



Department for
Energy Security
& Net Zero

Habitats Regulations Assessment for an Application Under the Planning Act 2008

HYNET CARBON DIOXIDE PIPELINE

Regulations 63, 64 and 68 of The Conservation of
Habitats and Species Regulations 2017



20 March 2024

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List of abbreviations

(draft) Development Consent Order	(d)DCO
Adverse Effect on Integrity	AEoI
Appropriate Assessment	AA
Above Ground Installation	AGI
Block Valve Station	BVS
Carbon Capture and Storage	CCS
Cathodic Protection	CP
Cheshire West and Chester Borough Council	CWCC
Construction Environmental Management Plan	CEMP
Ecological Clerk of Work	ECoW
Environmental Impact Assessment	EIA
Environmental Statement	ES
European Economic Area states	EEA states
Examining Authority	ExA
ExA's written question	ExQ
Functionally Linked Land	FLL
Flintshire County Council	FCC
Great Crested Newt	GCN
Great Crested Newt Precautionary Working Method Statement	PWMS
Habitats Regulations Assessment	HRA
Habitats Regulations Assessment Report	HRAR
Interested Parties	IPs
Kilometre	km
Landscape and Ecological Management Plan	LEMP
Likely Significant Effect	LSE
Nationally Significant Infrastructure Project	NSIP
Natural England	NE
Natural Resource Wales	NRW
Nautical Mile	nm
Outline Construction Environmental Management Plan	OCEMP
Planning Inspectorate	PINS
Register of Environmental Actions and Commitments	REAC
Relevant Representation	RR
Report on the Implications for European Sites	RIES
Special Area of Conservation	SAC
Special Protection Area	SPA
Statement of Common Ground	SoCG
Statutory Nature Conservation Body	SNCB
Supplementary Advice on Conservation Objectives	SACOs
The Secretary of State for Energy Security and Net Zero	The Secretary of State

1. INTRODUCTION

1.1. Background

This is a record of the Habitats Regulations Assessment (“HRA”) that the Secretary of State for Energy Security and Net Zero (“the Secretary of State”) has undertaken under the Conservation of Habitats and Species Regulations 2017¹ (“the Habitats Regulations”) as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 in respect of the Development Consent Order (“DCO”) and its associated infrastructure (the “Proposed Development”). For the purposes of these Regulations the Secretary of State is the competent authority.

The Proposed Development comprises the construction, operation and decommissioning of a 60.4 kilometre (“km”) carbon dioxide pipeline (24km of which is repurposed natural gas pipeline) from Cheshire, England to Flintshire, Wales with necessary infrastructure for its operation including Above Ground Installations (“AGIs”) and Block Valve Stations (“BVSs”). The Proposed Development route lies within the administrative boundaries of Flintshire County Council (“FCC”) and Cheshire West and Chester Borough Council (“CWCC”). The Proposed Development is described in more detail in Section 2.

As the Proposed Development comprises the construction, operation and decommissioning of a cross-country pipeline, which is not being constructed by a gas transporter (as defined in the Pipelines Act 1962), the Proposed Development constitutes a Nationally Significant Infrastructure Project (“NSIP”) within s21 of the 2008 Act. Therefore, the Proposed Development meets the definition of an NSIP set out in s14(1)(g) of the 2008 Act and requires development consent in accordance with s31 of the 2008 Act.

The Proposed Development was accepted by the Planning Inspectorate (“PINS”) for Examination on 31 October 2022 and two Inspectors were appointed as the Examining Authority (“ExA”) on 17 January 2023. The Examination of the Proposed Development began on 20 March 2023 and concluded on 20 September 2023. The ExA submitted its report of the Examination, including its recommendation (“the ExA’s Report”) to the Secretary of State on 20 December 2023. Numbered references to the ExA’s Report are presented in the format “[ER *.*.]”.

¹ <https://www.legislation.gov.uk/ukxi/2017/1012/contents/made>

This HRA contains a consideration of the potential effects of the Proposed Development upon protected sites in European Economic Area (“EEA”) States (“transboundary sites”). This is recorded under the transboundary assessment section of the report (Section 5).

1.2. Habitats Regulations Assessment

The Habitats Regulations aim to ensure the long-term conservation of certain species and habitats by protecting them from possible adverse effects of plans and projects. In the UK, the Habitats Regulations apply as far as the 12 nautical miles (nm) limit of territorial waters.

The Habitats Regulations provide for the designation of sites for the protection of habitats and species of international importance. These sites are called Special Areas of Conservation (“SACs”). They also provide for the classification of sites for the protection of rare and vulnerable birds and for regularly occurring migratory species within the UK and internationally. These sites are called Special Protection Areas (“SPAs”). SACs and SPAs together form part of the UK’s National Site Network (“NSN”).

The Convention on Wetlands of International Importance 1972 (“the Ramsar Convention”) provides for the listing of wetlands of international importance. These sites are called Ramsar sites. Government policy is to afford Ramsar sites in the United Kingdom the same protection as sites within the NSN (collectively referred to in this HRA as “protected sites”).

Candidate SACs (“cSACs”), SACs and SPAs are afforded protection as protected sites. As a matter of policy² the Government affords potential SPAs (“pSPAs”) the same level of protection.

Regulation 63 of the Habitats Regulations provides that:

...before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in-combination with other plans or projects), and (b) is not directly connected with or necessary to the management of that site, [the competent authority] must make an appropriate assessment of the implications for that site in view of that site’s Conservation Objectives.

And that:

In the light of the conclusions of the assessment, and subject to regulation 64 [IROPI], the competent authority may agree to the plan or project only after having ascertained that it will

² NPS EN-1 para 5.3.9

not adversely affect the integrity of the European site or the European offshore marine site (as the case may be).

The Proposed Development is not directly connected with, or necessary to the management of a protected site. The Habitats Regulations require that, where the project is likely to have a significant effect (“LSE”) on any such site, alone or in-combination with other plans and projects, an appropriate assessment (“AA”) is carried out to determine whether or not the Project will have an adverse effect on the integrity (“AEol”) of the site in view of that site’s Conservation Objectives. The Conservation Objectives set out the ambitions for each protected site and can be used to assess potential risk to wildlife from a proposal, as well as setting out how to best conserve or restore the wildlife on the site. In this document, the following assessments are collectively referred to as the HRA:

- Stage 1: Assessment of LSE
- Stage 2: AA to determine whether there is an AEol of a protected site.

The Secretary of State has had regard to relevant guidance on the application of HRA published by PINS (2022) (Advice Note 10) and the European Commission (2019), together with recently published joint guidance by Defra, Natural England (“NE”), the Welsh Government and Natural Resources Wales (“NRW”) (2021) on ‘Habitats Regulations Assessment: protecting a European site’ (the “2021 joint guidance”). It is noted that the Defra (2012) guidance was withdrawn on 15 March 2021 and has subsequently been updated and replaced by the 2021 joint guidance.

1.3. Site Conservation Objectives

Where an AA is required in respect of a protected site, regulation 63(1) of the Habitats Regulations requires that it is an assessment of the implications of the plan or project for the site, in view of its Conservation Objectives. Government guidance also recommends that in carrying out the LSE screening, applicants must check if the proposal could have a significant effect on a protected site that could affect its Conservation Objectives.

Defra guidance indicates that disturbance to a species or deterioration of a protected site must be considered in relation to the integrity of that site and its Conservation Objectives. It states that *“the integrity of a site is the coherence of its ecological structure and function, across its*

whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was designated”.

Conservation Objectives have been established by NE. When met, each site will contribute to the overall favourable conservation status of the species or habitat feature across its natural range. Conservation Objectives outline the desired state for a protected site, in terms of the interest features for which it has been designated. If these interest features are being managed in a way which maintains their nature conservation value, they are assessed as being in a ‘favourable condition’. An AEoI is likely to be one which prevents the site from making the same contribution to favourable conservation status for the relevant feature as it did at the time of its designation. There are no set thresholds at which impacts on site integrity are considered adverse. This is a matter for interpretation on a site-by-site basis, depending on the designated feature and nature, scale, and significance of the impact.

NE has issued generic conservation objectives which should be applied to each interest feature of the site. Supplementary advice on Conservation Objectives (“SACOs”) for each site underpins these generic objectives to provide site-specific information and give greater clarity to what might constitute an adverse effect on a site interest feature. SACOs are subject to availability and are updated on a rolling basis.

Where supplementary advice is not yet available for a site, NE advises that HRAs should use the generic objectives and apply them to the site-specific situation. For SPAs, the overarching objective is to avoid the deterioration of the habitats of qualifying features, and the significant disturbance of the qualifying features, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving the aims of the Habitats Regulations. This is achieved by, subject to natural change, maintaining and restoring:

- the extent and distribution of the habitats of the qualifying features;
- the structure and function of the habitats of the qualifying features;
- the supporting processes on which the habitats of the qualifying features rely;
- the populations of the qualifying features; and
- the distribution of the qualifying features within the site.

For SACs, the overarching objective is to avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving favourable conservation status of each of the qualifying features. This is achieved by, subject to natural change, maintaining or restoring:

- the extent and distribution of the qualifying natural habitats and habitats of qualifying species;
- the structure and function (including typical species) of qualifying natural habitats;
- the structure and function of the habitats of qualifying species;
- the supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- the populations of qualifying species; and
- the distribution of qualifying species within the site.

Appendix A of the Applicant's Habitats Regulations Assessment, hereafter referred to as 'the HRA Report' ("HRAR") [REP7-248], summarised site-specific information for the designated sites screened in by the Applicant along with their conservation objectives. In the absence of conservation objectives for Ramsar sites, the same objectives were assumed in the HRAR for the Mersey Estuary Ramsar site as the Mersey Estuary SPA, and the Dee Estuary Ramsar Site as the Dee Estuary SPA. No Interested Parties' ("IPs") made any comments on this approach.

The conservation objectives and, where available, SACOs, have been used by the Secretary of State to consider whether the Proposed Development has the potential to have an AEoI on sites, either alone or in-combination with other plans or projects.

The SACOs relevant to this HRA Report, as published by NE and the Joint Nature Conservation Committee ("JNCC"), are referenced in Table 1 and where relevant in Section 5 of this HRA Report.

1.4. The Report on the Implications for European Sites and statutory consultation

Under Regulation 63 (3) of the Habitats Regulations the competent authority must, for the purposes of an AA, consult the statutory nature conservation body ("SNCB") and have regard to any representation made by that body within such reasonable time as the authority specifies.

NE is the SNCB for England and for English waters within the 12 nm limit. Natural Resources Wales ("NRW") is the SNCB for Wales and Welsh waters with the 12 nm limit.

The ExA, with support from the Inspectorate's Environmental Services Team, produced a Report on the Implications for European Sites ("the RIES") [OD-008]. The purpose of the RIES was to compile, document and signpost information submitted by the Applicant and IPs during the examination (until Deadline 6 on 4 July 2023). It was issued to set out the ExA's understanding on HRA-relevant information and the position of the IPs in relation to the effects of the Proposed Development on protected sites, at that point in time.

The RIES was published on the PINS NSIP webpage³ and the ExA notified IPs that it had been published. Consultation on the RIES was undertaken between 1 August and 5 September 2023.

Comments were received from the Applicant [REP7-289], NE [REP7-317] and NRW [REP7-318] at DL7 (5 September 2023).

1.5. Changes to the Application during Examination

The HRAR document has been updated throughout examination, in response to written questions from the ExA ("ExQs"), representations made by IPs, and change requests.

The original HRAR [APP-226] which was submitted alongside the DCO application, was first updated in response to ExA questioning [PD-013][PD-014][PD022][PD-027]. Particularly to reflect updated information surrounding the methodology of crossing the River Dee (Afon Dyfrdwy).

Subsequently, the Applicant submitted Change Request 1 ("CR1") [CR-001 to CR-126] which included eighteen changes, and a new HRAR was produced. It included two changes that had the potential to alter the conclusions of the HRA:

- Change PS02b - the retention of the slurry tank and movement of the new build pipeline closer to the functionally linked woodland of the Deeside and Buckley Newt Sites SAC; and
- Change PS03 - the relocation of the Northop Hall AGI, that would introduce a drainage connection into Wepre Brook Tributary 1, which is hydrologically linked to the Deeside and Buckley Newt Sites SAC.

³<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN070007/EN070007-001246-HYCO%20-%20Report%20on%20the%20Implications%20for%20European%20Sites.pdf>

At a later stage in the Examination, the Applicant submitted Change Request 2 (“CR2”), regarding a change in the level of impact to old sessile woods in the Deeside and Buckley Newt SAC (which no IP challenged) and later submitted Change Request 3 (“CR3”) which included “*minor nominal changes*” to the proximity of the protected sites to the Order Limits and the cited distances between them. The Applicant asserted that neither CR2 nor CR3 would result in any changes to the LSE assessment within the HRA. No IP challenged this assertion. The final HRAR produced by the Applicant [REP7-248] is the one which the Secretary of State has used to carry out her HRA.

1.6. Documents referred to in this HRA

This HRA has taken account of, and should be read in conjunction with the documents produced as part of the Application and Examination, which are available on the PINS NSIP web page⁴ In particular:

- The ExA’s Report;
- The RIES [OD-008]

The Applicant’s assessment of effects including:

- The Original HRAR [APP-226]
- The latest HRAR [REP7-248]
- The Applicants Environmental Statement

Plus, other information submitted during the Examination and during the Secretary of State’s consideration of the Proposed Development. Key information from these documents is summarised in this HRA.

⁴ <https://infrastructure.planninginspectorate.gov.uk/projects/wales/hynet-carbon-dioxide-pipeline/>

1.7. Structure of this HRA

The remainder of this HRA is presented as follows:

Section 2: provides a general description of the Proposed Development;

Section 3: presents an assessment of the extent to which the Proposed Development is likely to have a significant effect on protected sites and qualifying features on its own or in-combination with other plans or projects;

Section 4: presents an AA of the effects of the Proposed Development on protected sites and qualifying features, on its own and in-combination with other plans or projects;

Section 5: presents a consideration of transboundary impacts; and

Section 6: presents the Secretary of State's conclusions.

2. PROPOSED DEVELOPMENT DESCRIPTION

The Proposed Development comprises the construction, operation and decommissioning of a 60.4 kilometre (“km”) carbon dioxide pipeline (24km of which is repurposed natural gas pipeline) from Cheshire, England to Flintshire, Wales with necessary infrastructure for its operation including Above Ground Installations (“AGIs”) and Block Valve Stations (“BVSs”). The Proposed Development route lies within the administrative boundaries of Flintshire County Council (“FCC”) and Cheshire West and Chester Borough Council (“CWCC”).

The above elements are referred to in this HRA as the Proposed Development. There is a wider project (referred to in the ExA Report as “the wider HyNet Project”) which includes plans for a new hydrogen production plant, hydrogen distribution pipelines, hydrogen storage and the creation of additional carbon capture and storage infrastructure. The overall goal of the wider HyNet Project is to reduce carbon dioxide emissions from industry, homes and transport and support economic growth. These elements of the wider HyNet Project do not form part of the Proposed Development and are subject to a separate consenting process.

2.1. Pipeline Description

There are multiple sections of the Newbuild CO₂ Pipeline that form part of the Proposed Development. These are:

Ince AGI to Stanlow AGI Pipeline;

- 4 km section of new underground onshore pipeline (20" in diameter) to transport CO₂

Stanlow AGI to Flint AGI Pipeline;

- A 32km section of new underground onshore pipeline (36" in diameter) to transport CO₂

Flint AGI to Flint Connection Pipeline;

- A 0.4km section of new underground onshore pipeline (24" in diameter) to transport CO₂

Flint Connection to Point of Ayr ("PoA") Terminal Pipeline;

- A 24km section of existing Connah's Quay to PoA underground onshore pipeline (24" in diameter) which currently transports natural gas but would be repurposed and reused to transport CO₂

Four AGIs ;

- Ince AGI, Stanlow AGI, Northop Hall AGI, and Flint AGI
- Six BVSs; - located along:

The new Stanlow AGI to Flint AGI Pipeline (three in total);

The existing Flint Connection to PoA Terminal Pipeline (three in total);

Other above ground infrastructure, including Cathodic Protection ("CP") transformer rectifier cabinets, CP test posts and pipeline marker posts;

Utility Connection infrastructure, including power utilities and Fibre Optic Cable ("FOC"); and

Temporary ancillary works integral to the construction of the Carbon Dioxide Pipeline, including Construction Compounds and temporary access tracks.

Chapter 3 of the Applicant's ES [APP-055] provides a full description of the Project.

2.2. Proposed Development Location

The Proposed Development consists 60.4 km of pipeline that starts in Cheshire in England, and runs to Flintshire in Wales.

Figure 3.2 of the Applicant's Environmental Statement (ES) chapter 'DCO Proposed Development Overview' [REP7-189] splits the project into 6 six geographical sections, seen in Figure 1 (below).

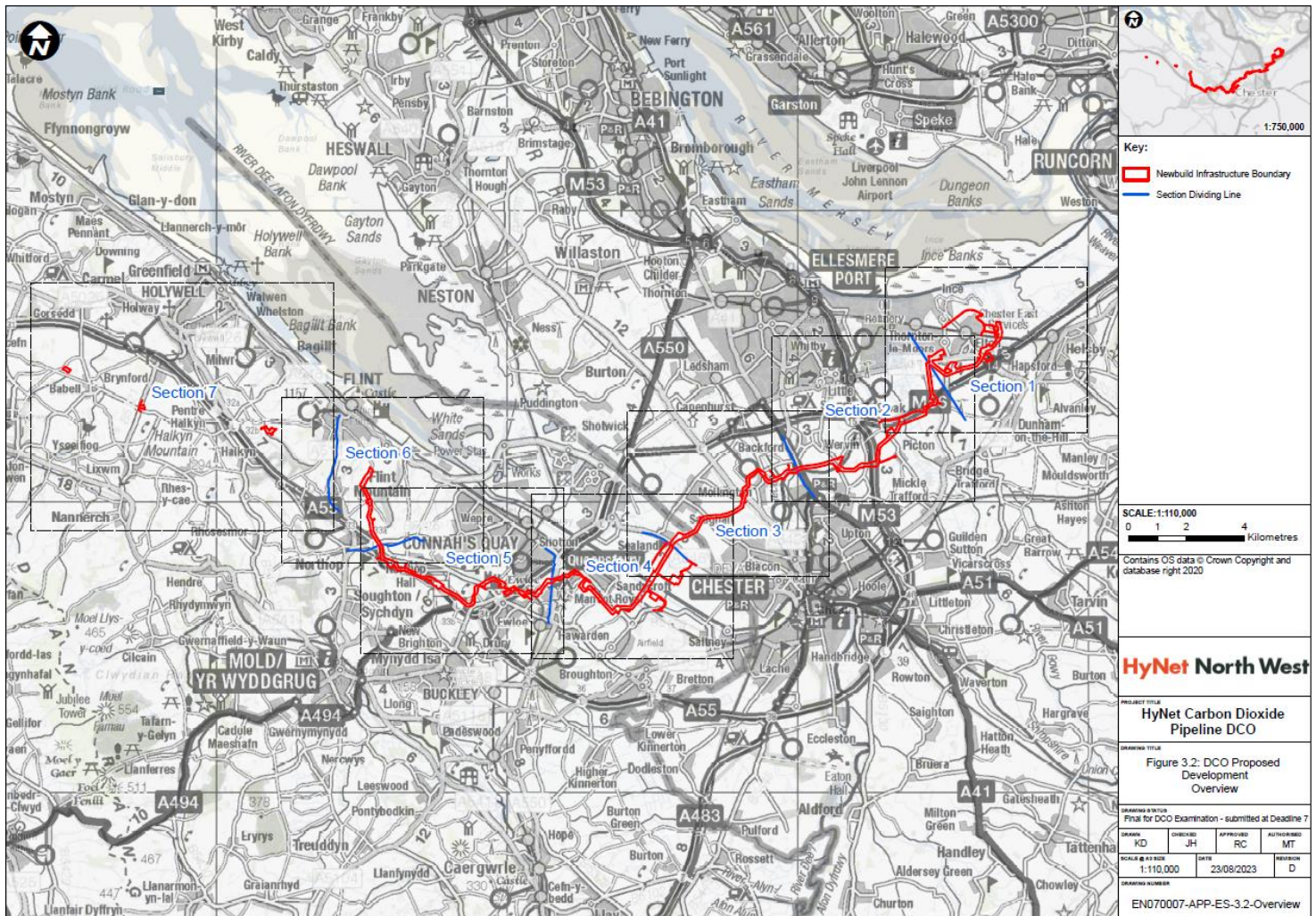


Figure 1: Map showing the proposed route for the HyNet CO₂ Pipeline, with the pipeline indicated by the red line.

Source: [REP7-189] Environmental Statement (ES) Figure 3.2: DCO Proposed Development Overview. Drawing Number: EN070007-APP-ES-3.2-Overview

Specifics on each section are detailed below:

➤ **Section 1:**

Entirely within the boundary of CWCC. This section is mainly within the Elton Parish Council but spans three Parish Council boundaries (Ince, Elton and Thorton-le-Moors).

This section includes the Ince and Stanlow AGIs, and the entire Ince AGI to Stanlow AGI Pipeline, as well as the start of the Stanlow AGI to Flint AGI Pipeline.

In this section, the Pipeline crosses the Hapsford railway line, the B5132 Cryers Lane, and the A5117 Chester Road. There are six planned trenchless crossings.

➤ **Section 2:**

Again, this section is entirely within the Local Authority boundary of CWCC. It spans four Parish Councils (Thornton-le-Moors, Mickle Trafford & District, Wervin, and Backford).

It starts at the Stanlow AGI, and finishes at the A41. It includes a continuation of the Stanlow AGI to Flint AGI Pipeline. It contains the Rock Bank BVS, located between the settlements of Chorlton and Caughall.

In this section, the Pipeline crosses the M56, the River Gowy, the North Cheshire Way (a long distance footpath), Mill Brook, Picton Lane, the M53, Wervin Road, the Shropshire Union Canal, and the A41 Liverpool Road. There are twelve planned trenchless crossings.

➤ **Section 3:**

This section is predominantly within CWCC, but part of it lies within FCC's boundaries. It spans five Parish Council and Community Council boundaries (Backford, Lea-by-Backford, Mollington, Saughall and Shotwick Park and Sealand).

This section starts at the A41, and finishes at the A548 Sealand Road. It contains the Mollington BVS, located to the west of the settlement of Mollington.

In this section, the Pipeline crosses Backford Brook, the Chester and Birkenhead Railway Line, Grove Road, Townfield Lane, Overwood Lane, the A540 Parkgate Road, Hermitage Road, the England/Wales border, and the A548 Sealand Road. There are ten planned trenchless crossings.

➤ **Section 4:**

Section 4 is entirely within FCC, and spans three Community Council boundaries (Sealand, Queensferry, and Hawarden).

It spans between the A548 Sealand Road and the A550 Gladstone Way.

This section of the Pipeline crosses the River Dee (Afon Dyfrdwy), the North Wales Coast Railway Line, the B5129 Chester Road East, several minor roads in residential areas, and the A550 Gladstone Way. There are seven planned trenchless crossings.

➤ **Section 5:**

This section is entirely within FCC, and spans three Community Council boundaries (Hawarden, Northop Hall, and Northop).

It spans from the A550 Gladstone Way to the B5126 Connah's Quay Road. It includes both the Aston Hill BVS (within Hawarden Community Council, between the settlements of Mancot and Ewloe) and the Northop Hall AGI (within Northop Hall Community Council, between the settlements of Northop Hall and Northop).

This section crosses the Lower Aston Hall Lane, the Wrexham to Bidston (Borderlands) railways line, the A494 Aston Expressway, it goes underneath Church Lane before crossing Shotton Lane, the B5125 Holywell Road, Greem Lane (in two locations), Robin Hood Lane, Alltami Brook, and the B5125 Stamford Way. There are seven planned trenchless crossings.

➤ **Section 6:**

This section is entirely within FCC, and spans two Community Council boundaries (Northop and Flint).

This section begins at the B5126 Connah's Quay and terminates at the 'Flint Connection'. This is the terminus of an existing pipeline (the Flint Connection to Point of Ayr ("PoA") Pipeline). Section 6 includes the Flint AGI, along with the continuation of the Stanlow AGI to Flint AGI Pipeline, and the start of the Flint AGI to Flint Connection Pipeline.

This section crosses Northop Brook and Starkey Lane. There are two planned trenchless crossings.

The final route of the Proposed Development is to be confirmed at the detailed design stage, but a worst-case scenario approach was used in the ES, with the assumption that the Newbuild CO₂ pipeline could be installed anywhere within the “Permanent Acquisition of Subsurface” area, as marked in pink on Figure 3.2 of the Applicant’s ES ‘DCO Proposed Development’ document [REP7-1989].

Furthermore, the Register of Environmental Actions and Commitments (“REAC”) document [REP7-236] states the intention for micro-siting to be used throughout the design and construction phases to avoid key landscape features; reduce the proximity to residential properties; utilise existing visual screening; and avoid sensitive habitats and waterbodies.

3. STAGE 1: SCREENING FOR LIKELY SIGNIFICANT EFFECTS

Under regulation 63 of the Habitats Regulations, the Secretary of State must consider whether a development will have an LSE on a protected site, either alone or in-combination with other plans or projects.

The purpose of this section is to identify any LSEs on protected sites that may result from the Proposed Development and to record the Secretary of State's conclusions on the need for an AA.

3.1. Protected Sites

The protected sites and qualifying features that were considered in the Applicant's screening exercise are presented in Section 5 of the HRAR [REP7-248]. The Applicant identified protected sites that lie within 10 kilometres (km) of the New Build Infrastructure Boundary. There are nine European sites within 10km of the Newbuild Infrastructure Boundary of the DCO Proposed Development, as illustrated by Figure 2 below

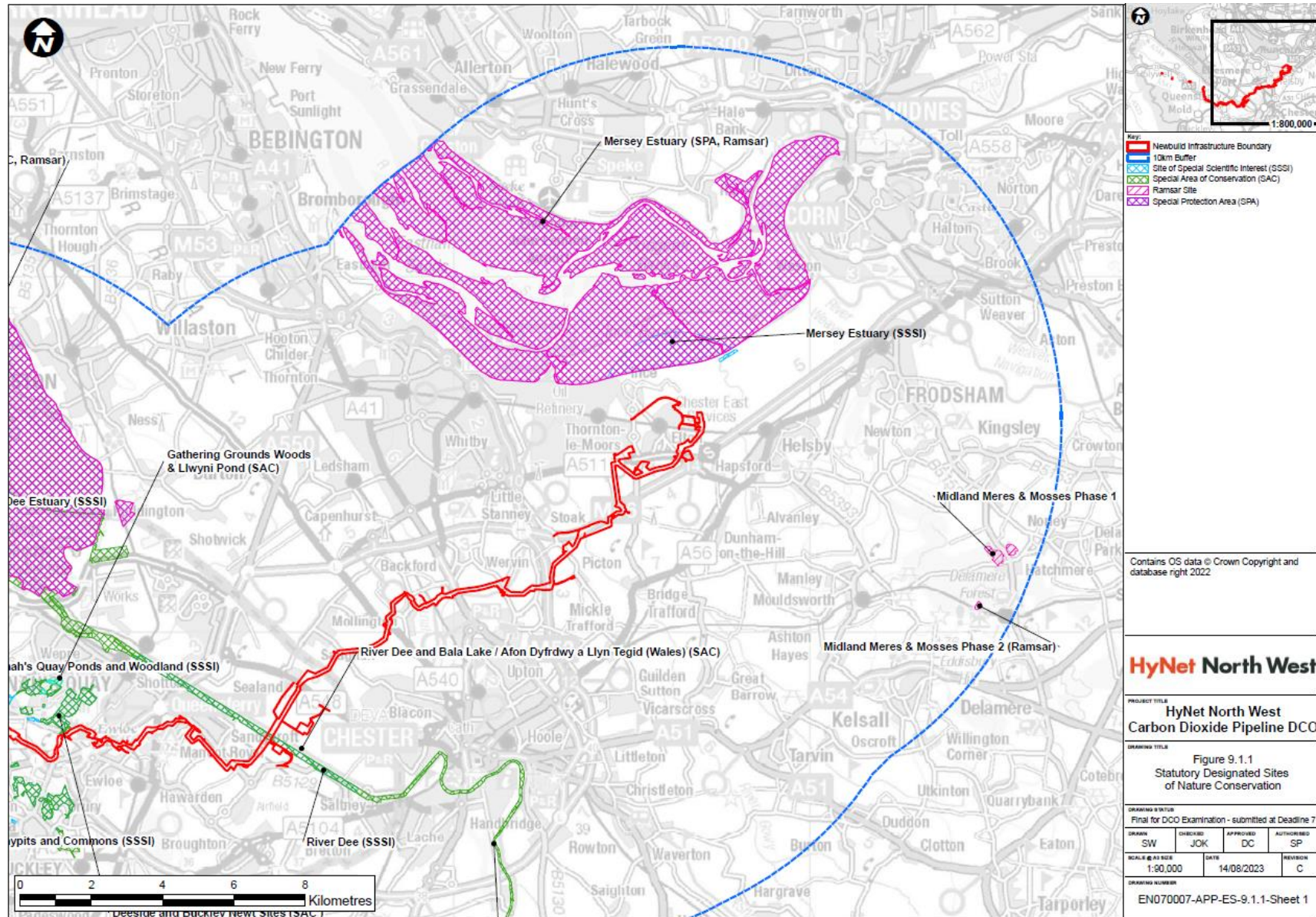


Figure 2: Location of the Proposed Development in relation to protected sites considered in this HRAR. This figure consists of three sheets, see the following page for sheet 2 of 3

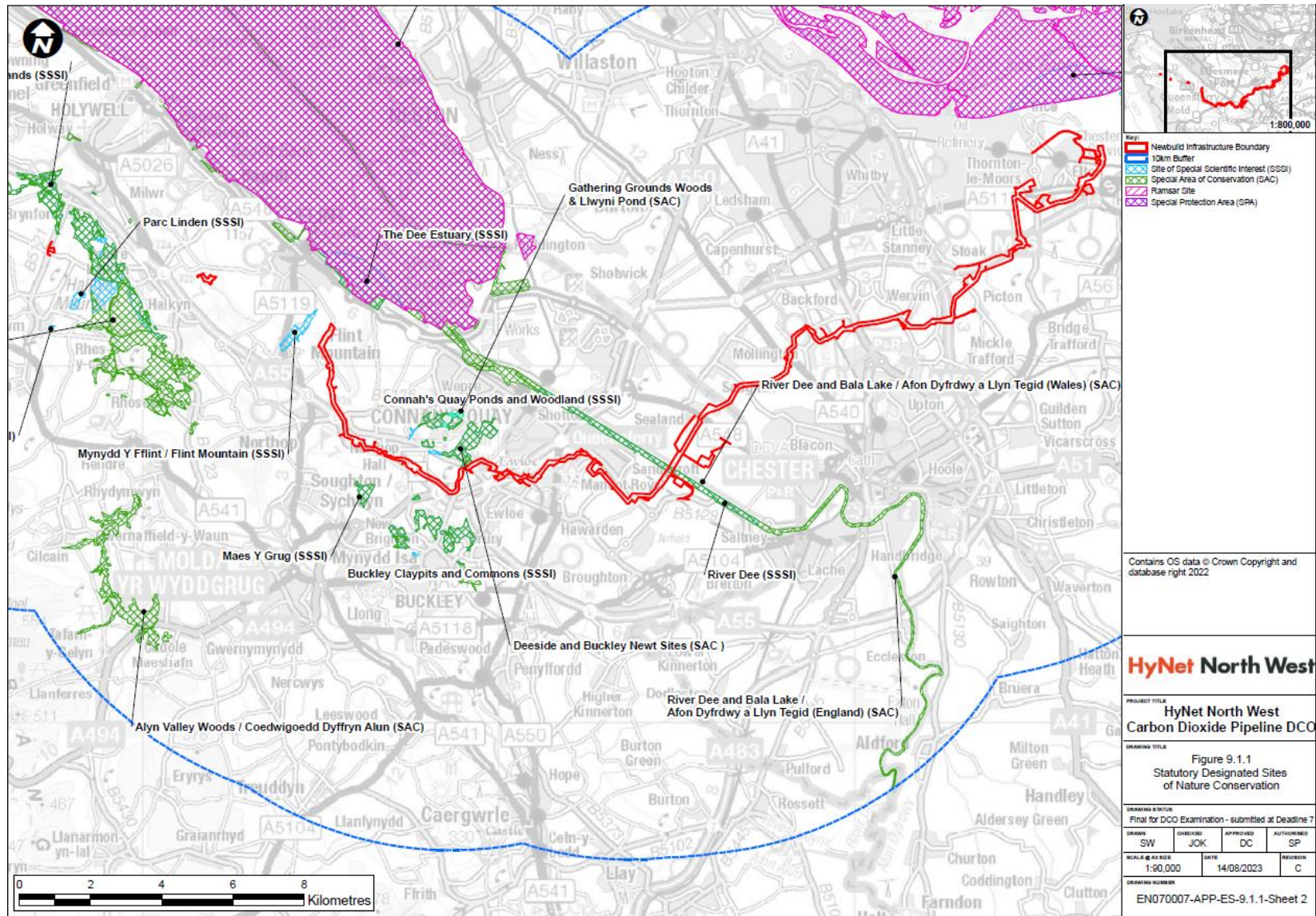


Figure 2: Location of the Proposed Development in relation to protected sites considered in this HRAR. This figure consists of three sheets, see the following page for sheet 3 of 3.

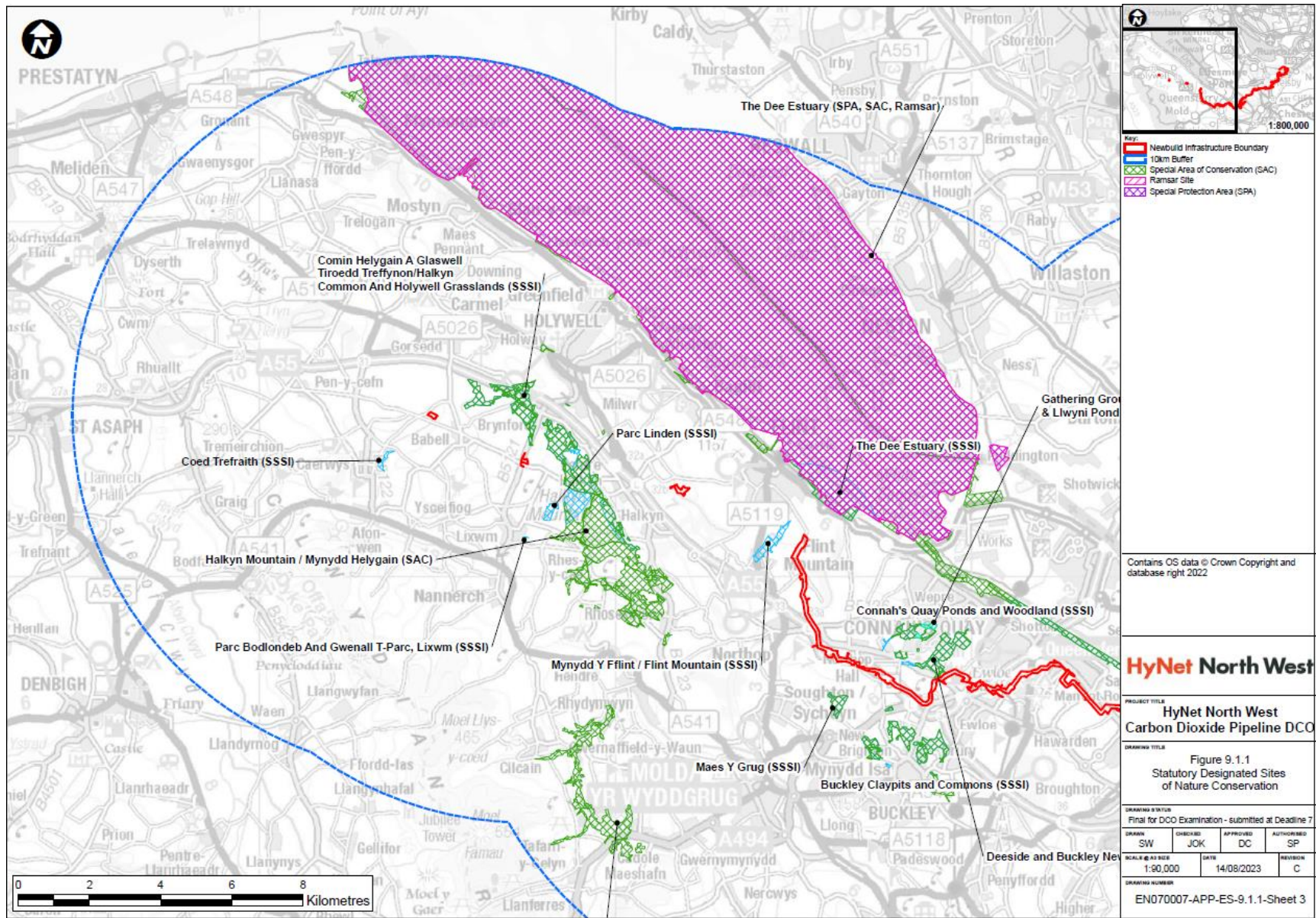


Figure 2: Location of the Proposed Development in relation to protected sites considered in this HRAR. This figure consists of three sheets, this is sheet 3 of 3.

The Dee Estuary SPA and Ramsar site and the Dee Estuary/Aber Dyfrdwy SAC are cross border sites, with constituent parts in both England and Wales. Therefore, these protected sites are assessed in relation to conservation objectives prepared by the respective country agencies, in addition to the Natura 2000 standard data forms which are prepared by the JNCC for submission to the European Union. Therefore, the ExA sought views from both Natural Resources Wales (NRW) and Natural England (NE) for these sites, as well as for other sites that are located in either jurisdiction.

NRW agreed with the sites screened in by the Applicant [REP1-071].

NE highlighted [REP1-070] that there are additional protected sites that lie within 10km of the Proposed Development, including Midland Meres and Mosses Phase 1 and Phase 2 Ramsar sites, and suggested that for clarity wording about these sites could be included in the HRA, however it confirmed it was satisfied with the sites and features included in the assessment.

The ExA questioned the Applicant [PD-022] on NE's comments, and in response [REP5-025] the Applicant determined that the sites were beyond the potential zone of influence for the Proposed Development (8.6km and 8.9km from the Proposed Development at their closest points, respectively). The Applicant also confirmed that the qualifying habitats/ species are not found within the Newbuild Infrastructure Boundary. The Applicant subsequently confirmed that they did not see a potential impact pathway, and therefore screened the sites out for LSE.

Similarly, the Applicant screened out Alkyn Valley Woods/Coedwigoedd Dyffryn Alun SAC (approximately 6 km to the southwest of the Proposed Development) despite being within the 10km boundary, as the Applicant believed the site fell outside the zone of influence for the SAC, no qualifying habitats and species from the site were found within the Newbuild Infrastructure Boundary, and there was found to be no potential impact pathway.

Finally, Halkyn Mountain/ Mynydd Helygain SAC was screened out by the Applicant as although the site is at points close to the Proposed Development, located between the Pentre Halkyn BVS and Cornist Lane BVS, the only fauna that the site is designated for is Great Crested Newts ("GCN"), and the habitat between the Newbuild Infrastructure Boundary and the SAC is of poor suitability for terrestrial newts (improved and grazed grassland fields). For this reason, the Applicant anticipated no LSE for the site.

The Secretary of State believes the Applicants assessments for screening out Midland Meres and Mosses Phase 1 and Phase 2 Ramsar sites, Alkyn Valley Woods/Coedwigoedd Dyffryn Alun SAC, and Halkyn Mountain/ Mynydd Helygain SAC are reasonable, and the sites will not be taken forward to the AA.

NRW are also agreement with the Applicant's assessment, [REP1-071], and while not explicitly mentioned, NE confirmed in their final Statement of Common Ground ("SoCG") [REP8-022] that they were satisfied that all biodiversity matters (including HRA matters) were agreed. The ExA also confirmed that they were satisfied that the above sites could be screened out for LSEs, due to their locations, and the nature of their qualifying habitats.

3.2. Development Phase Impacts

The Applicant [REP7-248] assessed the potential impacts for the remaining sites within the 10km boundary during construction, operation, and maintenance, but it did not assess impacts during decommissioning. The ES [APP-055] states that the pipeline is designed to a lifespan of 40 years and that the associated infrastructure is designed to last 25 years. The Proposed Development is consequently assessed to have an operational life of 25 years. After 25 years, the pipeline would be filled with nitrogen and left in-situ, and above ground features would be dismantled, cleared, and ground conditions restored to their previous condition.

In [APP-055] the Applicant discussed their approach to decommissioning, stating that the impacts from decommissioning were anticipated to be similar to the impacts from construction, and therefore they asserted that instances of impacts occurring during construction could be assumed to also impact during decommissioning.

The Secretary of State is satisfied that the Applicants approach to decommissioning is secured through the DCO and has treated effects from construction to be similar to those of decommissioning.

3.3. LSE from the Proposed Development Alone

The Applicant identified the potential impacts from the Proposed Development which could result in LSE alone in Section 6.3 of the HRAR. These impact pathways (and their likely zone of interest) are:

- direct and indirect habitat loss (including functionally linked land ("FLL")) – within the Newbuild Infrastructure Boundary
- disturbance of qualifying species – 300m from the Newbuild Infrastructure Boundary;
- mortality of species – within the Newbuild Infrastructure Boundary;

- fragmentation of habitats and/ or species -- dependent on the qualifying feature (habitat or species). Source of fragmentation would be within the Newbuild Infrastructure Boundary but habitat loss within this boundary could result in severance to habitats further afield from the Protected Site;
- visual disturbance – dependent on species;
- noise/vibration disturbance – dependent on species;
- hydrological effects – depends on whether upstream or downstream of the Proposed Development; and
- air quality effects (dust deposition) – 50m from the Newbuild Infrastructure Boundary

All impacts were from construction (and as described in Section 3.2, assessed to be similar during decommissioning).

The sites that the Applicant judged could NOT be screened out for LSEs alone can be found in Table 1 in 3.4 of this HRA.

3.4. LSE from the Proposed Development in Combination

The protected sites and qualifying features that were considered in the Applicant's in-combination screening exercise are presented in Section 6.4 of the HRAR [REP7-248].

The Applicant began with an initial 'short-list' of 42 "Other Developments", before concluding on the nine sites that had potential to cause in-combination effects [REP1-044]. Four of these are at the pre-application stage.

The ten plans or projects that were judged to have a potential in-combination effect can be found in Table 6.10 of the HRAR [REP7-248], and these were additionally taken forward to the AEol assessment stage.

In response to questioning from NE [RR-065][REP1-070], the Applicant committed in [REP1-044] to reviewing the need to update the assessment should additional or new information become available about other schemes that formed part of the HyNet North West Project. The Secretary of State has not received any information of this nature since the close of examination.

No additional plans or projects were identified by IPs for inclusion in the in-combination assessment.

The potential impact pathways that the Applicant considered could lead to LSE when considered in-combination with other plans or projects are:

- direct and indirect habitat loss (including functionally linked habitat);
- mortality of species;
- visual disturbance;
- noise/ vibration disturbance; and
- air quality effects (dust deposition).

As with the alone assessment, all impacts were from construction (and therefore decommissioning).

Table 1 below shows the protected sites for which an LSE could not be excluded, when considered in-combination with other plans or projects.

Table 1: Protected sites for which the Secretary of State cannot exclude LSEs, either alone or in-combination

Protected Site	Supplementary Advice on Conservation Objectives (SACOs)	Distance from the Proposed Development	Qualifying feature
<p>River Dee and Bala Lake/ Afon Dyfrdwy a Llyn Tegid SAC</p>	<p>See Footnote⁵</p>	<p>Crossed by the Proposed Development</p>	<p>Annex I habitats that are a primary reason for the selection of this site:</p> <ul style="list-style-type: none"> • Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation <p>Annex II species that are a primary reason for the selection of this site:</p> <ul style="list-style-type: none"> • Atlantic salmon (<i>Salmo salar</i>) • Floating water-plantain (<i>Luronium natans</i>) <p>Annex II species present as a qualifying feature, but not a primary reason for site selection:</p> <ul style="list-style-type: none"> • Sea lamprey (<i>Petromyzon marinus</i>) • Brook lamprey (<i>Lampetra planeri</i>) • River lamprey (<i>Lampetra fluviatilis</i>) • Bullhead (<i>Cottus gobio</i>) • Otter (<i>Lutra lutra</i>)
<p>Deeside and Buckley Newt Sites SAC</p>	<p>See Footnote⁶</p>	<p>Immediately adjacent to the Proposed Development</p>	<p>Annex I habitats present as a qualifying feature, but not a primary reason for site selection:</p> <ul style="list-style-type: none"> • Old sessile oak woods with Ilex and Blechnum in the British Isles <p>Annex II species that are a primary reason for the selection of this site:</p> <ul style="list-style-type: none"> • Great crested newt (<i>Triturus cristatus</i>)
<p>Mersey Estuary SPA</p>	<p>See Footnote⁷</p>	<p>Approximately 0.8km to the north</p>	<p>The SPA qualifies under Article 4.1 of the Wild Birds Directive as it is used regularly by 1% or more of the Great Britain populations of the following species listed in Annex I in any season:</p> <ul style="list-style-type: none"> • Golden plover (over winter) <p>The SPA qualifies under Article 4.2 of the Wild Birds Directive as it is used regularly by 1% or more of the biogeographical populations of the following regularly occurring migratory species (other than those listed in listed in Annex I) in any season:</p> <ul style="list-style-type: none"> • Redshank (<i>Tringa totanus</i>) (on passage and over winter) • Shelduck (<i>Tadorna tadorna</i>) (over winter) • Teal (<i>Anas crecca</i>) (over winter) • Pintail (over winter) • Dunlin (over winter) • Black-tailed godwit (over winter) <p>The SPA also qualifies under Article 4.2 of the Wild Birds Directive as it is used regularly by over 20,000 waterbirds in any season (assemblage)</p>

⁵ <https://publications.naturalengland.org.uk/publication/4660149109129216>

⁶ https://naturalresources.wales/media/671740/Deeside_and_Buckley_WES32_Plan_English.pdf

⁷ <https://publications.naturalengland.org.uk/publication/5790848037945344>

			<p>qualification). In the non-breeding season, the area regularly supports 104,599 individual waterbirds, including great crested grebe (<i>Podiceps cristatus</i>), shelduck, wigeon (<i>Anas penelope</i>), teal, pintail, ringed plover (<i>Charadrius hiaticula</i>), golden plover, grey plover, lapwing (<i>Vanellus vanellus</i>), dunlin, black-tailed godwit, curlew (<i>Numenius arquata</i>) and redshank.</p>
<p>Mersey Estuary Ramsar site</p>	N/A	Approximately 0.8km to the north	<p>The site qualifies under Ramsar Criterion 5 because it supports an assemblage of waterbirds of international importance:</p> <ul style="list-style-type: none"> • Peak counts in winter of 89,576 waterfowl (year peak mean 1998/99-2002/2003) <p>The site qualifies under Criterion 6 because it regularly supports 1% of the individuals in the populations of the following species or subspecies of waterbird:</p> <p>Peak counts in spring/autumn:</p> <ul style="list-style-type: none"> • Shelduck • Black-tailed godwit • Redshank <p>Peak counts in winter:</p> <ul style="list-style-type: none"> • Teal • Pintail • Dunlin
<p>The Dee Estuary SPA</p>	See Footnote ⁸	Approximately 1km to the north	<p>The SPA qualifies under Article 4.1 of the Wild Birds Directive as it is used regularly by 1% or more of the Great Britain populations of the following species listed in Annex I in any season:</p> <ul style="list-style-type: none"> • Common tern (breeding season) • Little tern (breeding season) • Sandwich tern (on passage) • Bar-tailed godwit (over winter) <p>The SPA qualifies under Article 4.2 of the Wild Birds Directive as it is used regularly by 1% or more of the biogeographical populations of the following regularly occurring migratory species (other than those listed in listed in Annex I) in any season:</p> <ul style="list-style-type: none"> • Redshank (on passage and over winter) • Shelduck (over winter) • Teal (over winter) • Pintail (over winter) • Oystercatcher (<i>Haematopus ostralegus</i>) (over winter) • Grey plover (over winter) • Knot (over winter) • Dunlin (over winter) • Black-tailed godwit (over winter) • Curlew (over winter) <p>The SPA also qualifies under Article 4.2 of the Wild Birds Directive as it is used regularly by over 20,000 waterbirds in any season (assemblage qualification).</p> <p>In the non-breeding season, the area regularly supports 120,726 individual waterbirds, including great crested grebe, cormorant (<i>Phalacrocorax carbo</i>), shelduck, wigeon, teal, pintail, oystercatcher, grey plover, lapwing, knot, sanderling (<i>Calidris alba</i>), dunlin, black-tailed godwit, bar-tailed godwit, curlew and redshank.</p>

⁸ <https://publications.naturalengland.org.uk/publication/6557770283220992>

<p>The Dee Estuary Ramsar site</p>	<p>N/A</p>	<p>Approximately 1km to the north</p>	<p>The site qualifies under Ramsar Criterion 1 because it contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographical region. This includes the following Annex I Habitats:</p> <ul style="list-style-type: none"> • Estuaries • Mudflats and sandflats not covered by seawater at low tide • Annual vegetation of drift lines • Vegetated sea cliffs of the Atlantic and Baltic coasts • <i>Salicornia</i> and other annuals colonising mud and sand • Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) • Embryonic shifting dunes • Shifting dunes along the shoreline with <i>Ammophila arenaria</i> • Fixed dunes with herbaceous vegetation • Humid dune slacks <p>The site qualifies under Ramsar Criterion 2 because it supports vulnerable, endangered, or critically endangered species or threatened ecological communities:</p> <ul style="list-style-type: none"> • Natterjack toad (<i>Epidalea calamita</i>) <p>The site qualifies under Ramsar Criterion 5 because it supports an assemblage of waterbirds of international importance:</p> <ul style="list-style-type: none"> • In the non-breeding season, the area regularly supports 120,726 individual waterbirds (5-year peak mean 1994/95 - 1998/99). <p>The site qualifies under Criterion 6 because it regularly supports 1% of the individuals in the populations of the following species or subspecies of waterbird:</p> <p>Peak counts in spring/autumn:</p> <ul style="list-style-type: none"> • Redshank <p>Peak counts in winter:</p> <ul style="list-style-type: none"> • Teal • Shelduck • Oystercatcher • Curlew • Pintail • Grey plover • Knot • Dunlin • Black-tailed godwit • Bar-tailed godwit
<p>Dee Estuary/ Aber Dyfrdwy SAC</p>	<p>See Footnote⁹</p>	<p>Approximately 1km to the north</p>	<p>Annex I habitats that are a primary reason for the selection of this site:</p> <ul style="list-style-type: none"> • Mudflats and sandflats not covered by seawater at low tide • <i>Salicornia</i> and other annuals colonizing mud and sand • Atlantic salt meadows <i>Glauco-Puccinellietalia maritimae</i> <p>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:</p> <ul style="list-style-type: none"> • Estuaries • Annual vegetation of drift lines • Vegetated sea cliffs of the Atlantic and Baltic Coasts • Embryonic shifting dunes • Shifting dunes along the shoreline with <i>Ammophila arenaria</i> • Fixed coastal dunes with herbaceous vegetation • Humid dune slacks <p>Annex II species present as a qualifying feature, but not a primary reason for site selection:</p>

⁹ <https://publications.naturalengland.org.uk/publication/6124489284780032>

- | | | | |
|--|--|--|--|
| | | | <ul style="list-style-type: none">• Sea lamprey• River lamprey• Petalwort (<i>Petalophyllum ralfsii</i>) |
|--|--|--|--|

The Secretary of State has considered the potential effects of the Proposed Development on all qualifying features of the protected sites listed in Table 1, considering their conservation objectives, to determine whether there will be LSEs in the context of the Habitats Regulations.

With regards to the ruling of the European Court of Justice (ECJ) in *People Over Wind, Peter Sweetman v Coillte Teoranta (C-323/17)* (the “Sweetman Judgement”)¹⁰, in reaching her conclusions regarding LSE, the Secretary of State took no account of measures intended to avoid or reduce effects on any protected site.

3.5. Likely Significant Effects alone assessment

The Secretary of State agrees with the recommendations of the ExA and concludes that LSEs cannot be excluded at the seven protected sites listed in Table 1, when the Proposed Development is considered alone. These sites are taken forward to the AA to consider whether the Proposed Development will result in an AEoI of these sites.

¹⁰ ECJ case reference C-323/17, available: <http://curia.europa.eu/juris/document/document.jsf?docid=200970&doclang=EN>

3.6. Appropriate Assessment Methodology

The requirement to undertake an AA is triggered when the competent authority determines that a plan or project is likely to have a significant effect on a protected site either alone or in-combination with other plans or projects. Guidance¹¹ states that the purpose of an AA is to assess the implications of the plan or project in respect of the site's conservation objectives, either individually or in-combination with other plans and projects, and that the conclusions should enable the competent authority to ascertain whether the plan or project will adversely affect the integrity of the site concerned. The focus is therefore specifically on the species and/or habitats for which the protected site is designated.

In line with the requirements of Regulation 63 of the Habitats Regulations:

“In considering whether a plan or project will adversely affect the integrity of the site, the competent authority must have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which it proposes that the consent, permission or other authorisation should be given.”

The purpose of this AA is to determine whether AEoI of the features of the seven protected sites as a result of the Project, alone or in-combination with other plans or projects, can be excluded in view of the site's conservation objectives and using the best scientific evidence available.

In accordance with the precautionary principle embedded in the integrity test and established through case law, the Secretary of State may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the protected site, and this must be demonstrated beyond all reasonable scientific doubt¹² If the Secretary of State cannot exclude AEoI of the affected protected sites beyond all reasonable scientific doubt, then she can only agree to a plan or project if it complies with the requirements of Regulation 64 of the Habitats Regulations. Regulation 64 provides that the Secretary of State may agree to the plan or project only if satisfied that there are no feasible alternative solutions, and that the plan or project must be carried out for IROPI. In addition, Regulation 68 requires compensatory measures to be secured which maintain the overall coherence of the NSN.

¹¹ <https://www.gov.uk/guidance/appropriate-assessment#what-must-an-appropriate-assessment-contain>

¹² CJEU Case C-127/02 Waddenzee 7 September 2004, Reference for a preliminary ruling from the Raad van State (Netherlands) in the proceedings: Landelijke Vereniging tot Behoud van de Waddenzee and Nederlandse Vereniging tot Bescherming van Vogels v Staatssecretaris van Landbouw, Natuurbeheer en Visserij.

4. STAGE 2: APPROPRIATE ASSESSMENT

The Secretary of State has undertaken an objective scientific assessment of the implications of the Proposed Development on the qualifying features of the protected sites identified in her screening assessment, using best scientific evidence available. The assessment has been made in light of the site's conservation objectives, which are set out in Table 1, and the following sections of this HRA.

The ExA [ER 6.5.6] considered that there is sufficient information before the Secretary of State to enable her to undertake an AA. The Secretary of State agrees with the ExA in this regard.

4.1. Mitigation

The Applicants mitigation strategies can be found in their REAC [REP7-236], the Outline Construction Environmental Management Plan (OCEMP) [REP7-242], and Section 7 of the HRAR [REP7-248]. These documents are to be used to inform the Applicants Construction Environmental Management Plan (CEMP), which the Secretary of State is satisfied is secured by Requirement 6 of the DCO.

Mitigation measures that the Applicant suggests include best practice measures in relation to dust prevention, water pollution prevention, obtaining relevant protected species licences, measures to avoid otter entrapment, appropriate lighting design, and replacement woodland planting. These measures have been considered in the Applicant's AEoI assessment.

When developing the mitigation strategy for dust, the Applicant principally used Institute of Air Quality Management guidance [REP1-044].

In respect of in-combination effects, the Applicant noted in their HRAR [REP7-248] that the other developments each either have their own mitigation strategies or are at the pre-application stage so will secure a mitigation strategy as part of their own consenting process.

4.2. European sites for which the Applicant's conclusion of no AEoI was not disputed

When considered alone or in-combination, the Applicant's HRAR [REP7-248] concluded that the Proposed Development will not result in AEoI in the:

- River Dee and Bala Lake/ Afon Dyfrdwy a Llyn Tegid SAC; and

- Dee Estuary/ Aber Dyfrdwy SAC.

The mitigation strategies for these sites will be secured in the CEMP (Requirement 6 of the DCO), and the Landscape and Ecological Management Plan (LEMP) (Requirement 12 of the DCO), and included a dust management plan, supervision of construction by an Ecological Clerk of Work (ECoW), installing temporary exclusion fencing around trenches.

Neither NE, the ExA, nor other IPs disputed these conclusions. NRW also confirmed it agreed with the Applicant's conclusion [REP1-071].

The Secretary of State is satisfied that there will be no AEoI on these sites.

4.3. European sites for which the Applicant's conclusion of no AEoI was subject to further examination

The Applicant also concluded no AEoI for the following sites and their qualifying features:

- Deeside and Buckley Newt Sites SAC;
- Mersey Estuary SPA;
- Mersey Estuary Ramsar site;
- Dee Estuary SPA; and
- Dee Estuary Ramsar site.

However, some of the Applicants conclusions were disputed by IPs.

In [REP1-070], NE expressed doubts surrounding the mitigation provided by the applicant for noise disturbance. Although content with the proposed mitigation against lighting disturbance, and measures within the OCEMP to limit movement of personnel, in [REP1-070], NE expressed doubts surrounding the mitigation provided by the applicant for noise, given the timing of works, which would be in close proximity to significant numbers of SPA birds, the Mersey Estuary and the River Dee (Afon Dyfrdwy). Upon receiving an updated HRAR and reviewing the Applicants proposed mitigation strategy, NE confirmed they were satisfied that there would not be an AEoI on the sites, either from the Proposed Development alone, or in combination with other plans and projects.

Additionally, in [REP1-071], NRW agreed that there would be no AEoI on any site, but then altered its position [REP5-044], saying that it could not agree that there would not be an AEoI

on the Deeside and Buckley sites SAC. Upon the production of a revised assessment of GCN dispersal (produced by the applicant, using the updated JNCC guidance), NRW withdrew their objection.

Further commentary on these matters is provided below:

4.4. Mersey Estuary SPA and Ramsar site / Dee Estuary SPA and Ramsar site

Noise disturbance effects on wintering birds alone and in-combination

Noise and vibration resulting from the construction of the pipeline can affect bird species, such as those which are qualifying features of the Protected Sites screened into this HRA.

Each species can be affected differently by noise, but in general, birds appear to quickly habituate to continual noises and vibrations, but large amplitude 'startling' components may cause undue disturbance. The qualifying bird species of the Dee Estuary SPA and Ramsar and the Mersey Estuary SPA and Ramsar are generally susceptible to disturbance and tend to preferentially select roosting or foraging sites where levels of disturbance are low. If disturbed, birds' energy reserves can be affected, and it therefore can lead to a decrease in individual birds' chances of surviving cold weather. Sustained disturbance can also affect numbers of birds using a site in the longer term. This is at odds with the conservation objectives of the Protected Sites, given noise disturbance is likely during construction.

The noise produced will reduce with increasing distance from the source, and although the precise distance at which birds may be disturbed will vary by species, the Applicant has assumed that a significant disturbance is unlikely beyond a distance of 300m (based on the findings of Cutts et al. (2013)¹³.

In addition, the Applicant notes in 7.4.4 of the HRAR that the project design incorporates elements that would inherently limit the amount of noise produced, such as the entrance/exit pits for the trenchless crossing being a worst-case distance of 16m from the riverbanks, and there being a significant amount of vegetation surrounding the riverbanks that would attenuate effective noise levels. The Applicant also proposed a mitigation strategy, but as the Secretary

¹³ Cutts, N. Phelps, A and Burdon D. (2009). Construction and Waterfowl: Defining Sensitivity, Response, Impacts and Guidance. IECS Report to Humber INCA. IECS, Hull. Cutts, N., Hemingway, K. and Spencer, J. (2013). Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning & Construction Projects [Version 3.2]. Institute of Estuarine & Coastal Studies (IECS) University of Hull.)

of State cannot incorporate mitigation into the LSE screening stage of the HRA, the matter was taken forward to the AA.

The Applicant provided their proposed mitigation strategy in their response to NE's Relevant Representation (RR) [REP1-042], and in their first updated HRA [REP2-023]. The mitigation strategy would include temporary noise screening methods, acoustic barriers, and management, such as hoarding. Measure D-NV-009 of D.6.5.4 of the Outline CEMP [AS-055] notes that noise screening methods should achieve a minimum attenuation of 10Db, which would result in a reduced noise level of approximately 68dB. The Secretary of State is satisfied that this limit to noise is secured by Requirement 5 (scheme design) and Requirement 6 of the DCO (CEMP).

NE initially raised doubts surrounding the Applicants proposed strategy to mitigate the effect of noise on winter birds, specifically surrounding the Applicant's statement that 'significant disturbance is unlikely beyond a distance of 300m', if the Applicant were to use techniques such as pile or hydraulic breaking.

The Applicant stated within a draft SoCG with NE [REP4-246] that they had taken NE's advice into account regarding the potential impact that works including hydraulic breaking could have on wintering birds, but they confirmed that they did not believe this type of work was very likely to occur.

The draft SoCG confirmed that any requirement for high disturbance works (e.g. piling or hydraulic breaking) would be determined at the detailed design stage, and a sensitivity test of the HRA would be undertaken by an ecologist, in line with REAC measure D-BD-067, described within the OCEMP [REP7-242], and secured by the DCO.

The Applicant continued, stating that the crossing of the River Dee (Afon Dyfrdwy) was expected to take up to four weeks and any noise disturbance on wintering birds such as redshank would only be temporary. They also asserted that if birds were temporarily displaced, that there was sufficient habitat along the river that the birds could move to. They continued, describing that the proposed mitigation was detailed in the OCEMP [REP7-242].

NE stated [REP2-023] that after considering the Applicants updated HRAR, including the mitigation to limit disturbance to birds during the River Dee (Afon Dyfrdwy) crossing works, that all of their comments had been addressed.

In NE's final SoCG [REP8-022], they confirmed that they were satisfied that there would not be an AEoI on the Protected Sites within their jurisdiction (i.e. the sites in/partly in England and English waters).

The ExA was also satisfied that an AEoI could be excluded if the proposed mitigation was in place. The Secretary of State shares this view and is satisfied that the mitigation is included within the scheme design (secured by Requirement 5 of the DCO) and the CEMP (secured by Requirement 6 of the DCO). The Secretary of State believes that with the proposed mitigation, an AEoI can be excluded from the Protected Sites, alone and in-combination with other plans or projects, beyond reasonable scientific doubt.

4.5. Deeside and Buckley Newt Sites SAC

Deeside and Buckley Newt Sites SAC is located wholly in Wales.

The Applicant's HRAR assessed the potential for AEoI on the SAC from:

- loss of functionally linked woodland habitat and hydrological effects from the Proposed Development alone on Old sessile oak woods with Ilex and Blechnum; and
- temporary habitat loss, mortality, disturbance, and fragmentation from the Proposed Development alone on GCN.

While it was agreed that an AEoI could be ruled out for the loss of the functionally linked woodland habitat and hydrological effects, there was a dispute over whether there could be an AEoI for GCN.

The conservation objectives for the GCN in the SAC include aims to maintain GCN populations above 600 newts, alongside a healthy breeding population with at least 50 display/breeding ponds to be found throughout the site.

The screening stage of the Applicants HRAR screened in LSE for GCN, identifying that construction surrounding the waterbodies occupies by the GCN may result in direct habitat loss, mortality, disturbance, and fragmentation. However, the Applicant stated that these effects would only be of a temporary nature, with the habitats being reinstated following the construction of the Newbuild Carbon Dioxide Pipeline. With this, and a comprehensive mitigation strategy, the Applicant concluded that an AEoI could be excluded for the GCN at the SAC, both alone and in-combination.

Although initially stating [REP1-071] that they agreed with the results of the Applicants HRAR, NRW raised concerns that the revised dispersal distances for GCN, as set out in updated 2022 JNCC guidance, did not appear to be reflected in the HRAR and that matter was shown as "under discussion". This remained the case during the publication of their SoCG at Deadline 3.

After meeting with NRW, it was agreed that no further GCN surveys needed to be carried out, but that the Applicant needed to update their HRAR to include the JNCC guidance, which would require ponds that are located within 1.6km of a SAC, to be considered functionally linked.

NRW judged the GCN surveys to be 'appropriate and proportionate' [REP5-044], and stated that they believed the mitigation strategy laid out by the Applicant to be sufficient to exclude an AEoI, but that they could not confirm until the Applicant published their updated HRAR.

The mitigation strategy is set out in the ES, OCEMP, and Outline Landscape and Ecological Management Plan [REP7-250] and is secured by Requirement 6 (CEMP) and Requirement 12 (Landscape and Ecological Management Plan) of the DCO.

The strategy includes applying for a European Protected Species License and District Level License, as well as carrying out works under a 'GCN Precautionary Working Method Statement (PWMS), under ECoW supervision, and potentially with the assistance of GCN detective dogs. The PWMS includes a provision that the clearance of any terrestrial habitat that is suitable for overwintering GCN will only take place when GCN are active (i.e. when overnight temperatures are above 5 °C).

Additionally, prior to works commencing, the ECoW on site will brief contractors on the location of known GCN populations, along with best practice guidance, such as strimming any vegetation gradually.

NRW responded [REP7-261] [REP7-318] to the Applicants final HRAR [REP7-248], (which included the updates to GCN dispersal distances, regarding the JNCC guidance), confirming that it agreed with the results in the Applicants updated assessment.

On the basis of the updated information in the Applicant's HRAR [REP7-248] which incorporates the JNCC's guidance on GCN dispersal distances, and the proposed mitigation strategy as set out above, the ExA was satisfied that there was no AEol on the Deeside and Buckley Newts Site SAC.

The Secretary of State is also satisfied that the proposed mitigation strategy secured through the DCO will ensure that the LSE pathway will not result in AEol of the European site from the Proposed Development alone, or in-combination with other plans or projects.

4.6. Appropriate Assessment Conclusions

The Applicant concluded that, based on the mitigation measures as secured, an AEol of any protected site can be excluded alone and in-combination with other plans and projects.

At the close of the Examination, NE in [REP7-317] and [REP8-022] (final SoCG), and NRW in [REP7-261] (final SoCG) and [REP7-318], advised that they agreed with the applicants assessment, and that they were satisfied that all relevant protected sites and their qualifying features had been taken into consideration. They confirmed that they were satisfied there

would be no AEoI of any of the protected sites and qualifying features identified by the Applicant with the appropriate mitigation measures in place.

On the basis of the information before the ExA and having regard to the mitigation measures to be secured in the dDCO, the ExA [ER 6.4.42] was of the view that the Proposed Development would not result in an AEoI of the Protected Sites and their qualifying features, either alone, or in-combination with other plans and projects.

Having considered all the information available to her and the mitigation measures secured through the DCO, the Secretary of State concludes, in line with the recommendation of the ExA and advice of NE and NRW, that the Proposed Development will not have an AEoI of any protected site beyond all reasonable scientific doubt.

5. TRANSBOUNDARY ASSESSMENT

The Secretary of State believes that it is important to consider the potential impacts on protected sites in other European Economic Area (EEA) states, known as transboundary sites¹⁴. Further information on transboundary impacts and processes is available in PINS Advice Note 12¹⁵. The ExA also considered the implications for transboundary sites, in the context of looking at the wider Environmental Impact Assessment (EIA) considerations. The conclusions of the ExA's considerations and the Secretary of State's own views on this matter are presented below.

In December 2021, during the pre-application stage, and under the EIA (Environmental Impact Assessment) Regulations s32, the Planning Inspectorate undertook a transboundary screening and consultation [OD-009]

A second and final screening was undertaken in February 2023, following acceptance of the Application.

On both screening occasions, PINS were of the view that the Project is not likely to have a significant effect on a transboundary site, either alone or cumulatively. No transboundary consultations were undertaken.

No correspondence was received in relation to transboundary issues during the Examination [ER 3.13.5].

The Secretary of State has not been presented with any evidence to demonstrate that transboundary impacts would have an LSE on any protected site in other EEA states. As such, the Secretary of State is satisfied that the Proposed Development, either alone or in combination with other plans or projects, would not have any LSEs on any transboundary protected site and further stages of a transboundary assessment are not required.

¹⁴https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/408465/transboundary_guidelines.pdf

¹⁵<https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-twelve-transboundary-impacts-and-process/>

6. CONCLUSIONS

The Secretary of State has carefully considered all information available to her, including the recommendations of the ExA, the RIES, the advice of NE and NRW as the SNCBs, the views of all other IPs, and the Applicant's case. The Secretary of State concludes that LSEs cannot be excluded at seven protected sites, when the Project is considered alone or in-combination with other plans or projects:

- River Dee and Bala Lake/ Afon Dyfrdwy a Llyn Tegid SAC;
- Deeside and Buckley Newt Sites SAC;
- Mersey Estuary SPA;
- Mersey Estuary Ramsar site;
- The Dee Estuary SPA;
- The Dee Estuary Ramsar site; and
- Dee Estuary/ Aber Dyfrdwy SAC.

As the competent authority under the Habitats Regulations for this Application under the Planning Act 2008, the Secretary of State has undertaken an AA in respect of the Conservation Objectives of these protected sites to determine whether the Project, either alone or in-combination with other plans or projects, will result in an AEol.

The Secretary of State agrees with the recommendation of the ExA, in line with the advice of the SNCBs that, based on the information available to her, an AEol of any protected site can be excluded beyond all reasonable scientific doubt.

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