anticipated for ponds within 250m-500m of one another provided there are no barriers to dispersal. This consideration should apply to all ponds within 500m where there are no barriers to dispersal- regardless of whether they are inside or outside the red zone. In this way, there may be ponds within 500m of the scheme's red DLL zone footprint where the scheme's impact on the pond is mitigated for within DLL, but the scheme's impact on metapopulations within a bespoke licence will still need consideration.	
Soils and best	and most versatile agricultural land	
2.8.10	Loss of BMV land	See Applicant's response to 2.8.10 within Applicant's Response to the Relevant Representations [REP1-
	Natural England is expecting further updated documentation with regards to the Soil Management Plan and Peat Management Plan, and this has been discussed via the drafting of a SoCG.	042] , Table 2-56, row 2.56.10.

HyNet Carbon Dioxide Pipeline
Page 64 of 123

Reference	Written Representation	Applicant's Response
	Our advice within our relevant representation highlighted some areas that required clarification, and these are set out below for completeness.	
	Based on the information provided, it appears that the proposed DCO area comprises 540 ha of agricultural land, including 278 ha classified as 'best and most versatile' (BMV) (Grades 1, 2 and 3a in the Agricultural Land Classification (ALC) system) (this is increased to 339.9 ha when including Predictive (Wales) and Provisional (England) ALC Grades for 81.9 ha of surveyed agricultural land; where Provisional ALC Grade 3 land has been divided evenly between Subgrade 3a and 3b).	
	We understand that, of the 339.9 ha of BMV land which will be affected by the proposals during construction, 19.129 ha of this will be lost for the lifetime of the development.	
	The land take figure provided in Table 11.12 'Construction Stage assessment of significant effects' (1.37 ha BMV) (Chapter 11 – Land and Soils D.6.2.11) does not correspond with Table 11.7 'Hectarage of permanently sealed agricultural land' (19.129 ha), although we acknowledge that the area presented in Table 11.7 would not alter the magnitude of impact and overall significance presented in Chapter 11.	
	Having reviewed the ALC surveys provided within Appendix 11.4 and the residual assessment of effects provided within Chapter 11, we agree with the general conclusions presented.	
	Natural England provided comment on the English Section of the HyNet Pipeline ALC and Soil Resource Report in August 2022, and as such, we have no further comments on Appendix 11.4. The land surveyed in Appendix 11.5 ALC and Soil Resources (Block Valve Stations) Report are all located in Wales, and therefore is not discussed in this response.	
	Paragraph 11.2.10 should include reference to BMV agricultural land. National planning policy relevant to agricultural land and soils is set out in Paragraph 174 of the National Planning Policy Framework which states that: 'Planning policies and decisions should contribute to and enhance the natural and local environment by: protecting and enhancing [] soils (in a manner commensurate with their statutory status or identified quality in the development plan); recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland.'	

Reference	Written Representation	Applicant's Response
	Natural England welcome that soils supporting BMV agricultural land will be avoided as far as practicable set out in D-LS-007 of the REAC (Document reference: D.6.5.1). However, it is not clear how the route option or site design has been devised to help minimise this loss of BMV agricultural land nor minimise the disturbance of peat soils.	
2.8.11	Material Management Plan	See Applicant's response to 2.8.11 within Applicant's Response to the Relevant Representations [REP1-
	Soil is a finite resource which plays an essential role within sustainable ecosystems, supporting a range of ecosystem services, including storage of carbon, the infiltration and transport of water, nutrient cycling, and provision of food.	042] , Table 2-56, row 2.56.11.
	It is recognised that a large proportion of the agricultural land affected by the development will experience temporary land loss or disturbance and will be restored to the baseline ALC grade (largely as a result of the pipeline trenching). In order to both retain the long term potential of this land and to safeguard all 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 many important functions and services (ecosystem services) as possible. This can be achieved through careful soil management and appropriate, beneficial soil reuse, with consideration of how adverse impacts on soils and their functions can be avoided or minimised.	
	Natural England welcomes the commitment to produce a Materials Management Plan (MMP) which will provide a clear process to enable the reuse of excavated material without it being classified as a waste and outline a cut / fill balance to reduce the amount of material permanently removed during the construction of the Proposed Development. As set out in the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (publishing.service.gov.uk), a Soil Resource Plan should feed into this MMP to describe how the applicant intends to manage excavated materials.	
2.8.12	Soil Management Plan	See Applicant's response to 2.8.12 within Applicant's Response to the Relevant Representations [REP1-
	Natural England welcome the production of an outline Soil Management Plan (SMP) and the commitment to produce an SMP as part of the detailed CEMP. The SMP should consider the soil handling resiliencies of all soils within the alignment of the Newbuild Carbon Dioxide Pipeline not just those supporting BMV agricultural land.	042] , Table 2-56, row 2.56.12.
	Soil handling discussed in the Outline LEMP (Paragraph 3.1.3), should make reference to the Outline SMP and the Defra Construction Code of Practice to ensure consistency across the DCO.	

HyNet Carbon Dioxide Pipeline
Page 66 of 123

Reference	Written Representation	Applicant's Response
	A Soil Management Plan (SMP) (Outline CEMP Appendix 1 Outline SMP) has been prepared and submitted; however, a number of deficiencies have been identified as follows:	
	The outline SMP draws on the Defra Construction Code as a source of key guidance. In addition, detailed Soil Resources Plans should be produced by the Contractor for each part of the HyNet CO2 Pipeline project in line with the Defra Code. It is expected that soil data collected as part of the ALC surveys will be re-used to develop the Soil Resources Plans, including providing plans of the soil handling units; soil volumes, location of stockpiles; and restoration criteria.	
	 The loss of BMV land can only be considered temporary if it can be restored back to its original quality. The Outline SMP needs to be clearer that the aim is for BMV agricultural land to be returned to its original quality (Section 5.4. and Section 6). For example, this could be actioned by a target specification for the restored soils according to location and soil types, end use and required ALC grade. 	
	The scope of the Outline SMP should also include the monitoring of all soil handling activities, not just at the stockpiling stage.	
	 Areas of land which have not been surveyed due to access issues which will be subject to disturbance as a result of the proposed development should be surveyed prior to construction, with the soil and ALC information feeding into the detailed SMP (Paragraph 2.2.2.) 	
	The Outline SMP should distinguish between topsoil, subsoil (upper and lower subsoil, where appropriate), and the basal material[1]. These soil resources all need to be handled and stored separately and replaced in sequence. Soil balance calculations should reflect this (Paragraph 2.2.4.).	
	The current excavation volumes estimated includes materials below the topsoil, extending to a depth of up to 6 m to be subsoil, however this material would include both subsoil and basal material. It is important that the excavation of these differing materials is undertaken separately, that they are stockpiled separately, and reinstated in the same order in which they were excavated to restore the soil profile. This needs to be reflected in Tables 3.2, 3.4 and 3.6.	
	 Data on the laboratory assessment of particle size (PSD) is provided in the ALC Report (Reading Agricultural Consultants (2022) HyNet Pipeline ALC and Soil Resources); however, information is also needed about how this limited point information has been used in identifying soil texture for the wider site as presented in Annex B (Paragraph 3.2.1). 	

HyNet Carbon Dioxide Pipeline
Page 67 of 123

Reference	Written Representation	Applicant's Response
	The soil resilience has been identified for each soil horizon and at each soil survey location, as presented in Annex B, however this information should be presented as a soil resource plan for the topsoil, upper subsoil and lower subsoil to inform soil handling.	
	 Any surplus material should be beneficially re-used on site where possible. If utilised in re-profiling, the changes to the soil profile (i.e., soil horizon depths, available water capacity etc) and subsequent ALC grade would need to be considered and presented in the detailed SMP to demonstrate that the re-use was indeed a benefit and would not result in a degradation of the soil profile or ALC Grade (Paragraph 3.4.5.) 	
	Detail needs to be provided on how bank or drainage ditch backfilling would be undertaken, to demonstrate this is an appropriate re-use of the soil material (Paragraph 3.4.7.)	
	 Soil stockpiles should be split into different soil types for the topsoil, upper subsoil, lower subsoil and basal material. The proposed location of these stockpiles should be provided in this Outline SMP (Paragraph 4.1.4). Soil stockpiles should be labelled and mapped (including soil type and volume) to facilitate appropriate reinstatement (Paragraph 4.5.2) 	
	 The plastic limit should be determined through the use of the Wetness test as presented in Supplementary Note 4 IQ Soil Guidance full document including all practitioner advice updated May 2022.pdf (hubspotusercontent- na1.net). BS 1377-2:2022 details the geotechnical laboratory soils test methods and is therefore not appropriate in this context (Paragraph 4.2.3). 	
	 Inappropriate soil handling can damage the soil structure, not the inherent soil texture. The risk of soil structural damage increases when the soils are handled when wet, this includes an increased risk of compaction (Paragraph 4.4.5. Bullet 5). 	
	 Whilst reference has usefully been made to the Defra Construction Code in paragraph 4.4.1, for clarity, the plant type to be used for each element of soil handling should be specified in the subsequent appropriate sections. 	
	Any decompaction or remediation activities should be undertaken when the soils are in a suitably dry condition.	
2.8.13	Peat Management Plan Natural England welcomes the production of an outline Peat Management Plan (PMP) and the commitment to produce a detailed PMP as part of the detailed CEMP.	See Applicant's response to 2.8.13 within Applicant's Response to the Relevant Representations [REP1-042], Table 2-56, row 2.56.13.

HyNet Carbon Dioxide Pipeline
Page 68 of 123

Reference	Written Representation	Applicant's Response
	The consideration of the potential impact of the development on peat soils is important, particularly with regards to their ability to store high quantities of carbon. Considerations regarding peat impacts should include the context of the peat and surrounding areas to ensure hydrological integrity can be maintained.	
	An Outline Peat Management Plan (PMP) (Outline CEMP Appendix 2 Outline PMP) has been prepared and submitted with the application; however, a number of concerns have been identified as follows:	
	 The PMP should also utilise the data derived from the ALC and soil resource survey. For example, auger cores 62 – 69 identify clear organic and peaty loam horizons, which can be used to inform stripping depths and volumes. 	
	 The limitations set out in paragraphs 2.2.2 and 2.2.3 could in part be reduced through the use of the ALC core data. This is briefly referred to in paragraph 3.1.5. 	
	• Shallow water table identified at 1.15m below ground level (para 3.3.3.) in peat area 2 could be an issue for trenching and pipeline installation. The depth of the open trench is assumed to be 3 m (within a range of 2.5 and 6 m) (Para 3.4.3)	
	 Paragraph 3.4.3. Ince AGI (Peat area 1) Is this peat soil a suitable platform for construction? 	
	Natural England will continue to review the PMP and expects to provide further comments in addition to those above via our discussions with the applicants and the development of a SoCG.	
Biodiversity Ne	et Gain	
2.8.14	Achievement of Biodiversity Net Gain objective	The Applicant acknowledges this response. See Applicant's response to 2.8.14 within Applicant's
	Natural England welcomes the proposed commitment to achieving biodiversity net gain and use of the appropriate Biodiversity Metric.	Response to the Relevant Representations [REP1-042], Table 2-56, row 2.56.14.
	Natural England welcomes that further enhancement opportunities will be explored; these are strongly encouraged where possible.	
	We advise that the identification of suitable local off-set sites is undertaken in liaison with LPAs and Cheshire Wildlife Trust.	
	Natural England welcomes further consultation on the updated Biodiversity Net Gain report that the applicant will submit following confirmation of the land to be used to evidence an overall net gain in Priority Habitats.	

HyNet Carbon Dioxide Pipeline
Page 69 of 123

Reference	Written Representation	Applicant's Response
	We note any retained/reinstated and created habitats are subject to long term management and monitoring as part of a LEMP, we encourage consideration that this covers a period of at least 30 years.	
	There are minor points that should be addressed within the documentation for clarity, and these include:	
	 Figures 1 and 2 are referenced throughout the document but not labelled appropriately in the report. 	
	1.2.1 it is noted that hedgerows were also frequently present.	
	Table 2.1 Footnote 3 regarding 'relevant local strategy' is missing.	
	Table 2.2 Quantitative Outcomes of BNG calculations – We note that for 100% of baseline value the predicted scheme- wide outcome should state no net loss or net gain of biodiversity.	

Table 2.9 – Comments on the Written Representations submitted at Deadline 1 by Natural Resources Wales

Reference	Written Representation Ref	Written Representation	Applicant's Response
1. Crynodeb / Sur	nmary	,	
N/A	1.1	NRW's areas of key concern which remain outstanding are as follows.	The Applicant notes this and has outlined responses below.
2.9.1	N/A	Water Framework Directive (WFD) Based on the information provided to date by the Applicant, NRW considers that there may be deterioration of the Wepre Brook waterbody, as a result of the proposed open-cut crossing of Alltami Brook. Consequently, a derogation would be required under Article 4 (7) WFD transposed by Regulation 19 of the Water Environment (WFD) (England and Wales) Regulations 2017. There is a risk that excavating bedrock for the proposed Alltami Brook open-cut crossing could create a pathway for surface water to be lost to the ground/contaminated mine workings; this could cause water courses to dry up downstream. NRW remains in dialogue with the Applicant regarding suitable solutions to address our concerns.	The Applicant acknowledges NRW's comment and is undertaking ongoing engagement regarding the Alltami Brook. The Applicant considers that the WFD assessment submitted is robust and as demonstrated in that assessment that the proposal is compliant. However, the Applicant is undertaking further work intended to assist in addressing NRW's concerns. The Applicant notes that it does not consider that work is necessary for the ExA to reach a conclusion on WFD.
2.9.2	N/A	Access to Flood Risk Assets NRW maintains its concern in relation to the potential for the development to prevent NRW from accessing and undertaking flood defence asset maintenance works and/or flood defence improvement projects in the future. These concerns have previously been raised with the Applicant but are yet to be resolved.	The Applicant has considered Northern and Hawarden Embankments along the River Dee and in consultation with NRW have removed part of the Public Right of Way (PRoW) owned by NRW (Applicant's reference PS17) as part of the Applicant's Change Request 1 accepted by the ExA on 24 April 2023. Permanent acquisition of subsurface is required under flood risk assets owned by NRW plots 14-05, 14-06, 14-07 and 14-08. Plots 14-09, 14-10, 14-12, 14-13, 14-15, 14-16, 14-18 have now been removed as a result of Change Request 1. As a result, it is not expected that NRW will be prevented from accessing and undertaking flood defence asset maintenance works and/or flood defence improvement works in this location in the future, and the Applicant considers that this issue is now resolved. The Applicant also notes that the Northern and Hawarden Embankments along the River Dee are the only flood defences that fall on the Carbon Dioxide Pipeline Route.
N/A	1.2	Following constructive dialogue with the Applicant the following previous areas of concern have been further progressed.	The Applicant notes this and has outlined responses below.

HyNet Carbon Dioxide Pipeline
Page 71 of 123

Reference	Written Representation Ref	Written Representation	Applicant's Response
2.9.3	N/A	Air Quality	Para 4.2.3 of the OCEMP sets out that the Construction Contractor will consult with relevant parties, organisations and statutory bodies.
		NRW advises that the proposed dust deposition management plan to mitigate potential dust impacts on the River Dee and Bala Lake Special Area of Conservation (SAC) appears adequate. Requirement 5(1) of the draft DCO should be amended to require consultation with NRW prior to the LPA's approval of the dust management plan.	The Applicant acknowledges NRW's wish to be a named party for being consulted with, with regards to the Detailed CEMPs which will include the Dust Management Plan.
2.9.4	N/A	Climate Resilience NRW has no further comments regarding climate resilience.	The Applicant acknowledges NRW's statement and has no further comments to make at this time.
2.9.5	N/A	Biodiversity NRW considers the survey to be satisfactory in respect of great crested newts (GCNs), bats, otters and water vole and largely agrees with the conclusions of the Environmental Statement (ES).	The Applicant welcomes NRW's comments regarding the survey and assessment being satisfactory for the stated receptors and conclusions of the ES.
2.9.6	N/A	NRW acknowledges the outline recommendations and proposed principles for mitigation and agrees with this approach. NRW is satisfied that Schedule 2, Requirement 11 of the draft Development Consent Order (dDCO) [APP-024] captures the need for inclusion of long-term management of habitats post-construction. NRW advises that further information be provided in respect of the overall scope of long-term mitigation.	The Applicant welcomes NRW's comments regarding the proposed principles for mitigation and long-term management. Further information of the overall scope of the long-term mitigation will be set out within the detailed LEMP, as secured by Requirement 11 of the DCO [REP1-004], which will provide relevant details for long term management and monitoring of restored, reinstated and created habitats.
2.9.7	N/A	NRW acknowledges that the Applicant will provide prescriptive methods of work and measures for the protection and conservation of GCN and bats as part of the method statement for the EPS license application.	The Applicant acknowledges NRW's response and has no further comments at this time.
2.9.8	N/A	NRW acknowledges that measures have been prescribed to ensure completion of preconstruction barn owl surveys. NRW advises that these surveys should extend to a maximum of 100m from the Newbuild Infrastructure Boundary. NRW advises that alternative barn owl nest locations away from the Zone of Influence (ZoI) should be provided.	As stated within the Environmental Statement Addendum Change Request 1 [CR1-124] and Chapter 3 [APP-055] of the 2022 ES, a fixed route for the DCO Proposed Development is to be developed at the Detailed Design stage. Measures have been included within the REAC [CR1-109 and REP1-015] (see D-BD-037, D-BD-038 and D-BD039) to mitigate potential impacts to barn owl or potential supporting features with

Reference	Written Representation Ref	Written Representation	Applicant's Response
			requirements for licensing and the erection of alternative nest/roost locations where required. These measures are secured in the CEMP and the LEMP required by Requirements 5 and 11 of the dDCO [REP1-004] respectively. As such, further information regarding the location of alternative nest locations, where required, will be confirmed at the detailed design stage but will take into account potential Zones of Influence associated with construction to ensure appropriate and suitable alternative nest box erection.
2.9.10	N/A	NRW advises that Measure D-BD-043 of the REAC [APP-222] should include appropriate consideration of Cetti's warbler (Cettia cetti).	The Applicant refers to its response to question 2.57.40 within Table 2-57 (page 109) of the Applicant's Response to the Relevant Representations [REP1-042]. Appropriate mitigation has been included within the REAC [CR1-109 and REP1-015], see D-BD-043, as secured by Requirement 5 of the dDCO [REP1-004], to avoid impacts to nesting birds and nests.
2.9.11	N/A	NRW acknowledges that the natural gas pipeline to be repurposed for conveying carbon dioxide is already located below the Halkyn Mountain SAC/SSSI and Flint Mountain SSSI. NRW advises that any maintenance of this pipeline that would involve potentially damaging operations within the designated sites would need prior Section 28 approval unless permitted directly through planning condition/DCO requirement.	See Applicant's Response to the Relevant Representations [REP1-042], Table 2-57, row 2.57.45 (page 111).
2.9.12	N/A	NRW is satisfied that a Biosecurity Method Statement will be produced, which will address relevant INNS concerns and that sources of water for hydrostatic testing will be defined during detailed design.	The Applicant acknowledges NRW's response and has no further comments at this time.
2.9.13	N/A	Land and Soils NRW advises that pipeline excavation and groundwater dewatering could result in interaction with groundwater contamination from local landfills and petrol stations. NRW advises that additional boreholes should be used to assess groundwater levels and local permeabilities before any excavation and dewatering works.	A Groundwater Management and Monitoring Plan is included under Requirement 5 of the draft DCO [REP1-004] and will be implemented by the Construction Contractor. This will detail the groundwater monitoring strategy where dewatering activities are proposed, taking into consideration site-specific conditions.

HyNet Carbon Dioxide Pipeline
Page 73 of 123

Reference	Written Representation Ref	Written Representation	Applicant's Response
2.9.14	N/A	NRW advises that further consideration of submitted information is needed by the Applicant to understand potential contamination sources along the proposed pipeline route, the degree to which the proposed excavation works could interact with private water supply wells and the degree to which dewatering could interact with sensitive land within close proximity to the pipeline.	The Applicant acknowledges the advice from NRW. The potential effects of proposed excavation/dewatering activities on sensitive land use, including private water supplies and point source contamination will be considered as part of any hydrogeological impact assessment (HIA) delivered through the Dewatering Management Plan. A Dewatering Management Plan is secured through Requirement 5 of the draft DCO [REP1-004] which will provide a framework for assessing the potential risks from
2.9.15	N/A	NRW acknowledges that a Dewatering Management Plan will be prepared and delivered via the detailed CEMP. NRW advises that an acceptable methodology should be developed to determine the disposal of any pumped groundwater generated from pipeline dewatering activities.	dewatering activities and act as a vehicle for more specific detailed assessment (i.e. HIA), based on current guidance. The Dewatering Management Plan will be produced by the Construction Contractor. The Applicant acknowledges this point. Where dewatering activities are proposed, then a hydrogeological impact assessment (HIA) will be undertaken that considers the potential effects on sensitive receptors, including for example, private water supplies and groundwater dependent terrestrial ecosystems (GWDTE), as amended in REAC entry D-WR-035 [REP1-004], as secured by the CEMP within Requirement 5 of the dDCO
2.9.16	N/A	NRW advises that the nature and extent of pipeline excavation dewatering at the Alltami Brook crossing location does not appear to have been defined in detail and that further site investigation at this location is needed to understand the local hydrogeological conditions.	The Applicant acknowledges this point and confirms that the ES will be updated to include a high-level assessment of excavation dewatering at the Alltami Brook. Further detailed assessment will be undertaken following site investigation at the detailed design stage to inform the understanding of the hydrogeological conditions at this location. This will inform any detailed dewatering assessment. The Dewatering Management Plan included under Requirement 5 of the draft DCO [REP1-004] will consider the extent of any dewatering activity.
2.9.17	N/A	NRW understands that heavy plant will be required to excavate the bedrock within Alltami Brook, which has the potential to further destabilise unstable ground. NRW advises that the potential for made ground materials to enter Alltami Brook, notably during or following wetter periods, should be avoided.	The Applicant acknowledges the concerns raised by NRW and is continuing discussions relating to this matter.
2.9.18	N/A	NRW understands that there is a slurry store close to the proposed pipeline alignment in the vicinity of the Alltami Brook crossing point. NRW advises that the potential for inorganic pollutants to discharge into the water course from this source should be assessed.	Pollution control measures will be established in a detailed Construction Environment Management Plan (CEMP) as secured by Requirement 5 of the dDCO [REP1-004] to be prepared by the Construction Contractor.

Reference	Written Representation Ref	Written Representation	Applicant's Response
2.9.19	N/A	NRW acknowledges that a validation report stating the final discharge volume, discharge methods and processes required for hydrostatic testing will be produced. NRW therefore has no further comments regarding hydrostatic testing.	The Applicant notes this point and has no further comments to make at this time.
2.9.20	N/A	Major Accidents and Disasters NRW generally accepts that the risk of a large-scale release of Carbon Dioxide (CO2) can be managed to be As Low As Reasonably Practicable (ALARP). However, NRW advises that the proposed detailed design studies and modelling of CO2 releases should inform the modelling input parameters for establishing the risks.	The Applicant has undertaken detailed risk assessments (including modelling) of CO ₂ releases during the Preliminary Design of the project. These risk assessments will be further developed during the Detailed Design stage of the project (aligned to relevant pipeline design Code and Regulatory compliance requirements). In addition, the CO ₂ risk assessment process forms part of ongoing engagement with the Health and Safety Executive.
2.9.21	N/A	Water Quality NRW agrees with the conclusions of the ES, WFD compliance assessment and Habitats Regulations Assessment (HRA) in terms of marine water quality based on the provision that the mitigation for pollution and biosecurity listed in the Register of Environmental Actions and Commitments (REAC) [APP-222] can be secured within the detailed CEMP. NRW would wish to be a named party for being consulted on the detailed CEMPs by the relevant planning authority at the discharge of requirement stage.	Para 4.2.3 of the OCEMP [CR1-119 and REP1-017] sets out that the Construction Contractor will consult with relevant parties, organisations and statutory bodies. The Applicant acknowledges NRW's wish to be a named party for being consulted with, with regards to the Detailed CEMPs.
N/A	1.3	NRW and the Applicant continue to develop their Statement of Common Ground.	The Applicant notes this point and has no further comments to make at this time.
2. Water Frame	work Directive		
2.9.22	2.1	In respect of ES Appendix 18.3: Water Framework Directive Assessment [APP-165], NRW advises that the WFD compliance assessment is not adequate and does not contain sufficient detail. In respect of para 5.5.7, NRW considers that there is insufficient evidence to demonstrate that "potential construction and operation impacts are unlikely to cause a deteriorate on in the status of quality elements or overall status at the Wepre Brook water body scale with the mitigation within the CEMP,	The Applicant acknowledges NRW's comment and is undertaking ongoing engagement regarding the Alltami Brook. Further investigation is being undertaken in relation to the hydrogeology and groundwater interactions in relation to the proposed crossing of the Alltami Brook. The Applicant considers that the WFD assessment submitted is robust and as demonstrated in that assessment that the proposal is compliant. However, the Applicant is undertaking further work intended to assist in addressing NRW's concerns.

Reference	Written Representation Ref	Written Representation	Applicant's Response
		REAC and monitoring measures implemented". Further, in respect of para 5.5.20 there is insufficient evidence to demonstrate that "The DCO Proposed development therefore would not compromise the ability of the water bodies potentially impacted to achieve Good Ecological Potential/Status." (para. 5.5.20).	The Applicant notes that it does not consider that work is necessary for the ExA to reach a conclusion on WFD.
2.9.23	2.2	On the basis of the information provided by the applicant, NRW considers that there may be deterioration of Wepre Brook water body, as a result of the proposed opencut crossing of Alltami Brook. Consequently, a derogation would be required under Article 4 (7) WFD transposed by Regulation 19 of the Water Environment (WFD) (England and Wales) Regulations 2017. In such circumstances, the applicant would need to demonstrate that the conditions specified under regulation 19 have been met. To date, such information has not been presented and NRW is not in a position to advise further.	The Applicant acknowledges NRW's comment and is undertaking ongoing engagement regarding the Alltami Brook. The Applicant considers that the WFD assessment submitted is robust and as demonstrated in that assessment that the proposal is compliant. However, the Applicant is undertaking further work intended to assist in addressing NRW's concerns. The Applicant notes that it does not consider that work is necessary for the ExA to reach a conclusion on WFD.
2.9.24	2.3	Article 4 (1) of the Water Framework Directive (2000/60/EC) sets out environmental objectives and in terms of surface waters, as defined. The Directive requires members to implement the necessary measures to prevent deterioration of the status of all bodies of surface water, subject to other provisions [Art 4(1)(i)]. Whereas the concept of "deterioration of status" of a body of surface water is not defined, the European Court of Justice determined in the case of Weser [Case c-461/13] that it must be interpreted as meaning that there is deterioration even if that fall does not result in a fall in classification of the body of surface water as a whole. Where the quality element is already in the lowest class, any deterioration of that element would constitute deterioration of the status of a body of surface water. The judgment ruled that the Water Framework Directive precludes authorisation of a project where, unless a derogation applies, the project may cause a deterioration of the status of the body of water concerned or where it jeopardises the attainment of good surface water status or of good ecological potential and good surface water chemical status by the date laid down by the directive.	The Applicant acknowledges the response from NRW and is continuing engagement with NRW to discuss these matters, with a meeting planned to discuss this point on 22 May 2023.
2.9.25	2.4	The risk of deterioration in the status of the Wepre Brook waterbody arises as a consequence of the proposed works to be carried out at Alltami Brook. Such proposed works are described by the applicant at Chapter 18 of the ES [APP-070]. The applicant describes the effects on the hydrology and hydromorphological processes of Alltami Brook and the	The Applicant acknowledges NRW's comment and is undertaking ongoing engagement regarding the Alltami Brook. Further investigation is being undertaken in relation to the hydrogeology and groundwater interactions in relation to the proposed crossing of the Alltami Brook. The Applicant considers that the WFD assessment submitted is robust and as demonstrated in that assessment that the proposal is compliant. However, the

Reference	Written Representation Ref	Written Representation	Applicant's Response
		effects of the installation of permanent artificial structures in water courses as anticipated to be "Slight Adverse (not significant)". However, currently the information presented does not provide sufficient assurance to NRW that this would be the case as insufficient geological, hydrogeological, hydrological, geomorphological, and ecological information has been provided to justify the proposed open-cut crossing option for Alltami Brook. As a result, and on that basis, NRW considers that deterioration may result to the Wepre Brook waterbody.	Applicant is undertaking further work intended to assist in addressing NRW's concerns. The Applicant notes that it does not consider that work is necessary for the ExA to reach a conclusion on WFD.
2.9.26	2.5	Specifically, NRW considers that there is a risk that excavating bedrock for the proposed Alltami Brook open-cut crossing could create a pathway for surface water to be lost to the ground/contaminated mine workings via disturbance, cracks, faults and joints between proposed bedrock removal and concrete backfill, even with the grouting of any fissures/fractures found and backfill of existing bed material; this could cause water courses to dry up downstream of the open-cut crossing, including Wepre Brook. This loss of flow may occur in the short- or long-term, for example if the grouting was to deteriorate over many years. Such flow losses, and any resultant contaminated mine water upwelling elsewhere, are difficult to address in the long term and could cause deterioration of hydromorphology, water quality and ecological elements downstream.	The Applicant acknowledges NRW's comment and is undertaking ongoing engagement regarding the Alltami Brook. Further investigation is being undertaken in relation to the hydrogeology and groundwater interactions in relation to the proposed crossing of the Alltami Brook.
2.9.27	2.6	The estimated catchment area at the Alltami Brook crossing point (SJ27634 67138) is 6.2km² and the estimated mean flow (Qmean) is 0.07m³/s. The confluence of Alltami Brook with Wepre Brook is approximately 540m downstream of the crossing point. Just downstream of the confluence at SJ 27750 67500 the total catchment area is 16.1km² and the estimated mean flow is 0.19m³/s. Therefore, in Wepre Brook just downstream of the confluence, the Alltami Brook is contributing approximately 37% of the flow in the water course (all estimates have been produced using Qubesoftware).	The Applicant acknowledges the response from NRW and is continuing engagement with NRW to discuss these matters.
2.9.28	2.7	NRW's site visit of the proposed Alltami Brook pipeline crossing corridor with the Applicant on 27 March 2023 showed bedrock to be present in the bed of Alltami Brook. The proposed crossing area is a steep gorge with an elevation drop in the order of 15-25m from the land on either side of the brook to the brook bed. Fissile sandstone, likely weathered within the banks of the brook was observed together with more competent bedrock.	

Reference	Written Representation Ref	Written Representation	Applicant's Response
		There is therefore likely to be differential weathering of the bedrock in this locale given that it is a water environment. It is likely that the waterflows observed within the stretch of the Alltami Brook proposed for the pipeline crossing derive from a combination of upgradient channel flow and some baseflow from the superficial sediments and the made ground that abut the brook at this point. It would be unusual for the bedrock to be supplying high rates of baseflow to the brook.	
2.9.29	2.8	NRW understands that excavation in the order of 2m below the bedrock surface of the brook would be required to install the 0.9m diameter pipeline. The existing brook flows would need to be temporarily diverted so that the bedrock excavations can take place in as dry a condition as possible. NRW notes that the intention is to grout any discontinuities/fractures that may be encountered during the bedrock excavation works so that when the brook flows are returned, the possibility of fractures facilitating the movement of flowing water downwards, is negated. However, there is currently no information on the nature of the bedrock at or adjacent to the proposed crossing point. This information would typically be derived from strategically located boreholes and, potentially, trial pits. Such boreholes would enable representative samples of ground materials to be retrieved typically through coring, so that the nature of the bedrock, superficial deposits, and their engineering properties, including groundwater conditions and permeability, can be derived. Whilst the possibility of brook flow loss, after grouting may be low, the grouting would possess a finite design life and the possibility of brook flow loss in the future cannot therefore be ruled out.	
2.9.30	2.9	The applicant proposes to address these concerns through assessment, monitoring, and adaptive mitigation at the detailed design phase, and argues that the mitigation measures would be technically and financially feasible. However, based on the lack of available site-specific information for Alltami Brook NRW cannot currently advise whether this is correct or not.	The Applicant acknowledges NRW's comment and is undertaking ongoing engagement regarding the Alltami Brook. Further investigation is being undertaken in relation to the hydrogeology and groundwater interactions in relation to the proposed crossing of the Alltami Brook.
2.9.31	2.10	NRW therefore advises that the following further information should be submitted by the Applicant to inform a risk assessment of the proposed Alltami Brook crossing open-cut option so that its viability can be assessed, as follows:	See Applicant's Response to the Relevant Representations [REP1-042], Table 2-57, row 2.57.15.

Reference	Written Representation Ref	Written Representation	Applicant's Response
		a) Whether or not the affected reach of the Alltami Brook is 'losing' or 'gaining' water to/from the bedrock. If the stream is losing water, this loss could be enhanced with stream bed disturbance/excavation. During the site meeting on 27/03/23 the Applicant suggested flow monitoring could be undertaken to gauge flows in the Alltami Brook up and downstream of the proposed crossing point, to ascertain whether it is a gaining or losing reach. Further discussion between the Applicant and NRW concluded that this was unlikely to be of benefit due to the uncertainties involved in flow measurement, difficulties in finding two suitable stretches of watercourse and the limited time available. Given the uncertainties involved, unless flow monitoring identified very large differences in flow between the up and downstream sites it would be challenging to reach any meaningful conclusions. NRW advises that ground investigations (boreholes) that provide detailed information of the geology of the bedrock that would be exposed at the proposed Alltami Brook crossing point would be more accurate for drawing conclusions on the risk of impacts to surface water. b) The depth to the local groundwater and the thickness of any vadose	
		zone¹ beneath the streambed if the stream is 'losing' water to bedrock. c) Local stratigraphic control, the permeability of the local bedrock and the thickness of the streambed on that bedrock. Cutting through a streambed for excavation purposes may for example directly facilitate the ingress of stream water into the unsaturated bedrock. If the bedrock is fractured, and because fractures can possess high permeabilities, the streambed water may become lost to the subsurface.	
		d) The degree to which the bedrock can be excavated. This would depend upon the hardness of the bedrock at the crossing point. NRW advises that blasting the bedrock would not be suitable, but the method of bedrock excavation has not been provided to date and should therefore be provided for review.	
		e) Whether stream diversion would be required and how this would be achieved from a practical perspective.	
		f) The nature of legacy mine workings in the vicinity of the proposed crossing point and the influence that they may have on activities related to the crossing point, both for the excavation, construction, and operational phases.	

HyNet Carbon Dioxide Pipeline
Page 79 of 123

Reference	Written Representation Ref	Written Representation	Applicant's Response
		g) The potential that streambed excavation works could significantly damage the current stream flows (worst case: all the flow is lost to unsaturated bedrock below) and remove flow that is relied upon downstream. This would lead to deterioration of the hydromorphology element and potentially other WFD elements including water quality and biological.	
2.9.32	2.11	NRW notes that the proposed crossing option for Alltami Brook has been amended/substantiated by the applicant since the EIA Scoping stage (from a clearspan bridge to open cut). NRW acknowledges that the Applicant will include reference to the email correspondence received on 8 August 2022 from NRW regarding the comparison of crossing methodologies within the Errata document, and that the email correspondence from NRW (August 2022) is also referenced within the SoCG between the Applicant and NRW (document reference D.7.2.4). This email highlighted NRW's concerns associated with the open-cut Alltami Brook crossing proposal now submitted in comparison to the lesser environmental impacts of the other options considered. NRW advises that the Alltami Brook crossing appraisal of alternative options presented in Chapter 4 of the ES [APP-056] is lacking in detail that fully addresses the concerns highlighted above and should therefore be presented to the Examination for NRW to advise further.	The Applicant acknowledges the response from NRW and is continuing engagement with NRW to discuss these matters. In addition, the Applicant will provide an options appraisal document to NRW which assesses the various potential crossing solutions.
2.9.33	2.12	During the site meeting on 27 March 2023 the Applicant provided NRW with the design details of a clear-span bridging solution (with the pipeline buried within a concrete U-shaped channel above). Furthermore, during the site visit a narrow section of channel, underlain with bedrock to provide a suitable foundation, was identified as a potential crossing point for this alternative option which was within the design envelope of the proposed open-cut crossing point. In addition to this, NRW's position on culverts was discussed on site – NRW highlighted that it would normally only advise the use of culverts if there were no reasonably practicable alternative, or if they consider the detrimental effects would be so minor that a more costly alternative would not be justified. As such, given the existing impacts on the watercourse from the upstream A55 culvert (namely that the river sediments observed were very loose, unstable, unstructured and poorly sorted – thereby likely providing poor habitat given its high mobility) and the significant presence of exposed bedrock on site, it was discussed that it may be possible to consider a culvert	The Applicant acknowledges the response from NRW and is continuing engagement with NRW to discuss these matters. The Applicant notes that its preferred solution and the method for which consent is sought is the trenched crossing. The Applicant is currently undertaking EIA of an alternative option for an embedded pipe bridge as an alternative to the abovementioned preferred solution. The Applicant intends to introduce this option in Change Request 2.

Reference	Written Representation Ref	Written Representation	Applicant's Response
		bridging solution (provided that it was founded on bedrock, particularly at the inlet and outfall ends) given the likely minor additional detrimental effects. NRW confirmed that a clear-span or culvert bridging solution would be preferred rather than the present open-cut bedrock proposal. This approach would likely address NRW's concerns associated with burying the pipeline within the bedrock at the Alltami Brook crossing and the lack of supporting evidence to address the risks associated with that option.	
2.9.34	2.13	With regards to cumulative effects in respect of the risk of deterioration, NRW notes that the channel and banks of open-cut crossings "will be reinstated to mimic baseline conditions as far as practicable" (Table 5.3, ES Appendix 18.3: Water Framework Directive Assessment, APP-165). However, without further detail to clarify what the reinstatement works would entail NRW does not consider such assurance to be adequate to rule out deterioration. Section 4.7 of NRW's OGN 72: "Complying with	See Applicant's Response to the Relevant Representations [REP1-042], Table 2-57, row 2.57.16.
		the Water Framework Directive Regulations 2017: how to assess and appraise projects and activities" states "It is important to consider the in combination and/or cumulative effects of pressures in a water body and the combined impacts of the proposed activity". Given the expansive extent of the proposals and substantial number of sites requiring reinstatement mitigation (e.g., temporary culverts, open-cut crossings), this could cause a cumulative impact. Although the Applicant has referred to this in Chapter 18 of the ES [APP-070] no reference to cumulative effects has been	
		made in the WFD compliance assessment [APP-165] and NRW advises that this should be done.	
2.9.35	2.14	NRW agrees with the water bodies screened in to the WFD compliance assessment [APP-165]. It is also agreed that smaller water courses within the wider WFD water bodies are assessed, and tributaries of the Dee Transitional water body are assessed using surface water quality elements.	The Applicant acknowledges NRW's statement.
2.9.36	2.15	NRW made the following comments on the WFD Compliance Assessment within its Relevant Representation: • A) Calculations of the works footprint (in km² and % of water body area) have not been presented in Annex B, Table B.2. However,	A) The Applicant acknowledges that NRW no longer require the calculation of these metrics.

Reference	Written Representation Ref	Written Representation	Applicant's Response
		NRW agrees with the Applicant that it is not necessary to provide these calculations. Given further consideration, NRW understands that most of these impacts would be to upstream water courses and not directly to the Dee (North Wales) water body. Therefore, given the only crossing of the Dee (North Wales) water body is via a trenchless technique NRW concurs that the area metrics do not need to be calculated. • B) NRW acknowledges that construction impacts have been included in the WFD compliance assessment [APP-165], but the document notes (para. 2.3.5) "that the assessment of potential construction impacts is not required as part of a WFD assessment". However, NRW advises that a WFD compliance assessment should include all stages of project activity (construction, operation, maintenance, and decommissioning), as per NRW's internal guidance (OGN 72: Complying with the Water Framework Directive Regulations 2017: how to assess and appraise projects and activities), previously shared with the Applicant. • C) Section 1.2 – Study area: Some waterbodies are transboundary and were formally assigned to either NRW or Environment Agency for reporting purposes. NRW notes that there is a pipeline crossing in Finchett's Gutter water body, reported as being in England, but the crossing is in the Welsh part of the water body. However, NRW acknowledges that the Applicant intends to provide clarity on the England / Wales differentiation of transboundary water bodies within Chapter 18.3 • D) WFD Assessment [APP – 165] of the 2022 ES, in particular regarding the Finchett's Gutter crossing, and on that basis is not currently in a position to comment further on this matter until this information is received. WFD protected areas. There is no reference to groundwater drinking water protected areas (DWPA) – NRW advises that all groundwaters in Wales are DWPAs. The Dee Estuary Ramsar site is also a protected area (NRW has published a Protected Area Register with the River Basin Management Plans). The Dee estuary shellfish water prot	B) The Applicant recognises that paragraph 2.3.5 of the WFD compliance assessment [APP-165] is contradictory to the rest of the document and therefore will be removed prior to the end of Examination. C) The Finchett's Gutter water body falls within the remit of the Environment Agency for reporting purposes. The Applicant will provide a technical clarification to the political boundaries, however this will not affect the outcome of the assessment in [APP-165]. D) The Applicant will provide additional information regarding Protected Areas within an update to [APP-165] before the end of Examination. E) The Applicant acknowledges NRW's further comment on the Applicant's Responses to Relevant Representations [REP1-042] and will provide a correction to wording within [APP-165] before the end of Examination. F) The Applicant acknowledges NRW's further comment on the Applicant's Responses to Relevant Representations [REP1-042] and will provide an update to data used within [APP-165] before the end of Examination.

Reference	Written Representation Ref	Written Representation	Applicant's Response
		 (Wales) Regulations 2021. NRW is satisfied that the Applicant will provide a correction to the wording regarding the Nitrates Directive during the Examination Period. F) Table 5.12 and Table 5.13: NRW noted that different sets of information have been extracted for the Dee compared to North West and Western Wales River Basin Management Plans (RBMPs) but it was unclear why. NRW also noted that different versions of the RBMPs were used – 2015 plan for Western Wales and draft 2021 RBMP for the Dee, even though the Dee and Western Wales RBMPs were always published (drafts for consultation opened Dec 2020 and final plans published July 2022) at the same time. NRW is satisfied that the Applicant will review and provide updated data and information regarding the 2021 River Basin Management Plans (published in July 2022) as appropriate. 	
3. Access to Flo	ood Risk Assets		
2.9.37	3.1	The site boundary lies partially within Flood Zones C1 and C2 according to the Development Advice Map (DAM) contained within Technical Advice Note (TAN) 15: Development and Flood Risk.	The Applicant notes this point and has no further comments at this time.
2.9.38	3.2	The Flood Consequences Assessment (FCA, APP-168-170) also refers to the Flood Risk Assessment Wales (FRAW) maps. However, as the FRAW maps have no official status for planning purposes NRW advises that reference to these is removed. The FCA should be updated to refer to the Flood Map for Planning (FMfP) which represents the best and most up-to-date information on areas at flood risk than the DAM. NRW notes that the Applicant considers that the FMfP was unavailable at the time of writing the FCA, but it was publicly available. Notwithstanding this, NRW acknowledges that the Applicant has reviewed the contents of the FCA against the FMfP and has concluded that there are no changes to flood risk as reported in the FCA. NRW advises that this should be documented in the FCA.	The Applicant has reviewed the contents of the FCA [APP-168 to 170] against the FMfP and concluded no change to the flood risk as a result of the FMfP maps. This will be provided in the FCA Addendum at a future deadline.
2.9.39	3.3	NRW's powers under section 165 of the Water Resources Act (1991) include undertaking maintenance and improvement works to flood defences. NRW maintains its concerns regarding the impact of the temporary construction compounds and equipment yards on NRW's access arrangements for undertaking maintenance works to crucial flood assets. These concerns were highlighted in our Section 42 Preliminary Environmental Information Report consultation response (paragraphs 67)	Any works within 8m of a main river will require a permit from NRW. Access to maintain assets can be secured through the permitting of the construction works. The Applicant will obtain all relevant consents and licenses as set out in the Other Consents and Licences [REP1-011].

Reference	Written Representation Ref	Written Representation	Applicant's Response
		to 69, dated 22/03/22, our ref: CAS-181472-B2Q1), and in our Relevant Representations response. The concerns relate to NRW's access to the Hawarden and Northern Embankments, and to several main rivers in Sandycroft and Pentre. Retaining NRW's ongoing access to maintain assets which protect people and properties from flooding is vital. The ES (Chapter 18, APP-070) should therefore be updated to address these concerns and demonstrate that the proposed works will not temporarily adversely affect our access. The Applicant's response to our Relevant Representations on this matter is not considered sufficient.	
2.9.40	3.4	The ES (Chapter 18, APP-070) refers briefly to the construction compounds, and paragraph 18.8.4 states that "all centralised compounds are located outside the fluvial and coastal floodplain". However, NRW considers that this is not correct based on Sheet 14 of Drawing EN070007- D.2.4 – WP, as the centralised compounds "30D Wood Farm Compound" and "31A River Dee" are both located within the floodplain of the Tidal River Dee. NRW acknowledges that the Applicant has confirmed that the	The Applicant notes this point and has no further comments at this time.
2.9.41	3.5	In relation to paragraph 3.7.7 of the ES (Chapter 3, APP-055), which refers to a 24.4m permanent rights corridor which would place restrictions on how NRW could access this land. This could have implications for NRW's access to maintain flood defence assets, particularly where the pipeline runs under/close to flood defence assets, such as the Northern and Hawarden Embankments. NRW advises that further information is submitted to assess how this could affect NRW's ongoing routine flood defence asset maintenance works, which are completed regularly at these locations, and any major civil engineering improvements likely to be required to the defences within the design life of the pipeline (c. 40 years). If pipe locations deviate from agreed locations this could significantly affect NRW's Flood Risk Management activities and hence any change in location during the construction phase will have to be carefully managed. This matter was also raised in NRW's Relevant Representations, and NRW notes that the Applicant has acknowledged this concern and has committed to liaise with us on this issue. However, NRW is yet to receive any further correspondence or information to fully understand the implications of the permanent rights corridor.	The Applicant has considered Northern and Hawarden Embankments along the River Dee and in consultation with NRW have removed part of the Public Right of Way (PRoW) owned by NRW (Applicant's reference PS17) as part of the Applicant's Change Request 1 accepted by the ExA on 24 April 2023. Permanent acquisition of subsurface is required under flood risk assets owned by NRW in plots 14-05, 14-06, 14-07 and 14-08. Plots 14-09, 14-10, 14-12, 14-13, 14-15, 14-16, 14-18 have now been removed as a result of Change Request 1. It is not expected that NRW will be prevented from accessing and undertaking flood defence asset maintenance works and/or flood defence improvement works in this location in the future. Updated Heads of Terms setting out the proposed rights and were sent to the NRW on 15 March 2023, which was confirmed as received on 3 April 2023. As set out in the Schedule of Negotiations [REP1-009], the landowner advised they would aim to provide the Applicant with a substantive response on these terms before the end of April. The Applicant also notes that the Northern and Hawarden Embankments along the River Dee are the only flood defences that fall on the Carbon Dioxide Pipeline Route.

Reference	Written Representation Ref	Written Representation	Applicant's Response
2.9.42	3.6	The measures proposed for managing flood risk during the construction phase are referred to in the ES (Chapter 18) and the Outline CEMP (APP-225). However, there is no reference to what would happen to any arisings resulting from the installation of the pipeline. NRW also notes that the Outline CEMP (APP-225) refers to the trenchless crossing of the river Dee (Table 6.6 D-BD-019) stating that all entry and exit pits will be 16m away from any tidal watercourses. However, in order to ensure That associated flood defence structures are also considered and safeguarded, NRW advises that this should be updated to specify a distance of 16m away from any tidal water course and any flood defence structures on that water course. NRW acknowledges the Applicant's confirmation that the CEMP will be updated to address these points.	The Applicant acknowledges this point. The Applicant refers NRW to Table 3.2 (Summary of Trenchless Installation Techniques) of Chapter 3: Description of the DCO Proposed Development [APP-055] for details on arisings resulting from the installation of the pipeline. The OCEMP [REP1-015 and CR1-109] and associated commitment (D-BD-019) has been updated at Deadline 1 to specify a distance of 16m from flood defence structures.
2.9.43	3.7	NRW's Relevant Representations advised that location plans for each proposed crossing point should be provided. The Applicant has referred to Figure 18.5.17 which does provide a map of watercourse crossings. However, NRW also advised That the FCA should be updated to advise on the typical design principles that would be followed for the crossings, such as minimum cover requirements below hard / firm bed levels, and how far this level would extend either side of the bank. No further information has been submitted in relation to this, so NRW continues to advise that the FCA is updated to include a section on general design principles for the watercourse crossings.	The design and construction methodology is provided in Section 3 of the ES in Chapter 3 - Description of the Proposed Development [APP-055 and CRT-124], covering the construction methodologies for the proposed watercourse crossings. The Outline Construction Environmental Management Plan OCEMP [CR1-119 and REP1-017] also describes the environmental considerations under items B-D-018 and B-D-019. This is also further supported in the REAC [REP1-015 and CR1-109] under items D-BD-018 and D-BD-064, as secured by Requirement 5 of the dDCO [REP1-004].
2.9.44	3.8	NRW understands that discussions in relation to the crossing of Alltami Brook are ongoing, and that one of the potential options now being considered is an encased pipe bridge. However, we have not yet been provided with any information or plans detailing the proposed arrangement. NRW advises that the FCA should be updated to demonstrate that the consequences of flooding associated with the crossing can be managed and that there would be no increased flood risk elsewhere as a result of the proposed structure. NRW advises that the structure should be sized to convey the 1% Annual Exceedance Probability (AEP) event with an allowance for climate change, with the soffit level of the bridge being set at least 300 mm above the flood level for the 1% AEP event with an allowance for climate change. The central estimate climate change allowance should be applied (20% for the Dee catchment). The impacts of blockage should also be considered, and the FCA should contain a management and maintenance plan, outlining the	The Applicant acknowledges the response from NRW and is continuing engagement with NRW to discuss these matters.

Reference	Written Representation Ref	Written Representation	Applicant's Response
		measures that will be undertaken to minimise the risk of a blockage occurring. As the crossing is on an ordinary watercourse, NRW advises that the Applicant seeks further advice from the Lead Local Flood Authority (LLFA) in respect to design and consenting requirements.	
4. Air Quality			
2.9.45	4.1	NRW advises that the proposed dust deposition management plan to mitigate potential dust impacts on the River Dee and Bala Lake SAC appears adequate, in particular the creation of a Dust Management Plan to be approved by the Local Planning Authority (REAC, D-AQ-004, APP-222). NRW considers this to be a key aspect of mitigation to address potential dust impacts on the River Dee and Bala Lake SAC. Requirement 5(1) of the draft DCO should therefore be amended to require consultation with NRW prior to the LPA's approval of the dust management plan.	The Applicant welcomes NRW's comments regarding the mitigation measures to minimise impacts of dust during construction. The Applicant confirms that NRW will be consulted when the Dust Management Plan is produced. This document is secured by Requirement 5(2)(c) of the dDCO [REP1-004].
2.9.46	4.2	NRW acknowledges and welcomes the Applicant's confirmation (ref. 2.13.32, Applicant's Response to NRW Relevant Representation, draft, undated) that NRW will be consulted when the Dust Management Plan is produced. We note that this document is to be secured by Schedule 2, Requirement 5(2)(c) of the dDCO [APP024].	The Applicant acknowledges NRW's statement and has no further comments at this time.
5. Climate Resil	ience		
2.9.47	5.1	Chapter 7 of the ES [APP-059] is chiefly focused on national (UK) and English legislation and policy, e.g., there is no reference to the Welsh Climate Change Adaptation Plan – Climate Conscious Wales, but reference is made to the English National Adaptation Programme. Since the proposals would be located within England and Wales, NRW advised that the relevant Welsh climate change policies should also be acknowledged.	The Applicant welcomes NRW's comment regarding the Welsh Climate Change Adaptation Plan – Climate Conscious Wales and will include the policy within the next iteration of Chapter 7 of the ES [APP-059].
2.9.48	5.2	NRW acknowledges the Applicant's confirmation (ref. 2.13.33, Applicant's Response to NRW Relevant Representation, draft, undated) that the Welsh Climate Change Adaptation Plan – Climate Conscious Wales will be included within the next iteration of Chapter 7 of the ES [APP-059].	The Applicant acknowledges NRW's statement and has no further comments at this time.

Reference	Written Representation Ref	Written Representation	Applicant's Response
2.9.49	6.1	NRW considers the submitted surveys to be satisfactory for the purposes of informing the principles of constructing and operating the proposed scheme in respect of great crested newts (GCN), bats, otters, and water vole. NRW agrees with the overall conclusions within the ES.	The Applicant acknowledges NRW's statement and has no further comments at this time.
2.9.50	6.2	In terms of survey detail, NRW notes that there are currently outstanding bat foraging and dispersal surveys, and that this information is to be subsequently submitted, which is welcomed. NRW considers that this information is required for the purposes of informing the detail of the proposal (as opposed to the overall principles of the scheme).	The Applicant notes that the results of further bat surveys were submitted on 3 March 2023, subsequently accepted by the ExA as part of the Applicant's Section 51 advice response on 14 and 20 March 2023. Updated versions of the following documents were accepted by the ExA: • Appendix 9.3 – Bat Activity Survey Report Part 1 [AS-057] and Bat Survey Report Annex G Part 2 [AS-029] • Appendix 9.4 – Bats and Hedgerows Assessment Parts 1 to 7 [AS-032 to 037] (Part 2 superseded by AS-059)] The submission of these reports corroborates the original impact assessment and mitigation prescriptions as presented within the DCO Application. A revised version of Chapter 9 – Biodiversity [AS-025] was provided to the ExA, capturing minor text amendments in response to the submission of these three revised appendices. A Change Request was submitted to the ExA on 27 March 2023 and subsequently accepted by the ExA on 24 April 2023. Therefore, the most recent versions of the above documents are now available: • Appendix 9.3 – Bat Activity Survey [CR1-062] • Appendix 9.4 – Bats and Hedgerows Assessment Parts 1 to 3 [CR1-064 to CR1-066].
2.9.51	6.3	In terms of assessment NRW notes no apparent consideration of the current conservation status (CCS) of populations of European Protected Species (EPS) and favourable conservation status (FCS) in accordance with published guidance (see European Commission guidance document C/2021/7301). NRW understands that the Applicant intends to submit draft license application documents as part of the submission. However, absent of further information, NRW is not in a position to advise further in this regard.	The Applicant refers for paragraph 9.5.18 of Chapter 9 Biodiversity [AS-025], in which conservation status has been taken into consideration as part of the impact assessment methodology and nature conservation evaluation. The Applicant can confirm that it is preparing draft protected species licenses and will engage with NRW (and other relevant bodies) during the examination with a view to securing a Letter of No Impediment. The final EPS licenses to be secured in advance of construction commencement (upon confirmation of the detailed design) will appropriately consider current and favourable conservation status.
2.9.52	6.4	No apparent consideration has been given to low rainfall during spring 2022 and how this may have affected the results of GCN surveys. Furthermore, NRW notes that data relating to GCN had been split between England and Wales. However, considering the trans-boundary	The Applicant refers to the details that f the ponds taken forward for presence/absence survey in Wales, only seven ponds were recorded as dry during the course of surveys. Of these, one pond (pond 9) was recorded with GCN presence during the initial five surveys, with the waterbody recorded as dry during the sixth survey visit. All waterbodies that were

HyNet Carbon Dioxide Pipeline
Page 87 of 123

Reference	Written Representation Ref	Written Representation	Applicant's Response
		nature of this application there appears to have been no apparent consideration given to GCN within ponds located in England potentially using land within Wales as a component of a local population's foraging area. NRW therefore advises that the Applicant confirms: a) whether consideration of low rainfall conditions during Spring 2022 have been factored into the GCN assessments, and;	subsequently recorded as dry, were subject to at least one successful survey, with second, third or fourth survey visits recording the waterbodies as dry. Despite the results, the mitigation prescriptions and application of a PWMS (as captured within item D-BD-045 of the Outline Construction Environmental Management Plan (OCEMP) [CR1-119 and REP1-017]) to safeguard GCN during construction will be applied across the entire DCO Proposed Development. Pre-construction surveys will be completed in advance of construction commencement, where required, to inform licensing and bespoke mitigation
		 b) whether the terrestrial foraging range for GCN in England extends into Wales. If this information has not been considered within the assessments to date, NRW advises that this is included for the Examination. 	requirements as secured by Requirement 12 of the dDCO [REP1-004]. Regarding transboundary movement of GCN between England and Wales, given the contiguous nature of the landscape north of the River Dee, the terrestrial foraging range of GCN in England likely extends into Wales. The mitigation prescriptions alluded to above, will safeguard GCN during construction of the DCO Proposed Development.
		date, NITVV advises that this is included for the Examination.	As such both items have been appropriately considered by the Applicant within the impact assessment and addressed through the mitigation provisions prescribed within the OCEMP [CR1-119 and REP1-017].
2.9.53	6.5	In respect of GCN, NRW advises that historic records (including those over 10 years old) should also be used to inform the detail of mitigation measures, such as newt barrier fencing. Again, NRW would have no objection to this detail being addressed as part of the license application process.	Historic records of GCN have been used and detailed within Appendix 9.2 – Great Crested Newt Survey Report [APP-094 and CR1-060], the results of which have been used alongside survey results to inform appropriate mitigation measures in relation to GCN. The Applicant can confirm that historic data will be considered as part of any licence application for GCN.
2.9.54	6.6	NRW notes the outline recommendations and proposed principles for mitigation in the ES, OCEMP and the OLEMP. We note that the OLEMP [APP-229] and OCEMP [APP-225] form the basis for a detailed LEMP and CEMP to be produced at detailed design stage, as secured by Schedule 2, Requirements 11 and 5 of the dDCO [APP024]. NRW agrees with this overall approach. However, NRW advises that the current application should provide assurance of how the provision of long-term compensatory habitat for EPS would be secured through the DCO.	The Applicant acknowledges NRW's response regarding the agreement of this approach. The Applicant can confirm that long-term compensatory habitat for EPS will be provisioned within the respective EPS draft licence applications, where required. Draft licences will be provided to NRW for discussion and comment during the Examination. Final licenses required to facilitate construction in response to a Detailed Design will capture necessary compensatory habitat requirements.
2.9.55	6.7	Whilst to be developed at the detailed design stage, NRW notes that Schedule 2, Requirement 11 of the dDCO [APP-024] captures the need for inclusion of long-term management of habitats post-construction. Owing to the requirement for the provision of EPS compensatory habitat, NRW therefore advises that further information should be provided within the detailed LEMP in respect of the overall scope of long-term mitigation including consideration of issues such as future tenure, monitoring and	The Applicant can confirm that further information of the overall scope of the long-term mitigation will be set out within the detailed LEMP which will provide relevant details for long term management and monitoring of restored, reinstated, and created habitats (see response to 6.8 above). The OLEMP [APP-229] sets out an indicative programme for the initial 5-year maintenance period and 10 years for native tree screen planting and woodland creation. A detailed LEMP is to be developed at detailed design and there is a commitment in section 6 of the OLEMP to review this at the end of year 5 (year 10 for

HyNet Carbon Dioxide Pipeline
Page 88 of 123

Reference	Written Representation Ref	Written Representation	Applicant's Response
		licensing requirements for surveillance and management. NRW notes the Applicant's confirmation that the detailed LEMP to be developed at the detailed design stage will provide relevant details for long-term management and monitoring of restored, reinstated and created habitats and would welcome an updated draft LEMP being presented to the Examination that effectively considers these concerns.	native tree screen planting and woodland planting). Following this review, which will consider the latest situation regarding planting establishment, climatic conditions and land use, prescriptions for longer term management will be agreed.
2.9.56	6.8	Given the confirmed presence of GCN in ponds within or adjacent to the working DCO corridor, NRW advises that an EPS license will be required to enable the construction of the DCO Proposed Development. NRW notes that Measure D-BD-044 in the REAC [APP-222] which is secured by the CEMP, required by Schedule 2, Requirement 5 of the dDCO [APP-024] specifically cites the requirement for relevant licensing in respect of GCN. NRW also notes that the Applicant intends to apply for an EPS license to facilitate construction at the appropriate time as identified in the Other Consents and Licences document [APP-046]. However, this document only refers to such licenses being obtained from Natural England. NRW advises that this document is updated to include reference to the EPS licenses that would need to be obtained from NRW.	The Applicant can confirm that NRW has been included within the Other Consents and Licences document [REP1-011].
2.9.57	6.9	NRW acknowledges that the Applicant will provide prescriptive methods of work and measures for the protection and conservation of GCN and bats as part of the method statement for the EPS license application as prescribed in the Other Consents and Licences document [APP-046] to be submitted to NRW at the detailed design stage. NRW advises that these are set out in the GCN and bat conservation plans and associated Method Statements to be submitted as Annexes to the detailed CEMP. Provision of these plans should consider works during and post-construction including consideration of long-term issues.	The Applicant refers NRW to its responses to Q1.4.8 and Q.1.4.10 of the Applicant's Comments on Responses to ExA's First Written Questions for NRW WQ09 (document reference D.7.16). As detailed within D-BD-028, D-BD-044, D-BD-045 of the OCEMP [REP1-017 and CR1-119] a PWMS will be implemented to safeguard GCN and bats during construction. Details of the precautionary working methods for each species will be included within the associated method statements within each EPS licence application.
Schedule 1 bird s	species (Wildlife an	d Countryside Act 1981, as amended)	
2.9.58	6.10	NRW acknowledges the Applicant's clarification that surveys for potential barn owl roost/nest features were completed for the entirety of the Order Limits (where access allowed) and that the Order Limits have been revised and reduced during design development.	The Applicant acknowledges NRW's statement and has no further comments to make at this time.
2.9.59	6.11	NRW also acknowledges that Measures D-BD-005 and D-BD-006 in the REAC [APP-222] and secured by the CEMP, which is required by Schedule 2, Requirement 5 of the dDCO [APP-024] have been	See Applicants response in row 1.2.3 c) above.

HyNet Carbon Dioxide Pipeline
Page 89 of 123

Reference	Written Representation Ref	Written Representation	Applicant's Response
		prescribed to ensure completion of pre-construction barn owl surveys within a relevant Zone of Influence (ZoI) of the detailed designed pipeline route. NRW advises that the relevant ZoI for these barn owl surveys should extend to a maximum of 100m from the Newbuild Infrastructure Boundary.	
2.9.60	6.12	NRW acknowledges the measures included within the REAC [APP-222] (see D-BD037, D-BD-038 and D-BD-039) to mitigate potential impacts to barn owl or potential supporting features with requirements for licensing and the erection of alternative nest/roost locations where required. NRW notes that these measures are secured in the CEMP required by Schedule 2, Requirement 5 of the dDCO [APP-024]. NRW also notes that further information regarding the location of alternative nest locations, where required, will be confirmed at the detailed design stage but note that potential Zones of Influence associated with construction will be considered to ensure appropriate and suitable alternative nest box erection.	The Applicant acknowledges NRW's statement and has no further comments to make at this time.
2.9.61	6.13	NRW advises that alternative barn owl nest locations away from the Zol should be provided, especially where exclusion techniques are concerned. The scheme could also deliver other enhancements for barn owls in the local area (e.g., nest boxes).	See Applicants response in row 1.2.3 c) above.
2.9.62	6.14	NRW advises that Measure D-BD-043 of the REAC [APP-222] should include an appropriate pre-construction survey method for nesting Cetti's warbler (Cettia cetti) and clarify how disturbance to this species would be avoided during the breeding season. NRW advises reference to Gilbert et al., 1998 and that a disturbance buffer of greater than 5m may be required for this species.	See Applicants response in row 1.2.3 d) above. As noted in REAC [CR1-109 and REP1-015] item D-BD-43, exclusion buffer size will be at the discretion of the ECoW and in response to the species of bird encountered.
Fish			
2.9.63	6.15	NRW accepts the use of e-DNA techniques and the Applicant's explanation as to why some sites were ruled out from electrofishing surveys, noting that some locations are deemed too unsafe and difficult for electrofishing. NRW agrees that generally the eDNA sampling has shown general presence and absence of species within the water courses. NRW accepts that this is a sensitive sampling technique that occasionally will detect anomalous results caused by the various factors	The Applicant acknowledges NRW's statement and has no further comments to make at this time.

Reference	Written Representation Ref	Written Representation	Applicant's Response
		that the Applicant has outlined. It is accepted that for the areas that were too difficult to sample with electrofishing, e-DNA was a viable option.	
2.9.64	6.16	Regarding paragraph 3.4.205 of Appendix 9.9 [APP-113], NRW noted that no data could be produced from the Northop Brook e-DNA survey. NRW advised of the presence of European eel (Anguilla anguilla) and brown/sea trout (Salmo trutta) in this brook and note that this is acknowledged in Table 5 of Appendix 9.9 [APP-113]. Table 5 additionally acknowledges the presence of European eel and brown/sea trout within Broughton Brook. NRW is content with the proposed mitigation plans based on the presence of brown/sea trout and European eel in Broughton Brook, which will be important as NRW plan to improve migratory passage through this brook for the aforementioned species.	
2.9.65	6.17	With regards to the ES, Chapter 9 (Biodiversity): Table 9.6 (APP-061) NRW advises that river and sea lamprey are Annex II qualifying features of the Dee Estuary SAC, and European smelt, river and sea lamprey are features of the Dee Estuary SSSI, but these do not appear to have been referenced. However, NRW appreciates the proposed amendment for qualifying features/species in future ES versions.	
2.9.66	6.18	NRW accepts the Applicant's confirmation that all culvert design specifications will adhere to Environment Agency fish pass standards and proposed mitigation around their installation and removal. NRW welcomes further discussion and consultation about these on a case-by-case basis where necessary.	The Applicant acknowledges NRW's statement. The Applicant will consult with NRW on a case-by-case basis where necessary.
2.9.67	6.19	NRW accepts the Applicant's research and findings regarding the risk of frac-out during HDD of the tidal Dee. The 4-week time scale of the works also means that peak migratory periods can be avoided with this work despite the Applicants concluding a low risk of any negative impacts on fisheries occurring due to frac-out.	The Applicant acknowledges NRW's statement and has no further comments at this time.
Designated Sit	es for Nature Conserv	vation	
2.9.68	6.20	NRW notes that the existing natural gas pipeline to be repurposed for conveying carbon dioxide is already located below the Halkyn Mountain SAC/SSSI and Flint Mountain SSSI, and a new pipeline is not proposed at these locations. However, NRW advises that any maintenance of this pipeline that would involve potentially damaging operations within the	See Applicant's response within the Applicant's Response to Relevant Representations [REP1-042], Table 2-57, row 2.57.45 (page 111).

Reference	Written Representation Ref	Written Representation	Applicant's Response
		designated sites would need prior Section 28 approval from NRW unless permitted directly through planning condition/DCO requirement.	
2.9.69	6.21	NRW identified the potential for impacts arising from the introduction and spread of INNS, including Chinese mitten crab via water transfer during hydrostatic testing of the completed pipeline. NRW advises that this species is present in the river Dee, and possibly the Mersey, but note that the source of water for this activity is yet to be confirmed.	The Applicant acknowledges NRW's statement and has no further comments at this time.
2.9.70	6.22	NRW acknowledges that a Biosecurity Method Statement will be produced as part of the detailed CEMP, secured by Schedule 2, Requirement 5 of the dDCO [APP-024]. We note that the Biosecurity Method Statement will address all relevant INNS concerns that may be encountered during construction of the DCO Proposed Development and that sources of water for use during construction of the DCO Proposed Development will be defined during the detailed design stage. NRW therefore has no further comments regarding this.	The Applicant acknowledges NRW's statement and has no further comments at this time.
7. Land and Soil	S		
2.9.71	7.1	NRW advises that pipeline excavation and groundwater dewatering could result in interaction with existing groundwater contamination from local landfills and petrol stations. NRW acknowledges that the Applicant undertook a Ground Investigation Report, presented in Appendix 11.6 [APP-135 to APP-137] of the 2022 ES and that boreholes were located along the pipeline route and where possible located to target identified sources as indicated in Chapter 3 and Section 5.3 of the Ground Investigation report [APP-135 to APP-137]. NRW notes that additional boreholes will be discussed via the SoCG process. Such boreholes should be used to assess groundwater levels and local permeabilities before any excavation and dewatering works, as these would inform the nature and extent of dewatering/permitting that may be required in a particular location	The Applicant acknowledges this point. A Groundwater Management and Monitoring Plan is included under Requirement 5 of the draft DCO [REP1-004] and will be implemented by the Contractor. This will detail the groundwater monitoring strategy where dewatering activities are proposed, taking into consideration site-specific conditions.
2.9.72	7.2	NRW advises that a review of the Exploratory Hole Location Plan, Appendix 11.6, Ground Investigation Report Part 2, Rev A [APP-136] and Figure 18.3 Radii of Influence, Sheets 1 to 7 [APP-220] and Potential Contaminant Sources, Figure 11.1.3: Sheets 1 to 7 [APP-117] is required	The Applicant acknowledges the advice and concerns raised by NRW. The potential effects of dewatering activities on sensitive land use, including operational performance of private water supplies, and potential point source contamination associated with landfills and scrapyards will be considered as part of any hydrogeological impact assessment (HIA) delivered through the Dewatering Management Plan.

Reference	Written Representation Ref	Written Representation	Applicant's Response
		to understand the nature and extent of potential contamination sources along the proposed pipeline route, but also to understand: a) the degree to which the proposed pipeline excavation works could interact with the operational performance (flows and water quality) of a number of private water supply wells (at least seven), many of which appear to be related to farms based on information presented in Chapter 18: Water Resources and Flood Risk – Sept 2022, table 18.9 – Licenced groundwater abstraction and known private water abstractions within 1km of the Newbuild Infrastructure Boundary) [APP-070] and that are located within 0.3km of the pipeline excavation, and; b) the degree to which excavation dewatering could interact with several landfill sites, at least one scrapyard and one service station identified to be present in close proximity to the pipeline centreline and hence potentially facilitate the mobilisation of legacy contamination, such as groundwater contamination, that may have arisen from these sources. It is currently unclear based on the information reviewed to date if this potential dewatering/contamination interaction risk has been fully considered given that groundwater levels are known to be close to the ground surface along much of the pipeline route and some of these potential contamination sources are very close to the pipeline excavation alignment.	A Dewatering Management Plan is secured through Requirement 5 of the draft DCO [REP1-004] which will provide a framework for assessing the potential risks from dewatering activities and act as a vehicle for more specific detailed assessment (i.e. HIA), based on current guidance. The Dewatering Management Plan will be produced by the Construction Contractor.
2.9.73	7.3	In addition, NRW advises that the quality of the groundwater in the above locations is important as this will indicate the degree to which local groundwater within a section of pipeline excavation requiring dewatering is polluted and hence requires treatment. NRW advises that an acceptable methodology should be developed to determine the disposal of any pumped groundwater generated from pipeline dewatering activities. NRW acknowledges that the Applicant anticipates that a Dewatering Management Plan, where required, will be prepared and delivered via the detailed CEMP, by the appointed contractor, in line with REAC Measure D-LS-015 [APP-222] and secured by Schedule 2, Requirement 5 of the dDCO [APP-024], and this will include the testing and disposal requirements for any purge water.	The Applicant acknowledges this point. Where dewatering activities are proposed, then a hydrogeological impact assessment (HIA) will be undertaken that considers the potential effects on sensitive receptors, including for example, private water supplies and groundwater dependent terrestrial ecosystems (GWDTE).
2.9.74	7.4	NRW advises that the nature and extent of pipeline excavation dewatering that may be required at the Alltami Brook crossing location does not appear to have been defined in detail. The groundwater	The Applicant acknowledges NRW's comment and is undertaking ongoing engagement regarding the Alltami Brook. Further assessment is being undertaken in relation to the

Reference	Written Representation Ref	Written Representation	Applicant's Response
		conditions in the vicinity of the proposed Alltami Brook crossing point are currently unknown. During NRW's site visit with the Applicant on 27 March 2023 (a climatically dry day) at the proposed pipeline crossing point, the Applicant indicated that the land parcel to the south of the brook was infilled with made ground (old quarry/mine workings) on a significantly larger spatial extent than initially thought. The thickness of the made ground is currently undefined. The hydrogeological relationship between the made ground, the bedrock, and the superficial sediments in the vicinity of the Alltami Brook crossing point are therefore currently undefined and legacy mine workings/structures add another degree of uncertainty to potential behaviours. Understanding the nature of this material, such as its permeability and its relationship to the underlying bedrock together with the local hydrogeological conditions, is relevant to understanding the nature of dewatering works that may be required at this location.	hydrogeology and groundwater interactions in relation to the proposed crossing of the Alltami Brook.
2.9.75	7.5	Given the slope failures observed on the southern bank of Alltami Brook, NRW considers it likely that the made ground material is not well-compacted and potentially possesses a higher permeability than the natural in-situ superficial sediments; this would indicate that the local made ground could act as a sink for rainfall and infiltration. During particularly wet weather, groundwater levels within the superficial and made ground materials could be high and this would be of concern if excavation were to take place during such periods. NRW advises that these materials would require due consideration for the pipeline excavation works, notably in relation to made ground permeability, groundwater levels, hydraulic gradients and dewatering controls that may be necessary.	The Applicant acknowledges this advice and confirms that the nature of the made ground will be considered as part of any dewatering assessment delivered through the Dewatering Management Plan included under Requirement 5 of the draft DCO [REP1-004] to be developed by the Construction Contractor.
2.9.76	7.6	NRW advises that the nature and extent of dewatering during wet weather and the need to support the excavations from failing, along with the associated risks with the surrounding land already observed to be unstable, would be best managed by having site-specific information already available to develop the necessary actions to protect the slopes and prevent the potential for unstable ground entering Alltami Brook.	The Applicant acknowledges this advice and confirms that all dewatering activities will be subject to a hydrogeological impact assessment (HIA) delivered through the Dewatering Management Plan by the Construction Contractor at the detailed design stage. A Dewatering Management Plan and a Groundwater Management and Monitoring Plan is included under Requirement 5 of the draft DCO [REP1-004] and will be implemented by the Contractor. The Applicant refers to Section 4.2 of the Outline CEMP [CR1-119 and REP1-017], which sets out pollution incident control procedures, as secured by Requirement 5 of the dDCO

Reference	Written Representation Ref	Written Representation	Applicant's Response
2.9.77	7.7	NRW advises that further site investigation information and data in the vicinity of the proposed Alltami Brook pipeline crossing is required to understand the local hydrogeological conditions, notably the depth to groundwater and the relationships between the made ground, superficial sediments, and the bedrock. A particular unknown is the nature of the bedrock e.g., its fracture and hydrogeological characteristics, as bedrock in the brook bed would need to be excavated under the open-cut option.	The Applicant acknowledges NRW's comments and confirms that further site investigation will be undertaken to inform the detailed design. The Applicant is undertaking ongoing engagement regarding the Alltami Brook and further assessment is being undertaken in relation to the hydrogeology and groundwater interactions in relation to the proposed crossing of the Alltami Brook.
2.9.78	7.8	NRW advises that the potential for made ground materials to enter Alltami Brook, notably during or following wetter periods and which may be exacerbated by the pipeline excavation works themselves, should be avoided. NRW understands that heavy plant will be required to excavate the bedrock within the brook and such plant has the potential to further destabilise already unstable ground.	The Applicant acknowledges the advice. Measures to prevent soils and sediments entering the watercourse and to manage plant will be designed and delivered by the Construction Contractor through the CEMP under requirement 5 of the draft DCO [CR1-017 and REP1-004], at detailed design.
2.9.79	7.9	NRW understands that there is a slurry store in close proximity to the proposed pipeline alignment in the vicinity of the Alltami Brook crossing point. The nature of this store is unknown, but NRW advises that there is potential for inorganic pollutants such as phosphates and nitrates to migrate along the pipeline towards the brook crossing point and discharge into the water. NRW advises that the potential for this should be assessed in future iterations of Chapter 18 of the 2022 ES [APP-070].	Measures to control sediment run-off will be established in a detailed Construction Environment Management Plan (CEMP) prepared by the Contractor as secured by Requirement 5 of the dDCO [CR1-017 and REP1-004].
2.9.80	7.10	Regarding hydrostatic testing, NRW acknowledges that a validation report stating the final discharge volume, discharge methods and processes required will be produced by the contractor. This will be undertaken in line with REAC Measure D-LS-015 [APP222], which is secured by Schedule 2, Requirement 5 of the dDCO [APP-024]. NRW therefore has no further comments regarding hydrostatic testing.	The Applicant notes this point and has no further comments to make at this time.
8. Major Accide	ents and Disasters		
2.9.81	8.1	NRW generally accepts that the "Large scale release of CO2" major disaster scenarios (risk record entry no's. 6 and 18, Table 13.4, APP-065) can be managed by ensuring isolation of sections of pipeline following leak detection to be As Low As Reasonably Practicable (ALARP). However, on the understanding that modelling of CO2 releases is based on the length/pressure between Block Valve Stations (BVS) as a source	In addition to the Applicant's response provided to NRW's Written Representation at row 1.2.5 above, it should be noted that the risk assessment of CO ₂ releases includes consideration of the Block Valve Stations and the isolation of pipeline sections.

Reference	Written Representation Ref	Written Representation	Applicant's Response
		term linked to the design, NRW advises that the proposed HAZID studies during detailed design and modelling of CO2 releases should inform the modelling input parameters for establishing the risks, e.g., whether the hazard is acceptable or, if anything changes (i.e., pressure/length between Block Valve Stations (pipe isolation)/size of pipe) this would be re-assessed.	
9. Water Quality			
2.9.82	9.1	NRW agrees with the conclusions of the ES, WFD compliance assessment and HRA in terms of marine water quality based on the provision that the mitigation for pollution and biosecurity listed in the Register of Environmental Actions and Commitments (REAC, APP-222) can be secured within the CEMP.	The Applicant acknowledges NRW's statement and has no further comments at this time.
2.9.83	9.2	 NRW has the following advice regarding water pollution and the Outline CEMP [APP225]: Paragraph 4.2.2 and Table 6.1 (D-GN-003): Any pollution incident in Wales should be self-reported to NRW, without delay. Paragraph 5.2.2: NRW notes that the detailed CEMP will include a Biosecurity Management Plan. Site monitoring should include identifying the presence of INNS to minimise their spread. Table 6.1 (D-BD-054) should also include ordinary watercourses as it refers to a water discharge activity, not a Flood Risk Activity. Reference should also be made to NRW as it currently only refers to the EA. Table 6.15 - Water resources and flood risk: It is important that all identified measures are transferred and elaborated on in the detailed CEMP and surface water management and monitoring plan, particularly regarding soil management and prevention of silt pollution. Table 6.15 (D-WR-025): If sewage from welfare facilities is to be disposed via a septic tank to ground in Wales, this discharge activity will require either a registration of an exemption with NRW or a discharge permit, depending on location and flows. Table 6.15 (D-WR-035): Dewatering activities in Wales may require a water resources permit from NRW. Reference should therefore be made to NRW as this currently only refers to the EA. Given the size and length of time to complete this project NRW advises that the appointed construction contractor(s) and/or appointed environment manager make proactive contact with the local NRW environment team at the start of the construction phase. 	The Applicant can confirm that the site will be supervised by a suitably qualified ECoW who will be vigilant in the presence of INNS with any remedial actions in line with the Biosecurity Management Plan. The Applicant acknowledges NRW's comment regarding Table 6.15 and all measures will be transferred and elaborated on within the Detailed CEMPs by the Construction Contractor. Regarding NRW's comment on D-WR-025, an update has been made to D-WR-035 of the REAC [CR1-109 and REP1-015] which already covers water discharge and requirements with permits, with the incorporation of NRW to the commitment (see below). The Applicant has updated the following in the REAC [CR1-109 and REP1-015], as secured by Requitement 5 of the dDCO [REP1-004]: • D-BD-054 – "Temporary discharges will comply with the requirements for permits on Main Rivers from the Environment Agency and/or Natural Resources Wales, both regarding acceptable discharge volumes and water quality". • D-WR-035 – "The Dewatering Management Plan will summarise all licences and permits to abstract and discharge from dewatering works issued by the Environment Agency and/or Natural Resources Wales any authorisation and details of any pre-treatment required prior to discharged approved by the Environment Agency and/or Natural Resources Wales." The Applicant acknowledges NRW's comment on engagement at the start of the construction phase with the Construction Contractor.

Reference	Written Representation Ref	Written Representation	Applicant's Response
2.9.84	9.3	NRW notes that Requirement 5 of the dDCO states that: "(1) No stage of the authorised development can commence until a CEMP which includes that stage and approved by the relevant planning authority following consultation with [TBC]". NRW would wish to be a named party for being consulted on the detailed CEMPs by the relevant planning authority at the discharge of requirement stage.	Para 4.2.3 of the OCEMP sets out that the Construction Contractor will consult with relevant parties, organisations and statutory bodies. The Applicant acknowledges NRW's wish to be a named party for being consulted with, with regards to the Detailed CEMPs.
10. Dee Conser	vancy Trust		
2.9.85	10.1	NRW's comments with regards to the Dee Conservancy Trust estate centre around the need for a lease agreement to be in place, which covers the installation and operation of the HyNet infrastructure beneath NRW's estate. NRW's ability to undertake its statutory duties as Harbour Authority and Local Lighthouse Authority for the River Dee must not be impeded as a result of the proposal. The wording of any agreement must allow NRW, as the statutory harbour authority, to carry out navigation works within the lease area with notification to the Applicant, rather than with their permission.	This will be addressed in the lease agreement. The Applicant is not aware of any reason why navigation works would be infringed given that the crossing proposed is trenchless and the entry and exit pits for it are set back from the banks.
2.9.86	10.2	NRW would also advise that an annual payment is attached to the lease and that this is discussed further with the Dee Conservancy Trust.	This will be addressed in the lease agreement.
11. Approach to	o Environmental Imp	act Assessment	
2.9.87	11.1	Noting the Examining Authority's specific question (Q1.1.6) to the Applicant regarding the definition of "the project" for the purposes of the DCO in the context of the wider project and in consideration of NRW's comments made during the EIA Scoping consultation phase, NRW would advise as follows.	The Applicant acknowledges NRW's statement and has no further comments at this time.
2.9.88	11.2	There should be careful consideration of what comprises the 'project' for the purposes of the EIA to ensure compliance with the EIA Regulations. 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. NRW advises that the applicant's general approach of assessing the 'proposed development' for which the DCO is being sought as a distinct project	The Applicant acknowledges NRW's statement and has no further comments at this time.

Reference	Written Representation Ref	Written Representation	Applicant's Response
		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 Examining Authority/Secretary of State.	
12. NRW Regulation	on and Permitting	Services	
- Marine Licensing:	Regulatory Respor	nse	
2.9.89	12.1	NRW has received minimal engagement from the Applicant regarding the Marine License associated with the DCO submission. On the 21 January 2023, NRW's Marine Licensing Team issued a letter to the Applicant and the Planning Inspectorate confirming its intent to defer any EIA consent decisions under the Marine Works (EIA) Regulations 2017 in accordance with Regulation 10(1)(b) to the Secretary of State. This was followed by an email on 22 January 2023 to the Applicant and its agent explaining the marine licence application process and the documents that will be required for the processing of a marine licence.	The Applicant has undertaken additional engagement to that listed in NRW's response. The Case Officer emailed queries about the DCO process and the ES Assessment which the Applicant responded to on 7 February 2023. The Applicant also spoke to the Case Officer via phone call on 22 February 2023. It was agreed that the Applicant would signpost to the relevant parts of the ES assessment which specifically relate to the River Dee licensable works in their marine licence application.
2.9.90	12.2	A marine licence application has not yet been submitted in relation to the DCO Proposed Development.	The Applicant is currently progressing a marine licence application which is intended to be submitted to NRW to tie in with Deadline 3 (23 May 2023). NRW have been informed separately of this by the Applicant.
Flood Risk Activity	Permit		
2.9.91	12.3	For open cut crossings located on main rivers, a bespoke Flood Risk Activity Permit (FRAP) would be required under the Environmental Permitting (England and Wales) Regulations (EPR) 2016, for both the permanent and temporary works.	The Applicant acknowledges NRW's statement and has no further comments to make at this time.
2.9.92	12.4	The permanent works application would need to include details such as depth of cover beneath the bed of the main river and level of pipe/cable within an 8m/16m distance from the banks of the main river/toe of any associated flood defence structures, and the final route alignment.	
2.9.93	12.5	A temporary works application would need to be supported by a detailed method statement, including the cable's installation method and how flood risk would be managed during installation. NRW would need to consider impacts on access for inspection, maintenance and incident response, and impacts on the structural integrity of any flood risk assets in the	

HyNet Carbon Dioxide Pipeline
Page 98 of 123

Reference	Written Representation Ref	Written Representation	Applicant's Response
		vicinity. Service crossings below the bed of a main river using trenchless techniques (such as Horizontal Directional Drilling) can be registered as an exempt flood risk activity under the EPR 2016, subject to certain key conditions being met as per part 4 of Schedule 3 of the EPR 2016.	
2.9.94	12.6	NRW advises that these points are addressed in the ES (Chapter 18, APP-070). We note that some of the proposed crossings affect watercourses in Sandycroft. There is a complex network of multiple infrastructure in this urban area i.e., many mixed age culverts very close to residential property, within roads, with multiple utility pipes present. The crossings at these locations will require careful consideration, with input from NRW. A FRAP may also be required for any works in, over, under or within 8m of a fluvial main river (including any defences on that main river), or 16m of a tidal main river (including any defences on that main river), or within a flood plain. Please see our website for further information. NRW notes that the Applicant has acknowledged the need for a FRAP and that this detail will follow in due course.	As set out in the Other Consents and Licences document [REP1-011], the Applicant will submit an appropriate application after the DCO is made.
European Protecte	d Species Licensin	g	
2.9.95	12.7	Given the confirmed presence of GCN in ponds within or adjacent to the working DCO corridor, NRW advises that an EPS license will be required to enable the construction of the DCO Proposed Development.	The Applicant can confirm that it is preparing draft protected species licenses and will engage with NRW (and other relevant bodies) during the examination with a view to securing a Letter of No Impediment. The final EPS license will be secured in advance of construction commencement (upon confirmation of the detailed design), as required by item D-BD-002 of the OCEMP [REP1-017] (superseded by [CR1-119]).
13. NRW's Genera	l Purpose	,	
2.9.96	13.1	NRW is satisfied that this advice is consistent with its general purpose of pursuing the sustainable management of natural resources in relation to Wales and applying the principles of sustainable management of natural resources. In particular, NRW acknowledges that the principles of sustainable management include taking account of all relevant evidence and gathering evidence in respect of uncertainties, and taking account of the short-, medium- and long-term consequences of actions. NRW further acknowledges that it is an objective of sustainable management to maintain and enhance the resilience of ecosystems and the benefits they provide and, in so doing meet the needs of present generations of people without compromising the ability of future generations to meet their needs	The Applicant acknowledges NRW's statement and has no further comments to make at this time.

	Written Representation Ref	•	Applicant's Response
		and contribute to the achievement of the wellbeing goals in section 4 of the Well-being of Future Generations (Wales) Act 2015.	

Table 2.10 - Comments on the Written Representations Submitted at Deadline 1 by Network Rail [REP1-072]

Reference	Written Representation	Applicant's Response
The Protective	e Provisions	
2.10.1	Network Rail's standard, and well precedented in DCO Protective Provisions have been reviewed and commented upon by the Applicant in January 2023. Currently Network Rail's comments in return (sent on 16 th February) are being reviewed and considered by the Applicant.	The Applicant acknowledges the response from Network Rail. The negotiation of the terms of the protective provisions with Network Rail is ongoing.
2.10.2	Compulsory Acquisition As stated in the s56 Representation, Network Rail as statutory undertaker, has statutory obligations to ensure the safe operation of the railway, Network Rail cannot agree to the Applicant being granted the unfettered ability to exercise compulsory acquisition powers over the operational railway. This is not acceptable to Network Rail as it would create a serious detriment to the continued safe, economic and efficient operation of the operational railway. As such the protection from compulsory acquisition of Network Rail's land and interests must be included in the Protective Provisions.	The negotiation of the terms of the protective provisions with Network Rail is ongoing. Network Rail has provided a draft of the agreements for review and the Applicant is considering those.
	The terms of Network Rail's standard Protective Provisions including protections against the compulsory acquisition of Network Rail's operational railway land, have been widely accepted and incorporated in multiple DCOs.	
	As stated in Network Rail's section 56 Representation, any temporary possession of, or acquisition of permanent rights over, Network Rail operational land can only be granted with Network Rail's consent. Any such use of the operational railway must only be permitted in accordance with the statutory requirements imposed on Network Rail as the operator of the railway network and subject to all necessary requirements to ensure the safe, economic and efficient operation of the railway. In addition, any acquisition of rights over the operational railway must be subject to Network Rail's land clearance process, which is imposed on Network Rail by its Network Licence. This process includes internal consultation with railway stakeholders and the ORR (Network Rail's regulator).	
2.10.3	Framework Agreement Network Rail require a Framework Agreement to be entered into to manage the direct interface that the DCO has with the operational railway. The first draft of the Framework Agreement was sent to the Applicant on 16th February 2023. Network Rail is currently awaiting the Applicant's first response to the Framework Agreement.	The Applicant acknowledges receipt of the Framework Agreement from Network Rail and is reviewing the document.
2.10.4	Asset Protection Agreement Asset protection agreements are always required by Network Rail where works are significantly close in location and disruptive nature to the operational railway network. Such agreements are well precedented to ensure the appropriate and necessary technical,	The Applicant has been seeking sight of a draft Asset Protection Agreement which has recently been provided. The Applicant cannot accept a term binding it to enter into such an agreement without reviewing this. That review is being undertaken now in order to progress this.

HyNet Carbon Dioxide Pipeline
Page 101 of 123

Reference	Written Representation	Applicant's Response
	engineering and safety requirements for working on, over or near Network Rail's operational railway. Due to the location of the Applicant's proposed works, Network Rail requires an asset protection agreement in order to carry out its statutory duty.	
	Network Rail is currently awaiting confirmation that the Applicant accepts this requirement.	
2.10.5	Network Rail's Requirements Network Rail requires the draft Order to include Network Rail's standard form of its Protective Provisions for the protection of Network Rail and its operational railway and associated railway infrastructure and to manage the interface between the proposed development and Network Rail's operational land.	The Applicant acknowledges the submission by Network Rail regarding protective provisions. The Applicant confirms that it is engaging with Network Rail on this matter, a record of such engagement can be found in the draft Statement of Common Ground with Network Rail [REP1-037] submitted at Deadline 1.
	For the reasons set out above, Network Rail considers a Framework Agreement to be the most effective way of; agreeing the inclusion of Protective Provisions required by Network Rail, asset protection agreement, providing for the grant of rights through a wayleave agreement, providing Network Rail with the comfort of retaining its existing rights, providing for the recovery of Network Rail costs and governing the relationship between the parties.	
	As previously stated in the section 56 representation, Network Rail does not object to the project in principle. However, Network Rail is under a statutory duty to protect the operational railway and associated railway infrastructure. Discussions to date with the Applicant are progressing, however as Network Rail is currently awaiting further comments on the Protective.	
	Provisions and first substantive comments on the Framework Agreement, Network Rail must maintain its objection to the project.	

Table 2.11 – Comments on the Written Representations submitted at Deadline 1 by Peel NRE

Reference	Written Representation	Applicant's Response
Objections		
2.11.1	HyNet is a ground-breaking clean energy project which will not only produce hydrogen for use in transport and industry (replacing fossil-fuel generation) but will also capture	The Applicant acknowledges the response of Peel NRE and has no further comments.
	and store CO2 produced by energy intensive industries during manufacturing processes.	
2.11.2	Peel NRE is a supporting organisation of HyNet and remains wholly supportive of the principle of the Pipeline. Indeed, Peel NRE recognises that there are potential beneficial synergies between the Pipeline, HyNet and Protos.	The Applicant acknowledges the response of Peel NRE and has no further comments.
2.11.3	HyNet is a ground-breaking clean energy project which will not only produce hydrogen for use in transport and industry (replacing fossil-fuel generation) but will also capture and store CO2 produced by energy intensive industries during manufacturing processes. Peel NRE is a supporting organisation of HyNet and remains wholly supportive of the principle of the Pipelline. Indeed, Peel NRE recognises that there are potential beneficial synergies between the Pipeline, HyNet and Protos. However, should the Order be granted as proposed, the Pipeline will conflict with planned development at Protos which would prejudice the delivery of a key development within CWACC and limit its potential. The Pipeline will also conflict with the future ambitions of Peel NRE for the expansion of Protos on the Affected Land. The key issues presented in this Representation, and to which objections are raised, include: • Layout of the Ince AGI • Means of access to the Ince AGI and CO2 Pipeline • Environmental considerations • Easement of the CO2 Pipeline (as shown on Works Plan reference: EN070007-D.2.4-WPSheet 1) • Negotiating land agreements for the Affected Land (as shown on Works Plan reference: EN070007-D.2.4-WPSheet 1)	Through frequent dialogue between Peel NRE and the Applicant, the IP's position is understood. The Parties are engaging in commercial discussions to control the co-existence and interaction of the developments in a manner which allows both to proceed.
		The Applicant notes that the inclusion of Ince AGI in this location is a key asset and enabling piece of infrastructure for Peel NRE and their tenants.
	include:	In line with the DCO documentation, areas of temporary possession are being highlighted on the appropriate plans to assist Peel NRE in their masterplanning for the site.
		In terms of the objections, the following status summary can be given:
	Environmental considerations	Layout of the Ince AGI
	 WPSheet 1) Negotiating land agreements for the Affected Land (as shown on Works Plan 	Please refer to the response given in point 2.11.5 to 2.11.8 below.
		Means of access to the Ince AGI and CO2 Pipeline
		The access route shown in the DCO covers existing road layouts on site. Future provision is being covered in commercial discussions.
		Environmental considerations
		The Applicant has received the full list of environmental considerations from the IP as part of this table and shown in Table 2-10 for the first time. The Applicant has responded to a number points as highlight in the draft SoCG [REP1-027] submitted at Deadline 2 and will continue to engage to reach common ground with the IP as part of the SoCG process.
		 Easement of the CO2 Pipeline (as shown on Works Plan reference: EN070007-D.2.4-WPSheet 1)
		This is being covered in commercial discussions.
		 Negotiating land agreements for the Affected Land (as shown on Works Plan reference: EN070007-D.2.4-WP-Sheet 1)
		This is being covered in commercial discussions.

HyNet Carbon Dioxide Pipeline
Page 103 of 123

Reference	Written Representation	Applicant's Response
2.11.4	Peel NRE has been working with the Applicant to resolve the objections, however the Parties (Peel NRE and the Applicant) have not yet managed to reach agreement on the above matters. Those matters that are agreed (to date) are set out in the Statement of Common Ground (SoCG) submitted by the Applicant. Until satisfactory agreement has been reached with the Applicant on all matters to resolve Peel NRE's concerns, Peel NRE maintains its objection and must continue to reserve the right to make further submissions to the examination.	The Applicant notes this and continues to work with Peel NRE through the draft SoCG [REP1-027] and commercial discussions to resolve these issues and objection.
Layout of the I	nce Above Ground Installation	
2.11.5	There are no concerns with the principle of the Ince AGI element or its general location, however Peel NRE objects to the proposed layout of the Ince AGI.	The proposed layout of Ince AGI within the Work area is indicative. The Applicant has discussed alternative layout options with Peel NRE that would be compatible with the design flexibility given in the DCO consent. The final layout will be confirmed by the Construction Contractor during the detailed design phase of the project.
2.11.6	It is noted within the Planning Statement for the Application (document reference: D.5.4 , para 5.2.29) that the Applicant states the location of the Ince AGI has been agreed with Peel NRE. Whilst the general location is agreed, the layout is not agreed.	The Applicant notes this and is working with Peel to resolve these points. See response to 2.11.5.
2.11.7	The Ince AGI is located with the Green Belt, open countryside, flood risk area, and a local wildlife site. The layout needs to be carefully considered to not conflict with existing site constraints.	The Applicant has drafted BVS and AGI Landscape Plan Rev B [CR1-008] - Sheet 2, which show an indicative landscaping scheme. The Applicant will ensure the constraints are worked within by the Construction Contractor during the detailed design phase of the project, when the design is finalised.
2.11.8	It is understood the Order will be granted to the Works Plans (reference: EN070007-D.2.4-WPSheet 1), and the final precise layout of the Ince AGI will be within the limits of the Order. No Environmental Mitigation Areas are defined on the Works Plans (reference: D.2.4-WPSheet 1). Notwithstanding this, the Ince AGI Landscape Layout (reference: D.2.14-LAY-Sheet 2) identifies the location for landscaping/ ecological mitigation and a drainage detention pond. The current location of such features has the possibility to constrain future planned development across the Affected Land. Peel NRE accordingly objects to the current proposed layout of the Ince AGI. The precise location of the Ince AGI and mitigation features should be agreed with Peel NRE.	
Green Belt		
2.11.9	The Planning Statement (document reference: D.5.4 Planning Statement) correctly identifies the Ince AGI is located within the Green Belt. The National Planning Policy Framework (NPPF) is clear that inappropriate development within the Green Belt is, by definition, harmful and should not be approved except in Very Special Circumstances (VSC)	The Applicant acknowledges the response of Peel NRE and confirms that the case for very special circumstances has been demonstrated within the Planning Statement [REP1-013].

Reference	Written Representation	Applicant's Response
	(NPPF para 147). VSC will not exist unless the harm to the Green Belt, and any other harm, is outweighed by other considerations (NPPF para 148).	
2.11.10	It is agreed the Ince AGI is inappropriate development and is therefore harmful to the Green Belt (by definition). Peel NRE agrees with the Applicant's case presented in the Planning Statement (document reference: D.5.4) that the harm to the Green Belt is outweighed by VSC including the locational need of the Ince AGI and the benefits that will arise as a result of the Project as a whole, including contributing to the UKs commitment to achieve net zero by 2050, the urgent need for carbon reduction infrastructure, and contribution to the overall reduction in greenhouse gas emissions. A full understanding of the 'other harms' resulting from the proposal is not clear from the information submitted to the Examination to date. These concerns are described in further detail below at paragraphs 3.27 – 3.42.	The Applicant acknowledges the response of Peel NRE and has no further comments.
Open Countrys	side	
2.11.11	The site of the Ince AGI is located within the 'countryside' as defined by CWACC Local Plan (Part 1) Strategic Policies. Policy STRAT9 applies which seeks to protect the character and beauty of the countryside by restricting development to that which requires a countryside location and cannot be accommodated within the identified settlements.	The Applicant acknowledges the response of Peel NRE and confirms that an assessment, concluding compliance against STRAT9 from the Local Development Plan has been demonstrated within the Planning Statement, Appendix B [REP1-013].
2.11.12	Whilst the Planning Statement for the Application does not specifically address the 'countryside' element of Policy STRAT 9 (instead focusing the analysis on Green Belt), it is our opinion the same case made for the VSC case can also be applied for the need to locate the proposal within the countryside, and that any harm to the countryside is outweighed by the benefits of the scheme including contributing to the UKs commitment to achieve net zero by 2050, the urgent need for carbon reduction infrastructure, and contribution to the overall reduction in greenhouse gas emissions.	The Applicant acknowledges the response of Peel NRE and confirms that an assessment, concluding compliance against STRAT9 from the Local Development Plan has been demonstrated within the Planning Statement, Appendix B [REP1-013]. The Applicant welcomes the conclusions provided by Peel NRE that the case for 'Very Special Circumstances' can also be applied for the need to locate required infrastructure within the countryside. The Applicant would also direct Peel NRE to the Needs Case for the DCO Proposed Development [APP-049].
Flood Risk Zor	ne and Drainage	
2.11.13	The site of the Ince AGI is located within a 'flood risk zone' as defined by CWACC Local Plan (Part 1) Strategic Policies. Policy ENV 1 applies which seeks to reduce flood risk. The Environment Agency flood risk maps identifies the site as being within an area at 'low' risk of flooding.	The Applicant acknowledges the response and has no further comments.
2.11.14	A Flood Risk Assessment supports the Application which confirms the Ince AGI will be served by a drainage system which will accommodate for the effects of flooding and climate change.	The Applicant acknowledges the response and has no further comments.
2.11.15	Additionally, the layout of the Ince AGI (as shown on plan reference: EN070007-D.2.10-LAYSheet 1) orientates the infrastructure adjacent to an existing drain which travels in an east/west direction to the north of the Ince AGI (East Central Drain) (an Environment Agency	The Applicant acknowledges the response from Peel NRE. The Applicant notes the IP's reference to "Future Planned Infrastructure" and is engaging with the IP to secure details of this infrastructure to ensure the separate developments can co-exist

Reference	Written Representation	Applicant's Response
	"main drain"). The location of the Ince AGI and associated surface water drainage infrastructure needs to be a sufficient offsetting distance from the main drain and also incorporate sufficient space for future planned infrastructure within this area.	The Applicant confirms that the Ince AGI proposed drainage infrastructures (excluding any proposed connection/outfall into the watercourse) are located at least 8 metres away from the main watercourse to the north of it (i.e. East Central Drain).
		At the detailed design stage, the Environment Agency and the Lead Local Flood authority will be consulted on the detailed alignment for comments e.g. in relation to the proposed outfall into the watercourse.
2.11.16	It is also understood that temporary drainage systems and other temporary works to watercourses are proposed (including temporary diversion channels) to facilitate construction. These should be discussed and agreed with Peel NRE to ensure that these do not conflict with future development ambitious.	The Applicant acknowledges the response from Peel NRE, and notes that temporary drainage arrangements are temporary and contained within the Construction Contractor's works area during the construction phase only.
2.11.17	Peel NRE accordingly objects in principle to the current proposed layout of the Ince AGI and is in the process of discussing matters with the Applicant to agree a position acceptable to both parties. The precise location of the Ince AGI and other infrastructure should be agreed with Peel NRE. Peel NRE is liaising with the Applicant to agree terms for a private agreement to regulate how works in proximity to Protos are undertaken and to govern agreement as to the precise location of the Ince AGI to ensure that Protos can continue to come forward and is not compromised by the DCO.	The Applicant notes this and is working with Peel to resolve these points. See response to 2.11.5.
Local Wildlife	Site	
2.11.18	The site of the Ince AGI is located within a 'Local Wildlife Site'. Local Plan (Part 1) Strategic Policy ENV 4 applies which seeks to safeguard and enhance biodiversity. The policy requires 'no net loss' of natural assets. However, there is an emerging requirement for developments to achieve 10% biodiversity net gain. Whilst this requirement is not yet mandatory it is fast becoming the expectation for developments to achieve this figure.	Permanent impacts associated with the construction of the Ince AGI will result in the loss of some habitat associated with the Frodsham and Ince Marshes LWS. Design has sought to minimise losses and retain existing priority habitats wherever possible in line with the mitigation hierarchy. Where this is not possible, further options to mitigate this loss will be explored during detailed design stage. Any remaining losses of priority habitat within the LWS will be adequately compensated for to achieve a net gain in these habitat types.
		Any losses of priority habitat within this LWS are being compensated for through the BNG assessment to achieve an overall net gain, and that this will be delivered through off-site compensation, largely due to the difficulty in ensuring and securing on-going long-term management for priority habitats within the Order Limits.
		Discussions regarding offsetting of these habitats is on-going with CWCC and other potential delivery partners.
		The Applicant however notes that there is no statutory obligation under the Environment Act 2021 on this Application to provide BNG. Therefore, while delivery of BNG is agreed to be desirable and a minimum target of 1% has been set, the 10% provision threshold does not apply and is not required to accord with existing policy.

Reference	Written Representation	Applicant's Response
2.11.19	Additionally, the layout of the Ince AGI (as shown on plan reference: EN070007-D.2.10-LAYSheet 1) orientates the infrastructure adjacent to an existing drain which travels in an east/west direction to the north of the Ince AGI (East Central Drain). This drain is known for the presence of Water Voles. Additional Water Vole survey work is understood to be completed, with this to be submitted as supplementary information during the determination of the DCO. This information is requested by Peel NRE to fully understands the impacts of the Application.	Results of further surveys were submitted on 3 March 2023, subsequently accepted by the Examining Authority (ExA) as part of the Applicant's Section 51 advice response on 14 and 20 March 2023. The Riparian Mammal Survey Report [AS-039] details the results of the water vole surveys noting that presence has been confirmed in West Central Drain, with Precautionary Presence of water vole assumed on East Central Drain and Elton Ditches. Mitigation has been developed and is presented within the Outline CEMP [REP1-017 and CR1-120]).
2.11.20	Peel NRE accordingly objects in principle to the current proposed layout of the Ince AGI and is in the process of discussing matters with the Applicant to agree a position acceptable to both parties. The precise location of the Ince AGI should be agreed with Peel NRE.	The Applicant notes this and is working with Peel to resolve these points. See response to 2.11.5 above.
Access		
2.11.21	The proposed access road from Grinsome Road roundabout to the Ince AGI and pipeline corridor (as shown on Works Plan ref. EN070007-D.2.4-WP-Sheet 1) conflicts with the delivery of the approved Protos Plastics Park (CWACC Planning application ref. 21/04076/FUL), and the delivery of the railway line consented as part of the overarching planning permission for Protos (ref. 14/02277/S73), which would constrain the delivery of the developments. Therefore, at this stage, Peel NRE objects to the proposed access (as shown on Works Plan reference: EN070007-D.2.4-WP-Sheet 1).	The Applicant acknowledges this response. The Applicant refers to the response to 2.11.24 below.
2.11.22	A plan of the approved Plastics Park masterplan (reference: 20039-FRA-XX-00-DR-A-90-0005 P2) is provided with an overlay of the proposed access route to the Ince AGI and pipeline (shown on plan reference: EN070007-D.2.4-WP-Sheet 1). This is provided at Appendix 16. This overlay plan clearly shows the conflict of the Applicant's proposed access with the planned development of the Plastics Park at Protos. A plan of the approved railway line is provided at Appendix 17 (plan reference: 0775/SK/05).	
2.11.23	The Plastics Park forms part of the development proposals across Protos, which as described above, is identified in CWACCs adopted Local Plan as a key strategic site for economic growth and safeguards the land for a multi-modal resource recovery park and energy from waste facility for use in connection with the recycling, recovery and reprocessing of waste materials (Local Plan Part One Policies STRAT 4 and ENV 8; and Local Plan Part Two Policy EP6). The access to the Ince AGI as proposed in the Application would constrain the delivery of a key strategic site in CWACCs Local Plan.	
2.11.24	An alternative means of access should be identified by the Applicant to avoid conflicting with planned development at Protos, and avoid conflicting with the strategic ambitions established by CWACC in their adopted Local Plan; or negotiations should continue with	The Applicant acknowledges this response. This is being discussed as part of ongoing commercial discussions. The Applicant is committed to working with all IPs including Peel NRE to ensure the most appropriate means of access to the DCO Proposed Development are identified for the use of

Reference	Written Representation	Applicant's Response
	Peel NRE as part of the property terms to reach agreement on the access arrangement, as set out in the SoCG.	construction traffic. The Applicant acknowledges complexities around this in this specific location and has identified two options shown in Figure 17.4 Construction Traffic Routes [CR1-092] for use which will mitigate the impact of the construction of the DCO Proposed Development and will not significantly impact the delivery of the approved Protos Plastics Park (CWCC Planning application ref. 21/04076/FUL).
2.11.25	It is also noted that construction traffic routes to the Ince AGI would include Ash Road and Grinsome Road via Pool Road, with measures to mitigate effects comprising advanced hazard warning signage along Ash Road is proposed (as set out in the Outline Construction Traffic Management Plan, Annex A). Given Grinsome Road is the access to / from Protos, further consideration should be undertaken to identify the interaction with vehicles (including HGVs and Abnormal Loads) along these routes with measures to reduce delays / restrictions and engagement with Peel NRE and operators to minimise disruption.	There are a range of measures outlined in the Outline Construction Traffic Management Plan [APP-224] which are designed to mitigate against negative impacts that might otherwise arise from the construction of the DCO Proposed Development. These measures have focused on publicly accessible routes which are managed by the Local Highway Authorities. The Applicant welcomes further dialogue with Peel NRE over the implementation of proposed mitigation measures along Grinsome Road, noting the interface with Protos and the desire to minimise disruption.
2.11.26	The Consultation Report (document reference: D.5.1 , Revision A, September 2022, reference: S1-09), states the Applicant is open to changing the access route provided continued access is made available to the Ince AGI, as is also established in the SoCG. This is welcomed and further conversations should be held with Peel NRE, but at this stage Peel NRE objects in principle to this aspect of the proposal.	The Applicant acknowledges this response. This is being discussed as part of ongoing commercial discussions.
Environmental	Considerations	
2.11.27	Odour impacts The Applicant has identified the potential for odour emissions at the Ince AGI, with associated Odour Zone, which lies close to Protos (shown on Figure 6.3). Further consideration should be given to commercial and industrial uses nearby as part of the assessment. It is understood that such emissions can be mitigated through the adoption of an appropriate odour management regime.	The Applicant notes that although industrial and commercial receptors are not strictly considered in the assessment of effects from hydrogen sulphide, Paragraph 6.9.19 of Chapter 6 Air Quality [APP-058] and [CR1-124] states that there is a minor risk of odours during manifold venting at Ince AGI. The venting events will be highly infrequent. The risk of odours at all receptors will be minimised by ensuring whenever possible venting occurs at times of favourable meteorological conditions to facilitate pollutant dispersion (D-AQ-039 of the REAC [CR1-109 and REP1-015]). The implementation of an Odour Management Plan (D-AQ-042 of the REAC, [CR1-109 and REP1-015]) will to notify nearby residents (including commercial/industrial receptors). An Outline Odour Management Plan (document reference D.7.25) has been submitted at Deadline 2.
2.11.28	Peel NRE objects on the basis that the odour management plan has not been provided as part of the information submitted as part of the DCO application outlining the anticipated management regime.	The Applicant has submitted an Outline Odour Management Plan (document reference D.7.25) at Deadline 2.
Location and E	Extents of Ecological Mitigation	
2.11.29	With relevance to the Ince AGI, no Environmental Mitigation Areas are defined on the Works Plans (reference: D.2.4-WP-Sheet 1). However, ecological mitigation measures are proposed include an area of riparian habitat enhancement along the southern bank of East	The Applicant acknowledges the response from Peel NRE and has no further comments at this time.

Reference	Written Representation	Applicant's Response
	Central Drain as well as the planting of native triple staggered hedgerow, hedgerow trees native shrub planting and species rich grassland around the Ince AGI (reference: D.2.14-LAY-Sheet 2). The location and extent of these works should be discussed with Peel NRE to ensure that these do not prejudice future development ambitions.	
2.11.30	It is also recognised that additional opportunities for biodiversity enhancement are being considered by the Applicant to achieve at least 1% gain in Priority Habitats, including refining / reducing the extent of proposed temporary impacts and delivery of further habitats.	The Applicant acknowledges the response from Peel NRE and has no further comments at this time.
2.11.31	In addition, a comprehensive suite of baseline ecological surveys have been undertaken to identify whether protected / notable ecological species are present within the Newbuild Infrastructure Boundary or appropriate Zones of Influence (ZOIs) surrounding the Pipeline. However, it is noted that further baseline surveys were to be undertaken post-June 2022 with the information to be provided during the DCO examination period.	Results of further surveys were submitted on 3 March 2023, subsequently accepted by the ExA as part of the Applicant's Section 51 advice response on 14 and 20 March 2023 [AS-029 to 042 and AS-057 to 059].
2.12.32	and whether this corroborates the baseline conditions, impact assessment and mitigation identified for protected / notable ecological species. Any further mitigation requirements should be clearly defined and discussed and agreed with Peel NRE if located at Ince AGI to ensure that these do not prejudice development aspirations.	Results of further surveys were submitted on 3 March 2023, subsequently accepted by the ExA as part of the Applicant's Section 51 advice response on 14 and 20 March 2023. Updated versions of the following documents were accepted by the ExA:
		• Appendix 9.3 – Bat Activity Survey Report Part 1 [AS-057] and Bat Survey Report Annex G Part 2 [AS-029]
		• Appendix 9.4 – Bats and Hedgerows Assessment Parts 1 to 7 [AS-032 to 037] (Part 2 superseded by AS-059)]
		Appendix 9.6 – Riparian Mammal Survey Report [AS-039]
		The submission of these reports corroborates the original impact assessment and mitigation prescriptions as presented within the DCO Application. A revised version of Chapter 9 – Biodiversity [AS-025] was provided to the ExA, capturing minor text amendments in response to the submission of these three revised appendices.
		A Change Request was submitted to the ExA on 27 March 2023 and subsequently accepted by the ExA on 24 April 2023. Therefore, the most recent versions of the above documents are now available:
		Appendix 9.3 – Bat Activity Survey [CR1-062]
		Appendix 9.4 – Bats and Hedgerows Assessment Parts 1 to 3 [CR1-064 – CR1-066]
		Appendix 9.6 – Riparian Mammal Survey Report Part 1 and Part 2 [CR1-072 – CR1-073]
		No further mitigation requirements at Ince AGI have been identified. All mitigation measures for the DCO Proposed Development in relation to Biodiversity are detailed within the REAC [CR1-109 and REP1-015], and as secured within the CEMP within Requirement 5 of the DCO [REP1-004]

Reference	Written Representation	Applicant's Response
2.11.33	Peel NRE therefore objects on the basis that the currently proposed mitigation measures are not agreed and further mitigation requirements are unknown.	The Applicant acknowledges the response from Peel NRE and has no further comments at this time.
Impacts on De	velopment Land and Businesses	
2.11.34	As part of Chapter 16: Population and Human Health, effects on 'development and land and businesses' have been 'scoped into' the EIA. As part of this assessment, it is acknowledged that the Newbuild Infrastructure Boundary lies in proximity to Protos and effects on the strategic employment site are concluded to be 'Minor Adverse (Not Significant)' following mitigation.	The Applicant acknowledges the response from Peel NRE and has no further comments at this time.
2.11.35	Within the assessment, Protos is categorised as being of 'High' sensitivity, which does not correlate with the criteria provided (Chapter 16, Table 16.2), which indicates that land allocated for employment (e.g. strategic employment sites) covering >5ha should be considered as 'Very High'. Given the strategic, allocated nature of the Protos site it is considered that the latter category would be more appropriate.	It is noted that the Protos energy has been incorrectly identified as 'high' sensitivity and it should be classed as 'very high'. However, given that the effects are still considered to be minor, this does not result in a change to the overall recorded effect of moderate adverse.
2.11.36	The assessment identifies 'the potential for temporary disruption to businesses as a result of potential minor access restrictions to roads whilst construction is undertaken. Associated construction traffic could also give rise to amenity effects for employees and customers' (Chapter 16, Paragraph 16.9.6). In addition, for the temporary disruption impacts described are additional impacts which have the potential to affect consented developments within Protos and Peel's future expansion ambitions, including direct land-take associated with the access road from Grinsome Road roundabout which conflicts with the delivery of the planned Protos Plastic Park (CWACC reference: 21/04076/FUL) and interactions with the Protos Railway Line (CWACC reference: 14/02277/S73).	Protos Plastic Park (CWCC reference: 21/04076/FUL) and its potential effects on population and human health has been assessed within the Combined and Cumulative Effects assessment [APP-071]. Planning permission for Protos's site (CWCC reference:14/02277/S73) Railway Line has already been granted planning permission and the first phase of works have been undertaken. This has therefore been considered as part of the existing baseline.
2.11.37	It is also unclear whether the Pipeline would be classified as a Major Accident Hazard Pipeline by the Pipeline Safety Regulations 1996 and therefore 'generate' a Consultation Zone with associated land use restrictions. There are a number of other pieces of legislation noted within Chapter 13: Major Accidents and Disasters (e.g. The Planning (Hazardous Substances) Regulations 2015 and The Dangerous Substances and Explosive Atmospheres Regulations 2002) and it is not clear whether to respond to the relevant requirements under this legislation, appropriate separation or 'stand-off' distances may be applied. Such additional land use restrictions also have the potential to prejudice currently consented and future development ambitions at Protos.	CO ₂ is not currently defined as a dangerous fluid under the Pipelines Safety Regulations 1996 and, as such, CO ₂ pipelines are not classified as Major Accident Hazard Pipelines and do not have an associated Consultation Zone. Therefore, developments around CO ₂ pipelines are currently not subject to controls under Land Use Planning. CO ₂ is not currently regulated under The Planning (Hazardous Substances) Regulations 2015 or The Dangerous Substances and Explosive Atmospheres Regulations 2002 and, as such, there are no defined separation or 'stand-off' distances.
2.11.38	Given this, Peel NRE objects on the basis that these potential impacts are not currently addressed and mitigation measures are not set out to address these impacts.	The Applicant acknowledges the response from Peel NRE and has no further comments at this time.

Reference	Written Representation	Applicant's Response
Assessment of	f Cumulative Effects	
2.11.39	An assessment of cumulative effects is provided within Chapter 19: Combined and Cumulative Effects. This covers cumulative effects in terms of multiple, different effects to receptors caused by the Pipeline (intra-project) and in combination with any other developments/ projects in the vicinity (inter-project). These types of assessment ensure that the requirements to consider cumulative effects pursuant to the Infrastructure Planning (EIA) Regulations 2017 (as amended) are met for the DCO application.	The Applicant acknowledges the response from Peel NRE and has no further comments at this time.
2.11.40	To identify relevant projects for the assessment of inter-project effects, a series of search criteria have been used (Chapter 19, Paragraph 19.5.14). Based on the search undertaken three projects have been identified within Protos (Appendix 19.1 (Table 2) and Figure 19.1), comprising:	
	 ID 1e(iii) - TCPA – CWACC: 19/03489/FUL Development of a hydrogen production plant (HPP) and electricity generating plant, comprising of a waste reception and handling building, gasification facility, hydrogen roduction facility with associated/ancillary infrastructure which includes access roads, weighbridge, fencing / gates, lighting, surface water drainage, and electricity distribution plant¹; ID 54 TCPA - CWACC Reference: 21/04076/FUL: Materials recycling facility, two plastics recycling facilities, a polymer laminate recycling facility and a hydrogen refuelling station (Protos Plastics Village); and ID 63 TCPA - CWACC Reference: 20/04396/FUL: Resource recovery facility (Plastics Recycling Facility). 	
2.11.41	Whilst these Other Developments have been considered, there are a number of other extant permissions which have not yet been implemented or are under construction as of Spring 2023 which lie within the land owned by Peel at Protos. These are outlined in Appendix 2. The location of these developments is provided at Appendix 4, and layout plans at Appendices 5 – 15.	A review of the list of applications provided by Peel NRE has identified developments that would qualify for inclusion in the long-list of the Inter-Project Effects Assessment (Table 2 of Appendix 19.1 of the 2022 ES [APP-172]). These developments, with references: 14/02277/S73 (including Plots 1-3 and 5-7), 18/04671/WAS (Plot 4), 19/02566/FUL, 17/02683/FUL (Plot 15) and 18/01543/S73 (Plot 8) have been assessed and will be included in the updated 2022 ES that will be submitted during the examination process as the updated final baseline. The result of this assessment is summarised as follows.
		All Protos Plots are assessed as a related development despite some being small scale. These individual developments overlap in some cases with the DCO Proposed Development and therefore have the potential for adverse effects in both the construction and operation stages. Development 18/04671/WAS would result in mostly Negligible, but some Minor Adverse Inter-Project Effects primarily in the construction stage.
2.11.42	Due to the proximity and scale of these developments and potential for intra-project effects due to the presence of common sensitive environmental receptors (specifically in respect to air quality, traffic and transport and biodiversity), Peel NRE objects to the current scope and contents of the cumulative assessment.	The Applicant acknowledges Peel NRE's statement. Those developments identified in 2.11.41 will, where identified, be included in the updated 2022 ES submitted at the end of the DCO examination process.

Reference	Written Representation	Applicant's Response
Easement of the	he CO2 Pipeline Corridor	
2.11.43	The pipeline corridor is proposed to travel north/south along the eastern boundary of the Order limit. The location of the pipeline corridor in the current proposal is an improvement on the location of the pipeline previously proposed in the Section 42 Consultation. However, despite this improvement, the current proposals are still not acceptable to Peel NRE on the basis that the proposed 24.4m corridor around the pipeline for the permanent acquisition of sub-soil (at plots 1-11, 1-12, 1-13, 1-15, 1-18 and 1-19) would cause an unacceptable quantum of land to be restricted from development by way of the proposed restrictive covenants.	The Applicant acknowledges this response. The 24.4m easement is necessary for the protection and maintenance of the pipeline. The restrictive covenants are required to achieve that protection. The covenants do not mean that any development over the pipeline will be unacceptable, and it is anticipated that some developments will be suitable in this location including for example accesses or car parking. However, in order to ensure that the pipeline is protected, consent would be required for any development within the easement area.
2.11.44	The proposed restrictive covenants prevent any activity from being undertaken on this land (within the 24.4m corridor) which would interfere with the pipeline (unless the prior written consent of the Applicant is obtained) including drilling foundations and hard surfacing. Such restrictions over the proposed quantum of land would impose unacceptable restraints on the ability to develop and extend the Protos site at these plots (as described above). Peel NRE accordingly objects in principle to the current proposal on the basis of the permanent acquisition and quantum of land included within this 24.4m corridor and is in the process of discussing matters with the Applicant to agree a position acceptable to both parties.	See response to row 2.11.43 above.
Negotiating La	and Agreements	
2.11.45	At this stage, Peel NRE objects to the proposed acquisition of land, interests and rights identified within the Land Plans (drawing ref. EN070007-D.2.2-LP-Sheet 1). The Applicant proposes to acquire land (including interests and rights) permanently for the Ince AGI, the subsurface (including rights) permanently for the Pipeline, the permanent rights to access, and the temporary use of land for construction. These acquisitions will severely restrict the future development of this parcel of land by Peel NRE, not just during construction of the Pipeline but throughout the lifetime of its operation.	The Applicant notes this and has been working with Peel NRE to minimise the physical impact to the site. The Applicant notes that the Ince AGI infrastructure is critical for Peel NRE's site development and when installed will be a key site asset. These points are parts of ongoing commercial discussions.
Withdrawal of	Objections	
2.11.46	In order for Peel NRE to be in a position to withdraw its objection to the proposed Order, Peel NRE requires confirmation from the Applicant that:	The Applicant acknowledges Peel NRE's statement and is working with the IP to resolve this objection via commercial discussions.
	the access to the Ince AGI is relocated or renegotiated to avoid conflicting with planned development at Protos.	
2.11.47	the acquisition of land and rights over the Affected Land (including the extinguishment of any rights) is on terms agreed with Peel NRE;	The Applicant acknowledges Peel NRE's statement and is working with the IP to resolve this objection via commercial discussions.

Reference	Written Representation	Applicant's Response
2.11.48	sufficient protection for the Protos expansion is afforded by the Pipeline scheme to enable the Protos expansion to come forward unhindered;	Whilst the Applicant notes that the Ince AGI infrastructure is critical for Peel NRE's site development and when installed will be a key site asset. The Applicant acknowledges Peel NRE's statement and is working with the IP to resolve this objection via commercial discussions.
2.11.49	no works pertinent to the Affected Land shall be carried out without Peel NRE's prior approval of the plans, specification, method statement and programme of works;	The Applicant notes that the Ince AGI infrastructure is critical for Peel NRE's site development and when installed will be a key site asset.
2.11.50	full access rights, during both the construction and operation phases, are retained to the Affected Land for the benefit of Peel NRE;	The Applicant acknowledges Peel NRE's statement and is working with the IP to resolve this objection via commercial discussions.
2.11.51	submission of an Odour Management Plan and securement of its implementation through the DCO;	The Applicant has submitted, in accordance with commitment D-AQ-042 of the REAC, [CR1-109 and REP1-015], an Outline Odour Management Plan (document reference: D.7.25) at Deadline 2, as secured by Requirement 5 of the dDCO [REP1-004].
2.11.52	clarification on the timing of supplementary information and any additional further ecological mitigation requirements at Ince AGI;	The Applicant refers the IP to its response in row 2.11.32 above, on the supplementary information and results of further surveys submitted.
2.11.53	updated assessment of impacts on Protos (e.g. direct land-take) and development of appropriate mitigation to avoid / reduce impacts; and	The Applicant acknowledges Peel NRE's statement and is working with the IP to resolve this objection via commercial discussions.
2.11.54	updated cumulative assessment, fully considering intra-project effects with consented development within Protos.	A review of the list of applications provided by Peel NRE has identified developments that would qualify for inclusion in the long-list of the Inter-Project Effects Assessment (Table 2 of Appendix 19.1 of the 2022 ES [APP-172]). These developments, with references: 14/02277/S73 (including Plots 1-3 and 5-7), 18/04671/WAS (Plot 4), 19/02566/FUL, 17/02683/FUL (Plot 15) and 18/01543/S73 (Plot 8) have been assessed and will be included in the updated 2022 ES that will be submitted during the examination process as a final update to the baseline. The result of this assessment is summarised as follows.
		All Protos Plots are assessed as a related development despite some being small scale in some cases. These individual developments overlap in some cases with the DCO Proposed Development and therefore have the potential for adverse effects in both the construction and operation stages. Development 18/04671/WAS would result in mostly Negligible, but some Minor Adverse Inter-Project Effects primarily in the construction stage.

Table 2.12 – Comments on the Written Representations submitted at Deadline 1 by Rostons on behalf of Richard Benjamin Jones [REP1-081]

Reference	Witten Representation	Applicant's Response
2.12.1	Pipeline Route The route of the pipeline passes through the middle of a number of fields surrounding the farmyard and will effectively remove a significant area from the grazing platform, which is crucial to the dairy enterprise. Due to the loss of land the farm would need to acquire an additional 16 acres where they would be able to spread slurry. Spare land is not easily available in close proximity of the farm and there will be additional costs incurred in transporting slurry to such sites. Alternatively, increase storage capacity would have to be installed at the farm byway of a new slurry store to provide additional capacity to mitigate the loss of land.	The Applicant will continue to engage with the landowner to mitigate the impacts of the pipeline route on their land. The Applicant does not expect there to be a permanent loss of land as a result of the pipeline once construction has been completed. The Applicant also confirms that during construction a corridor of 32m will be required. The Applicant will seek to work with the IP to ensure appropriate mitigation measures are in place to reduce the impact of construction, when the location of the construction corridor has been defined (by the Construction Contractor). The IP is aware of the upcoming legislation changes in relation to the Nitrogen limits and slurry storage and will need to ensure that their system is fully compliant prior to the construction of the pipeline. The land loss will be temporary and compensation will be assessed on a case-by-case basis in accordance with the Compensation Code.
2.12.2	Due to the loss of land the farm, which is used for grazing and silage production there will be shortfall in fodder available to the dairy herd which will have to be brought in. The import of additional forage from other farms proposes a biosecurity risk of importing diseases from other cattle herds. This is of a particular concern with regards to the impact of TB affecting the dairy herd. The farms TB status is currently clear and due to the closed system have never suffered a TB breakdown, if this were to change as a result of imported TB in forage the farm would be unable to sell or move cattle.	The Applicant will continue to engage with the landowner to mitigate any impact on their farm business during the construction of the pipeline giving due regard to any biosecurity measures. If land is affected, compensation will be assessed on a case-by-case basis in accordance with the Compensation Code.
2.12.3	Due to loss of productive grassland, the current summer grazing system would need to be changed to accommodate cattle indoor yearly during the construction period, this would further intensify the need for additional forage and bedding, as cows will not be able to graze outdoors in the summer months. Furthermore, given the extremes in weather conditions and the recent droughts there may not be the option of purchasing in additional forage from other farms as there will not be the grass available to harvest, which would have a knock-on impact of the profitability on the farming enterprise and would result in cattle being sold.	The Applicant will continue to engage with the landowner to mitigate any impact on the dairy enterprise during the construction of the pipeline. The Applicant does not expect there to be a permanent loss of land as a result of the pipeline once construction has been completed. The Applicant confirms that during construction a corridor of 32m will be required. The Applicant will continue to engage with the landowner to mitigate any loss of land for their farm business during the construction of the pipeline. The Applicant will seek to work with the IP to ensure appropriate mitigation measures are in place to reduce the impact of construction, when the location of the construction corridor has been defined (by the Construction Contractor). If land is affected, compensation will be assessed on a case-by-case basis in accordance with the Compensation Code.
2.12.4	The presence of the pipeline where it crosses each field entrance and following the works these areas will continue to be trafficked by cattle and farm machinery, if the land is to be accessed, this will result in significant soil structure and water logging of the land, which presents several issues. Firstly, mud will be taken onto the road and cause a health and	The Applicant will continue to engage with the landowner to mitigate any health and safety concerns.

Reference	Witten Representation	Applicant's Response
	safety issue to passing traffic. Secondly, due to the poor condition of the soil, it will remain muddy and unproductive, reducing the productivity capacity of the farm and also leaving	The Applicant will engage with landowners to discuss site specific accommodation works to mitigate impacts on farming businesses.
	cattle walking through muddy areas, necessitating additional cleaning when being brought back to be housed.	An Outline Soil Management Plan [APP-227] has been prepared to try and mitigate future impacts on soil structure and productivity capacity.
		If losses do occur, compensation will be assessed on a case-by-case basis in accordance with the Compensation Code.
2.12.5	Impact On Residential Property The main access route to the works is to be located in close proximity to the residential property which further compounds to the stress and anxiety that will be suffered by the Jones's, whose farm and business are already surrounded and severely impacted. Essentially, they will be unable to escape the impact of the pipeline and being a farming business, they cannot simply pack their bags and go on holiday or leave the property for an extended period of time. This main construction route will be used to haul construction equipment and to lay the pipeline as well as for the crossing underneath the Liverpool to Chester railway line. We have requested from the developer, but have not received any formal confirmation the following: • A structural survey to be taken of the residential property, the cost to be covered by the developer as to ensure any damage to the property that incurs during construction can be accurately recorded.	The Applicant notes the concerns raised regarding the impact on the farming business and residential property and will continue to engage with the landowner to mitigate the impact of the pipeline construction. The Applicant does not believe that it would be appropriate or necessary to undertake a structural survey on the residential property as the Construction Contractor will not be undertaking any construction activities that would result in structural damage to residential properties outside of the Order Limits in this area.
2.12.6	We propose that a construction access route alongside the railway be used which will divert traffic away from the residential properties.	A construction access route is already proposed and included within the Order Limits along the western side of the Liverpool to Chester railway (Plot 9-25). It is recognised that the existing track is very narrow and is directly adjacent to a residential property. As a result, use of this access will be limited as appropriate, and a second access will be utilised for heavy construction traffic. The second access route will be via a new field access off Station Road (Plot 10-1) along the pipeline construction right of way and therefore through an area that will already be disturbed by pipeline construction.

HyNet Carbon Dioxide Pipeline
Page 115 of 123

Table 2.13 – Comments on the Written Representations submitted at Deadline 1 by Stephens Scown LLP on behalf of Stephen Oultram and Catherine Oultram

Refence	Written Representation	Applicant's Response
2.13.1	Our clients take no issue with the principle of the proposal and have no comment to make on its merit in planning terms, its compliance with policy nor on whether it is capable of achieving its planned objectives. Our clients' interest is in the detail of the proposed route and implication of the project, on which subjects our clients have already made representations through Fisher German LLP. We note that the Examining Authority has already put questions to the Applicant on the proposed methodology for dealing with compensation claims and its comments on farm severance. We welcome those interventions of the ExA and await the Applicant's responses. Our clients are aware of a number of badger setts which are very close to the proposed route. These setts will presumably need to be relocated and the animals disbursed, relocated or culled. The ExA will be well aware of the on-going concerns over interactions between badgers and cattle. We would welcome further detail on the intentions with respect to badgers. There can be a particular risk with empty setts, which are vulnerable to reoccupation by individuals with a lower health status, thus increasing the risk to the farm stock.	The Applicant note and welcome that the IP takes no issue with the DCO proposed development. With respect to compensation, the Applicant refers to their response in Table 2.30 in the Applicant's Response to Relevant Representations [REP1-042], submitted at Deadline 1. The Applicant notes applications for appropriate protected species licences are the responsibility of NRW or NE respectively for Wales and England and the Applicant with seek any necessary licenses. For the avoidance of doubt, the Applicant will not cull or otherwise harm badgers during the construction, operation or decommissioning of the DCO Proposed Development. The Applicant has completed a series of ecological surveys for a number of protected and/or notable species, including targeted badger surveys. These surveys have identified badger activity and sett locations within and beyond the Order Limits. The Applicant has sought to avoid impacts to protected species and habitats wherever possible through the early design considerations of the DCO Proposed Development and will continue to refine these during the preparation of the detailed design. As such, the Applicant has sought to avoid impacting badgers and their setts wherever possible. As a number of setts have been identified as being at risk during construction of the DCO Proposed Development, mitigation has been devised to safeguard badgers, including the closure (temporary or permanent) of setts (see items D-BD-020 and D-BD-021 of Chapter 9 – Biodiversity [AS-025], and of the Environmental Statement Addendum Change Request [CR1-124], and Register of Environmental Actions and Commitments (REAC) [CR1-109 and REP1-015]), as secured by the CEMP in Requirement 5 of the dDCO [REP1-004]. Only where construction may be impeded by the presence of setts has the Applicant considered the need to apply mitigation and interfere with setts.
2.13.2	It is presently the intention that, from 2025, if a farm in Wales wishes to apply for subsidies it will be a requirement to have 10% of land hosting woodland. The farm operated by our clients currently meet this requirement but not by a wide margin. They might find their farm ineligible for subsidies depending on how much woodland is removed. This ought to be a consideration for the proposed route and otherwise the loss of subsidies will need to be a factor in the calculation of compensation.	Compensation for any loss of subsidies will be assessed on a case-by-case basis, in accordance with the Compensation Code. The Applicant is keen to engage further with the IP regarding opportunities to safeguard their woodland hosting capabilities.

HyNet Carbon Dioxide Pipeline
Page 116 of 123

Refence	Written Representation	Applicant's Response
2.13.3	Our clients understand that the local Community Council has been informed that the choice of location for the construction compound will be left to the (yet to be appointed) contractor. We have already indicated the ExA that the proposed location of the construction compound ought to be included on the ASI and have expressed concerns, repeated here, that that land is incredibly valuable to the operation of the herd and the production of silage and that the loss of this land (even for a temporary period) would require either or both a reduction in herd numbers and/ or a fundamental change in farming practices requiring the acquisition of additional equipment. Our clients will lose that area as a valuable source of silage and grazing land and the proposed access to the compound will severely disrupt if not completely prevent access to the remaining grazing land for their milking herd, making the dairy business unviable from that point of initial disruption. Given the length of time the 'temporary' compound is expected to be in use, there is no possibility that the dairy business could be put into statis for that period and revived. It will either need to continue as it has done or be abandoned and compensated.	The Applicant has welcomed the IP's suggestion to include their farm in the ASI Itinerary [REP1-041] submitted at Deadline 1, with two of their sites included. The Applicant will continue to engage with the landowners to mitigate any loss of land for their farm business during the construction of the DCO Proposed Development and will continue to discuss with them methods that reduce and mitigate the scheme impacting their business. If any of the landowners' land is lost, compensation will be assessed on a case-by-case basis in accordance with the Compensation Code.

Table 2.14 – Comments on the Written Representations submitted at Deadline 1 by Woodland Trust

Reference	Witten Representation	Applicant's Response
2.14.1	Objection – impact to ancient woods and trees As the UK's leading woodland conservation charity, the Woodland Trust aims to protect native woods, trees and their wildlife for the future. We own over 1,000 sites across the UK, covering over 30,000 hectares and we have over 500,000 members and supporters. We are an evidence-led organisation, using existing policy and our conservation and planning expertise to assess the impacts of development on ancient woodland and ancient and veteran trees. Planning responses submitted by the Trust are based on a review of the information provided as part of the application to the Planning Inspectorate.	The Applicant acknowledges the objection related to the impact to ancient wood and trees of the Woodland Trust and is continuing to engage to resolve the matter.
2.14.2	Impact to ancient woodland and veteran trees We hold serious concerns with regards to the potential impact to several areas of woodland designated as ancient on Natural Resource Wales's Ancient Woodland Inventory, plus likely loss of up to six veteran trees (T849, T850, T858, T1048, T1056 and T1074) and potential root encroachment to a further seven trees/groups (G573, G623, T628, T631, T827, T857 and T877) as outlined in the Arboricultural Impact Assessment [ref: APP-115]. The ancient woodlands of concern are as follows: - Unnamed RAWS woodland (grid reference: SJ272674) - Unnamed ASNW woodland (grid reference: SJ263677) - Leadbrook Wood WS (grid reference: SJ254699) - New Inn Brook Wood WS (grid reference: SJ288671) - a potential area of unmapped ancient woodland at grid reference: SJ2762067143	As part of early design commitments, efforts have been made by the Applicant to avoid sensitive habitats and features, wherever possible, including Ancient Woodland and veteran trees. For example, Commitment D-BD-008 in the REAC [CR1-109 and REP1-015] states 'Design of the DCO Proposed Development has included use of trenchless crossing techniques to avoid and reduce adverse effects on Ancient Woodland present within the Order Limits.' Through this approach, the Applicant has sought to avoid direct impacts (i.e. the felling of trees) to ancient woodland, specifically at Northop, and maintain the integrity of the woodland. Areas of ancient woodland have been avoided and removed from the Order Limits and/or buffered wherever practicable from construction. This also includes the ancient woodlands of concern that the Trust has referenced. The latest design refinements as set out in the Change Request and assessed in the ES addendum [CR1-124] have reduced the number of veterans trees to be directly removed to zero. Three veteran trees are assessed as being 'at risk of removal but aiming to retain' due to potential root encroachment, however mitigation will be employed on site to allow their protection. As such, the ES addendum [CR1-124] states that the 'Proposed Development will seek to protect and retain all veteran trees during construction'. Mitigation will be detailed within a site-specific Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP). which will be approved by the Local Planning Authority as committed to in the REAC [CR1-109 and REP1-015] (D-LV-014), as secured by the CEMP within Requirement 5 of the dDCO [REP1-004]. Further detail regarding mitigation is under discussion between the Applicant and the Woodland Trust, with the intent to reach an agreed position in a SOCG (document reference D.7.2.24) to be submitted at Deadline 3.

HyNet Carbon Dioxide Pipeline
Page 118 of 123

Reference	Witten Representation	Applicant's Response
2.14.3	Ancient Woodland Natural England and the Forestry Commission, the Government's respective bodies for the natural environment and protecting, expanding and promoting the sustainable management of woodlands, define ancient woodland as follows within their standing advice ¹ :	The Applicant notes that the Arboricultural Impact Assessment uses the Natural Resource Wales's inventory definitions of ancient woodland types e.g. 'Restored Ancient Woodland Sites' within the reporting.
	"Ancient woodland takes hundreds of years to establish and is defined as an irreplaceable habitat. It is a valuable natural asset important for: wildlife (which include rare and threatened species); soils; carbon capture and storage; contributing to the seed bank and genetic diversity; recreation, health and wellbeing; cultural, historical and landscape value. It has been wooded continuously since at least 1600AD. It includes:	
	 Ancient semi-natural woodland [ASNW] mainly made up of trees and shrubs native to the site, usually arising from natural regeneration. Plantations on ancient woodland sites – [PAWS] replanted with conifer or broadleaved trees that retain ancient woodland features, such as undisturbed soil, ground flora and fungi" 	
	Natural Resources Wales's Ancient Woodland Inventory ² also places woodland into one of four categories:	
	 Ancient Semi-Natural Woodland (ASNW) – broadleaf woodlands comprising mainly native tree and shrub species which are believed to have been in existence for over 400 years Plantation on Ancient Woodland Sites (PAWS) – sites which are believed to have been continuously wooded for over 400 years and currently have a canopy cover of more than 50 percent non-native conifer tree species Restored Ancient Woodland Sites (RAWS) – woodlands which are predominately broadleaf now and are believed to have been continually wooded for over 400 years. These woodlands will have gone through a phase when canopy cover was more than 50% non-native conifer tree species and now have a canopy cover of more than 50 percent broadleaf. Ancient Woodland Site of Unknown Category (AWSU) – woodlands which may be ASNW, RAWS or PAWS. These areas are predominantly in transition and existing tree cover is described as 'shrubs', 'young trees', 'felled' or 'ground prepared for planting'. All ancient woodlands come within the definition of priority woodland habitats listed in Section 7 of the Environment Act (Wales). The Environment Act places a duty on public authorities to seek to maintain and enhance biodiversity in the exercise of functions in 	
	relation to Wales and take all reasonable steps to maintain and enhance those species and habitats as listed in Section 7.	
2.14.4	Veteran Trees Natural England's standing advice on veteran trees states that they "can be individual trees or groups of trees within wood pastures, historic parkland, hedgerows, orchards, parks or	The Applicant agrees with the definition of veteran trees as stated.

Reference	Witten Representation	Applicant's Response
	other areas. They are often found outside ancient woodlands. They are also irreplaceable habitats. A veteran tree may not be very old, but it has significant decay features, such as branch death and hollowing. These features contribute to its exceptional biodiversity, cultural and heritage value." We consider that not all veteran trees are ancient, but all ancient trees are also veteran trees.	
2.14.5	English Planning Policy Paragraph 5.3.14 of the Overarching National Policy Statement for Energy (EN-1) states: "Ancient woodland is a valuable biodiversity resource both for its diversity of species and for its longevity as woodland. Once lost it cannot be recreated. The IPC should not grant development consent for any development that would result in its loss or deterioration unless the benefits (including need) of the development, in that location outweigh the loss of the woodland habitat. Aged or 'veteran' trees found outside ancient woodland are also particularly valuable for biodiversity and their loss should be avoided. Where such trees would be affected by development proposals the applicant should set out proposals for their conservation or, where their loss is unavoidable, the reasons why." The National Planning Policy Framework, paragraph 180, states: "When determining planning applications, local planning authorities should apply the following principles: 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 ⁶³ and a suitable compensation strategy exists;" Further to this, paragraph 174 of the NPPF states the following: "Planning policies and decisions should contribute to and enhance the natural and local environment by: minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures". Where a proposal involves the loss of irreplaceable habitats, such as ancient woodland or veteran trees, net gain for biodiversity cannot be achieved.	The Applicant notes that because of the irreplaceable habitat the DCO Proposed Development design has been iteratively developed to avoid removal of, or minimise impacts to, ancient woodland and veteran trees. Please see response to 2.14.2 above. The latest design refinements as set out in the Change Request and assessed in the ES addendum [CR1-124] have reduced the number of veterans trees to be directly removed to zero. Three veteran trees are assessed at being 'at risk of removal but aiming to retain' due to potential root encroachment, however mitigation will be employed on site to allow their protection. As such, the ES addendum [CR1-124] states that the 'Proposed Development will seek to protect and retain all veteran trees during construction'. Mitigation will be detailed within a site-specific Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP).
2.14.6	Welsh Planning Policy Welsh Government recognises that areas of ancient woodland are declining and becoming increasingly fragmented and emphasises the importance of conserving ancient woodland and its value as a biodiversity resource through the publication of Planning Policy Wales version 11 (2021) (PPW 11). In PPW 11, paragraph 6.4.26 states "Ancient woodland and semi-natural woodlands and individual ancient, veteran and heritage trees are irreplaceable natural resources, and have significant landscape, biodiversity and cultural value. Such trees and woodlands should be afforded protection from development which would result in their loss or deterioration unless there are significant and clearly defined public benefits; this protection should prevent	The Proposed Development has utilised the Ancient Woodland Inventory and Ancient Tree Inventory and reported and assessed relevant findings.

Reference	Witten Representation	Applicant's Response
	potentially damaging operations and their unnecessary loss. In the case of a site recorded on the Ancient Woodland Inventory, authorities should consider the advice of NRW. Planning authorities should also have regard to the Ancient Tree Inventory."	
2.14.7	Impacts to Ancient Woodland The proposed pipeline has the potential to result in significant adverse impacts on ancient woodland through direct loss for construction of the pipeline, and potentially through indirect impacts where construction works occur within close proximity to these habitats. Three ancient woodlands are located adjacent to the proposed corridor boundary: Leadbrook Wood WS (grid reference: SJ254699), New Inn Brook Wood WS (grid reference: SJ288671) and an area of unnamed ancient woodland at SJ272674. A further area of ancient woodland – an unnamed woodland at SJ263677 – will be subject to a trenchless crossing within the woodland. We are specifically concerned about the following impacts to ancient woodland from the proposed pipeline route: • Direct loss of likely unmapped ancient woodland to facilitate the proposed pipeline. • Permanent fragmentation due to the removal of adjacent semi-natural habitats, such as small wooded areas, hedgerows, individual trees and wetland habitats if continued access to the pipeline once constructed is required. • Noise and dust pollution impact to woodlands within close proximity of the pipeline installation area. • Root damage to woodland boundary trees during installation of the pipeline. • The potential for trampling of sensitive ancient woodland flora and soils if access is required within any ancient woodland. Natural England and Forestry Commission have identified impacts of development on ancient woodland and ancient and veteran trees within their standing advice (please see the annex at the foot of this document for the full range of impacts outlined). This guidance should be considered Government's position with regards to development impacting ancient woodland, although Natural England and Forestry Commission should still be consulted for specific comment on this application. In addition, Natural Resources Wales has published standing advice ³ which outlines the potential impacts of development on ancient woodland and provides recommendat	The Applicant notes that areas of ancient woodland have been avoided and removed from the Order Limits and/or buffered wherever practicable from construction. Further detail regarding mitigation is under discussion between the Applicant and the Woodland Trust, with the intent to reach an agreed position in a SoCG (document reference: D.7.2.24) to be submitted at Deadline 3. Please also refer to responses to 2.14.2 above and 2.14.9 below.
2.14.8	Mitigation for ancient woodland Detrimental edge effects have been shown to penetrate woodland causing changes in ancient woodland characteristics that extend up to three times the canopy height in from the forest edges. As such, it is necessary for mitigation to be considered to alleviate such impacts.	The Applicant notes that further detail regarding mitigation is under discussion between the Applicant and the Woodland Trust, with the intent to reach an agreed position in a SOCG (document reference: D.7.2.24) to be submitted at Deadline 3.

Reference	Witten Representation	Applicant's Response
	Additional mitigation approaches are also outlined in our Planners' Manual ⁴ ; these measures would help ensure that the development meets policy requirement and guidance and include:	
	 Non-invasive root investigation for ancient trees and protection beyond the limit of the usual investigative tools. Retaining and enhancing natural habitats around ancient woodland to improve connectivity with the surrounding landscape. Measures to control noise, dust and other forms of water and airborne pollution. Implementation of an appropriate monitoring plan to ensure that proposed measures are effective over the long term and accompanied by contingencies should any conservation objectives not be met. 	
2.14.9	Buffer zones Buffering ancient woodland can be an ideal mitigation measure as buffer zones can be used to establish distance between the development and habitat, which helps to alleviate harmful impacts, while also creating new areas of habitat around the ancient woodland. This development should allow for a buffer zone of at least 30 metres to prevent adverse impacts such as pollution and disturbance and ensure avoidance of root damage. HERAS fencing fitted with acoustic and dust screening measures should be put in place during construction to ensure that the buffer zone does not suffer from encroachment of construction vehicles/stockpiles, and to limit the effects of other indirect impacts.	Further detail regarding mitigation is under discussion between the Applicant and the Woodland Trust with the intention to reach an agreed position in a SoCG (document reference: D.7.2.24) to be submitted at Deadline 3.
	This is backed up by Natural England and Forestry Commission's standing advice which states that "the proposal should have a buffer zone of at least 15 metres from the boundary of the woodland to avoid root damage (known as the root protection area). Where assessment shows other impacts are likely to extend beyond this distance, the proposal is likely to need a larger buffer zone. For example, the effect of air pollution from development that results in a significant increase in traffic." Further information on buffer zones is outlined in the annex below.	
	Natural Resources Wales's standing advice also outlines the following guidance on protection zones: "A stand-off or protection zone's purpose is to protect ancient woodland. The size and type of stand-off or protection zone should vary depending on the scale, type and impact of the development. The BS 5837 Tree Survey, PEA and/or EcIA assessments should be used to inform the stand-off or protection zone for each individual woodland and veteran and ancient trees. Some zones may only require a root protection area to prevent negative impacts on individual trees or groups of trees, and others are likely to extend further."	
2.14.10	Trenchless crossings The Trust understands that an area of ancient woodland is likely to be subject to a trenchless crossing in order to limit the removal of irreplaceable ancient woodland soils	Further information on trenchless crossing techniques can be found in Section 3.6 of the 2022 ES [APP-055]. The trenchless crossing technique to be utilised to avoid direct loss or impacts to ancient woodland north of the A55 at Northop Hall, this is trenchless crossing number TRS-41, and the Woodland's land parcel reference on the Land Plans [CR1-009] is

Reference	Witten Representation	Applicant's Response
	during construction. The Trust would primarily advocate for the redirection of any pipeline through ancient woodland areas, however if such works are likely to occur should development consent be granted, then we would appreciate further clarification on the technique and any potential impacts posed.	20-12 will be confirmed during the development of the detailed design of the DCO Proposed Development.
2.14.11	It is essential that no veteran trees are lost as part of the development. The loss of any such trees can have a significant impact on local wildlife, particularly those which depend on the habitat provided by veteran trees. Any loss of veteran trees can also be highly deleterious where there is a wider population of veteran trees within close proximity, which may harbour rare and important species. Trees are susceptible to change caused by construction/development activity. As outlined in 'BS5837:2012 - Trees in relation to design, demolition and construction' (the British Standard for ensuring development works in harmony with trees), construction work often exerts pressures on existing trees, as do changes in their immediate environment following construction of any new infrastructure. Root systems, stems and canopies, all need allowance for future movement and growth, and should be taken into account in all proposed works on the scheme through the incorporation of the measures outlined in the British Standard. While BS5837 guidelines state that trees should have a root protection area (RPA) of 12 times the stem diameter (capped at 15m), this guidance does recognise that veteran trees need particular care to ensure adequate space is allowed for their long-term retention. It is imperative that Natural England and Forestry Commission's standing advice on root protection areas for veteran trees is taken into account in planning decisions. This advice states: "For ancient or veteran trees (including those on the woodland boundary), the buffer zone should be at least 15 times larger than the diameter of the tree. The buffer zone should be 5 metres from the edge of the tree's canopy if that area is larger than 15 times the tree's diameter. This will create a minimum root protection area. Where assessment shows other impacts are likely to extend beyond this distance, the proposal is likely to need a larger	