

ATTACHMENT 1(A)

DCO ES, HRA, and WFD Assessment signposting

Table 1 provides signposting to where more detailed information on the trenchless crossing of the River Dee can be found within the DCO Application document library.

Table 1: River Dee trenchless crossing (TRS-028) references in DCO ES, HRA, and WFD

Document Title	Reference	Description
Chapter 03 - Description of the DCO Proposed Development (PINS Refs: APP-055 & CR1-125)	3.3.29	Route description "From the A548 Sealand Road, the section continues south westerly to cross the River Dee (Afon Dyfrdwy) and North Wales Coast Railway Line before turning west."
Chapter 03 - Description of the DCO Proposed Development (PINS Refs: APP-055 & CR1-125)	3.3.31	Trenchless Crossings One of the locations for Trenchless Installation Techniques
Chapter 03 - Description of the DCO Proposed Development (PINS Refs: APP-055 & CR1-125)	3.4.37 - 3.4.38	Cathodic Protection One cabinet will be installed north of the River Dee
Chapter 03 - Description of the DCO Proposed Development (PINS Refs: APP-055 & CR1-125)	3.6.58-3.6.62 and Table 3.2, and Inserts 3.4-3.6	Further information on the trenchless crossing technique at the River Dee (Auger boring excluded at River Dee crossing).
Chapter 09 – Biodiversity (PINS Refs: APP-061 & CR1-125)	9.6.25	Habitats present in the River Dee
Chapter 09 – Biodiversity (PINS Refs: APP-061 & CR1-125)	Table 9.8	Includes a summary of species survey results. Wintering Birds Fish Aquatic macroinvertebrates Invasive Non-Native Species
Chapter 09 – Biodiversity (PINS Refs: APP-061 & CR1-125)	Table 9.10	Embedded Mitigation Designed for the DCO Proposed Development Statutory and Non-Statutory Designated Sites & Aquatic Receptors Aquatic Habitats and Species
Chapter 09 – Biodiversity (PINS Refs: APP-061 & CR1-125)	Table 9.11	Likely significant effects during the construction stage Statutory Designated Sites (International and National) Habitats of Principal Importance (excluding waterbodies and watercourses) Wintering Birds (including redshank)

Document Title	Reference	Description
Chapter 09 – Biodiversity (PINS Refs: APP-061 & CR1-125)	Table 9.12	Design and mitigation measures and their delivery mechanisms Entire Newbuild Infrastructure Boundary - D-BD-015
Appendix 9.1 Habitats and Designated Sites Survey Report Rev A (PINS Refs: APP-091, 092, and 093)	Table 2	Internationally Designated Sites within 10km of the DCO Proposed Development River Dee and Bala Lake SAC Dee Estuary / Aber Dyfrdwy SAC The Dee Estuary SPA & Ramsar
Appendix 9.1 Habitats and Designated Sites Survey Report Rev A (PINS Refs: APP-091, 092, and 093)	Table 3	Nationally Designated Sites within 2km of the DCO Proposed Development Afon Dyfrdwy (Wales) / River Dee (England) SSSI Dee Estuary SSSI
Appendix 9.1 Habitats and Designated Sites Survey Report Rev A (PINS Refs: APP-091, 092, and 093)	Table 4	Non - Statutory designated sites within 1km of the DCO Proposed Development, in England Saughall Bank LWS
Appendix 9.1 Habitats and Designated Sites Survey Report Rev A (PINS Refs: APP-091, 092, and 093)	Table 5	Non-Statutory designated sites within 1km of the DCO Proposed Development, in Wales Engineer Park
Appendix 9.6 Riparian Mammal Survey Report Rev A (PINS Refs: APP-107, AS-039, AS-041, CR-072, and CR-073)	Table 2	Summary of Otter and Water Vole Survey Results Group 14 - No field signs, but suitable
Appendix 9.6 Riparian Mammal Survey Report Rev A (PINS Refs: APP-107, AS-039, AS-041, CR-072, and CR-073)	4.2.4	Otters were absent during survey visits
Appendix 9.6 Riparian Mammal Survey Report Rev A (PINS Refs: APP-107, AS-039, AS-041, CR-072, and CR-073)	4.3.3	Lack of evidence so is likely that water voles were absent
Appendix 9.6 Riparian Mammal Survey Report Rev A (PINS Refs: APP-107, AS-039, AS-041, CR-072, and CR-073)	Table 4	Detailed results of the Riparian Mammal Field Surveys River Dee - None recorded but suitable for water voles and otters

Document Title	Reference	Description
Appendix 9.6 Riparian Mammal Survey Report Rev A (PINS Refs: APP-107, AS-039, AS-041, CR-072, and CR-073)	Table 5	Riparian Mammal Field Signs Group 14: River Dee
Appendix 9.8 Bird Report (PINS Refs: APP-112, and CR1-078)	1.3.11 - 1.3.17	QUALIFYING SPECIES FOR THE DEE ESTUARY (WALES) SPECIAL PROTECTION AREA (SPA)
Appendix 9.8 Bird Report (PINS Refs: APP-112, and CR1-078)	4.1 - Transect 1 4.2 - Transect 2 4.7 - Transect 25 4.8 - Transect 26	Transect summaries
Appendix 9.8 Bird Report (PINS Refs: APP-112, and CR1-078)	4.10.1 - 4.10.3	Potential ornithological constraints - SPA Qualifying Species
Appendix 9.9 Aquatic Ecology (Watercourses) Survey Report (PINS Refs: APP-113, and CR1-080)	2.6	Intertidal Habitat Survey Phase 1 Habitat Survey Phase 2 Habitat Survey Saltmarsh Survey
Appendix 9.9 Aquatic Ecology (Watercourses) Survey Report (PINS Refs: APP-113, and CR1-080)	Table 5	Protected fish species, identified within the Desk Study Area in consultation with NRW
Appendix 9.9 Aquatic Ecology (Watercourses) Survey Report (PINS Refs: APP-113, and CR1-080)	Table 6	Summary of results from aquatic habitat scoping assessments of watercourses within the Newbuild Infrastructure Boundary River Dee - fish and aquatic macroinvertebrates scoped in, macrophytes scoped out
Appendix 9.9 Aquatic Ecology (Watercourses) Survey Report (PINS Refs: APP-113, and CR1-080)	Table 7	Summary of key ecological receptors identified during both the desk study and field surveys River Dee found different types of fish, but nothing else
Appendix 9.9 Aquatic Ecology (Watercourses) Survey Report (PINS Refs: APP-113, and CR1-080)	3.4.7 - 3.4.9	Results of the Intertidal Habitat Surveys for the River Dee
Appendix 9.9 Aquatic Ecology (Watercourses) Survey Report (PINS Refs: APP-113, and CR1-080)	3.4.130 - 3.4.134	Results for fish, aquatic macroinvertebrates and macrophytes

Document Title	Reference	Description
Appendix 9.9 Aquatic Ecology (Watercourses) Survey Report (PINS Refs: APP-113, and CR1-080)	Table 63	Aquatic macroinvertebrate taxa list for the benthic macroinvertebrate grab sampling undertaken on the River Dee in May 2022. Sample locations with reference to distance from centre of Newbuild Infrastructure Boundary.
Chapter 12 - Landscape and Visual (PINS Refs: APP-064 & CR1-125)	Table 12-6	Construction Landscape Effects Dee Coastal Levels Shotton farmland fringe
Chapter 12 - Landscape and Visual (PINS Refs: APP-064 & CR1-125)	Table 12-7	Construction Visual Effects P7, P8,
Chapter 12 - Landscape and Visual (PINS Refs: APP-064 & CR1-125)	Table 12-9	Summary of Residual Effects Dee Coastal Levels Shotton farmland fringe P7, P8
D.6.3.12.3 Appendix 12.3 Landscape Analysis (PINS Ref: APP-140)	NA	Dee coastal levels Shotton farmland fringe Queensferry coastal and estuary urban area Connah's Quay coastal and estuary urban area
D.6.3.12.4 Appendix 12.4 Visual Analysis (PINS Ref: APP-141)	NA	P7, P8
Chapter 18 - Water Resources and Flood Risk (PINS Refs: APP-070 & CR1-125)	18.9.2	Significant effects during the Construction Stage Impacts to water quality and hydromorphology by entrainment of sediments - River Dee Impacts to water quality by spillage of pollutants - River Dee
Chapter 18 - Water Resources and Flood Risk (PINS Refs: APP-070 & CR1-125)	18.9.5	Significant effects during the Decommissioning Stage Impacts to water quality and hydromorphology by entrainment of sediments - Dee Estuary Impacts to water quality by spillage of pollutants - River Dee
Chapter 18 - Water Resources and Flood Risk (PINS Refs: APP-070 & CR1-125)	Table 18.15	Summary of Residual Effects
Appendix 18.1 Baseline (PINS Ref: APP-163)	2.3	Info on the Dee Estuary and its interaction with the Proposed Development
Habitats Regulations Assessment (PINS Refs: APP-226, CR1-121, and REP2-023)	4.2.5 - 4.2.10	Results for breeding/wintering birds for River Dee
Habitats Regulations Assessment (PINS Refs: APP-226, CR1-121, and REP2-023)	4.4.9	Results for otters - none found

Document Title	Reference	Description
Habitats Regulations Assessment (PINS Refs: APP-226, CR1-121, and REP2-023)	4.5.4	Results for fish - two species of conservation interest was found
Habitats Regulations Assessment (PINS Refs: APP-226, CR1-121, and REP2-023)	6.2.7	Disturbance to birds from potential impacts from Proposed Development
Habitats Regulations Assessment (PINS Refs: APP-226, CR1-121, and REP2-023)	6.2.13	Negative impact of artificial lighting for birds
Habitats Regulations Assessment (PINS Refs: APP-226, CR1-121, and REP2-023)	6.2.19	Disturbance to fish from potential impacts from Proposed Development
Habitats Regulations Assessment (PINS Refs: APP-226, CR1-121, and REP2-023)	6.2.28 - 6.2.31	Hydrological effects on River Dee
Habitats Regulations Assessment (PINS Refs: APP-226, CR1-121, and REP2-023)	Table 6.2	River Dee and Bala Lake/Afon Dyfrdwy a Llyn Tegid SAC: Screening of effects in isolation Likely Effects of the DCO Proposed Development
Habitats Regulations Assessment (PINS Refs: APP-226, CR1-121, and REP2-023)	Table 6.7	Dee Estuary/Aber Dyfrdwy SAC: Screening of effects in isolation Likely Effects of the DCO Proposed Development
Habitats Regulations Assessment (PINS Refs: APP-226, CR1-121, and REP2-023)	Table 6.8	The Dee Estuary SPA: Screening of effects in isolation Likely Effects of the DCO Proposed Development
Habitats Regulations Assessment (PINS Refs: APP-226, CR1-121, and REP2-023)	Table 6.9	The Dee Estuary Ramsar: Screening of effects in isolation Likely Effects of the DCO Proposed Development
Habitats Regulations Assessment (PINS Refs: APP-226, CR1-121, and REP2-023)	Table 6.10	Potential In-Combination Effects that may result in LSE 1a to 27
Habitats Regulations Assessment (PINS Refs: APP-226, CR1-121, and REP2-023)	Table 6.11	Summary of Stage 1: Screening Results
Habitats Regulations Assessment (PINS Refs: APP-226, CR1-121, and REP2-023)	7.2	Impacts on River Dee Air Quality Otters Fish

Document Title	Reference	Description
Habitats Regulations Assessment (PINS Refs: APP-226, CR1-121, and REP2-023)	7.5	Impacts DEE ESTUARY/ABER DYFRDWWY SAC
Habitats Regulations Assessment (PINS Refs: APP-226, CR1-121, and REP2-023)	7.6	Impacts THE DEE ESTUARY SPA AND RAMSAR
Appendix 18.3 Water Framework Directive Assessment (PINS Ref: APP-165)	Table 3.2	Screening of activities including which waterbodies were assessed, which included the Dee for most of them
Appendix 18.3 Water Framework Directive Assessment (PINS Ref: APP-165)	Table 5.2	Impact on the WFD Quality elements from trenchless crossing on relevant water bodies
Appendix 18.3 Water Framework Directive Assessment (PINS Ref: APP-165)	Table 5.3	Impact on the WFD Quality elements from open cut crossings on relevant water bodies Transitional (pg. 75 onwards)
Appendix 18.3 Water Framework Directive Assessment (PINS Ref: APP-165)	Table 5.4	Impact on the WFD Quality elements from riparian vegetation clearance on relevant water bodies Macrophytes & Phytoplankton
Appendix 18.3 Water Framework Directive Assessment (PINS Ref: APP-165)	Table 5.5	Impact on the WFD Quality elements from temporary watercourse crossing on relevant water bodies
Appendix 18.3 Water Framework Directive Assessment (PINS Ref: APP-165)	Table 5.6	Impact on the WFD Quality elements from dewatering on relevant water bodies
Appendix 18.3 Water Framework Directive Assessment (PINS Ref: APP-165)	Table 5.7	Impact on the WFD Quality elements from hydrostatic testing on relevant water bodies
Appendix 18.3 Water Framework Directive Assessment (PINS Ref: APP-165)	Table 5.10	Impact on the WFD Quality elements from new drainage and outfalls on relevant water bodies
Appendix 18.3 Water Framework Directive Assessment (PINS Ref: APP-165)	5.5.9	DOES THE DCO PROPOSED DEVELOPMENT CAUSE DETERIORATION IN THE ECOLOGICAL POTENTIAL OR STATUS OF A BODY OF SURFACE OR GROUNDWATER?
Appendix 18.3 Water Framework Directive Assessment Annexes (PINS Ref: APP-165)	DEE ESTUARY	Baseline data for Dee Estuary

ATTACHMENT 4(d)

WFD Assessment Tables

The tables included with Attachment 4(d) have been extracted from ENVIRONMENTAL STATEMENT (VOLUME III) Appendix 18.3 Water Framework Directive Assessment that was submitted with the DCO application (PINS Document Library Reference: APP-165).

The tables relevant to the trenchless crossing of the River Dee have been taken from WFD Assessment Chapter 5: Detailed Impact Assessment, and include the site-specific assessment of the DCO Proposed Development against the WFD quality elements, as follows:

- **Table 5.2:** Impact on the WFD Quality elements from trenchless crossing on relevant water bodies.
- **Table 5.6:** Impact on the WFD Quality elements from dewatering on relevant water bodies.
- **Table 5.7:** Impact on the WFD Quality elements from hydrostatic testing on relevant water bodies.
- **Table 5.12:** Mitigation measures available in the Dee (North Wales) 2021 draft RBMP and their relation to the DCO Proposed Development.
- **Table 5.17:** Mitigation measures in place in the Dee (N. Wales) transitional water body.

TRENCHLESS CROSSING

Table 5.2: Impact on the WFD Quality elements from trenchless crossing on relevant water bodies

Quality Element	Potential Impact	Mitigation
Relevant water bodies: Ince Marshes, Gowy, Stanney Mill Brook, SUC, Finchetts Gutter, Sandycroft Drain, and Dee (N.Wales)		
<u>Surface water and Transitional/Coastal</u>		
<u>Biological</u>		
Macrophytes & Phytoplankton	<p>Generic Impacts</p> <p>Trenchless crossing can potentially result in chemical (primarily bentonite) and light pollution, which can cause loss or damage to macrophytes and their habitats.</p> <p>Only watercourses within the Gowy and SUC water bodies are potentially impacted during the Construction Stage.</p>	<p>Generic Mitigation</p> <p>Pits are to be positioned as far back as practicable from the watercourse and backfilled on completion of the works. OCEMP (Document reference: D.6.5.4) will include measures to control pollution, and an appropriate lighting design whereby artificial light does not spill the full width of affected watercourses. Therefore, given the localised nature of this activity and implementation of mitigation measures, the impact of trenchless crossings is not expected to cause significant alteration to macrophytes at the WFD water body scale.</p> <p>Site Specific Mitigation</p> <p><i>River Dee</i></p> <p>Alongside generic mitigation, the Newbuild Carbon Dioxide Pipeline is to be laid at a depth of 15m below the River Dee. This reduces the likelihood of chemical pollution entering the watercourse as a result of blowouts. Additionally, due to the tidal characteristics present at the proposed crossing point, and increased buffering capacity of the downstream estuary, the impact of any pollution is likely to be minimal. With this mitigation in place, no significant alteration to macrophytes and phytoplankton is expected at the WFD water body scale.</p>
Invertebrates	<p>Generic Impacts</p> <p>Trenchless crossing can potentially result in chemical (bentonite) and light pollution, which can cause loss or damage to invertebrates and their habitats. Only watercourses within the Gowy, Stanney Mill Brook, Sandycroft Drain and Dee (N.Wales) water bodies are potentially impacted during the Construction Stage.</p>	<p>Generic Mitigation</p> <p>Pits are to be positioned as far back as practicable from the watercourse and backfilled on completion of the works. OCEMP (Document reference: D.6.5.4) will include measures to control pollution, and an appropriate lighting design whereby artificial light does not spill the full width of affected watercourses. Therefore, given the localised nature of this activity and implementation of mitigation measures, the impact of trenchless crossings is not expected to cause significant alteration to invertebrates at the WFD water body scale.</p> <p>Site Specific Mitigation</p> <p><i>River Dee</i></p> <p>Alongside generic mitigation, the Newbuild Carbon Dioxide Pipeline to be laid at a depth of 15m below the River Dee. This reduces the likelihood of chemical pollution entering the watercourse as a result of blowouts. Additionally, due to the tidal characteristics present at the proposed crossing point, and increased buffering capacity of the downstream estuary, the impact of any pollution is likely to be minimal. With this mitigation in place, no significant alteration to invertebrates is expected at the WFD water body scale.</p>

Quality Element	Potential Impact	Mitigation
Fish	<p>Generic Impacts</p> <p>Trenchless crossing can potentially result in the following impacts during the Construction Stage, which may cause direct damage, disturbance, and the loss, abandonment and/or fragmentation of habitats:</p> <ul style="list-style-type: none"> • Chemical pollution, primarily bentonite from blowouts/spillage; • Artificial light pollution; • Vibration and noise from drilling and pile driving; and • Impediment of fish passage by access routes and causeways. 	<p>Generic Mitigation</p> <p>The following procedures would be implemented to mitigate the effects of trenchless crossings:</p> <ul style="list-style-type: none"> • Implementation of a Noise and Vibration Management Plan. This is to include a) Utilisation of press or vibratory pile driving methods, b) Soft-starts to pile driving to allow for fish dispersal, and c) Phased or intermittent works schedule (break periods) to allow for recovery windows (D-BD-059 of the REAC, Document reference:D.6.5.1); • Pits would be positioned as far back as practicable from watercourse, and backfilled on completion of the works; • All temporary access routes/causeways spanning watercourses would adhere to the Environment Agency's fish pass standards (D-BD-053 of the REAC, Document reference:D.6.5.1); • Implementation of the OCEMP (Document reference: D.6.5.4), which would include pollution control measures, and an appropriate lighting design whereby artificial light does not spill the full width of affected watercourses; and, • Where practical and reasonable, timings of works scheduled to avoid sensitive lifecycle stages (migration and spawning) (D-BD-058 of the REAC, Document reference:D.6.5.1); <p>Therefore, given the localised nature of this activity and implementation of mitigation measures, the impact of trenchless crossings is not expected to cause significant alteration to fish at the WFD water body scale.</p> <p>Site Specific Mitigation</p> <p><i>River Dee</i></p> <p>Alongside generic mitigation, the Newbuild Carbon Dioxide Pipeline is to be laid at a depth of 15m below the River Dee. This reduces the likelihood of chemical pollution entering the watercourse as a result of blowouts. Additionally, due to the tidal characteristics present at the proposed crossing point, and increased buffering capacity of the downstream estuary, the impact of any pollution is likely to be minimal. The increased depth of the Newbuild Carbon Dioxide Pipeline will also reduce the impact of vibration and surface noise on fish, as excavation pits will need to be located a at least 16m from the watercourse compared to usual operative depths. Where practical and reasonable, timings of works will be scheduled so not to conflict with the seasonal constraints associated with estuarine environments.</p> <p>With this mitigation in place, no significant alteration to fish is expected at the WFD water body scale.</p>
Surface water		
<u>Physico-Chemical</u>		
Oxygenation Conditions	<p>Generic Impacts</p> <p>Trenchless crossing can potentially disrupt the hyporheic zone underneath the watercourses, therefore, impacting water and oxygen flow</p>	<p>Generic Mitigation</p> <p>Trenchless crossings are not expected to cause significant alteration in oxygenation conditions in any affected watercourses or at the WFD water body scale if the OCEMP (Document reference: D.6.5.4) and correct</p>

Quality Element	Potential Impact	Mitigation
	between ground and surface zones during the Construction Stage.	installation methods are followed. With this mitigation in place, no significant alteration to oxygenation conditions is expected at the WFD water body scale.
Priority Hazardous Substances	<p>Generic Impacts</p> <p>Trenchless crossing can potentially disrupt the alluvial sediments underneath the watercourses, hence, releasing hazardous substances to the ground and surface water flow during the Construction Stage.</p>	<p>Generic Mitigation</p> <p>Trenchless crossings are not expected to cause significant alteration in Priority Hazardous Substances in any affected watercourses or at the WFD water body scale if the OCEMP (Document reference: D.6.5.4) and correct installation methods are followed.</p> <p>With this mitigation in place, no significant alteration to hazardous substances is expected at the WFD water body scale.</p>
<u>Hydromorphological</u>		
River Continuity	<p>Site Specific Impacts</p> <p><i>River Gowy</i></p> <p>Only the River Gowy trenchless crossing is scoped in for river continuity and no impacts are anticipated on the other WFD water bodies where trenchless methods are proposed.</p> <p>Future plans to set-back the embankments on the River Gowy floodplain and re-naturalisation of the river to a sinuous planform could result in the proposed pipeline becoming exposed by fluvial processes. Therefore, this poses a potential operational impact.</p>	<p>Site Specific Mitigation</p> <p><i>River Gowy</i></p> <p>The Construction Contractor will undertake further engagement with the Environment Agency Planning and Geomorphology Technical Specialists during the Detailed Design process to determine the required floodplain extent for pipeline burial depth below the existing river bed level of the Rover Gowy. This will determine the potential distance for setting back of the embankments along the River Gowy to allow for the WFD Mitigation Measure to be achieved (D-WR-055 of the REAC, Document reference: D.6.5.1). This mitigation is required to enable the re-naturalisation of a sinuous planform of the River Gowy, as depicted in historical mapping records, without the risk of the pipeline becoming exposed. An allowance of 100m has been made within the Newbuild Infrastructure Boundary for this to be developed at detailed design.</p> <p>With this mitigation in place, no adverse impact in river continuity is anticipated at the WFD water body scale.</p>
River Depth and Width Variation	<p>Site Specific Impacts</p> <p><i>River Gowy</i></p> <p>Only the River Gowy trenchless crossing is scoped in for river depth and width variation and no impacts are anticipated on the other WFD water bodies where trenchless methods are proposed.</p> <p>Future plans to set-back the embankments on the River Gowy floodplain and re-naturalisation of the river to a sinuous planform could result in the Newbuild Carbon Dioxide Pipeline becoming exposed by fluvial processes. Therefore, this poses a potential operational impact.</p>	<p>Site Specific Mitigation</p> <p><i>River Gowy</i></p> <p>D-WR-055 of the REAC, Document reference: D.6.5.</p> <p>This mitigation is required to enable the re-naturalisation of a sinuous planform of the River Gowy, as depicted in historical mapping records, without the risk of the Newbuild Carbon Dioxide Pipeline becoming exposed.</p> <p>With this mitigation in place, no adverse impact in river width and depth is anticipated at the WFD water body scale.</p>

DEWATERING

Table 5.6: Impact on the WFD Quality elements from dewatering on relevant water bodies

Quality Element	Potential Impact	Mitigation
Relevant water bodies: Ince Marshes; Mersey; Gowy; Stanney Mill Brook; Manchester Ship Canal; Finchetts Gutter; Garden City Drain; Sandycroft Drain; Wepre Brook; and Dee (N.Wales)		
<u>Surface water</u>		
<u>Physico-Chemical</u>		
Thermal Conditions	Dewatering can create a dry reach with exposure to higher thermal conditions on the pumped floodplain, and the opposite on the floodplain receiving the water. This impact would be temporary in nature and limited to the Construction Stage.	Local floodplain dewatering process is not expected to be significant enough to impact the adjacent watercourses. Hence, given the localised nature of this activity and the much larger area of the water bodies, the impact of dewatering is expected to be negligible at the WFD water body scale.
Oxygenation Conditions	Dewatering can increase oxygenation on the pumped floodplain and the opposite effect on the receiving floodplain. This impact would be temporary in nature and limited to the Construction Stage.	Local floodplain dewatering process is not expected to be significant enough to impact the adjacent watercourses. Hence, given the localised nature of this activity and the much larger area of the water bodies, the impact of dewatering is expected to be negligible at the WFD water body scale.
Salinity	Dewatering can alter existing salt levels on the pumped and receiving floodplains. This impact would be temporary in nature and limited to the Construction Stage.	Local floodplain dewatering process is not expected to be significant enough to impact the adjacent watercourses. Additionally, dewatering would be undertaken using portable pumps to take the water from the trenches/excavations and pump it into mobile containerised tanks. The tanks will have weirs to allow suspended solids and sediment to settle. Regular quality testing of the water will take place after it has passed through the weirs to determine if further treatment is required prior to discharge, which would be to a nearby watercourse or if none is present, to greenfield surface. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of dewatering is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied.
Acidification Status	Dewatering can alter the pH on the pumped and receiving floodplains. This impact would be temporary in nature and limited to the Construction Stage.	Local floodplain dewatering process is not expected to be significant enough to impact the adjacent watercourses. Additionally, dewatering would be undertaken using portable pumps to take the water from the trenches/excavations and pump it into mobile containerised tanks. The tanks will have weirs to allow suspended solids and sediment to settle. Regular quality testing of the water will take place after it has passed through the weirs to determine if further treatment is required prior to discharge, which would be to a nearby watercourse or if none is present, to greenfield surface. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of dewatering is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied.
Nutrient Conditions	Dewatering can alter nutrient conditions on the pumped and receiving floodplains. This impact would be temporary in nature and limited to the Construction Stage.	Local floodplain dewatering process is not expected to be significant enough to impact the adjacent watercourses. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of dewatering is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied.

Quality Element	Potential Impact	Mitigation
Priority Hazardous Substances	Dewatering can increase priority hazardous substances in the floodplain receiving water. Through time, overland erosion can transport those substances to the watercourses. This impact would be temporary in nature and limited to the Construction Stage.	Local floodplain dewatering process is not expected to be significant enough to impact the adjacent watercourses. Additionally, dewatering would be undertaken using portable pumps to take the water from the trenches/excavations and pump it into mobile containerised tanks. The tanks will have weirs to allow suspended solids and sediment to settle. Regular quality testing of the water will take place after it has passed through the weirs to determine if further treatment is required prior to discharge, which would be to a nearby watercourse or if none is present, to greenfield surface. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of dewatering is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied.
<u>Hydromorphological</u>		
Quantity and Dynamics of Water Flow	Floodplain dewatering can alter the base flow and hydraulic connectivity with the open channel flow. This impact would be temporary in nature and limited to the Construction Stage.	Local floodplain dewatering process is not expected to be significant enough to impact the adjacent watercourses. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of dewatering is expected to be negligible at the WFD water body scale.
River Depth and Width Variation	Floodplain dewatering can alter the base flow and hydraulic connectivity with the open channel flow, potentially altering the river depth and width variation. This impact would be temporary in nature and limited to the Construction Stage.	Local floodplain dewatering process is not expected to be significant enough to impact the adjacent watercourses. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of dewatering is expected to be negligible at the WFD water body scale.
Structure and Substrate of the River Bed	Floodplain dewatering can alter the base flow and hydraulic connectivity with the open channel flow, potentially resulting in changes in discharge and in the riverbed characteristics. This impact would be temporary in nature and limited to the Construction Stage.	Local floodplain dewatering process is not expected to be significant enough to impact the adjacent watercourses. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of dewatering is expected to be negligible at the WFD water body scale.
<u>Transitional</u>		
<u>Physico-Chemical</u>		
Transparency	Floodplain dewatering can transfer suspended solids from the pumped floodplain to the receiving one. Therefore, there is a potential to impact the watercourse transparency via overland erosion on the floodplain. This impact would be temporary in nature and limited to the Construction Stage.	Local floodplain dewatering process is not expected to be significant enough to impact the adjacent watercourses. Additionally, dewatering would be undertaken using portable pumps to take the water from the trenches/excavations and pump it into mobile containerised tanks. The tanks would have weirs to allow suspended solids and sediment to settle. Regular quality testing of the water would take place after it has passed through the weirs to determine if further treatment is required prior to discharge, which would be to a nearby watercourse or if none is present, to greenfield surface. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of dewatering is expected to be negligible at the WFD water body scale.

Quality Element	Potential Impact	Mitigation
Thermal Conditions	Dewatering can create a dry reach with exposure to higher thermal conditions on the pumped floodplain, and the opposite on the floodplain receiving the water. This impact would be temporary in nature and limited to the Construction Stage.	Local floodplain dewatering process is not expected to be significant enough to impact the adjacent watercourses. Hence, given the localised nature of this activity and the much larger area of the water bodies, the impact of dewatering is expected to be negligible at the WFD water body scale.
Oxygenation Conditions	Dewatering can increase oxygenation on the pumped floodplain and the opposite effect on the receiving floodplain. This impact would be temporary in nature and limited to the Construction Stage.	Local floodplain dewatering process is not expected to be significant enough to impact the adjacent watercourses. Hence, given the localised nature of this activity and the much larger area of the water bodies, the impact of dewatering is expected to be negligible at the WFD water body scale.
Nutrient Conditions	Dewatering can alter nutrient conditions on the pumped and receiving floodplains. This impact would be temporary in nature and limited to the Construction Stage.	Local floodplain dewatering process is not expected to be significant enough to impact the adjacent watercourses. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of dewatering is expected to be negligible at the WFD water body scale.
Priority Hazardous Substances	Dewatering can increase priority hazardous substances in the floodplain receiving water. Through time, overland erosion can transport those substances to the watercourses. This impact would be temporary in nature and limited to the Construction Stage.	Local floodplain dewatering process is not expected to be significant enough to impact the adjacent watercourses. Additionally, dewatering would be undertaken using portable pumps to take the water from the trenches/excavations and pump it into mobile containerised tanks. The tanks would have weirs to allow suspended solids and sediment to settle. Regular quality testing of the water would take place after it has passed through the weirs to determine if further treatment is required prior to discharge, which would be to a nearby watercourse or if none is present, to greenfield surface. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of dewatering is expected to be negligible at the WFD water body scale.

HYDROSTATIC TESTING

Table 5.7: Impact on the WFD Quality elements from hydrostatic testing on relevant water bodies

Quality Element	Potential Impact	Mitigation
Relevant water bodies: Ince Marshes; Mersey; Gowy; Stanney Mill Brook; Manchester Ship Canal; Finchetts Gutter; Garden City Drain; Sandycroft Drain; Wepre Brook; SUC and Dee (N.Wales)		
Surface water and Transitional/Coastal		
<u>Biological</u>		
Macrophytes & Phytoplankton	<p>Generic Impacts</p> <p>Hydrostatic testing could impact the physico-chemical and hydromorphological conditions of affected watercourses in case of leakage, which could cause direct damage and/or habitat degradation. This impact would be temporary in nature and limited to the Construction Stage.</p>	<p>Generic Mitigation</p> <p>Local channel-floodplain leakage is not expected to be significant enough to impact the adjacent watercourses. Additionally, hydrostatic testing would be undertaken using waters with similar physico-chemical characteristics to the crossed watercourses. Regular quality testing of the water will take place after it has passed through the pipeline to determine if further treatment is required prior to discharge, which would be to a nearby watercourse or if none is present, to greenfield surface. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of hydrostatic testing is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied. In addition, temporary discharges would comply with the requirements for permits on Main Rivers from the Environment Agency/Natural Resources Wales, both regarding acceptable discharge volumes and water quality (D-WR-030 of the REAC, Document reference:D.6.5.1).</p>
Invertebrates	<p>Generic Impacts</p> <p>Hydrostatic testing could impact the physico-chemical and hydromorphological conditions of affected watercourses in case of leakage, which could cause direct damage to invertebrates and/or habitat degradation. This impact would be temporary in nature and limited to the Construction Stage.</p>	<p>Generic Mitigation</p> <p>Local channel-floodplain leakage is not expected to be significant enough to impact the adjacent watercourses. Additionally, hydrostatic testing would be undertaken using waters with similar physico-chemical characteristics to the crossing watercourses. Regular quality testing of the water will take place after it has passed through the pipeline to determine if further treatment is required prior to discharge, which would be to a nearby watercourse or if none is present, to greenfield surface. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of hydrostatic testing is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied.</p> <p>D-WR-030 of the REAC, Document reference:D.6.5.1</p>
Fish	<p>Generic Impacts</p> <p>Hydrostatic testing could impact the physico-chemical and hydromorphological conditions of affected watercourses in case of leakage, which could cause direct damage to fish and/or habitat degradation. This impact would be temporary in nature and limited to the Construction Stage.</p>	<p>Generic Mitigation</p> <p>Local channel-floodplain leakage is not expected to be significant enough to impact the adjacent watercourses. Additionally, hydrostatic testing would be undertaken using waters with similar physico-chemical characteristics to the crossing watercourses. Regular quality testing of the water will take place after it has passed through the pipeline to determine if further treatment is required prior to discharge, which would be to a nearby watercourse or if none is present, to greenfield surface. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of hydrostatic testing is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied.</p> <p>D-WR-030 of the REAC, Document reference:D.6.5.1</p>

Quality Element	Potential Impact	Mitigation
Relevant water bodies: Ince Marshes; Mersey; Gow; Stanney Mill Brook; Manchester Ship Canal; Finchetts Gutter; Garden City Drain; Sandycroft Drain; Wepre Brook; SUC and Dee (N.Wales)		
Surface water		
<u>Physico-Chemical</u>		
Thermal Conditions	Hydrostatic testing can alter the thermal conditions on the channel-floodplain in case of leakage. This impact would be temporary in nature and limited to the Construction Stage.	Local channel-floodplain leakage is not expected to be significant enough to impact the adjacent watercourses. Hence, given the localised nature of this activity and the much larger area of the water bodies, the impact of hydrostatic testing is expected to be negligible at the WFD water body scale. D-WR-030 of the REAC, Document reference:D.6.5.1
Oxygenation Conditions	Hydrostatic testing can increase oxygenation on the channel-floodplain in case of leakage. This impact would be temporary in nature and limited to the Construction Stage.	Local channel-floodplain leakage is not expected to be significant enough to impact the adjacent watercourses. Hence, given the localised nature of this activity and the much larger area of the water bodies, the impact of hydrostatic testing is expected to be negligible at the WFD water body scale. D-WR-030 of the REAC, Document reference:D.6.5.1
Salinity	Hydrostatic testing can alter salt levels on the channel-floodplain in case of leakage. This impact would be temporary in nature and limited to the Construction Stage.	Local channel-floodplain leakage is not expected to be significant enough to impact the adjacent watercourses. Additionally, hydrostatic testing would be undertaken using waters with similar physico-chemical characteristics to the crossing watercourses. Regular quality testing of the water will take place after it has passed through the pipeline to determine if further treatment is required prior to discharge, which would be to a nearby watercourse or if none is present, to greenfield surface. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of hydrostatic testing is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied. D-WR-030 of the REAC, Document reference:D.6.5.1
Acidification Status	Hydrostatic testing can alter the pH on the channel-floodplain in case of leakage. This impact would be temporary in nature and limited to the Construction Stage.	Local channel-floodplain leakage is not expected to be significant enough to impact the adjacent watercourses. Additionally, hydrostatic testing would be undertaken using waters with similar physico-chemical characteristics to the crossing watercourses. Regular quality testing of the water will take place after it has passed through the Newbuild Carbon Dioxide Pipeline to determine if further treatment is required prior to discharge, which would be to a nearby watercourse or if none is present, to greenfield surface. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of hydrostatic testing is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied. D-WR-030 of the REAC, Document reference:D.6.5.1
Nutrient Conditions	Hydrostatic testing can alter existing nutrient conditions on the channel-floodplain in case of leakage. This impact would be temporary in nature and limited to the Construction Stage.	Local channel-floodplain leakage is not expected to be significant enough to impact the adjacent watercourses. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of hydrostatic testing is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied. D-WR-030 of the REAC, Document reference:D.6.5.1

Quality Element	Potential Impact	Mitigation
Priority Hazardous Substances	Hydrostatic testing can release priority hazardous substances on the channel-floodplain in case of leakage. This impact would be temporary in nature and limited to the Construction Stage.	Local channel-floodplain leakage is not expected to be significant enough to impact the adjacent watercourses. Additionally, hydrostatic testing would be undertaken using waters with similar physico-chemical characteristics to the crossing watercourses. Regular quality testing of the water will take place after it has passed through the Newbuild Carbon Dioxide Pipeline to determine if further treatment is required prior to discharge, which would be to a nearby watercourse or if none is present, to greenfield surface. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of hydrostatic testing is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied. D-WR-030 of the REAC, Document reference:D.6.5.1
<u>Hydromorphological</u>		
Quantity and Dynamics of Water Flow	Hydrostatic testing can alter the base flow and hydraulic connectivity with the open channel flow in case of leakage which could impact the quantity and dynamics of water flow. This impact would be temporary in nature and limited to the Construction Stage.	Local channel-floodplain leakage is not expected to be significant enough to impact the adjacent watercourses. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of hydrostatic testing is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied. D-WR-030 of the REAC, Document reference:D.6.5.1
River Depth and Width Variation	Hydrostatic testing can alter the base flow and hydraulic connectivity with the open channel flow, potentially resulting in river depth and width variation in case of leakage. This impact would be temporary in nature and limited to the Construction Stage.	Local channel-floodplain leakage is not expected to be significant enough to impact the adjacent watercourses. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of hydrostatic testing is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied. D-WR-030 of the REAC, Document reference:D.6.5.1
Structure and Substrate of the River Bed	Hydrostatic testing can alter the base flow and hydraulic connectivity with the open channel flow, potentially resulting in changes in discharge and in the riverbed characteristics in case of leakage. This impact would be temporary in nature and limited to the Construction Stage.	Local channel-floodplain leakage is not expected to be significant enough to impact the adjacent watercourses. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of hydrostatic testing is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied. D-WR-030 of the REAC, Document reference:D.6.5.1
<u>Transitional</u>		
<u>Physico-Chemical</u>		
Transparency	Hydrostatic testing can transfer suspended solids from the added water to the receiving channel-floodplain in case of leakage. Therefore, there is a potential to impact the watercourse transparency via overland erosion on the floodplain and direct release of suspended solid into the channel. This impact would be temporary in nature and limited to the Construction Stage.	Local channel-floodplain leakage is not expected to be significant enough to impact the adjacent watercourses. Additionally, hydrostatic testing would be undertaken using waters with similar physico-chemical characteristics to the crossing watercourses. Regular quality testing of the water would take place after it has passed through the Newbuild Carbon Dioxide Pipeline to determine if further treatment is required prior to discharge, which would be to a nearby watercourse or if none is present, to greenfield surface. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of hydrostatic testing is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied. D-WR-030 of the REAC, Document reference:D.6.5.1

Quality Element	Potential Impact	Mitigation
Oxygenation Conditions	Hydrostatic testing can increase oxygenation on the channel-floodplain in case of leakage. This impact would be temporary in nature and limited to the Construction Stage.	Local channel-floodplain leakage is not expected to be significant enough to impact the adjacent watercourses. Hence, given the localised nature of this activity and the much larger area of the water bodies, the impact of hydrostatic testing is expected to be negligible at the WFD water body scale. D-WR-030 of the REAC, Document reference:D.6.5.1
Nutrient Conditions	Hydrostatic testing can alter existing nutrient conditions on the channel-floodplain in case of leakage. This impact would be temporary in nature and limited to the Construction Stage.	Local channel-floodplain leakage is not expected to be significant enough to impact the adjacent watercourses. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of hydrostatic testing is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied. D-WR-030 of the REAC, Document reference:D.6.5.1
Priority Hazardous Substances	Hydrostatic testing can release priority hazardous substances on the channel-floodplain in case of leakage. This impact would be temporary in nature and limited to the Construction Stage.	Local channel-floodplain leakage is not expected to be significant enough to impact the adjacent watercourses. Additionally, hydrostatic testing would be undertaken using waters with similar physico-chemical characteristics to the crossing watercourses. Regular quality testing of the water will take place after it has passed through the Newbuild Carbon Dioxide Pipeline to determine if further treatment is required prior to discharge, which would be to a nearby watercourse or if none is present, to greenfield surface. Therefore, besides the localised nature of this activity and the much larger area of the water bodies, the impact of hydrostatic testing is expected to be negligible at the WFD water body scale, if all mitigation measures are correctly applied. D-WR-030 of the REAC, Document reference:D.6.5.1

Table 5.12: Mitigation measures available in the Dee (North Wales) 2021 draft RBMP and their relation to the DCO Proposed Development

Category	Mitigation measure	Justification
Navigation	49.Modify vessel design	No changes proposed to navigable channels.
Navigation	50.Vessel Management	No changes proposed to navigable channels.
Operations and maintenance	21.Avoid the need to dredge	No dredging proposed. No works in water bodies to impact any current dredging works.
Operations and maintenance	22.Dredging disposal strategy	No dredging proposed. No works in water bodies to impact any current dredging works.
Operations and maintenance	23.Reduce impact of dredging	No dredging proposed. No works in water bodies to impact any current dredging works.
Operations and maintenance	24.Reduce sediment resuspension	The crossings are unlikely to cause long-term sediment resuspension. The scale of the works is negligible compared to the size of the water body.
Operations and maintenance	25.Retime dredging or disposal	No dredging proposed. No works in water bodies to impact any current dredging works.
Operations and maintenance	26.Sediment management	The scale of the works is negligible compared to the size of the water body, and it would not impact existing or future sediment management operations.
Operations and maintenance	27. Dredge disposal site selection	No dredging proposed. No works in water bodies to impact any current dredging works.
Operations and maintenance	28.Manage disturbance	No dredging proposed. No works in water bodies to impact any current dredging works.

Category	Mitigation measure	Justification
Structural modification	14.Modify structure	No structural modification proposed. No works in water bodies to impact any current modification works.
Structural modification	15.Flow manipulation	No structural modification proposed. No works in water bodies to impact any current flow.
Working with physical form and function	1.Modify channel	No changes proposed to physical form and function. In addition, the installation of cabling will be buried to a suitable depth so as not to impede future lateral and vertical channel adjustment of those watercourses crossed by the DCO Proposed Development.
Working with physical form and function	2.Remove obsolete structure	No changes proposed to physical form and function. In addition, the installation of cabling will be buried to a suitable depth so as not to impede future lateral and vertical channel adjustment of those watercourses crossed by the DCO Proposed Development.

Table 5.17: Mitigation measures in place in the Dee (N. Wales) transitional water body

Category	Measure	Justification
Navigation	Modify vessel design	The Newbuild Carbon Dioxide Pipeline will be buried at least 15m below the bed of the Dee. This will not affect navigation.
Navigation	Vessel management	
Operations and Maintenance	Avoid the need to dredge	The Newbuild Carbon Dioxide Pipeline will be buried at least 1.2m below the bed of the Dee. This will not affect sediment management and dredging.
Operations and Maintenance	Dredging disposal strategy	
Operations and Maintenance	Reduce impact of dredging	
Operations and Maintenance	Reduce sediment resuspension	The Newbuild Carbon Dioxide Pipeline will be buried at least 1.2m below the bed of the Dee. This will not affect sediment management and dredging. The Newbuild Carbon Dioxide Pipeline will be laid via trenchless methods and will not disturb in-channel sediment.
Operations and Maintenance	Retime dredging or disposal	The Newbuild Carbon Dioxide Pipeline will be buried at least 1.2m below the bed of the Dee. This will not affect sediment management and dredging.
Operations and Maintenance	Sediment management	
Operations and Maintenance	Dredge disposal site selection	
Operations and Maintenance	Manage disturbance	The Newbuild Carbon Dioxide Pipeline will be buried at least 1.2m below the bed of the Dee. This will not affect sediment management and dredging. The Newbuild Carbon Dioxide Pipeline will be laid via trenchless methods and will not disturb in-channel sediment.

Category	Measure	Justification
Structural Modification	Modify structure	The Newbuild Carbon Dioxide Pipeline will be buried at least 1.2m below the bed of the Dee. There will be no change to structures within the Dee and the Newbuild Carbon Dioxide Pipeline will not prevent the modification of structures in the future.
Structural Modification	Flow manipulation	The Newbuild Carbon Dioxide Pipeline will be buried at least 1.2m below the bed of the Dee. There will be no change to flow control within the Dee and the Newbuild Carbon Dioxide Pipeline will not prevent the modification of flow controls in the future.
Working with Physical Form and Function	Modify channel	The Newbuild Carbon Dioxide Pipeline will be buried at least 1.2m below the bed of the Dee. The pipe will be laid using trenchless methods and so the channel would not be modified.
Working with Physical Form and Function	Removal obsolete structures	The Newbuild Carbon Dioxide Pipeline will be buried at least 1.2m below the bed of the Dee. There will be no change to structures within the Dee and the Newbuild Carbon Dioxide Pipeline will not prevent the removal of structures in the future.

Table 5.18: Mitigation measures in place or not yet identified within the Sandycroft Drain water body

Category	Measure	Justification
Education	Educate landowners	The DCO Proposed Development would not prevent this mitigation measure from being implemented.
Operations and Maintenance	Selective vegetation control	Some vegetation removal would occur within the water body. It is anticipated that the structure of the riparian zone would be reinstated within two years of the construction works and there would be no long-term impact to the vegetation within this water body. The DCO Proposed
Operations and Maintenance	Vegetation control	

ATTACHMENT 4(d)(1)

Welsh National Marine Plan

The table below presents an evaluation of the trenchless crossing of the River Dee against the policies within the Welsh National Marine Plan, using a template provided by NRW-MLT.

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WNMP Policy No.	WNMP Policy	Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
GEN_01	Planning policy	There is a presumption in favour of the sustainable development of the plan area in order to contribute to Wales' well-being goals.	The Planning Statement [PINS Reference No. REP2-015] outlines the compliance of the DCO proposed Development with Planning Policy Wales (February 2021) which considers the Well-being of Future Generations Act.
GEN_02	Planning policy	Relevant public authorities should take a proportionate, risk-based approach to application of relevant marine planning policies in decision making.	The Marine Licence application for the trenchless crossing under the River Dee will be subject to public consultation, and marine licence for this project can only be legally granted after the completion of the consideration of the EIA and associated decision on the DCO made by the Secretary of State. In that regard, the Applicant understands that the relevant public authorities will take a proportionate, risk-based approach to the application of relevant marine planning policies in their decision making.
ECON_01	Sustainable economic growth	Proposals for economically sustainable activities are encouraged, particularly where they contribute to: <ul style="list-style-type: none"> • the sustainable management of natural resources thereby supporting ecosystem resilience; • a more resilient economy; • employment opportunities particularly for coastal communities; • protecting and creating employment at all skill levels; • maintaining communities with a high-density of Welsh speakers; and/or 	The case for the DCO Proposed Development including the economic case is included within the Needs Case [PINS Reference No. APP-049] submitted with the Application. Furthermore, a Welsh Language Statement [PINS Reference No. APP-050] was submitted with the Application which provides a background on the demographics of the pipeline area as it pertains to Welsh speakers, outlines relevant National/local planning policies, and details the measures/engagement

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
		<ul style="list-style-type: none"> tackling poverty by supporting deprived coastal communities. 		which were undertaken to enable participation in Welsh during the pre-application phase.
ECON_02	Coexistence	Proposals should demonstrate how they have considered opportunities for coexistence with other compatible sectors in order to optimise the value and use of the marine area and marine natural resources.	Yes	Carrying out a trenchless crossing under the River Dee will avoid a direct interface with the marine environment. The Applicant therefore considers that the DCO Proposed Development will be able to coexist with other compatible sectors in order to optimise the value and use of the marine area, and marine natural resources.
SOC_01	Access to the marine environment	Proposals that maintain or enhance access to the marine environment are encouraged.	Yes	The Outline PRow Management Plan [PINS Reference No. REP1-043] lists the measures and principles which will be taken to manage the PRowS across the DCO Proposed Development.
SOC_02	Well-being of coastal communities	Proposals that contribute to the well-being of coastal communities are encouraged.	Yes	The Planning Statement [PINS Reference No. REP2-015] outlines the compliance of the DCO proposed Development with Planning Policy Wales (February 2021) which considers the Well-being of Future Generations Act.

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
SOC_03	Marine pollution incidents	Proposals should demonstrate how they minimise their risk of causing or contributing to marine pollution incidents.	Yes	Carrying out a trenchless crossing under the River Dee will avoid a direct interface with the marine environment. Notwithstanding, mitigation measures, relevant to the protection of the marine environment that will be applied when carrying out these works, are captured within the Register of Environmental Actions and Commitment (REAC) [PINS Document reference: REP2-017] and would be secured and implemented within the Construction Environmental Management Plan (CEMP) (Outline CEMP, [PINS Document reference: REP2-021]).
SOC_04	Welsh language and culture	Proposals that contribute to the promotion and facilitation of the use of the Welsh language and culture are encouraged.	Yes	A Welsh Language Statement [PINS Reference No. APP-050] was submitted with the Application which provides a background on the demographics of the pipeline area as it pertains to Welsh speakers, outlines relevant National/local planning policies, and details the measures/engagement which were undertaken to enable participation in Welsh during the pre-application phase.

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
SOC_05	Historic assets	Proposals should demonstrate how potential impacts on historic assets and their settings have been taken into consideration and should, in order of preference: a) avoid adverse impacts on historic assets and their settings; and/or b) minimise impacts where they cannot be avoided; and/or c) mitigate impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding. Opportunities to enhance historic assets are encouraged.	Yes	The DCO Proposed Development comprises a buried cross-country pipeline, which involves carrying out a trenchless crossing under the River Dee. Routing has been carried out to avoid historic assets, and the buried nature of the DCO Proposed Development under the River Dee will avoid potential impacts on historic assets and their settings. Chapter 8 of the Environmental Statement [PINS Reference No. APP-060] submitted with the Application presents further details of the assessment of Cultural Heritage in regard to the DCO Proposed Development.
SOC_06	Designated landscapes	Proposals should demonstrate how potential impacts on the purposes and special qualities for which National Parks or Areas of Outstanding Natural Beauty have been designated have been taken into consideration and should, in order of preference: a) avoid adverse impacts on designated landscapes; and/or b) minimise impacts where they cannot be avoided; and/or c) mitigate impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding. Opportunities to enhance designated landscapes are encouraged.	No	The DCO Proposed Development is not located within a National Park or Area of Outstanding Natural beauty.

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
SOC_07	Seascapes	Proposals should demonstrate how potential impacts on seascapes have been taken into consideration and should, in order of preference: a) avoid adverse impacts on seascapes; and/or b) minimise impacts where they cannot be avoided; and/or c) mitigate impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding. Opportunities to enhance seascapes are encouraged.	No	Carrying out a trenchless crossing under the River Dee will avoid a direct interface with the marine environment. The buried nature of the DCO Proposed Development under the River Dee will avoid potential impacts on seascapes.
SOC_08	Resilience to coastal change and flooding	Proposals should demonstrate how they are resilient to coastal change and flooding over their lifetime.	No	Carrying out a trenchless crossing under the River Dee will avoid a direct interface with the marine environment. The buried nature of the DCO Proposed Development under the River Dee will avoid potential impacts on the resilience of the River Dee to coastal change and flooding. Further details can be found in Chapter 18 (Water and Flood Risk) [PINS Reference No. APP-070] of the Environmental Statement and a Flood Consequences Assessment [PINS Reference No. APP-168 to APP-170].

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
SOC_09	Effects on coastal change and flooding	Proposals should demonstrate how they: avoid significant adverse impacts upon coastal processes; and minimise the risk of coastal change and flooding; Proposals that align with the relevant Shoreline Management Plan(s) and its policies are encouraged.	No	<p>Carrying out a trenchless crossing under the River Dee will avoid a direct interface with the marine environment. The buried nature of the DCO Proposed Development under the River Dee will avoid potential impacts on coastal change and flooding.</p> <p>Further details can be found in Chapter 18 (Water and Flood Risk) [PINS Reference No. APP-070] of the Environmental Statement and a Flood Consequences Assessment [PINS Reference No. APP-168 to APP-170].</p>
SOC_10	Minimising climate change	Proposals should demonstrate how they, in order of preference: a) avoid the emission of greenhouse gases; and/or b) minimise them where they cannot be avoided; and/or c) mitigate them where they cannot be minimised. Where significant emission of greenhouse gases cannot be avoided, minimised or mitigated, proposals for regulated activities must present a clear and convincing case for proceeding.	Yes	<p>The purpose of the DCO Proposed Development is to transport up to 4.5 million tonnes per annum (MTPA) of carbon dioxide (CO₂) from a number of industrial emitters in the North East of England and Wales for permanent geological storage in depleted offshore oil and gas reservoirs.</p> <p>Chapter 7 (Climate Resilience) of the Environmental Statement [PINS Reference No. APP-059] and Appendix 7.1 (Climate Resilience Preliminary Assessment) [PINS Reference No. APP-083] discuss the climate change resilience of the DCO Proposed Development. Chapter 10 (Greenhouse Gases) of the Environmental Statement [PINS Reference No. APP-062] presents the assessment of GHG impacts from the DCO Proposed Development.</p>

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
SOC_11	Resilience to climate change	Proposals should demonstrate that they have considered the impacts of climate change and have incorporated appropriate adaptation measures, taking into account Climate Change Risk Assessments for Wales. Proposals that contribute to climate change adaptation and/or mitigation are encouraged.	Yes	<p>The purpose of the DCO Proposed Development is to transport up to 4.5 million tonnes per annum (MTPA) of carbon dioxide (CO₂) from a number of industrial emitters in the North East of England and Wales for permanent geological storage in depleted offshore oil and gas reservoirs.</p> <p>Chapter 7 (Climate Resilience) of the Environmental Statement [PINS Reference No. APP-059] and Appendix 7.1 (Climate Resilience Preliminary Assessment) [PINS Reference No. APP-083] discuss the climate change resilience of the DCO Proposed Development. This assessment has considered the impacts of climate change and incorporated appropriate adaptation measures, taking into account Climate Change Risk Assessments for Wales.</p>
ENV_01	Resilient marine ecosystems	Proposals should demonstrate how potential impacts on marine ecosystems have been taken into consideration and should, in order of preference: a) avoid adverse impacts; and/or b) minimise impacts where they cannot be avoided; and/or c) mitigate impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding. Proposals that contribute to the protection, restoration	Yes	Carrying out a trenchless crossing under the River Dee will avoid a direct interface with marine ecosystems. Notwithstanding, mitigation measures, relevant to the protection of the marine ecosystems that will be applied when carrying out these works, are captured within the Register of Environmental Actions and Commitment (REAC) [PINS Document reference: REP2-017] and would be secured and implemented within the Construction Environmental Management Plan (CEMP)

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
		and/or enhancement of marine ecosystems are encouraged.		(Outline CEMP, [PINS Document reference: REP2-021]).
ENV_02	Marine Protected Areas	Proposals should demonstrate how they: avoid adverse impacts on individual Marine Protected Areas (MPAs) and the coherence of the network as a whole; have regard to the measures to manage MPAs; and avoid adverse impacts on designated sites that are not part of the MPA network.	No	Carrying out a trenchless crossing under the River Dee will avoid a direct interface with marine ecosystems. Notwithstanding, mitigation measures, relevant to Marine Protected Areas that will be applied when carrying out these works, are captured within the Register of Environmental Actions and Commitment (REAC) [PINS Document reference: REP2-017] and would be secured and implemented within the Construction Environmental Management Plan (CEMP) (Outline CEMP, [PINS Document reference: REP2-021]).

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
ENV_03	Invasive non-native species	Proposals should demonstrate how they avoid or minimise the risk of introducing and spreading invasive non-native species. Where appropriate, proposals should include biosecurity measures to reduce the risk of introducing and spreading of invasive non-native species.	Yes	<p>Carrying out a trenchless crossing under the River Dee will minimise the potential for introducing and spreading invasive non-native species (INNS) within the River Dee. However, it is known that INNS are present within the Newbuild Infrastructure Boundary (Appendix 9.1: Habitats and Designated Sites Survey Report, Volume III). INNS mitigation measures are captured within the Register of Environmental Actions and Commitment (REAC) [PINS Document reference: REP2-017]. A Biosecurity Method Statement will be implemented throughout the construction of the DCO Proposed Development. The Biosecurity Method Statement will detail the locations and extent of any INNS identified, alongside appropriate measures to control and prevent spread or propagation of INNS. High-level recommendations for the treatment and removal of INNS will be identified.</p> <p>Appropriate good hygiene measures (e.g., Check, Clean, Dry methods will be detailed. Workers should be equipped with the necessary equipment, Personal Protective Equipment (PPE) and substances to implement biosecurity control measures, including effective hygiene and sanitation practices. This will most frequently comprise disinfectant tablets, sprayers, and brushes to clean and</p>

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
				<p>disinfect equipment and PPE prior to entering/leaving construction areas.</p> <p>Other noteworthy biosecurity considerations (e.g. avian flu, bovine TB) will also be referenced within the Biosecurity Management Plan.</p>

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
ENV_04	Marine litter	Proposals should demonstrate how they: avoid the deliberate introduction of litter into the marine plan area; and minimise the risk of accidental release of litter.	Yes	<p>The Mitigation measures captured within the Register of Environmental Actions and Commitments (REAC) [PINS Document reference: REP2-017] would avoid the deliberate introduction of litter into the marine plan area; and minimise the risk of accidental release of litter.</p> <p>The Waste Management Plan will adhere to the highest tiers of the Waste Hierarchy, all relevant legislation and the Applicant’s waste management procedures.</p> <p>Waste storage areas will be incorporated into the Detailed Design. Waste segregation measures will be put in place by the Construction Contractor as implemented in the detailed CEMP and WMP.</p>
ENV_05	Underwater noise	Proposals should demonstrate that they have considered man-made noise impacts on the marine environment and, in order of preference: a) avoid adverse impacts; and/or b) minimise impacts where they cannot be avoided; and/or c) mitigate impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.	Yes	<p>Activities from the trenchless crossing of the River Dee would generate negligible underwater noise. The HRA [PINS Application reference: REP2-023] concluded that: “The crossing method would avoid works within the River Dee watercourse and would be undertaken at the minimum trenchless crossing depths detailed in Section 6(a) above. Geotechnical investigations either side of the River Dee identified the presence of tidal flat deposits consisting of sand and clay between 0 and 18 mbgl. These deposits were underlain by</p>

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
				glacial till deposits consisting of stiff clay to at least a depth of 30 mbgl. With the minimum trenchless crossing depths, the intensity of noise and vibration at the riverbed would be negligible.”
ENV_06	Air and water quality	Proposals should demonstrate that they have considered their potential air and water quality impacts and should, in order of preference: a) avoid adverse impacts; and/or b) minimise adverse impacts where they cannot be avoided; and/or c) mitigate adverse impacts where they cannot be minimised. If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.	Yes	<p>Carrying out a trenchless crossing under the River Dee will minimise the potential for air and water quality impacts within the River Dee.</p> <p>A Dust Management Plan (DMP) will be developed and implemented on site by the Construction Contractor (measure D-AQ-004 of the Register of Environmental Actions and Commitments (REAC) [PINS Document reference: REP2-017]). The DMP will capture best practice measures to reduce dust dispersal.</p> <p>Measures to prevent impacts to water resources and flood risk are included in the REAC as measures D-WR-001 to D-WR-074. Full measures to be employed would be detailed in the Construction Environmental Management Plan (CEMP) to be followed at all times during</p>

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
				the works (Outline Construction Environmental Management Plan (OCEMP), [PINS Document reference: REP2-021]).
ENV_07	Fish species and habitats	Proposals potentially affecting important feeding, breeding (including spawning & nursery) and migration areas or habitats for key fish and shellfish species of commercial or ecological importance should demonstrate how they, in order of preference: a) avoid adverse impacts on those areas; and/or b) minimise adverse impacts where they cannot be avoided; and/or c) mitigate adverse impacts where they cannot be minimised; If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.	Yes	<p>Carrying out a trenchless crossing under the River Dee will minimise the potential for impacts to fish species and habitats within the River Dee.</p> <p>Measures to prevent impacts to fish species and habitats are included in the Register of Environmental Actions and Commitments (REAC) [PINS Document reference: REP2-017] as measures D-BD-057 to D-BD-058.</p> <p>Appendix 9.9 Aquatic Ecology (Watercourses) Survey Report of the Environmental Statement [APP-113 & CR1-080] submitted with the</p>

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
				Application considers aquatic ecology in the River Dee.
GOV_01	Cumulative effects	Proposals should demonstrate that they have assessed potential cumulative effects and should, in order of preference: a) avoid adverse effects; and/or b) minimise effects where they cannot be avoided; and/or c) mitigate effects where they cannot be minimised. If significant adverse effects cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding. Proposals that contribute to positive cumulative effects are encouraged.	Yes	The assessment of potential cumulative effects is presented in Chapter 19 (Combined and Cumulative Effects) of the Environmental Statement [PINS Document reference: APP-071] submitted with the Application considers the Cumulative Effects of the DCO Proposed Development.
GOV_02	Cross-border and plan compatibility	Relevant public authorities, in making their decisions, should have regard to: any applicable policy in a relevant marine plan; any applicable policy in relevant terrestrial development plans or related documents; the Natural Resources Policy; any relevant local well-being plan(s) (including the local well-being assessment); and evidence in any	Yes	The Marine Licence application for the trenchless crossing under the River Dee will be subject to public consultation, and the marine licence for this project can only be legally granted after the completion of the consideration of the EIA and associated decision on the DCO made by the Secretary of State. In that regard, the Applicant understands that the relevant public authorities will take

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
		relevant Area Statement(s) produced by Natural Resources Wales (NRW).		account of cross-border and plan compatibility in their decision making.
SCI_01	Using sound science responsibly	Relevant public authorities should make decisions using sound evidence and a risk-based, proportionate approach. Where appropriate they should apply the precautionary principle and consider opportunities to apply adaptive management.	Yes	The Marine Licence application for the trenchless crossing under the River Dee will be subject to public consultation, and the marine licence for this project can only be legally granted after the completion of the consideration of the EIA and associated decision on the DCO made by the Secretary of State. In that regard, the Applicant understands that the relevant public authorities will make their decisions using sound evidence and a risk-based, proportionate approach, and where appropriate they will apply the precautionary principle and consider opportunities to apply adaptive management.
AGG_01a	Aggregates (supporting)	Proposals for new aggregate extraction will be supported, within any tonnage limits, where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	No	The trenchless crossing of the River Dee does not involve any aggregate extraction.

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
AGG_01b	Aggregates (supporting)	Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities: for the sustainable use of wider marine aggregate natural resources; to define and, once in place, further develop and refine Strategic Resource Areas for aggregates in order to support the sustainable development of the aggregate sector through marine planning.	No	The trenchless crossing of the River Dee does not involve any aggregate extraction.
AQU_01a	Aquaculture (supporting)	Proposals for new aquaculture developments will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	No	The trenchless crossing of the River Dee does not involve any aquaculture development.
AQU_01b	Aquaculture (supporting)	Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities for the sustainable use of aquaculture resources including the identification of: natural resources that provide aquaculture potential opportunities to define and, once in place, further develop and refine Strategic Resource Areas for aquaculture in order to support the sustainable development of the aquaculture sector through marine planning.	No	The trenchless crossing of the River Dee does not involve any aquaculture development.

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
D&D_01	Dredging and disposal (supporting)	Proposals that maintain navigable channels and long-term access to open at-sea disposal sites for appropriate material will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	No	The trenchless crossing of the River Dee does not involve any proposals that would affect navigable channels and open at-sea disposal sites.
ELC_01a	Low carbon energy (supporting) wind	Proposals for offshore wind energy generation will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations. Proposals for wind >350MW will be considered by UK Government in accordance with relevant national policy. In determining an NSIP for a wind proposal, the decision maker will have regard to this plan. Any determination in relation to energy developments of any scale will be taken in accordance with this plan alongside any other relevant considerations.	No	The trenchless crossing of the River Dee will not prevent the development of offshore wind energy stations.

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
ELC_01b	Low carbon energy (supporting) wind	In order to understand future opportunities for offshore wind development, including floating technologies, this plan supports strategic planning for the sector. Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities for the sustainable use of wind energy resources including identification of: • natural resources that provide potential opportunity for future use; • evidence to de-risk consenting for the sector; and • opportunities to define and, once in place, further develop and refine Strategic Resource Areas for offshore wind energy resource safeguarding; in order to support the sustainable development of the sector through marine planning. Relevant public authorities should make appropriate evidence available to support planning and decision making in order to support the sustainable development of the sector through marine planning, where it is appropriate to do so.	No	The trenchless crossing of the River Dee will not prevent the development of offshore wind energy stations.
ELC_02a	Low carbon energy (supporting) wave	Proposals for wave energy generation will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	No	The trenchless crossing of the River Dee will not prevent the development of wave energy generation.

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
ELC_02b	Low carbon energy (supporting) wave	In order to understand future opportunities for wave energy development, relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities for the sustainable use of wave energy resources including identification of: • natural resources that provide potential opportunity for future use; • evidence to de-risk consenting for the sector; and • opportunities to define and, once in place, further develop and refine Strategic Resource Areas for wave energy resource safeguarding; in order to support the sustainable development of the sector through marine planning. Relevant public authorities should make appropriate evidence available to support planning and decision making in order to support the sustainable development of the sector through marine planning, where it is appropriate to do so.	No	The trenchless crossing of the River Dee will not prevent the development of wave energy generation.
ELC_03a	Low carbon energy (supporting) tidal stream	Proposals for tidal stream energy generation will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	No	The trenchless crossing of the River Dee will not prevent the development of tidal stream energy generation.

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
ELC_03b	Low carbon energy (supporting) tidal stream	In order to understand future opportunities for tidal stream energy development, relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities for the sustainable use of tidal stream energy resources including identification of: • natural resources that provide potential opportunity for future use; • evidence to de-risk consenting for the sector; and • opportunities to define and, once in place, further develop and refine Strategic Resource Areas for tidal stream energy resource safeguarding; in order to support the sustainable development of the sector through marine planning. Relevant public authorities should make appropriate evidence available to support planning and decision making in order to support the sustainable development of the sector through marine planning, where it is appropriate to do so.	No	The trenchless crossing of the River Dee will not prevent the development of tidal stream energy generation.

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
ELC_04	Low carbon energy (supporting) tidal range	<p>In order to understand future opportunities for tidal range development, strategic planning for the sector is encouraged. Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to:</p> <ul style="list-style-type: none"> • collect evidence to support understanding of environmental constraints and opportunities for the sustainable use of the tidal range resource; • support understanding of the optimal siting of tidal lagoon developments across Wales as part of a wider, UK perspective; and • identify opportunities to define and, once in place, further develop and refine Strategic Resource Areas for tidal lagoon safeguarding purposes. <p>Relevant public authorities should make appropriate evidence available to support planning and decision making in order to support the sustainable development of the sector through marine planning, where it is appropriate to do so.</p>	No	The trenchless crossing of the River Dee will not prevent the development of tidal range energy generation.
O&G_01a	Oil and gas (supporting)	<p>Proposals that maximise the economic recovery of oil and gas sustainably will be supported where they comply with the objectives of this plan, and fully meet the environmental safeguards contained within the statutory processes of awarding production licences and subsequent activity-specific approvals. Proposals should comply with the relevant general policies and sector</p>	No	<p>The purpose of the DCO Proposed Development is to transport up to 4.5 million tonnes per annum (MTPA) of carbon dioxide (CO₂) from a number of industrial emitters in the North East of England and Wales for permanent geological storage in depleted offshore oil and gas reservoirs.</p> <p>The case for the DCO Proposed Development</p>

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
		safeguarding policies of this plan and any other relevant considerations.		including is included within the Needs Case [PINS Document reference: APP-049] submitted with the Application.
O&G_01b	Oil and gas (supporting)	Welsh Government policy is to avoid the continued extraction of fossil fuels in intertidal areas and estuaries and coastal inlet waters that fall within the Welsh onshore licence area. Applications for new petroleum licenses in these areas should not be supported, unless required for mine safety or scientific purposes. Proposals for the development and extraction of oil and gas in these areas with land-based elements must provide robust and credible evidence to demonstrate how they conform to the Planning Policy Wales Energy Hierarchy for Planning, including how they make a necessary contribution towards decarbonising the energy system.	No	The purpose of the DCO Proposed Development is to transport up to 4.5 million tonnes per annum (MTPA) of carbon dioxide (CO ₂) from a number of industrial emitters in the North East of England and Wales for permanent geological storage in depleted offshore oil and gas reservoirs. The case for the DCO Proposed Development including is included within the Needs Case [PINS Document reference: APP-049] submitted with the Application.
O&G_02	Oil and gas (supporting)	Proposals that support the long-term development of carbon capture and storage technology will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding	Yes	The purpose of the DCO Proposed Development is to transport up to 4.5 million tonnes per annum (MTPA) of carbon dioxide (CO ₂) from a number of industrial emitters in the North East of England and Wales for permanent geological storage in depleted offshore oil and gas reservoirs.

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WNMP Policy No.	WNMP Policy	Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
		policies of this plan and any other relevant considerations.	
			The case for the DCO Proposed Development including is included within the Needs Case [PINS Document reference: APP-049] submitted with the Application.
FIS_01a	Fisheries (supporting)	Proposals that support and enhance sustainable fishing activities will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	
			No
			The trenchless crossing of the River Dee will not prevent the support and enhancement of sustainable fishing activities.
FIS_01b	Fisheries (supporting)	Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities to develop a strategic evidence base to improve understanding of opportunities for the sustainable development of fisheries in order to support the sustainable development of the fisheries sector through marine planning.	
			No
			The trenchless crossing of the River Dee will not prevent the support and enhancement of sustainable fishing activities.
P&S_01a	Ports and shipping (supporting)	Proposals for ports, harbours and shipping activities will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding	
			No
			The trenchless crossing of the River Dee does not involve proposals for ports, harbours and shipping activities, and nor will it prevent the support and enhancement of ports, harbours, and shipping activities.

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WNMP Policy No.	WNMP Policy	Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
		<p>policies of this plan and any other relevant considerations.</p>	
P&S_01b	Ports and shipping (supporting)	<p>Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities to support the sustainable development of the ports and shipping sector through marine planning.</p>	<p>No</p> <p>The trenchless crossing of the River Dee does not involve proposals for ports, harbours and shipping activities, and nor will it prevent the support and enhancement of ports, harbours, and shipping activities.</p>
P&S_02	Ports and shipping (supporting)	<p>Proposals that provide for the maintenance, repair, development and diversification of port and harbour facilities will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.</p>	<p>No</p> <p>The trenchless crossing of the River Dee does not involve proposals for ports, harbours and shipping activities, and nor will it prevent the support and enhancement of ports, harbours, and shipping activities.</p>
CAB_01	Subsea cabling (supporting)	<p>Proposals that facilitate the growth of digital communications networks and/or the optimal distribution of electricity will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.</p>	<p>No</p> <p>The trenchless crossing of the River Dee will not prevent the growth of digital communications networks and/or the optimal distribution of electricity.</p>

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WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
T&R_01a	Tourism and recreation (supporting)	Proposals that demonstrate a positive contribution to tourism and recreation opportunities and policy objectives (for the sector) around the Welsh coast will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations.	No	The trenchless crossing of the River Dee will not prevent the delivery of the policies to support tourism and recreation.
T&R_01b	Tourism and recreation (supporting)	Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities for sustainable tourism and recreation around the Welsh coast, including: a) developing a strategic evidence base to improve understanding of current and potential tourism and recreation activities, including eco-tourism and other low impact activities; and b) opportunities to define areas of future opportunity for tourism and recreation; in order to support the sustainable development of the tourism and recreation sector through marine planning.	No	The trenchless crossing of the River Dee will not prevent the delivery of the policies to support tourism and recreation.

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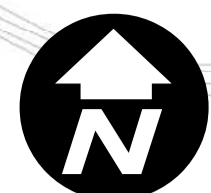
WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
SAF_01	Safeguarding existing activity	<p>a: Proposals likely to have significant adverse impacts upon an established activity covered by a formal application or authorisation must demonstrate how they will address compatibility issues with that activity. Proposals unable to demonstrate adequate compatibility must present a clear and convincing case for the proposal to progress under exceptional circumstances. b: Proposals likely to have significant adverse impacts upon an established activity not subject to a formal authorisation must demonstrate how they will address compatibility issues with that activity. Proposals unable to demonstrate adequate compatibility must present a clear and convincing case for proceeding. Under SAF 01 a and b, compatibility should be demonstrated through, in order of preference: a. Avoiding significant adverse impacts on those activities, and/or b. Minimising significant adverse impacts where these cannot be avoided; and/or c. Mitigating significant adverse impacts where they cannot be minimised.</p>	No	The trenchless crossing of the River Dee is compatible with existing activities on the River Dee.

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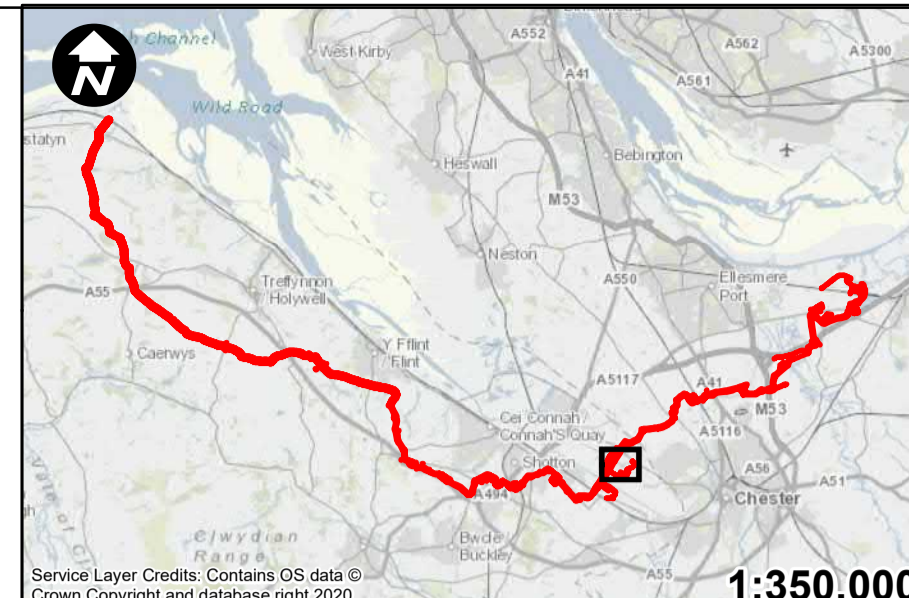
WNMP Policy No.	WNMP Policy		Does the project have the potential to impact the Policy?	How Does the Proposed Project Comply with the Policy?
SAF_02	Safeguarding strategic resources	Proposals which may have significant adverse impacts upon the prospects of any sector covered by this plan to engage in sustainable future strategic resource use (of resources identified by an SRA) must demonstrate how they will address compatibility issues with that potential resource use. Proposals unable to demonstrate adequate compatibility must present a clear and convincing case for proceeding. Compatibility should be demonstrated through, in order of preference: a. Avoiding significant adverse impacts on this potential strategic resource use, and/or b. Minimising significant adverse impacts where these cannot be avoided; and/or c. Mitigating significant adverse impacts where they cannot be minimised.	No	The trenchless crossing of the River Dee is compatible with safeguarded strategic resources on the River Dee.
DEF_01	Defence (safeguarding)	Proposals that: • potentially affect Ministry of Defence (MOD) Danger Areas, Exercise Areas or strategic defence interests; and/or • potentially interfere with communication, surveillance and navigation facilities necessary for defence and national security; should only be authorised with the agreement of MOD.	No	The trenchless crossing of the River Dee is compatible with safeguarded defence activities on the River Dee.

ATTACHMENT 6(a)

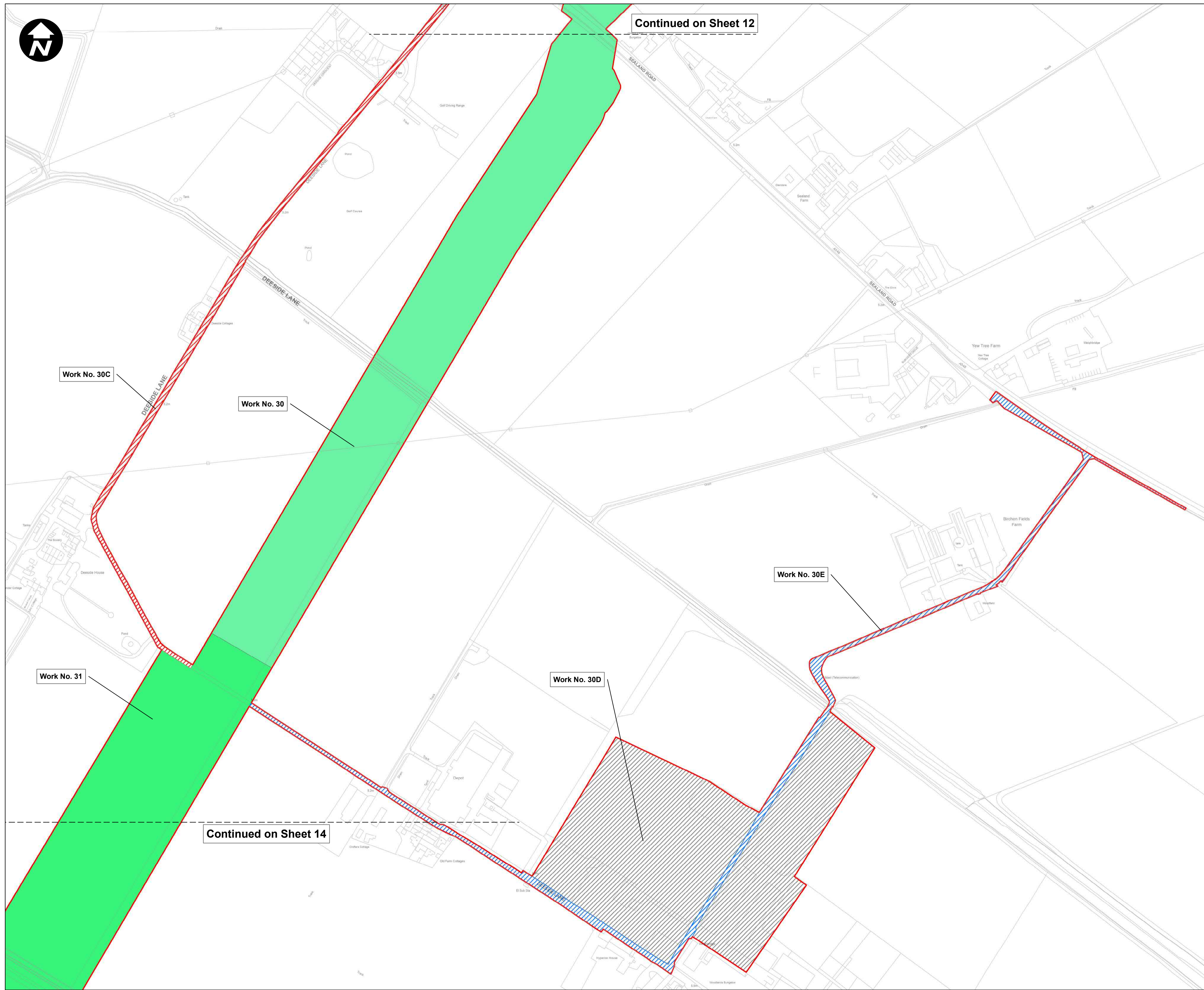
DCO Works Plans (Rev D) Sheets 13 and 14 of 37



Continued on Sheet 12



- Key:**
- Order Limits
 - Work No. 30 - Carbon Dioxide Pipeline Works
 - Work No. 30C - Permanent Access
 - Work No. 30D - Temporary Logistics and Construction Compound
 - Work No. 30E - Temporary Access
 - Work No. 31 - Carbon Dioxide Pipeline Works



Work No. 30C

Work No. 30

Work No. 31

Work No. 30D

Work No. 30E

Continued on Sheet 14

D	RH	PT	VB	28/04/2023
C	RH	PT	VB	28/02/2023
B	RH	PT	VB	28/02/2023
A	RH	PT	VB	19/08/2022
REVISION	DRAWN	CHECKED	APPROVED	DATE

SCALE: 1:2,500
 0 50 100 200 Metres

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PROJECT TITLE
 HyNet Carbon Dioxide Pipeline DCO

DRAWING TITLE
 WORKS PLAN REGULATION 5(2)(i) APPLICATION DOCUMENT REFERENCE D.2.4 SHEET 13

DRAWING STATUS
 DEADLINE 2

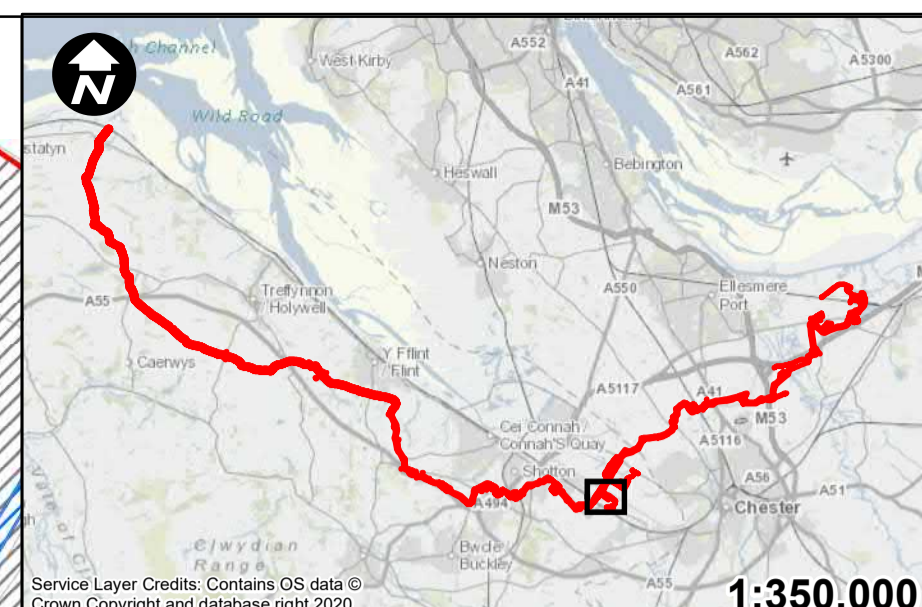
DRAWN	CHECKED	APPROVED	AUTHORISED
RH	PT	VB	AV
SCALE @ A1 SIZE		DATE	REVISION
1:2,500		28/04/2023	D

DRAWING NUMBER
 EN070007-D.2.4-WP-Sheet 13



Continued on Sheet 13

Continued on Sheet 15

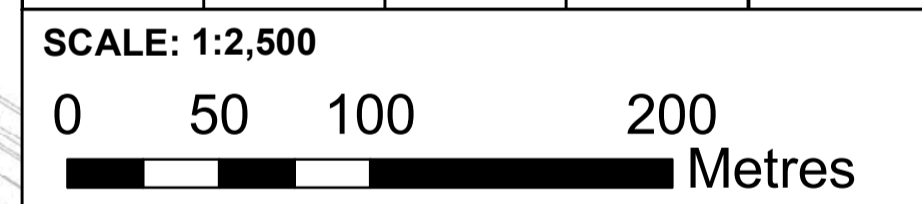


1:350,000

Key:

- Order Limits
- Work No. 30D - Temporary Logistics and Construction Compound
- Work No. 30E - Temporary Access
- Work No. 31 - Carbon Dioxide Pipeline Works
- Work No. 31A - Temporary Logistics and Construction Compound
- Work No. 31B - Permanent Access
- Work No. 31C - Temporary Working Area
- Work No. 32 - Carbon Dioxide Pipeline Works
- Work No. 32A - Temporary Access
- Work No. 33 - Carbon Dioxide Pipeline Works

D	RH	PT	VB	28/04/2023
C	RH	PT	VB	28/02/2023
B	RH	PT	VB	28/02/2023
A	RH	PT	VB	19/08/2022
REVISION	DRAWN	CHECKED	APPROVED	DATE



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PROJECT TITLE
 HyNet Carbon Dioxide Pipeline DCO

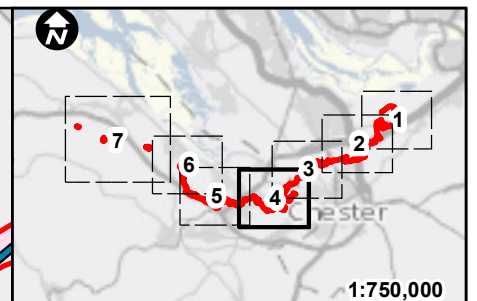
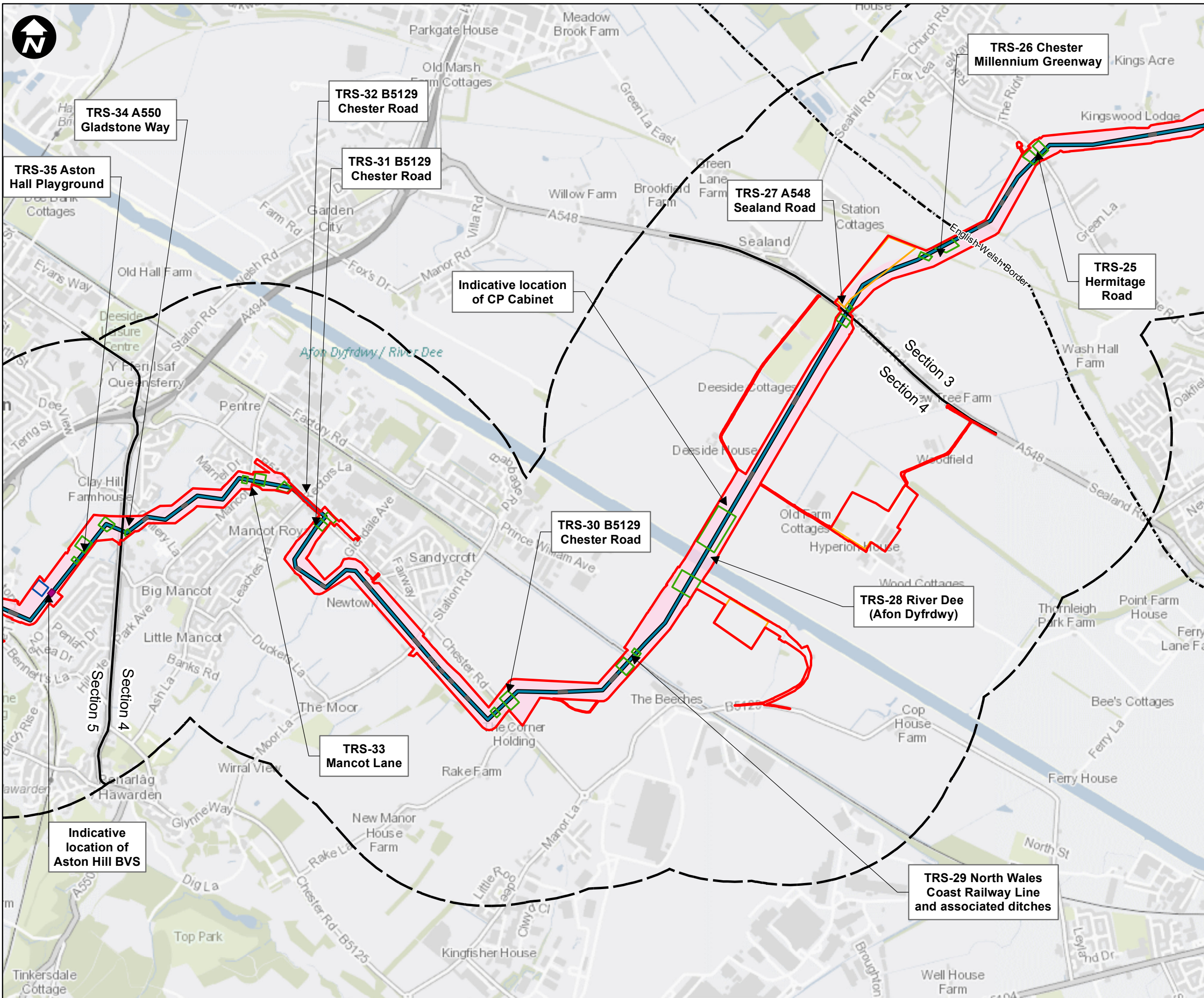
DRAWING TITLE
 WORKS PLAN REGULATION 5(2)(i) APPLICATION DOCUMENT REFERENCE D.2.4 SHEET 14

DRAWING STATUS
 DEADLINE 2

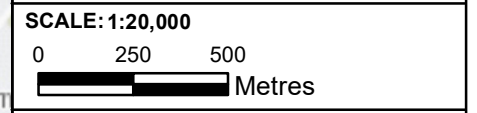
DRAWN RH	CHECKED PT	APPROVED VB	AUTHORISED AV
SCALE @ A1 SIZE 1:2,500		DATE 28/04/2023	REVISION D
DRAWING NUMBER EN070007-D.2.4-WP-Sheet 14			

ATTACHMENT 6(b)

Environmental Statement: Figure 3.2 Sheet 4 of 7



- Key:**
- Newbuild Infrastructure Boundary
 - 1km Buffer
 - Permanent acquisition of subsurface
 - English Welsh Border
 - Section Dividing Line
 - Indicative alignment of the Stanlow AGI to Flint AGI Pipeline
 - Block Valve Station (BVS)
 - Trenchless Crossing Compound
 - Centralised Compound
 - Localised Compound
 - Open-cut trench Crossings



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HyNet North West

PROJECT TITLE
HyNet Carbon Dioxide Pipeline DCO

DRAWING TITLE
 Figure 3.2 - DCO Proposed Development Sheet 4 of 7

DRAWING STATUS
 FOR DESIGN CHANGE REQUEST 1

DRAWN	CHECKED	APPROVED	AUTHORISED
KD	JH	RC	MT

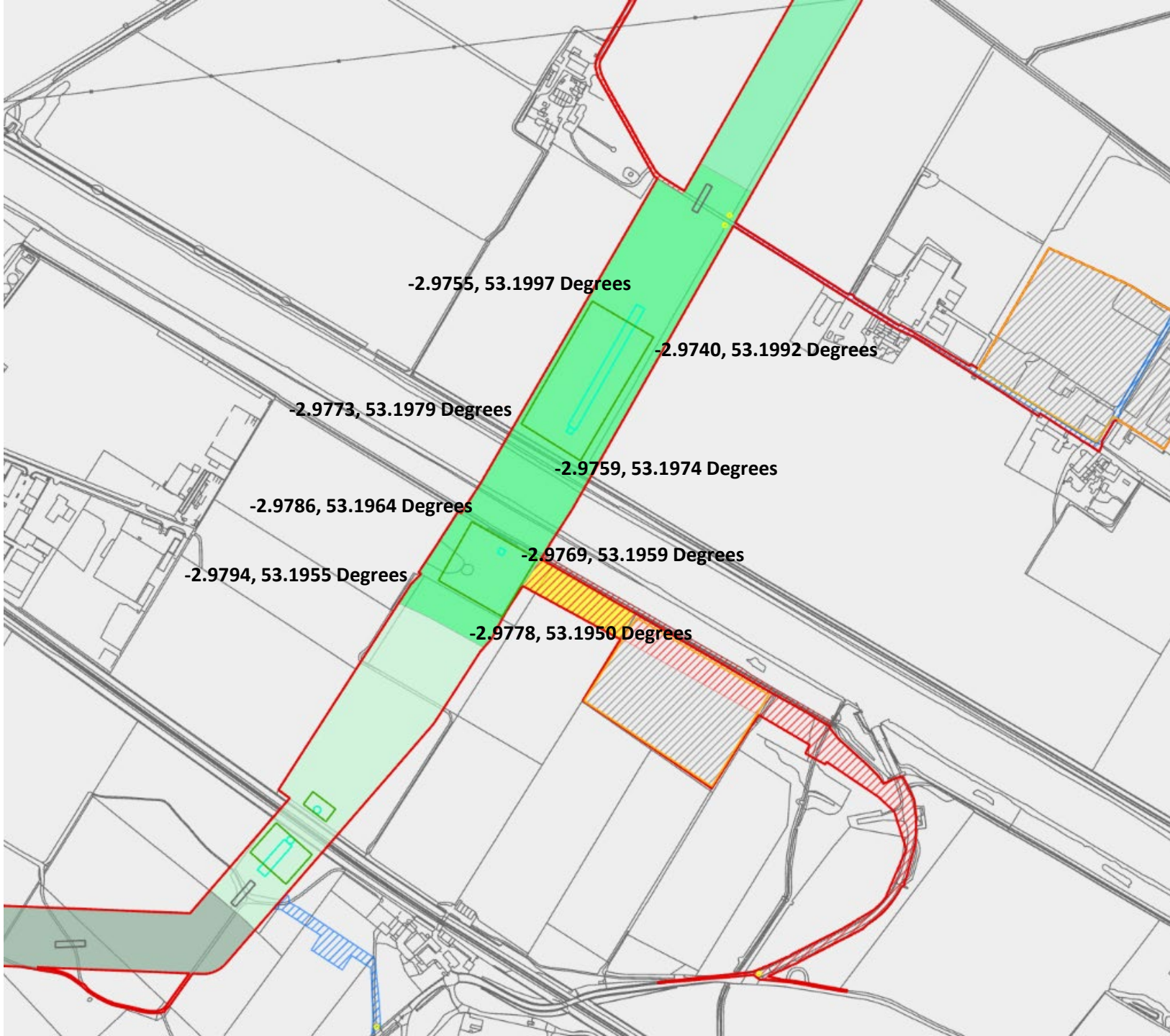
SCALE @ A3 SIZE	DATE	REVISION
1:20,000	10/03/2023	B

DRAWING NUMBER
 EN070007-APP-ES-3.2-Sheet 4

ATTACHMENT 6(b)(1)

Coordinates of entry and exit pits for trenchless crossing of River Dee

The attached figure presents the coordinates for each of the four corners of the polygons identifying the potential location of the entry and exit pits for the trenchless crossing of the River Dee. The coordinates are presented in Latitude and Longitude.



-2.9755, 53.1997 Degrees

-2.9740, 53.1992 Degrees

-2.9773, 53.1979 Degrees

-2.9759, 53.1974 Degrees

-2.9786, 53.1964 Degrees

-2.9769, 53.1959 Degrees

-2.9794, 53.1955 Degrees

-2.9778, 53.1950 Degrees

ATTACHMENT 7(A)

Trenchless Crossing Methods

1.1.1 HDD

Horizontal Directional Drilling (HDD) process starts by setting up the 'Rig Site' and the 'Pipe Site' as shown in Figure 1-1 and Figure 1-2 respectively. The entrance pit (Rig Site) comprises a 50 m x 50 m drill site for the launch pit, and an exit pit (Pipe Site) a 30 m x 30 m, both of which would require road access to transport the drilling equipment. HDD is generally accomplished in three principal phases. First, a small diameter pilot hole is drilled along a directional path from one surface point to another. Next, the bore created during pilot hole drilling is enlarged to a diameter that will facilitate installation of the desired pipeline. Lastly, the pipeline is pulled into the enlarged hole, thus creating a continuous segment of pipe underground exposed only at the two initial endpoints. The entrance and exit pits would be backfilled and re-instated upon completion. An illustration of the HDD technique is shown in Figure 1-3

The drilling process generally starts with the creation of the receiving hole at the Pipe Site, and entrance pit in the Rig Site. These pits will allow the drilling fluid to be collected and reclaimed to and prevent waste. The first stage drills a pilot hole on the designed path, and the second stage (reaming) enlarges the hole by passing a larger cutting tool known as the back reamer. The diameter of the reamer depends on the size of the pipe to be pulled back through the bore hole. The driller increases the diameter according to the outer diameter of the conduit and to achieve optimal production. The third stage places the product or casing pipe in the enlarged hole by way of the drill stem; it is pulled behind the reamer to allow the pipe to be centred in the newly reamed path. Depending on the ground conditions the HDD process would take approximately four weeks working to complete.

HDD uses bentonite, a clay-based drilling fluid which mixes with drill cuttings arising to form a slurry. The used slurry is pumped back to the drill launch area where it is filtered and recirculated once again. Once the crossing has been completed, the bentonite will be disposed of appropriately.

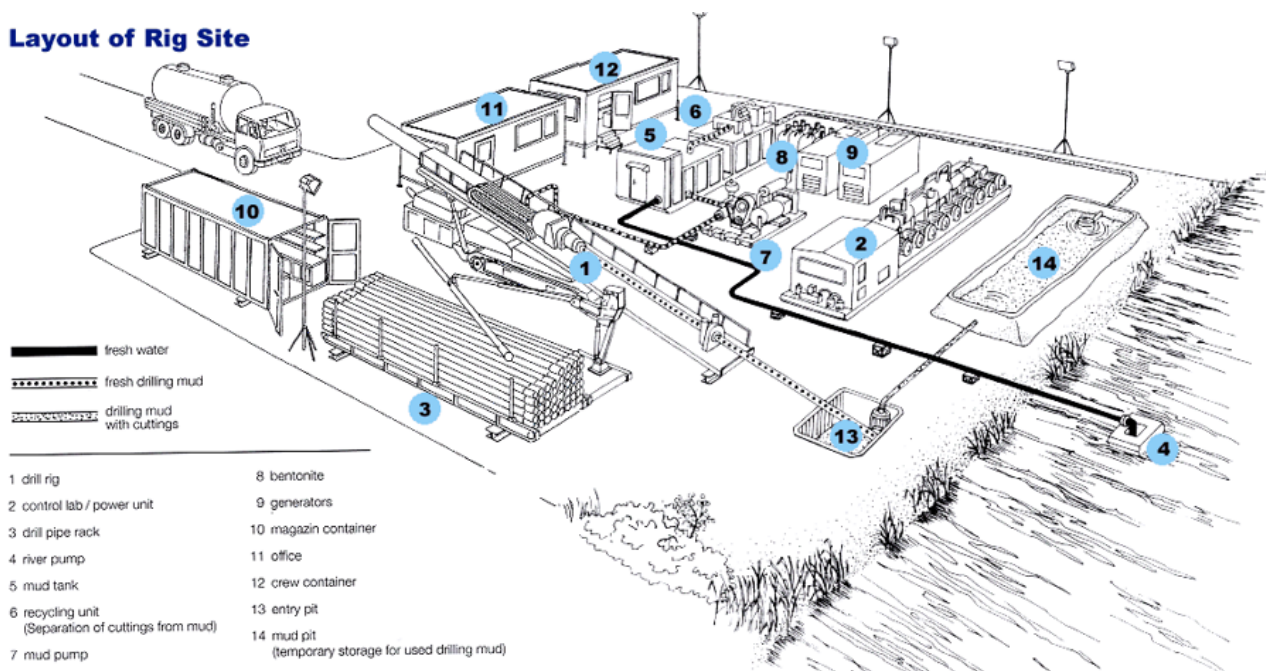


Figure 1-1: Potential layout of rig site for HDD

Layout of Pipe Site

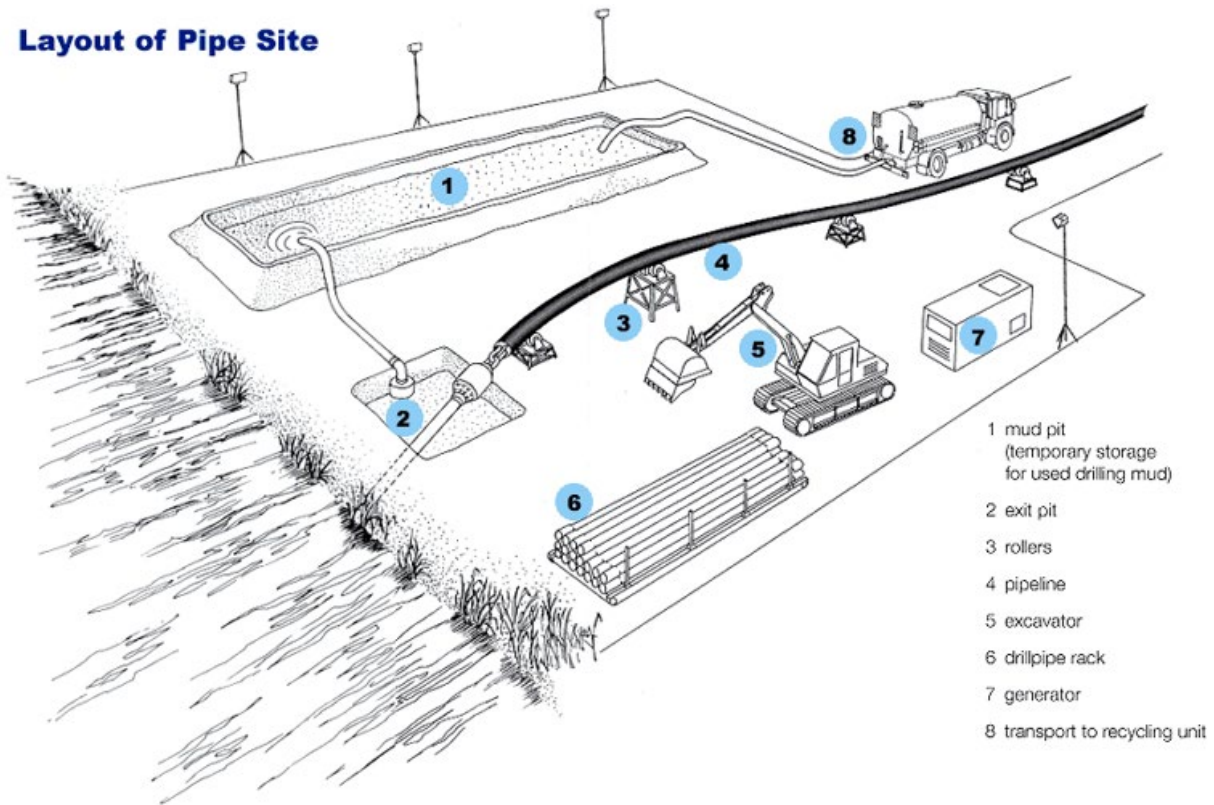


Figure 1-2: Potential layout of pipe site for HDD

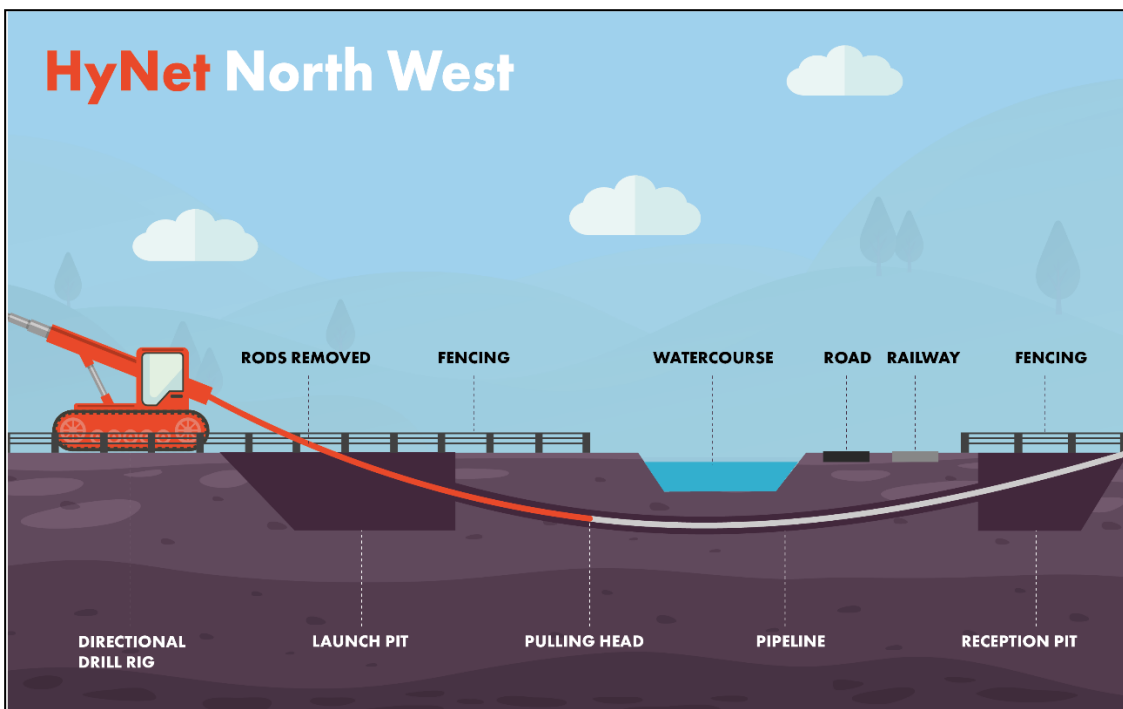


Figure 1-3: Illustration of typical HDD technique

1.1.2 Micro-tunnelling

The micro-tunnelling process starts by setting up the Entrance Shaft site and the Exit Shaft site as shown in Figure 1-4. The Entrance Shaft site would be approximately 30 m x 30 m, and the Exit Shaft site around 20 m x 20 m, both of which would require road access to transport the drilling equipment.

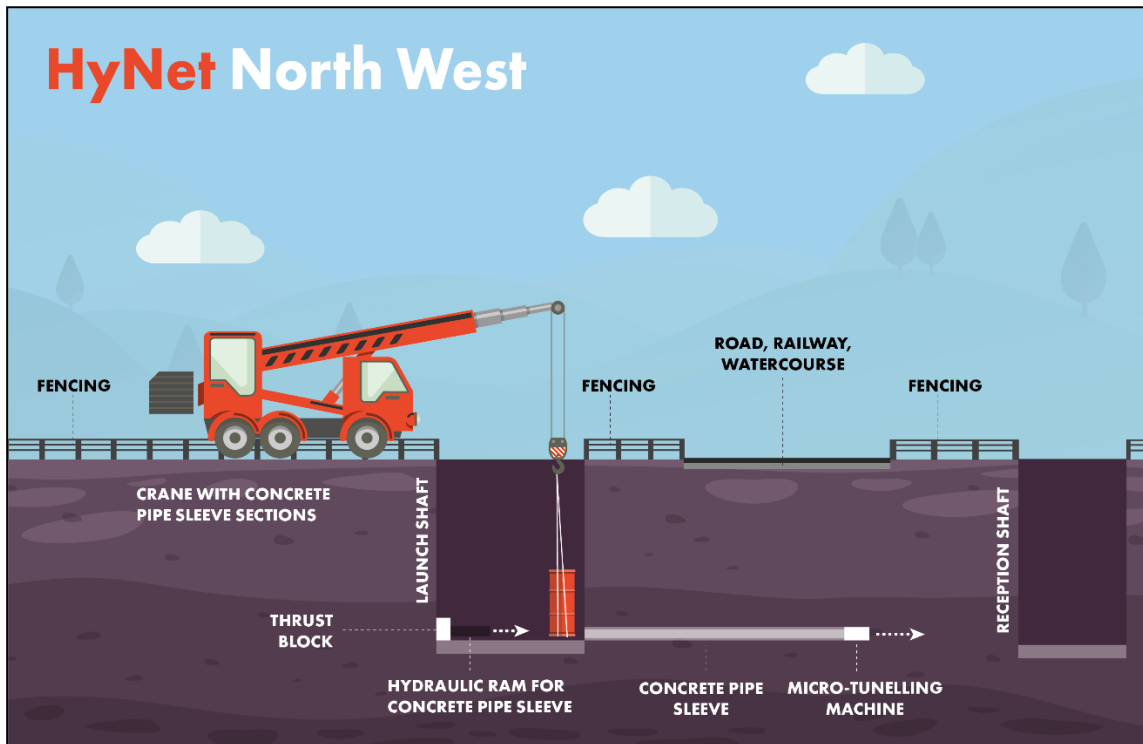


Figure 1-4: Illustration of typical micro-tunnelling technique

Entrance and exit shafts are constructed at each end of the tunnel by trench box, sheet piling or sacrificial concrete rings. The Entrance Shaft would be approximately 8.2m in depth, and the Exit Shaft approximately 5m. The Entrance and Exit Shafts would be backfilled and re-instated upon completion.

An unmanned Micro-tunnel Boring Machine is used to install a reinforced concrete carrier pipe between the two shafts. Pipeline sections are threaded through the carrier pipe and welded in after tunnelling activities have completed. The tunnel is then fully grouted, and the shaft construction removed and backfilled. A minimum depth of 8m (distance between the top of the casing and the riverbed) would be maintained along the length of the crossing. Micro-tunnelling uses bentonite as a drilling fluid.

Depending on the ground conditions the micro-tunnelling process would take approximately 50 days of 24/7 working to complete.

ATTACHMENT 12(a)

Pre-application correspondence with NRW

Billington Alistair

From: Corless, Natalie <natalie.corless@wsp.com>
Sent: 22 February 2023 10:28
To: maria.alvarez@cyfoethnaturiolcymru.gov.uk
Cc: Smith Donald; Billington Alistair; Chambers, Rachael; Vipin, Akshat
Subject: RE: [EXTERNAL] RE: HyNet Carbon Dioxide Pipeline DCO - Marine Licence Letter

Hi Maria

Hope you're well. We've now had the Rule 6 letter from the Planning Inspectorate for the HyNet CO₂ pipeline confirming the Preliminary Meeting will be held on 20th March and a draft examination timetable. The letter is saved here: <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070007/EN070007-001282-HYCO%20-%20Rule%204,%206%20and%209%20final%20letter.pdf>.

Please could you advise in terms of timescales when you think it is likely that NRW will be able to provide advice on our request? We are obviously keen to get a response on this as soon as we can given the examination dates.

Thanks
Natalie



Natalie Corless

MA (Cantab), MCD, MRTPI
Associate Planner, Infrastructure Planning
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From: Corless, Natalie
Sent: 07 February 2023 14:25
To: maria.alvarez@cyfoethnaturiolcymru.gov.uk
Cc: Smith Donald <Donald.Smith@eni.com>; Billington Alistair <Alistair.Billington@external.eni.com>; Chambers, Rachael <rachael.chambers@wsp.com>
Subject: FW: [EXTERNAL] RE: HyNet Carbon Dioxide Pipeline DCO - Marine Licence Letter

Hi Maria

I've put responses to your queries below:

- For the CO2 pipeline, the DCO application was accepted on 31 October 2022 and is currently in the pre-examination period. We have not received the draft examination timetable from the Planning Inspectorate yet but understand it will be published later this month.
- Yes – the crossing of the River Dee is included in the ES assessment as it forms part of the DCO Proposed Development. The topic chapters present significant effects only, so if you need more detail I'd advise that you review the HRA and relevant ES appendices that present the assessments for the topics which relate to the marine licence. I've listed these documents below but please confirm if there are any topics not covered below that you wish to view:
 - Habitats Regulation Assessment - <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070007/EN070007-000326-D.6.5.6%20Habitats%20Regulations%20Assessment%20Rev%20A%20-%20Copy.pdf>
ES
 - Chapter 9 – Biodiversity - <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070007/EN070007-000201-D.6.2.9%20Chapter%209%20-%20Biodiversity%20Rev%20A.pdf>
 - Appendix 9.1 Habitats and designated sites survey report (in 3 parts):
Part 1- <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070007/EN070007-000249-D.6.3.9.1%20Appendix%209.1%20Habitats%20and%20Designated%20Sites%20Survey%20Report%20Part%201%20Rev%20A.pdf>
Part 2- <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070007/EN070007-000250-D.6.3.9.1%20Appendix%209.1%20Habitats%20and%20Designated%20Sites%20Survey%20Report%20Part%202%20Rev%20A.pdf>
Part 3- <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070007/EN070007-000231-D.6.3.9.1%20Appendix%209.1%20Habitats%20and%20Designated%20Sites%20Survey%20Report%20Part%203%20Rev%20A.pdf>
 - Appendix 9.6 Riparian mammals - <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070007/EN070007-000258-D.6.3.9.6%20Appendix%209.6%20Riparian%20Mammal%20Survey%20Report%20Rev%20A.pdf>
 - Appendix 9.9 Aquatic Ecology (watercourses) - [https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070007/EN070007-000253-D.6.3.9.9%20Appendix%209.9%20Aquatic%20Ecology%20\(Watercourses\)%20Survey%20Report%20Rev%20A.pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070007/EN070007-000253-D.6.3.9.9%20Appendix%209.9%20Aquatic%20Ecology%20(Watercourses)%20Survey%20Report%20Rev%20A.pdf)
 - Chapter 18 – Water resources and flood risk - <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070007/EN070007-000228-D.6.2.18%20Chapter%2018%20-%20Water%20Resources%20and%20Flood%20Risk%20Rev%20A.pdf>
 - Appendix 18.1 – baseline - <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070007/EN070007-000316-D.6.3.18.1%20Appendix%2018.1%20Baseline%20Rev%20A.pdf>
 - Appendix 18.2 – Summary of effects <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070007/EN070007-000317-D.6.3.18.2%20Appendix%2018.2%20Summary%20of%20Effects%20Appendix%20Rev%20A.pdf>
 - Appendix 18.3 – WFD - <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070007/EN070007-000318-D.6.3.18.3%20Appendix%2018.3%20Water%20Framework%20Directive%20Assessment%20Rev%20A.pdf>

Please note that Giuliana Britti is no longer the main contact from Eni for this Project but instead Donald Smith and Alistair Billington (cc'd in). Any queries please let me know.

Thanks
Natalie



Natalie Corless

MA (Cantab), MCD, MRTPI
Associate Planner, Infrastructure Planning
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From: Alvarez, Maria <maria.alvarez@cyfoethnaturiolcymru.gov.uk>
Sent: 01 February 2023 11:51
To: Corless, Natalie <natalie.corless@wsp.com>
Cc: Britti Giuliana <Giuliana.Britti@eni.com>
Subject: [EXTERNAL] RE: HyNet Carbon Dioxide Pipeline DCO - Marine Licence Letter

Security Warning: This email originated from outside of the organization. Do not click links or open attachments unless you have verified the sender's email address and know the content is safe.

Hello Natalie,

I have been assigned as the case officer for HyNet related Marine Licences. I have a few questions for you, please:

- Could you please provide us with an update on where you are at in the DCO process and which deadlines have been set?
- Has an assessment of the section of the pipeline under the River Dee been included in the ES? And if so, could you direct me to where this information is located (e.g., chapters)?

Best regards,
Maria

Maria Alvarez, MSc. PhD

[Swyddog Arbenigol Arweiniol \(Trwyddedu Morol\)](#)/ Lead Specialist Officer (Marine Licensing)
[Cyfoeth Naturiol Cymru / Natural Resources Wales](#)
[Ty Cambria/ Cambria House, 29 Newport Road, Cardiff, CF24 0TP](#)
[Ffon/phone: +44 300 065 3477](#)

[\(Rhagenway Hi/Hithau – Pronouns She/Her\)](#)

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Croesewir gohebiaeth yn Gymraeg a byddwn yn ymateb yn Gymraeg, heb i hynny arwain at oedi.
Correspondence in Welsh is welcomed, and we will respond in Welsh without it leading to a delay.

From: Corless, Natalie <natalie.corless@wsp.com>
Sent: 30 January 2023 16:30
To: Marine Licensing <marinelicensing@cyfoethnaturiolcymru.gov.uk>
Cc: giuliana.britti@eni.com
Subject: RE: HyNet Carbon Dioxide Pipeline DCO - Marine Licence Letter

Hi Jodie

Thanks – I've attached the letter and plan that I sent originally. Please let me know if you have any further queries.

Kind regards
Natalie



Natalie Corless

MA (Cantab), MCD, MRTPI
Associate Planner, Infrastructure Planning
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From: Marine Licensing <marinelicensing@cyfoethnaturiolcymru.gov.uk>
Sent: 26 January 2023 09:25
To: Corless, Natalie <natalie.corless@wsp.com>; Marine Licensing <marinelicensing@cyfoethnaturiolcymru.gov.uk>
Cc: giuliana.britti@eni.com
Subject: RE: HyNet Carbon Dioxide Pipeline DCO - Marine Licence Letter

Hello Natalie,

Thank you for providing the below information – due to the time that has elapsed can you please provide all the information required for the pre application advice again? This is to just ensure that I have not missed anything.

I will then provide you with an updated pre application reference.

Many thanks,
Jodie

From: Corless, Natalie <natalie.corless@wsp.com>
Sent: 25 January 2023 12:20
To: Marine Licensing <marinelicensing@cyfoethnaturiolcymru.gov.uk>
Cc: giuliana.britti@eni.com
Subject: RE: HyNet Carbon Dioxide Pipeline DCO - Marine Licence Letter

Hi Jodie

Apologies for the delay in getting back to you.

As requested, the invoice details for the HyNet CO2 pipeline are below. Please let me know if you require any more information to proceed.

Customer: Eni UK Limited
Invoice Address: FAO: Giuliana Britti
Eni UK Ltd.
10 Ebury Bridge Road,
London,
SW1W 8PZ
Email: giuliana.britti@eni.com

Purchase Order number (if required) – Reference HyNetCO2 Pipeline

Kind regards
Natalie



Natalie Corless
MA (Cantab), MCD, MRTPI
Associate Planner, Infrastructure Planning
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From: Marine Licensing <marinelicensing@cyfoethnaturiolcymru.gov.uk>
Sent: 18 November 2022 11:33
To: Corless, Natalie <natalie.corless@wsp.com>
Subject: RE: HyNet Carbon Dioxide Pipeline DCO - Marine Licence Letter

Hi Natalie,

Based on your meeting this morning with Maria Alvarez, I can confirm that your pre application number is PA2212.

Please provide the following invoicing details for the application request:

Customer Name:
For the Attention Of:
Purchase Order Number:
Address for invoice:
Telephone Number:
Email address:

Thanks,
Jodie

Trwyddedu Morol/ Marine Licensing
Cyfoeth Naturiol Cymru / Natural Resources Wales

www.cyfoethnaturiol.cymru / www.naturalresources.wales

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Correspondence in Welsh is welcomed, and we will respond in Welsh without it leading to a delay

From: Corless, Natalie <natalie.corless@wsp.com>
Sent: 17 November 2022 21:29
To: Marine Licensing <marinelicensing@cyfoethnaturiolcymru.gov.uk>
Subject: RE: HyNet Carbon Dioxide Pipeline DCO - Marine Licence Letter

Good evening

Further to the email below, the HyNet Carbon Dioxide Pipeline DCO application has been accepted by the Planning Inspectorate and is being taken forward for examination.

Could I check whether there is a progress update on when we will be assigned a case officer to discuss the marine licence deferral issue raised in my letter of 29 September?

I would appreciate if you're able to get back to me as soon as conveniently possible.

Many thanks
Natalie



Natalie Corless

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Principal Planner, Infrastructure Planning

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From: Marine Licensing <marinelicensing@cyfoethnaturiolcymru.gov.uk>

Sent: 04 October 2022 13:52

To: Corless, Natalie <natalie.corless@wsp.com>

Subject: RE: HyNet Carbon Dioxide Pipeline DCO - Marine Licence Letter

Good afternoon Natalie

Your request is considered to be bespoke pre-application advice which is chargeable at the rate of £120 per hour. Further information with regard to this service can be found on our website [here](#).

Your request has been placed in a queue and a Marine Licensing case officer will be in touch with you to discuss your requirements once assigned.

Kind regards

Trwyddedu Morol/ Marine Licensing
Cyfoeth Naturiol Cymru / Natural Resources Wales

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From: Jones, Christopher Robert <christopher.r.jones@cyfoethnaturiolcymru.gov.uk>
Sent: 04 October 2022 09:10
To: Corless, Natalie <natalie.corless@wsp.com>
Cc: Vipin, Akshat <akshat.vipin@wsp.com>; King, Phil <phil.king@wsp.com>; Marine Licensing <marinelicensing@cyfoethnaturiolcymru.gov.uk>; North Planning <NorthPlanning@cyfoethnaturiolcymru.gov.uk>
Subject: RE: HyNet Carbon Dioxide Pipeline DCO - Marine Licence Letter

Dear Natalie,

Thank you for your email and documents regarding the above.

Since your request relates to the Marine Licence for the above project I have forwarded it to our Marine Licensing team for their attention. Please can you forward any further project correspondence regarding Marine Licensing to our Marine Licensing team's inbox in the first case (Cc. above)?

If you have any further queries in the meantime please don't hesitate to contact me.

Best regards,

Chris Jones MIEMA MCIEEM
Uwch Gyngorydd, Cynllunio Datblygu / Senior Advisor, Development Planning
Cyfoeth Naturiol Cymru / Natural Resources Wales
Ffôn / Tel: 03000 65 4227
Symudol / Mobile: 07971 937092
Maes y Ffynnon, Bangor

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Croesewir gohebiaeth yn Gymraeg a byddwn yn ymateb yn Gymraeg, heb i hynny arwain at oedi. Correspondence in Welsh is welcomed, and we will respond in Welsh without it leading to a delay.

From: Corless, Natalie <natalie.corless@wsp.com>
Sent: 29 September 2022 18:10
To: Jones, Christopher Robert <christopher.r.jones@cyfoethnaturiolcymru.gov.uk>
Cc: Vipin, Akshat <akshat.vipin@wsp.com>; King, Phil <phil.king@wsp.com>
Subject: HyNet Carbon Dioxide Pipeline DCO - Marine Licence Letter

Dear Mr Jones

Please find attached a letter and plan in relation to the HyNet Carbon Dioxide Pipeline DCO and a request for NRW relating to the EIA consent decision on the Marine Licence application for the River Dee Crossing works.

I would be grateful if you can confirm receipt.

Kind regards
Natalie



Natalie Corless
 MA (Cantab), MCD, MRTPI
 Principal Planner, Infrastructure Planning
 Pronouns: She/her

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-LAEmHhHzd.IzBlTWfa4Hgs7pbKl

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10 Ebury Bridge Road,
London,
SW1W 8PZ

21 Februaury 2023

INTENT TO DEFER - THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2007 (AS AMENDED)

Dear Donald Smith,

Proposed Marine Licence application for crossing of the River Dee by the HyNet Carbon Dioxide Pipeline

Eni UK Ltd. has applied to Natural Resources Wales (NRW) for Pre-Application Advice for a marine licence under the Marine and Coastal Access Act 2009 to install the Newbuild Carbon Dioxide Pipeline *via* trenchless crossing methods (Dee Crossing Works). The totality of the HyNet Pipeline shall run for approximately 60km from Ince, near Stanlow, over the English/Welsh border to Flint and then on to the Point of Ayr Terminal at Talacre, Flintshire.

Intent to Defer EIA Consent Decision

NRW are of the opinion that the proposed works fall under Schedule A1 para number 23 of the The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) :

“23. Pipelines with a diameter of more than 800 millimetres and a length of more than 40 kilometres for the transport of:

(a) gas, oil or chemicals;

(b) carbon dioxide streams for the purposes of geological storage, including associated booster stations.“

The project also requires a Development Consent Order from the Secretary of State under the Planning Act 2008. In accordance with The Infrastructure Planning (Environmental

Impact Assessment) Regulations 2009 the Secretary of State must not make an Order granting development consent for EIA development unless an EIA has been carried out in respect of that application.

Under Reg 10(1)(b) of the Marine Works Regulations, NRW may determine that an EIA is not required, for the purposes of determining the Marine Licence application, if we are satisfied that an assessment of any effects on the environment of the project in question has already been, is being or is to be carried out, by another consenting authority and the assessment is or will be sufficient to meet the requirements of the EIA Directive in relation to that project.

Based upon the information received to date, NRW confirm their intent to defer an EIA consent decision under the Marine Works Regulations, in accordance with Regulation 10(1)(b), on the basis that an assessment of any effects on the environment of the project in question is being / is to be carried out by the Secretary of State as part of the determination process for a Development Consent Order under the Planning Act and that this is, or will be, sufficient to meet the requirements of the EIA Directive.

Under Regulations 10 (1)(b) and 10 (4)(a) of the Marine Works Regulations (as amended) NRW cannot determine the marine licence application until we are satisfied that to do so would be sufficient to meet the requirements of the EIA Directive and be compatible with the measures identified by the Secretary of State to ensure compliance with the EIA Directive.

Therefore, in these circumstances, a marine licence for this project can only be legally granted after the completion of the consideration of the EIA and associated decision made by the Secretary of State.

Information required from other appropriate authority

As regulator for the determination of the Marine Licence under the Marine and Coastal Access Act (2009), in compliance with Reg 10(4A), NRW requires the following information from the Secretary of State, as the Appropriate Authority for the determination of the EIA assessment:

- Conclusion of EIA assessment
- Conditions considered necessary in relation to likely significant environmental effects
- Description of features/measures to avoid, prevent, reduce and offset likely significant adverse effects on the environment
- Monitoring measures considered necessary
- Any further comments of relevance

Withdrawal of deferral

NRW withhold the right to withdraw the intent to defer to another appropriate authority should we determine, for whatever reason, that we are no longer satisfied that the EIA assessment meets the criteria stipulated above (for example, as a result of changes to the application itself, or due to the submission of further evidence). You will be notified of this as soon as reasonably practicable. In the event that this occurs the application will be subject to further EIA assessment under the Marine Works Regulations 2007 (as amended).

Yours sincerely



Dr. Emmer Litt

Arweinydd Tîm Trwyddedu Morol, Cyfoeth Naturiol Cymru

Marine Licensing Team Leader, Natural Resources Wales

Copies to: The Secretary of State

ATTACHMENT 12(C)

Mitigation measures proposed to avoid any impact on designated conservation sites

1.1.1 Overview

A combined Screening Report and Report to Inform an Appropriate Assessment has been prepared by the Applicant with regard to Regulations 27 to 30 and 32 to 37 of the Conservation of Habitats and Species Regulations 2017 (as amended) 'the Habitats Regulations'.

The report provides information to enable the Habitats Regulations Assessment (HRA) Stage 1: Screening of the DCO Proposed Development, and Stage 2: Appropriate Assessment to be completed by the 'Competent Authority' in relation to adverse effects upon 'European Sites'. The Competent Authority for this project is the Secretary of State (SoS) for Energy Security and Net Zero.

The following sections present a summary of the Likely Significant Effect (LSE) screening and Appropriate Assessment carried out for the works associated with the trenchless crossing of the River Dee (trenchless crossing reference TRS-28).

Further details of the impacts and the proposed mitigation can be found within the HRA for the Main DCO (**HABITATS REGULATIONS ASSESSMENT – INFORMATION TO INFORM AN APPROPRIATE ASSESSMENT Revision C. [PINS Document Reference: REP2-023]**).

1.1.2 LSE Screening

During the screening assessment, the following LSE were identified as a result of the DCO Proposed Development works associated with the trenchless crossing of the River Dee and the identified designated conservation sites:

- adverse air quality effects on the various qualifying features of the River Dee and Bala Lake/Afon Dyfrdwy a Llyn Tegid SAC associated with dust deposition;
- loss of functionally linked otter habitat and mortality of otter associated with the River Dee and Bala Lake/Afon Dyfrdwy a Llyn Tegid SAC;
- disturbance and fragmentation to qualifying fish species of the River Dee and Bala Lake/Afon Dyfrdwy a Llyn Tegid SAC and Dee Estuary/Aber Dyfrdwy SAC as a result of lighting during construction around the River Dee; and
- disturbance of redshank and the bird assemblage qualification of the Mersey Estuary SPA/Ramsar and The Dee Estuary SPA/Ramsar as a result of lighting and noise during construction around the River Dee.

1.1.3 Appropriate Assessment

1.1.3.1 Overview

As LSE were identified during the screening stage, further assessment of the potential for adverse effects on the integrity of the European Sites was undertaken (Stage 2: AA). At the AA stage, avoidance and mitigation measures designed to reduce harm to European Sites were considered. Mitigation measures identified below.

1.1.3.2 Air quality

A Dust Management Plan (DMP) will be developed and implemented on site by the Construction Contractor (measure D-AQ-004 of the Register of Environmental Actions and Commitments (REAC) [**PINS Document**

reference: REP2-017). The DMP will capture best practice measures to reduce dust dispersal. Such measures would include:

- consideration of weather conditions and the dust-generating potential of material to be excavated prior to the commencement of works;
- planning the site layout to maximise distance of plant/stockpiles etc. to sensitive receptors as far as practicable (measure D-AQ-012 of the REAC [**PINS Document reference: REP2-017**]);
- where practicable, erect solid screens or barriers around dusty activities (measure D-AQ-013 of the REAC [**PINS Document reference: REP2-017**]);
- use of dust suppression techniques where required, such as water sprays (measure D-AQ-015 of the REAC [**PINS Document reference: REP2-017**]);
- minimising dust generating activities as far as practicable; and
- monitoring of dust impacts, as required, during construction (measures DAQ-008, 009, 010 and 011 of the REAC [**PINS Document reference: REP2-017**]).

Full measures to be employed would be detailed in the Construction Environmental Management Plan (CEMP) to be followed at all times during the works (Outline Construction Environmental Management Plan (OCEMP), [**PINS Document reference: REP2-021**]).

1.1.3.3 Otters

To mitigate impacts to otter holts/resting sites the following measures will be implemented:

- updated pre-commencement surveys will be undertaken to verify that the baseline data remains accurate and to identify any changes, such as a change in location or new location(s) of otter resting sites (measure D-BD-035 of the REAC [**PINS Document reference: REP2-017**]).
- If otter resting sites are recorded but an offence can be avoided through mitigation, the Ecological Clerk of Works (ECoW) will develop an appropriate plan and work with the Construction Contractor(s) to implement this (measure D-BD-035 of the REAC [**PINS Document reference: REP2-017**]).
- Where suitable mitigation cannot be implemented to avoid an offence, an EPS licence will be sought from the relevant statutory body. The EPS licence would be supported by appropriate mitigation, such as timing of the works and ecological supervision, to further reduce the impacts of the DCO Proposed Development. The EPS licence would also identify any necessary compensation, as agreed with the relevant statutory body.
- To prevent entrapment of otter and other wildlife, trenches or voids created will be excavated and infilled within the same working day. If this is not practicable, suitable means of escape will be provided (such as a ramp at no greater than a 45° angle) at regular intervals along the excavated trench channel/excavations. Any void will then be visually inspected prior to re-starting works to confirm the absence of entrapped wildlife. This mitigation is captured as measure D-BD-023 of the REAC [**PINS Document reference: REP2-017**].
- Escape measures will be discussed and agreed with the Construction Contractor(s) to ensure they are suitable for the size of void and wildlife that may become trapped. If deemed appropriate, the Construction Contractor(s) may enforce additional measures, such as the installation of temporary exclusion fencing around the void to prevent entry (measure D-BD-023 of the REAC [**PINS Document reference: REP2-017**]).
- In addition to the above, any exposed tunnels or pipes will also be blocked overnight to prevent entry by otter or other wildlife.

1.1.3.4 Fish

Where lighting is required during construction, a suitable lighting design will be developed and implemented (measure D-BD-015 of the REAC [**PINS Document reference: REP2-017**]). This will include:

- Avoidance of artificial lighting of the River Dee, particularly during the hours of darkness, to prevent impacts to fish behaviour or passage;
- Avoidance of light spill through use of directional and/or baffled lighting;
- Positioning of lighting columns away from the River Dee and also facing away from the River Dee; and
- Reducing the height of lighting columns to reduce light spill onto adjacent Habitats.

1.1.3.5 Noise

Based on construction works being 16m from the riverbanks and generating predicted noise levels within the noise assessment (Table 2 of Appendix 15.2 –Noise and Vibration Assessment Assumptions [**PINS Document reference: APP-145**]), temporary noise screening methods such as use of acoustic barriers would be implemented during construction for activities near the River Dee to reduce and mitigate noise levels generated (measures D-NV-005 and D-NV-009 of the REAC [**PINS Document reference: REP2-017**]). The locations of these screens will be optimised for acoustic mitigation whilst considering other potential impacts.

Noise mitigation measures will be detailed within a Noise and Vibration Management Plan as measure D-NV-001 of the REAC [**PINS Document reference: REP2-017**], as secured by a CEMP in Requirement 5 of the dDCO [**PINS Document reference: REP1-004**].

As detailed in measure D-NV-009 of the REAC [**PINS Document reference: REP2-017**], the mitigation is anticipated to achieve a minimum attenuation of 10dB. This would therefore reduce predicted noise levels to approximately 68dB. The crossing of the River Dee is expected to take up to four weeks (paragraph 3.6.101 of Chapter 3 – Description of the DCO Proposed Development of the 2022 ES [**PINS Document reference: APP-055**]) and would therefore be relatively short in duration. In addition, there is sufficient alternative habitat resource available in the surrounding area to accommodate displaced birds.

The above mitigation measures are captured within the REAC [**PINS Document reference: REP2-017**] and would be secured and implemented within the CEMP (OCEMP, [**PINS Document reference: REP2-021**]).

1.1.3.6 Conclusion

Following the implementation of the above mitigation measures, it is concluded that the DCO Proposed Development would not adversely affect the integrity of the European Sites either alone or in-combination.