Offshore Petroleum Regulator
for Environment
& Decommissioning

RECORD OF THE HABITATS REGULATIONS ASSESSMENT UNDERTAKEN UNDER REGULATION 5 OF THE OFFSHORE PETROLEUM ACTIVITIES (CONSERVATION of HABITATS) REGULATIONS 2001 (As Amended*).

Offshore Petroleum Activities (Conservation of Habitats) (Amendment) Regulations 2007

Document Version	Date Published	Summary of Changes
1.0	17/02/2025	Document created
2.0	27/02/2025	Edits
3.0	19/03/2025	Edits following SNCB feedback and updates to the EA

Project Details	
Application reference	Liverpool Bay Partial Decommissioning Programme
Date application received:	12/02/2024
Applicant details	ENI UK Limited
Applications Being Applied for	Liverpool Bay Partial Decommissioning Programme (DP) which requires approval via OPRED

Contents

Description of the Activity

ENI have proposed a decommissioning programme (DP) to partially decommission their Liverpool Bay oil and gas production facilities. Ther Liverpool Bay oil and gas facilities comprise seven fixed platforms which are both manned and normally unmanned (Figure 1). There are also subsea installations and an extensive network of pipelines and cables.

The Liverpool Bay oil and gas infrastructure is being repurposed to undertake offshore CO_2 storage as part of the Hynet project. The partial decommissioning plan covers the removal of those aspects of the oil and gas infrastructure which are not required for the CO_2 storage operation and preparation of the facilities required for the Hynet commissioning works. The DP considered within this assessment is limited to those works that are essential for the re-purposing of the assets for the Hynet project. Further DPs will be submitted for the decommissioning of the remaining infrastructure.

The decommissioning activities will involve:

- Platform Wells: Plug and Abandonment (P&A) wells using jack up vessel at the Douglas, Hamilton, Hamilton North and Lennox platforms.

- Removal of expansion spools, cables, umbilicals and exposed stabilisation features (mattresses and grout bags) in the near platform area (at Douglas, Hamilton, Hamilton North and Lennox), which do not meet the 0.6metres (m) depth of burial criterion. Sections from twenty-three pipelines, spools and cables will be cut a removed. All these sections will be within 400 meters of the platforms, most being <200m from the platform.

- The use of vessels during the decommissioning activity, namely Dive Support Vessels, Construction Support Vessels, Jack Up, Heavy Lift Vessel, Cargo Barge. Platform Support Vessel and an Emergency Response and Recovery Vessel (ERRV).

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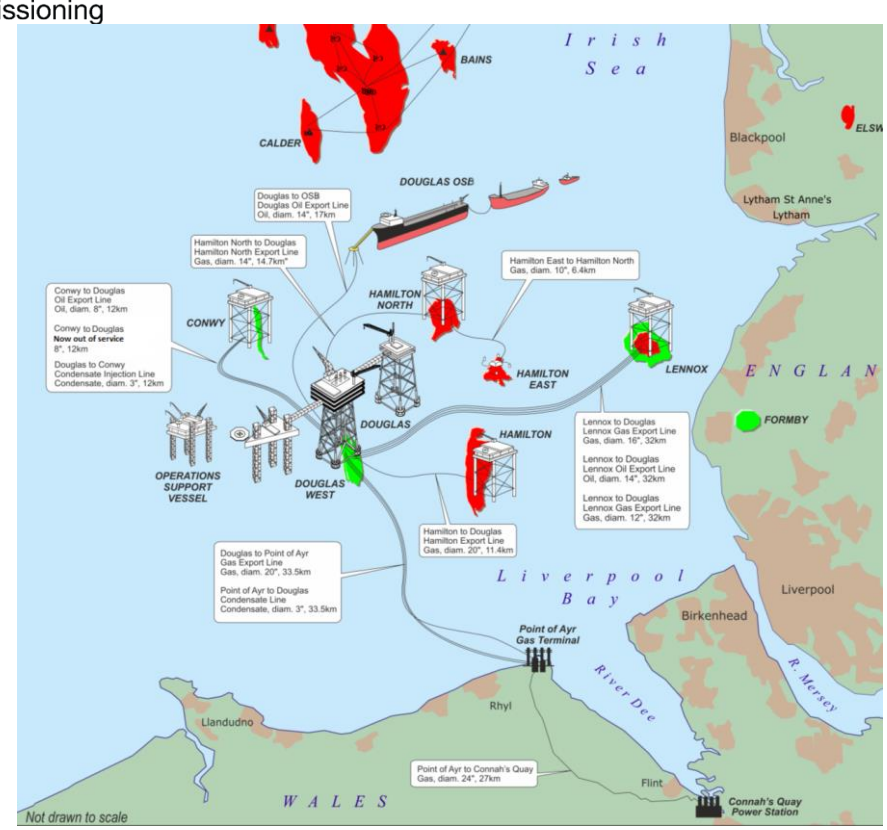

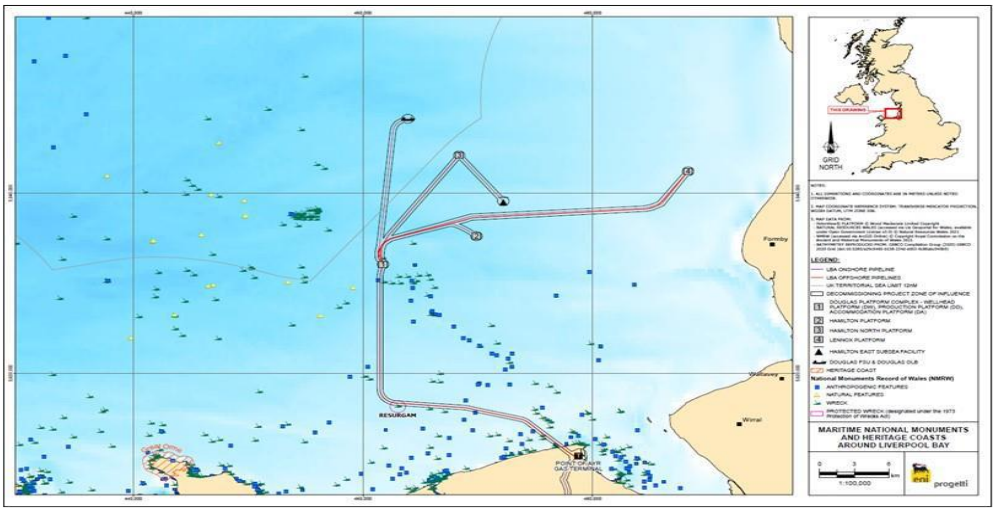

Figure 1: Liverpool Bay oil and gas facilities

Location

Liverpool Bay Assets are in the East Irish Sea, and the closest shorelines are the Lancashire, Merseyside and North Wales coastlines, in blocks 110/13a (Hamilton and Hamilton North), 110/13b (Douglas and Douglas West), 110/15a and 110/14c (Lennox), 110/14a (Hamilton East) and 110/12a (Conwy). At its closest point, the project is approximately 5 miles from the English coastline at Sefton. There is no infrastructure beyond 12 miles from the coast, but vessel operations i.e. access routes will take place beyond 12nm.

Timing

The timing of the decommissioning programme has not been finalised and whilst the intention is for the activities to happen in spring or summer due to more favourable weather conditions, it may take place at any point in the year. A worst-case scenario regarding the National Site Network would be for the whole programme to occur within the winter period (October – March), when the highly sensitive over wintering bird population is present in Liverpool Bay SPA. To capture the worst-case scenario, the assessment assumes that all the works take place in the period November to March. The decommissioning campaign will take place over 2025, 2026 and 2027, taking approximately 924 days. The Lennox platform is the only installation fully in the SPA and it is expected that the programme will require
294 days at the Lennox platform).

Requirement for a Habitats Regulations Assessment

Regulation 5 of the Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001 (As amended) outlines that the Secretary of State (SoS), before agreeing to the grant of consent of any activity which is likely to have a significant on a relevant site, make an appropriate assessment of the implications for the site in view of its conservation objectives. This document is the record of the SoS appropriate assessment.

Where the term 'Site' is used within this document, it means any site forming the UK National Site Network site. The National Site Network is the UK network of protected sites on land and sea which were designated under the Habitats and Wild Birds directives namely Special Protection Areas (SPA) or Special Areas of Conservation (SAC). The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 made provision for the UK National Site Network from the sites already designated under the wild birds and habitats directive,

The assessment will first determine what sites and protected features are likely to have conservation objectives which could be significantly affected by the activity and will then proceed to undertake an appropriate assessment of the implication of these effects on the site's integrity.

Stage 1: Test of likely Significant effects (LSE)

Is the activity likely to have a significant effect on the site's conservation objectives?

Pressures associated with the activity

The project is considered to exert the following pressures on the environment

Displacement from visual and audible disturbance

The decommissioning activities will involve the use of vessels, including heavy lift vessels (for removing the structures), an emergency rescue/response vessel (ERRV), tugs and supply vessels which will transit between the installations and port facilities. The physical presence and sound of these vessels will likely elicit a flushing or avoidance reaction from some birds and animals in the vicinity of the vessel.

Seabed disturbance, excavation and seabed deposits

The decommissioning activities will involve the use of jack up vessels which will jack down onto the seabed using steel legs and spud cans. The activities will also require the placement of equipment on the seabed, small scale excavations and interactions with the seabed associated with the removal of cables and seabed deposits. There is a contingency requirement for the placement of seabed deposits via concrete mattresses and rock for rig stabilisation.

Increases in Suspended sediment concentration

The removal of infrastructure, the excavation of sediment and other physical interactions with the seabed will result in the suspension of sediment into the water column, which will temporarily increase turbidity until the sediment settles or disperses.

Underwater noise (non-impulsive vessel based)

There will be no impulsive noise as there will be no piling, explosive or seismic work associated with the works. However, the operation of vessels will be a source of underwater noise.

Screening of protected sites

The activity is within the following site:

- Liverpool Bay SPA

Due to the proximity the activities could influence the following sites as the species protected by the site may utilise the project area:

- Dee estuary SAC
- River Dee and Bala Lake/Afon Dyfrdwy a Llyn Tegid SAC
- Ribble and Alt Estuaries SPA
- Morecambe Bay and Duddon Estuary SPA

Screened out of the LSE screening assessment

There is no pathway for potential effects on the following sites due to the large distance between the site and the project area:

- Sefton coast SAC, Lune Deep Shell flat Lune Deep SAC, Menai Strait & Conwy Bay SAC, Great Orme's head SAC

- SACs with marine mammal component were not considered within the LSE assessment as the activities do not induce any pressures which could significantly impact marine mammals, namely there is no impulsive noise
- SACs with migratory fish components, other than those associated with the Dee estuary, were not considered within the LSE as there is no reason to assume fish from these sites will be found in significant numbers within the project area

LSE Assessment

Site feature, conservation objectives and attribute information are taken from relevant SNCB conservation advice packages found on the following webpagehttps://designatedsites.naturalengland.org.uk/

Pressures exerted by Activity	**Feature**	**Is there likely to be a significant effect on the conservation Objectives**
Dee Estuary/ Aber Dyfrdwy SAC		
Displacement from visual and audible disturbance	Habitats: Estuaries, Atlantic Salt meadows, Salicornia, Mudflats and sandflats not covered by seawater at low tide	No: There is no spatial overlap between the activity and the SAC or mechanism by which the SAC's habitats could be significantly affected by the activities
Seabed disturbance, excavation and seabed deposits		
Increases in Suspended sediment concentration		
Underwater noise (non-impulsive vessel based)		
Visual and Audible Disturbance	Species: River and Sea Lamprey	No. Whilst lamprey associated with the SAC are likely to be in the project area there are no pressures which are likely to injure or significantly change the behaviour of lamprey in a way that could affect the conservation objectives
Seabed disturbance, excavation and seabed deposits		
Increases in Suspended sediment concentration		
Underwater noise (non-impulsive vessel based)		
River Dee and Bala Lake/Afon Dyfrdwy a Llyn Tegid SAC		
Displacement from visual and audible disturbance	Atlantic Salmon, River Lamprey and Sea Lamprey	No. Whilst lamprey and salmon associated with the SAC are likely to be in the project area there are no pressures which are likely to injure or significantly change the behaviour of lamprey in a
Seabed disturbance, excavation and seabed deposits		
Increases in Suspended sediment concentration		

Underwater noise (non-impulsive vessel based)		way that could affect the conservation objectives
Ribble and Alt Estuary SPA		
Displacement from visual and audible disturbance Seabed disturbance, excavation and seabed deposits Increases in Suspended sediment concentration Underwater noise (non-impulsive vessel based)	Bewick's swan (Non-breeding), Whooper swan (Non-breeding), Pink-footed goose (Non-breeding), Common shelduck (Non-breeding), Eurasian wigeon (Non-breeding), Eurasian teal (Non-breeding),Northern pintail (Non-breeding), Eurasian oystercatcher (Non-breeding), Ringed plover (Non-breeding), European golden plover (Non-breeding), Grey plover (Non-breeding),Red knot (Non-breeding),Sanderling (Non-breeding),Dunlin (Non-breeding),Ruff (Breeding),Black-tailed godwit (Non-breeding),Bar-tailed godwit (Non-breeding),Common redshank (Non-breeding),Lesser black-backed gull (Breeding),Common tern (Breeding),Waterbird assemblage, Seabird assemblage	No. There is no spatial overlap between the activity and the SPA. The activity is sufficiently distant from the SPA that birds will not be disturbed or affected. The effects on the seabed and suspended sediment concentrations are so small that they will have a negligible impact on prey or feeding potential for seabirds foraging in the area. Furthermore, the gulls terns and seabirds associated with SPA are unlikely to show strong avoidance of vessels.
Morecambe Bay and Duddon Estuary SPA		
Displacement from visual and audible disturbance Seabed, abrasion, disturbance and excavation Increases in Suspended sediment concentration Underwater noise (non-impulsive vessel based)	Lesser black-backed gull (Breeding) ,Herring gull (Breeding),Sandwich tern (Breeding), Common tern (Breeding), Little tern (Breeding). **Note**: Non-breeding species were not included within the assessment as these are waders and wildfowl which are not likely to utilise the offshore environment	No. The project area is 33km from the SPA meaning there is sufficient distance from the SPA that it is unlikely to represent an important foraging area. The effects on the seabed and suspended sediment concentrations are so small that they will have a negligible impact on prey or feeding potential for seabirds foraging in the area. Furthermore, the gulls terns and seabirds associated with SPA are unlikely to show strong avoidance of vessels.
Liverpool Bay SPA		

Displacement from visual and audible disturbance	Non breeding Common Scoter	Potentially. The project area supports high numbers of common scoter which are sensitive to visual and audible disturbance. If substantial in-combination pressures are present in the site, a significant effect is possible.
Seabed disturbance, excavation and seabed deposits	Non breeding Common Scoter	No. Common scoter primarily feed on benthic fauna and significant alterations in seabed conditions could impair their ability to feed and reduce the availability of prey. However, the area of seabed disturbance created by the project will be an extremely small proportion of the available habitat. Specifically, there will be 74172m^2 of temporary disturbance created through the temporary placement of equipment on the seabed and excavation and disturbance. This equates to 0.00004% of the SPA. The subtidal sand habitats and biological assemblages are known to respond with a full and rapid recovery from seabed disturbance and abrasion. Upon recovery the affected area will provide the same level of supporting habitat and functionality as prior to impact. There is some potential for permanent change in sediment type due to the contingency requirement for concrete mattresses and rig stabilisation material. The total area of permanent deposits would be 9780m^2 which equates to less than <0.00001% of the SPA. The

		area affected by permanent deposits would be too small to cause a significant change in prey availability or the ecological functioning of the SPA.
Increases in Suspended sediment concentration	Non breeding Common Scoter	No. Significant increases in suspended sediment concentration could impact the ability of birds to forage and pursue prey underwater by impairing their sense organs. Furthermore, persistent and heavy increases in suspended sediment could reduce the condition and availability of prey species such as fish and filter feeders. However, the sediment plumes created by the seabed interactions of the heavy lift vessel will be short lived for example over one tidal cycle and very localised with rapid dispersion expected due to the powerful tidal currents in Liverpool Bay. The proportion of Liverpool Bay SPA effected by increases in suspended sediment will be extremely small, any plumes will rapidly disperse, and both bird and prey species commonly experience very high concentrations in suspended sediment naturally created by the strong tidal flow and weather conditions. Therefore, the effect of suspended sediment plumes will not be significant.
Underwater noise (non-impulsive vessel based)	Non breeding Common Scoter	No. There is little information available which describes how common scoter respond to underwater noise. As it is assumed that they show strong avoidance of vessels at the surface it is unlikely that they will be

		foraging/underwater near vessels. They may hear the vessels when foraging at greater distances but as the project area is exposed to heavy vessel traffic, the increase in ambient noise at distance is unlikely to represent a significant change in the soundscape. Their prey species are not known to show strong avoidance or adverse reactions to vessel noise over short periods.
Displacement from visual and audible disturbance	Non breeding Red Throated Diver	Potentially. The project area supports high numbers of red throated diver which are sensitive to visual and audible disturbance. If substantial in-combination pressures are present in the site, a significant effect is possible.
Seabed disturbance, excavation and seabed deposits	Non breeding Red Throated Diver	No. Red throated diver feed on a wide variety of fish species including demersal species, thus significant alterations in seabed conditions could impair their ability to feed and reduce the availability of prey. and functionality as prior to impact. However, the area of seabed disturbance created by the project will be an extremely small proportion of the available habitat. Specifically, there will be 74172m^2 of temporary disturbance created through the temporary placement of equipment on the seabed and excavation and disturbance. This equates to 0.00004% of the SPA. The subtidal sand habitats and biological assemblages are known to respond with a full

		and rapid recovery from seabed disturbance and abrasion. Upon recovery the affected area will provide the same level of supporting habitat and functionality as prior to impact. There is some potential for permanent change in sediment type due to the contingency requirement for concrete mattresses and rig stabilisation material. The total area of permanent deposits would be 9780m^2 which equates to less than <0.00001% of the SPA. The area affected by permanent deposits would be too small to cause a significant change in prey availability or the ecological functioning of the SPA.
Increases in Suspended sediment concentration	Non breeding Red Throated Diver	No. Significant increases in suspended sediment concentration could impact the ability of birds to forage and pursue prey underwater by impairing their sense organs. Furthermore, persistent and heavy increases in suspended sediment could reduce the condition of prey species such as fish and filter feeders. However, the sediment plumes created by the seabed interactions of the heavy lift vessel will be short lived for example over one tidal cycle and very localised with rapid dispersion expected due to the powerful tidal currents in Liverpool Bay. The proportion of Liverpool Bay SPA effected by increases in suspended sediment will be extremely

		small, any plumes will rapidly disperse, and both bird and prey species commonly experience very high concentrations in suspended sediment naturally created by the strong tidal flow and weather conditions. Therefore, the effect of suspended sediment plumes will not be significant.
Underwater noise (non-impulsive vessel based)	Non breeding Red Throated Diver	No. There is little information available which describes how red throated diver respond to underwater noise. As it is assumed that they show strong avoidance of vessels at the surface it is unlikely that they will be foraging/underwater near vessels. They may hear the vessels when foraging at greater distances but as the project area is exposed to heavy vessel traffic, the increase in ambient noise at distance is unlikely to represent a significant change in the soundscape. Their prey species are not known to show strong avoidance or adverse reactions to vessel noise over a short period.
Displacement from visual and audible disturbance	Breeding: Little Tern	No. Little terns are known to breed on Gronant Beach within the Dee Estuary SPA, using a foraging range of 5km (as described in the conservation advice) it is unlikely that significant numbers of little terns will be foraging or dependent upon the project area. There is therefore unlikely to be significant interaction between the project and important foraging areas for little tern.
Seabed disturbance, excavation and seabed deposits		
Increases in Suspended sediment concentration		
Underwater noise (non-impulsive vessel based)		

Displacement from visual and audible disturbance Seabed disturbance, excavation and seabed deposits Increases in Suspended sediment concentration Underwater noise (non-impulsive vessel based)	Breeding: Common Tern	No. Common terns breed in the Mersey Narrows and North Wirral Foreshore SPA and using a mean maximum foraging range of 15km (as described in Natural England;2012) it is unlikely that significant numbers of little terns will be foraging or dependent upon the project area. There is therefore unlikely to be significant interaction between the project and important foraging areas for common tern.
Displacement from visual and audible disturbance Seabed disturbance, excavation and seabed deposits Increases in Suspended sediment concentration Underwater noise (non-impulsive vessel based)	Non Breeding: Little Gull	No. Little gull roost in the Mersey Narrows and North Wirral foreshore travelling to foraging areas in Liverpool Bay, with consistent areas of higher density found offshore Blackpool and the Ribble estuary around the 12nm mark. As a result, it is likely than little gull will be within the project area and likely foraging. The density of gulls in the project are, whilst high relative to the overall SPA are very small in absolute terms with the highest densities being <1 bird per km. Consequently, there are likely to be only a very small number of birds in the disturbed area. Little gulls are not known to show significant avoidance or disturbance in response to vessels and the Natural England 'advice on operations' for the site indicates the species has a low sensitivity to vessel disturbance. It is unlikely that there will be any significant

		displacement of little gull from the project area and there is not expected that there will be any reduction in prey availability or abundance. Increases in suspended sediments could affect their ability to visually detect prey however this increase in turbidity will affect such a small area and time period and be of such a small magnitude that it will not significantly exceed existing levels
Displacement from visual and audible disturbance	Water Bird Assemblage	No. Common scoter is the dominant species within the Liverpool Bay SPA (Lawson, et. al., 2016) and the birds represent the highest sensitivity to pressure. The effects upon the assemblage will most closely mirror those of the scoter and the conclusions of the common scoter assessment will be used as an equivalent.

Table 1: Test of likely significant Effect

LSE Conclusion: Alone

When considered alone the project is unlikely to cause a significant effect on the conservation objectives of any site, except for

Liverpool Bay SPA: Red throated diver and common scoter

With regard to the disturbance of red-throated diver and common scoter in Liverpool Bay SPA there is significant uncertainty as the impact is so heavily influenced by cumulative and in-combination effects of other disturbing activities. Due to this uncertainty a conclusion for these features could not be reached without further assessment.

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LSE In-combination assessment

The following projects have been evaluated to ascertain if they could exert a pressure on any of the sites listed in table 1, which when considered in-combination with those of the decommissioning plan could result in a significant effect on any site's conservation objectives.

Project	**Significant In-combination effect likely?**	**MPA Features effected**	**What pressures may act in-combination? * See table below for references**
Hynet CCS	Yes.	Liverpool Bay: Common Scoter and Red Throated Diver	1
Calder-Millom-Dalton Decommissioning plan	Yes	Liverpool Bay: Common Scoter and Red Throated Diver	1
Morgan offshore wind farm generation assets (7.5 km);	Yes	Liverpool Bay: Common Scoter and Red Throated Diver	1
Combined Morgan and Morecambe offshore wind farm transmission assets (3 km	Yes	Liverpool Bay: Common Scoter and Red Throated Diver	1
Mona offshore wind farm	Yes	Liverpool Bay: Common Scoter and Red Throated Diver	1
Mostyn Energy Park extension	Yes	Liverpool Bay: Common Scoter and Red Throated Diver	1
Awel y Môr project	Yes	Liverpool Bay: Common Scoter and Red Throated Diver	1

Table 2: Likelihood of plans acting in-combination to cause a likely significant effect

Pressure Reference

Pressure	Ref
Displacement from visual and audible disturbance	1

Seabed, abrasion, disturbance and excavation	2
Increases in Suspended sediment concentration	3
Underwater noise (non-impulsive vessel based)	4

Table 3: Key of pressures use in in-combination assessment in table 2

LSE Conclusion: In-combination

It cannot be concluded that the activity is unlikely to cause a significant effect in-combination with other plans or projects on the conservation objectives of the following site:

Site	Feature
Liverpool Bay SPA	Red Throated Diver and Common Scoter

Stage 2: Appropriate Assessment

Could the activity adversely affect the integrity of a site?

Following the LSE assessment (Stage 1) the SoS must undertake an AA to determine whether the proposed decommissioning activities could have an adverse effect on:

Site: Liverpool Bay SPA

Features: Red Throated Diver and Common Scoter

Pressures: Displacement from visual and audible disturbance

To determine whether an activity may impact the sites' integrity the AA must consider whether the activity may impair or degrade any attributes identified.

Integrity test and Attributes:

To inform an appropriate assessment the SNCB's may provide supplementary advice on conservation objectives (SACOs), fundamental to these SACOs are the '**attributes**. These biological, physical and chemical properties together describe the ecological requirements of the site and underpin the conservation objectives.

Attribute Targets

Each attribute has a target of maintain, restore or minimise, these targets are informed by the condition assessment (undertaken by SNCBs) and guide the management approach for the site. Where a target of restore is identified it means the SNCBs have identified that activities have taken place which have degraded the attribute. In these situations, it is important that activities look to minimise, as far as is practicable, any further deterioration. Where a target of maintain is proposed it means the attribute is sufficiently unimpeded that it favourably supports the condition of the feature, and no active intervention is required to reduce pressures.

Appropriate Assessment: Red Throated Diver and Common Scoter

Note: Common Scoter and Red Throated Diver have been assessed together as their sensitivities to project pressures are deemed sufficiently similar.

Where attribute characteristics are similar, they have been grouped together for the purposes of the assessment.

Attribute Group 1

Feature	Attribute	Attribute target
Red Throated Diver	Non-breeding population: distribution	Restore the distribution of the feature; preventing further deterioration, and where possible, reduce any existing anthropogenic influences impacting feature distribution.
Red Throated Diver	Disturbance caused by human activity	Minimise the frequency, duration and/or intensity of disturbance affecting the feature so that the population, its distribution within the site, or its use of the habitat is not significantly affected.
Common Scoter	Non-breeding population: distribution	Restore the distribution of the feature; preventing further deterioration, and where possible, reduce any existing anthropogenic influences impacting feature distribution.
Common Scoter	Disturbance caused by human activity	Minimise the frequency, duration and/or intensity of disturbance affecting the feature so that the population, its distribution within the site, or its use of the habitat is not significantly affected.

Disturbance from Installations

The decommissioning activities will cause disturbance through the vessel operations. Any disturbance effect created by the platforms themselves or activities immediately alongside the platforms have not been assessed. The reasoning for this is that the presence of the installations/platforms themselves already creates a disturbance effect, displacing birds from the area and effectively preventing the immediate area around the installations from providing supporting habitat for Common Scoter or Red Throated Diver. These installations were installed before the designation of the SPA and are part of the

baseline condition of the SPA, thus the presence of vessels immediately alongside the installations i.e. jack-up barges or DSVs will not cause further displacement than already exists.

Disturbance from vessels

Red Throated Diver show a strong avoidance reaction to vessels and structures at sea, and they are likely to be flushed or show a disturbance response to vessels out to 2km from the vessel. As the birds are no longer likely to feed, fully utilise or even remain in this disturbed area, the area is no longer able to function as a supporting habitat for the birds and its ability to fully contribute to the conservation objectives of the site will be reduced. Once the vessel or structure has left, the disturbance effect is no longer present, birds will return, and the area will again represent a supporting habitat for the birds

Scope of Vessel Operations

The decommissioning activities will require the following vessel operations:

- **Jack-Up Rig** for 4 platform operations. The jack-up rig will position itself alongside the platform structure. Once in position, the rig is unlikely to create additional disturbance or displacement, further to that already created by the existing platform. However, the rig will transit to each platform which will create addition disturbance.
- **Dive Support Vessel (DSV)** used for subsea works i.e. pipeline cuttings. It is expected that only one DSV will be used in the field at any time. These vessels are likely to make local port visits so will transit from the decommissioning area to the port and sail back to the working area.
- **Construction Support Vessel (CSV)** will primary be used for recovery operations i.e. mattress and spool recovery. These are likely to make local port visits as per the DSV above.
- **Heavy Lift Vessel (HLV)** will be used for lifting the topsides onto a cargo barge and make 1 transit to and from each platform
- **Cargo Barge** will work with the HLV vessel, and the topsides will be loaded onto the barge. This barge is not self-propelled, so will be supported with 2-5 tugs and will make one transit to and one from each platform.

  Note: The pipeline/spool cuts, lifts, mattress removals and topside removals will take place within the 500m zone of each platform, therefore the DSV and CSV, whilst undertaking subsea operations are unlikely to create further displacement or disturbance more than what is already created by the platforms. Transits/travel to and from each platform will however create additional disturbance.

- **Platform Support Vessel**: Up to 2 supply vessel trips per week estimated for the duration of the jack up works per platform
- **Emergency Response and Recovery Vessel (ERRV)** will be on standby throughout the operations; however this vessel stays in a relatively consistent location. The ERRV's stand by location will be outside of the SPA and thus will not create a disturbance effect.

Scope of Platform Operations

- Douglas, Hamilton & Hamilton North

Douglas and Hamilton are on the western edge of the SPA, while Hamilton North is outside of the SPA as shown in Figure 2. Vessels attending these platforms are not considered to exert a significant disturbance effect on the SPA because the developer has outlined that vessel access and transit routes to these installations will:

- largely take place outside of the SPA
- utilise existing heavily used shipping lanes, as shown in Figure 3
- transit through the SPA where bird densities are low (these distances are small)

For this assessment, vessel movements within channels heavily used by existing shipping are not considered to cause an increase in disturbance or displacement over the existing baseline.

- Lennox Platform

Lennox platform is within the SPA and is in area of the SPA with high densities of red throated diver and moderate densities of common scoter. It is remote from shipping lanes and shipping traffic at the Lennox location is dominated by vessels associated with the platform. Vessels attending this installation are likely to result in the greatest disturbance.

Disturbance from vessels attending Hamilton, Hamilton North and Douglas are not likely to cause a significant impact on the SPA and will not be considered further. Vessel activity at Lennox will be the focus of the assessment of disturbance and displacement.

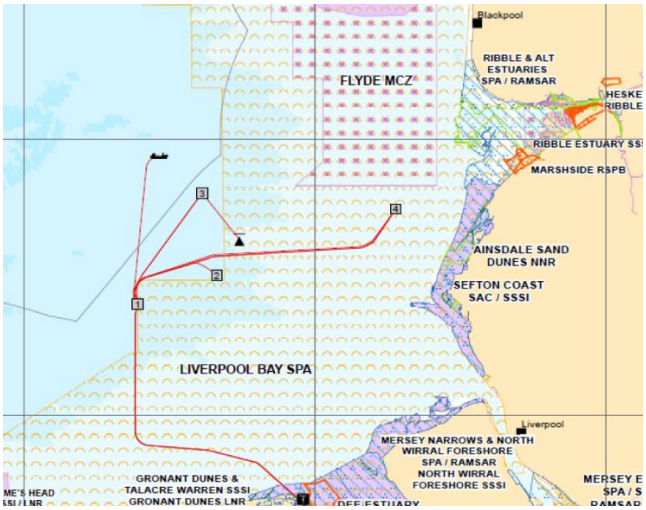

Figure 2: Location of the platforms. 1) Douglas 2) Hamilton 3) Hamilton North 4) Lennox

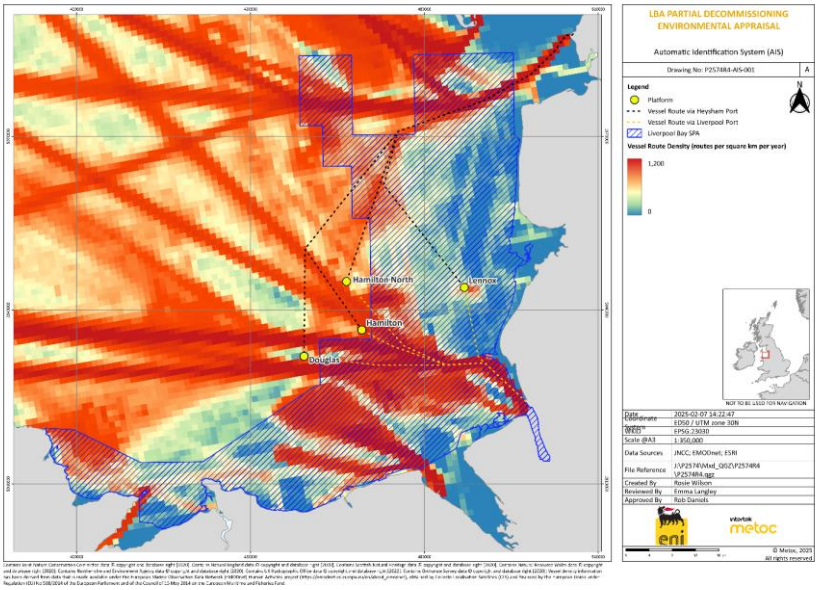

Figure 3: Expected transit routes to each platform overlaid on vessel traffic density (red areas indicate areas of high intensity

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Number of Vessel Transits

The exact number of vessel trips required by the decommissioning campaign cannot be precisely known however the plans indicate the following

- 2025 – 2026 wintering period the proposed operations will require a total of **31** vessel transits. This includes the location of the jack-up to and from location and associated supply vessel trips for the duration of the jack-up operations.

- 2026-2027 wintering period, the proposed operations will require a total of **39** vessel transits, including the location of the jack-up to and from location, associated supply vessel trips for the duration of the jack-up operations (12 days), and five CSV/DSV trips to and from location. It is therefore anticipated that the greatest disturbance to seabirds from the transit of vessels during the proposed operation will occur during the 2026 – 2027 wintering period

Scope of vessel disturbance assessment
70 vessel transits through the SPA Taking place over 253 days between 2025 and 2027

Numbers of birds displaced

The worst-case vessel transit routes have been identified i.e. those which cause the greatest disturbance, these are the routes between Lennox Heysham port and Liverpool port. These two routes (outlined in Figure 4) will be the assumed route for all vessel transits.

Table 4 identifies the total area that will be disturbed via vessels transiting to Lennox from either Heysham or Liverpool. The Heysham route has the longest distance within the SPA resulting in 207km^2 of disturbance for Red Throated Divers and 260km^2 for Common Scoter as shown in table 4. Considering that Liverpool Bay SPA covers an area of 2,528km^2, this represents 8.2% and 10.3% of impacted SPA area for Red-Throated Diver and Common Scoter, respectively.

Transit route	Red-throated diver disturbance area (km^2)	Common scoter disturbance area (km^2)	% Proportion of the SPA
Heysham port to Lennox	207.3	260.7	8.2
Liverpool Port to Lennox	92.7	116.4	10.3

Table 4: Approximate area of disturbance associated with the supply vessel routes

Species	**Density (birds per km^2)** *	**Total abundance estimates within the SPA[1,2]**	**Maximum of individuals affected within the SPA[3]**	**% of population affected**
Red-throated diver via Heysham Port	0.14	1,800	29	1.6

Red-throated diver via Liverpool Port	0.43	1,800	40	2.2
Common scoter via Heysham Port	12.24	141,801	3,191	2.3
Common scoter via Liverpool Port	37	141,801	4,306	3

Table 5: Total Number of birds that could be disturbed by the vessel transiting to Lennox from either Heysham or Liverpool

**Density is taken from Lawson et al 2016 and is representative of that found along the vessel route as shown in Figure 4*

The figures shown in table 5 indicate that up to 2.2% of the Red Throated Diver and 3% of the Common Scoter SPA population could potentially be exposed to some degree to disturbance via a vessel transiting to Lennox. However, as vessels are mobile and a continuous sight in Liverpool Bay, a reasonable assumption is that that birds will return to the disturbed area as soon as the vessel has moved away if required. At any given time, the number of birds disturbed will be far smaller than the figures outlined in table 5 and is more likely to be represented by a circle centred on the vessel. A vessel moving through the SPA is therefore considered, at any given time, to create a 2km and 2.5km disturbance radius for Red Throated Diver and Common Scoter, respectively. This equates to a disturbance area of 12.57km^2 for Red Throated Diver and 19.63km^2 for Common Scoter. These figures indicate that a very small proportion of the SPA population are likely to experience disturbance at any time. Furthermore the disturbance is fundamentally transient and solitary in nature i.e. the activities are unlikely to repeatedly disturb the same individuals/areas. The decommissioning operations are therefore, not predicted to cause a significant change in the distribution of birds in the SPA beyond the immediate area for a short period of time.

Species	Density of birds (birds/m^2)	Disturbed area around a single vessel km^2	Numbers of Birds Disturbed	% of population
Red Throated Diver	0.43	12.57	5.4	0.3
Common Scoter	37	19.63	726	0.5

Table 6: The numbers of birds disturbed by vessels at an individual location

Duration of Disturbance

The cargo barge will have the slowest transit speed during the proposed operation, travelling at speeds of approximately 6 knots (11 km/hour). A vessel transiting from Heysham Port results in the longest transit route with 50.11km of this route overlapping with the Liverpool Bay SPA. Therefore, using the transit speed of the cargo barge to provide a worst-case assessment, it is anticipated for a vessel could spend at most 4 hours 34 minutes within the Liverpool Bay SPA per transit to the Lennox platform. Over the 2026 – 2027 wintering period this has the potential to cumulatively total up to 91 hours and 7 minutes. This means that disturbance could occur for up to 2.5% of time within the wintering season, which is a very small proportion of the season.

The assessment maintains an assumption that birds will return quickly to disturbed areas, this is due to the close proximity of the decommissioning operations to busy shipping routes and the fact that the vessel movements will be of a similar type, location and frequency as experienced in the many years when production was taking place at Lennox. The SNCBs did however flag that there is uncertainty regarding the time within which birds will return to disturbed areas as a study in the German Bight (Burger et al., 2019) observed red throated diver, disturbed by vessels, could take up to 7 hours to return. Thus, whilst the disturbing activity i.e. vessels may only be present for 4 hours 34 minutes, the resulting displacement effect may linger on for some time afterwards. It is not possible to make direct inferences

from the Burger et al., 2019 study to birds in Liverpool Bay as there are variables which would likely change how birds respond between the two settings. However, to quantify the worst-case scenario, the assessment has calculated over how many days/hours it may be possible to observe some form of displacement in the SPA as a result of the vessel movements, using the assumption that birds take 7 hours to return to an area after they have been disturbed.

On the basis that 31 vessels may be required in one winter season and assuming displacement persists for 7 hours, displacement may occur for a total **of 217 hours over the 2025-26 wintering period**, potentially resulting in disturbance ~6% of total time (3,600 hours) during the sensitive period.

In conclusion, vessels may be active and therefore causing disturbance for up to 2.5% of the sensitive over wintering period but there may be a subsequent displacement of birds which persists for longer, potentially occurring for up to 6% of the sensitive period.

Diurnal effects

The SNCBs have indicated that there is some uncertainty regarding the differing effects of disturbance that takes place in daylight hours versus night. They have suggested that disturbance in daylight hours may represent the greatest impact as this is the key foraging period. They have suggested that the displacement period be adjusted for the period of available daylight which is likely to represent approximately 15% of the available foraging time (1,428 hours) within the vessel transit routes. This also results in 19% of the available foraging time in the 2026-27 wintering period, based on 39 days * 7 hours = 273 hours.

The view has been taken within this habitat regulations assessment not to make any adjustment to account for the differing effects of disturbance during night or day light. This is because it is not clear if disturbance during the day has a greater impact on bird condition than at night. For example, whilst disturbance in the day is more likely to interrupt foraging, birds may be able to resettle in a nearby location and resume feeding with only a minimal interruption in their total foraging time. Birds disturbed at night will likely be 'roosting' and resting on the water and disturbance and displacement of birds at this time could result in different behavioural responses and have different physical, energetic and metabolic effects

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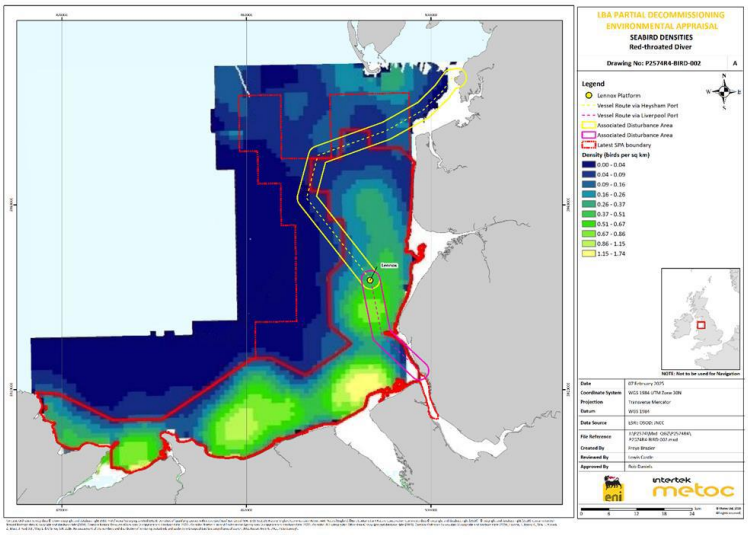

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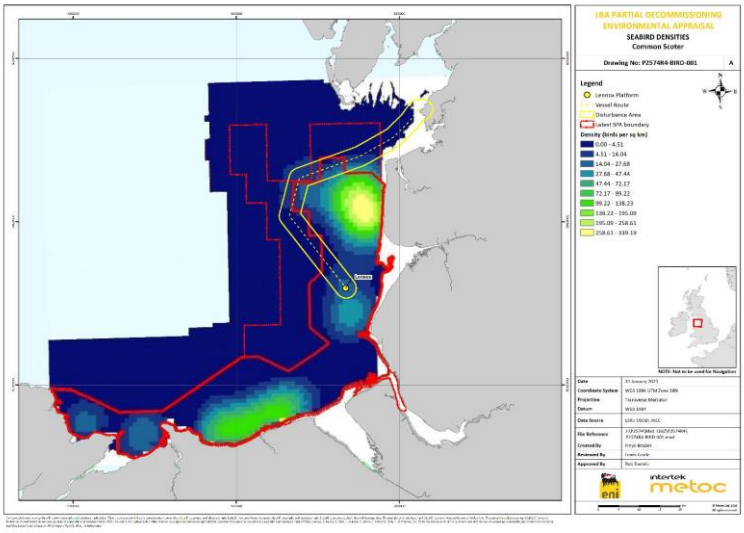

Figure 4: Densities of Red Throated Diver and Common Scoter taken from Lawson et al 2016, overlaid is the vessel route and disturbance area of the Heysham and Liverpool port transits

Existing and past vessel operations at the Liverpool Bay installations

The Lennox platform is an existing installation and has been operating for 30 years. It is common for operations to require frequent vessel transits for logistical support, rig movements, and survey activities. For example, jack-up operations have been a regular occurrence over the lifetime of the platform operations, for well interventions or drilling operations, and the Irish Sea Pioneer and the Valaris Norway Jack up have attended the platform several times in the past ten years. The number of transits required for the decommissioning operation is within the typical range observed in the industry and within the baseline level of transits to the Lennox platform completed in previous years.

The developer has analysed the operational history at Lennox over the past 10 years to determine what level of vessel activity would have taken place at the platform. This data represents a reasonable baseline scenario for historic vessel activity within the SPA at Lennox and provides important context by which to compare the proposed decommissioning works, this information is outlined in table 7. The historic vessel information shows that vessel movements varied from year to year depending on operations ongoing at the platform with peak vessel activity of 138 visits in 2017 to a minimum of 16 visits in 2019 and an average of 49 vessel visits per year. The proposed vessel movements of 31 and 39 transits predicted as part of the decommissioning plan are within the scope of previous years and do represent a significant increase above baseline conditions.

Permitted dates of the jack up rig alongside Lennox	Potential days/weeks when jack up rig was alongside Lennox	Vessel	Number of trips	Supply trips (assume 2 trips per week)	Total transits per year (2 x number of trips)
31.01.2024 – 30.06.2024	8 weeks	ISP	1	16	38
2024 – 3 weeks		Survey vessel	2	N/A	
2024 – 3 weeks		Air diving support vessel	1		
15.04.2023 to 20.05.2023	1 week	ISP	1	2	10
2023		Survey vessel	3	N/A	
13.06.2022 to 11.10.2022	7 weeks	ISP	1	14	32
2022	-	Survey vessel	3	N/A	
04.01.2022 to 27.01.2022	1 week	ISP	1	2	
24.05.2021 to 04.10.2021	9 weeks	ISP	1	18	40
2021		Survey vessel	2	N/A	
20.04.2020 to 13.07.2020	5 weeks	ISP	1	10	54
20.04.2020 to 13.07.2020	7 weeks	ISP	1	14	
2020	-	Survey vessel	3	N/A	
30.11.2019 – 23.02.2020	1 week	ISP	1	6	16
2019	-	Survey vessel	2	N/A	
17.09.2018 to 30.11.2018	4 weeks	ISP	1	8	42
02.12.2017 to 29.01.2018	5 weeks	ISP	1	10	
2018	-	Survey vessel	3	N/A	
15.05.20217 to 30.11.2017	22 weeks	ISP	1	44	138
01.12.2016 to 14.03.2017	11 weeks	ISP	1	22	
2017	-	Survey vessel	3	N/A	
25.07.2016 – 03.12.2016	8 weeks	ISP	1	16	76
14.03.2016 to 27.04.2016	3 weeks	ISP	1	6	
12.05.2016 to 21.07.2016	7 weeks	ISP	1	14	
2016	-	Survey vessel	4	N/A	
1.08.2015 to 26.10.2015	8 weeks	ISP	1	12	62
4.12.2014 to 14.05.2015	6 weeks	ISP	1	16	
2015	-	Survey vessel	3	N/A	
22.05.2014 to 26.07.2014	8 weeks	Seajacks Leviathan	1	24	36
2014 – 2 days	-	Survey vessel	2	N/A	
Average number of trips per year					**49**

Table 7: Vessel transits to and from Lennox from 2014-2024

Conservation Objectives of 'Restore'

A number of infrastructure projects and activities have been consented and are in operation within Liverpool Bay. Some of these developments have resulted in the long-term disturbance and displacement of Red Throated Diver, with the largest contributor of this disturbance being the Burbo Bank Extension windfarm which has caused the displacement of Red Throated Diver over an area up to 12km from the windfarm. The disturbance and displacement effect of these projects now forms part of the baseline condition of the SPA and is the main driver behind the determination that the site is in unfavourable condition and reason for the 'restore and minimise' attribute targets for distribution and disturbance. The restore target requires that all sources of disturbance be avoided or minimised as far as is reasonably practicable

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Mitigation Measures: Vessel management plan

To minimise disturbance and displacement during the decommissioning activities, ENI have committed to the following mitigation measures.

ENI will employ a vessel management plan which will control the locations, routes and directions used by all vessels engaged in the decommissioning programme. This plan as outlined in section 8.3.3 has been updated to include recommendations from the SNCB and stipulates the following:

- that vessels transiting to the platform from Liverpool and Heysham port will utilise the existing heavily used shipping channels

- the ERRV will hold a position outside of the SPA

- any stand-off location used by a vessel will be outside of the SPA

- transits outside of the regularly used shipping lanes will be planned to avoid areas where there are high densities of birds where possible. Information to inform these route plans will come from relevant monitoring reports and advice from the SNCBs

- vessel transit speeds will be reduced in areas of high bird densities e.g. in the area surrounding the Lennox platform.

The vessel management plan will be a mandatory requirement of future consents i.e. marine licence or consent to locate, which will need to be in place before any decommissioning activities commence.

Conclusion: Impact Alone		
Attribute	Feature	Is an adverse effect possible
Non-breeding population: distribution	Red Throated Diver & Common Scoter	No
Disturbance caused by human activity	Red Throated Diver & Common Scoter	No

Attribute Group 2

Feature	Attribute	Attribute target
Red Throated Diver	Non-breeding population: abundance	Maintain the size of the non-breeding population at a level which is at or above 1800 individuals (mean peak, 2015, 2018, 2019 & 2020).
Common Scoter	Non-breeding population: abundance	Maintain the size of the non-breeding population at a level which is at or above 141,801 individuals (mean peak 2015, 2018, 2019 & 2020).

Birds that are disturbed by vessels are expected to move into nearby areas of sea and resume normal behaviour. However, the movement of large numbers of birds into other areas can have secondary effects such as alterations in feeding behaviour or prey availability due to changes in the density of birds on the water. These increased pressures can cause a reduction in the condition of birds and potentially cause an increase in the mortality rate of the population.

As the vessels are transient and the displacement of birds from any one area will be over a short timescale it is not expected that displacement will cause an increase in mortality. However, to help

benchmark the level of risk associated with any possible displacement related mortality, the developer has undertaken an assessment to determine what, under a worst-case scenario, the increase mortality rate for the SPA population may be. The assessment is based on the disturbance created by each individual platform and its overlap with the SPA. Whilst not directly comparable to the disturbance created by vessel operations, the area figures used in the calculation are similar to those that may be disturbed via vessel operations and thus provide a useful indicator. Of relevance is the mortality calculated at Lennox, as this platform is wholly within the SPA and the area of disturbance area is equivalent to that of singe vessel.

There is little literature to inform mortality rates associated with temporary or transient displacement, but the Developer has drawn on some of the principles outlined in SNCB guidance for the assessment of permanent displacement from windfarms (Joint SNCB advice note;2024). Tables 7 & 8 summarise this assessment and assumes a mortality rate of 0.5% and 1% of the birds displaced. The figures of 0.5% and 1% represent relatively arbitrary values as there is no evidence by which to predict mortality from transient vessel disturbance, but 1% represents the lowest figure in the matrix of possible mortality rates presented as an example in the 2024 Joint SNCB advice note.

The additional mortality within SPA population for both Common Scoter and Red Throated Diver is <0.1% which suggests significant population level impacts from the decommissioning operation would not be expected.

Platform	Number of birds that could be displaced	Additional mortalities due to displacement using HiDef mean density (0.5%)	Additional mortalities due to displacement using HiDef mean density (1%)	Additional mortality within SPA due to displacement (%) per vessel using HiDef mean density (0.5%)	Additional mortality within SPA due to displacement (%) per vessel using HiDef mean density (1%)
Hamilton	6.73	0.03	0.07	0.01	0.02
Lennox	13.32	0.07	0.13	0.02	0.03
Hamilton North	0.00	0.00	0.00	0.00	0.00
Douglas Process	6.23	0.03	0.06	0.01	0.01
Total	26.28	0.13	0.26	0.03	0.06

Table 8: Number of Red Throated Diver displaced and mortalities due to the presence of platforms

Platform	Number of birds that could be displaced	Additional mortalities due to displacement using HiDef mean density (0.5%)	Additional mortalities due to displacement using HiDef mean density (1%)	Additional mortality within SPA due to displacement (%) per vessel using HiDef mean density (0.5%)	Additional mortality within SPA due to displacement (%) per vessel using HiDef mean density (1%)
Hamilton	914.75	4.57	9.15	0.01	0.03
Lennox	1,640.06	8.20	16.40	0.02	0.05
Hamilton North	23.56	0.12	0.24	0.00	0.00
Douglas Process	778.13	3.89	7.78	0.01	0.02
Total	3356.5	16.78	33.57	0.05	0.10

Table 9: Number of common scoters displaced and mortalities due to the presence of platforms

Conclusion: Impact Alone		
Attribute	Feature	Is an adverse effect possible
Non-breeding population: Abundance	Red Throated Diver & Common Scoter	No

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Attribute Group 3

Feature	Attribute	Attribute target
Red Throated Diver	Supporting habitat: Food availability and quality of prey	Maintain the distribution, abundance and availability of key food and prey items (e.g. fish) to maintain the population.
Red Throated Diver	Supporting habitat: extent, distribution and quality of supporting habitat for the non-breeding season	Restore the extent, distribution and availability of suitable habitat which supports the feature; preventing further deterioration, and where possible, reduce any existing anthropogenic influences impacting the extent and quality (including water quality).
Common Scoter	Supporting habitat: Food availability and quality of prey	Maintain the distribution, abundance and availability of key food and prey items (e.g. molluscs and bivalves) to maintain the population.
Common Scoter	Supporting habitat: extent, distribution and quality of supporting habitat for the non-breeding season	Restore the extent, distribution and availability of suitable habitat which supports the feature; preventing further deterioration, and where possible, reduce any existing anthropogenic influences impacting the extent and quality (including water quality).

Impacts from bird displacement have been assed under the previous attributes. The Decommissioning activities (as outlined in stage 1 of the assessment) will not have significant effects on seabed condition or suspended sediment. There will be no significant or long-term changes to the physical, chemical, or hydrodynamic characteristics of the SPA, therefore the above Attributes Group 3 does not need further assessment.

Conclusion: Impact Alone		
Attribute	Feature	Is an adverse effect possible
Supporting habitat: Food availability and quality of prey	Red Throated Diver & Common Scoter	No
Supporting habitat: extent, distribution and quality of supporting habitat for the non-breeding season	Red Throated Diver & Common Scoter	No

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In-combination Assessment: Common Scoter and Red Throated Diver

Projects Considered In-combination

The following projects have not yet been approved but their provisional work programmes show the potential for them to be operating in the Liverpool Bay SPA during winter at the same time as the DP.

- **Hynet Carbon Storage**

Time Period: Year 2026

The construction phase of the Hynet project is planned to occur immediately after the decommissioning works have prepared the infrastructure. There is therefore the possibility that vessel operations related to the Hynet construction could operate within the same wintering season as the DP. The construction phase of the Hynet Development will require a total of around 240 construction vessels round tips over the whole construction period. This will, on average, add an additional two vessels per day. The cable laying activities of Hynet will not take place in winter, meaning the vessel movements will be related to supply and support vessels. The vessel activity will be predominately within existing shipping lanes and will not create additional displacement/disturbance.

- **Millon, Calder and Dalton decommissioning**

Time Period: Years 2027 - 2032

Decommissioning operations are planned to start in 2027 moving through to 2032. These 3 platforms are outside of the Liverpool Bay SPA so activities at the platforms will not affect the SPA and most vessel access will take place outside of the SPA. Impacts will be from the transiting of vessels, primarily supply vessels (using Liverpool port as a worst-case transit destination). Their assessment accounts for a single vessel moving through the Liverpool Bay SPA on 18 separate days. The developer will however try and identify routes which avoid the SPA and use existing shipping routes or areas of high bird density.

- **Awel y Mor Offshore Windfarm**

Time Period: Years 2025 – 2030 (construction)

This is a proposed renewable energy project, 10.50 km off the coast of North Wales, of up to 1.1 GW. There is a proposal for a maximum of 50 turbines, associated transmission assets, and cabling (including and interlink cable with Gwynt y Môr OWF). The windfarm is not within the SAC, but the transmission and access routes do cross the SPA.

- **Mostyn Energy park**

Time Period: Years 2023 -2025 (construction)

This is an extension of the Mostyn Energy Park at the Port of Mostyn. The project requires construction of a 360 m quay, reclamation of 3.5 ha, capital dredging of new berth pockets and re-dredging of the approach channel. Dredged material will be used as fill material for reclamation, with the disposal of excess dredged material at Mostyn Deep. There will also be maintenance dredging of new and existing berths, the approach channel and harbour area. The energy park is not in the Liverpool Bay SPA, but the approach channel and Mostyn deep spoil ground are within the SPA and vessel movements associated with the dredging and construction works will occur in the SPA. These vessel movements will however be within regularly used shipping channels and spoil ground access routes.

- **Mona Offshore Windfarm**

Time Period: Years 2026 -2028 (construction)

This is a proposed offshore windfarm of up to 96 turbines, 28.20 km off the coast of North Wales, of up to 350 MW. The array area is outside of the Liverpool Bay SPA, but the proposed cable route will need to cross the SPA to make landfall. The installation of the cable and vessel movements associated with the array construction have the potential to affect the SPA. The examination of the Mona windfarm finished in January and a decision has yet to be made

- **Morgan and Morecambe Offshore Windfarms and Transmission Assets**

The Morgan offshore windfarm is a proposed development of up to 96 turbines, 36km from the Northwest coast of England. The application for development has been accepted by the planning inspectorate but examination has yet to commence. The Morecambe offshore windfarm is a development of up to 35 turbines 30km off the coast of northwest England. The examination of the application by the planning inspectorate is underway. Both windfarm arrays are outside the Liverpool Bay SPA.

Due to the close proximity of the two arrays, the transmission assets i.e. the export cables to shore for the Morgan and Morecambe OWF are being progressed as a joint development and a separate application for the transmission assets has been submitted to the planning inspectorate, examination of the application has yet to commence.

The cable routes for the two wind farms will cross the Liverpool Bay SPA meaning the installation of cable and vessels associated with the array construction have the potential to affect the SPA.

Time Period: Years 2026 -2028 (construction)

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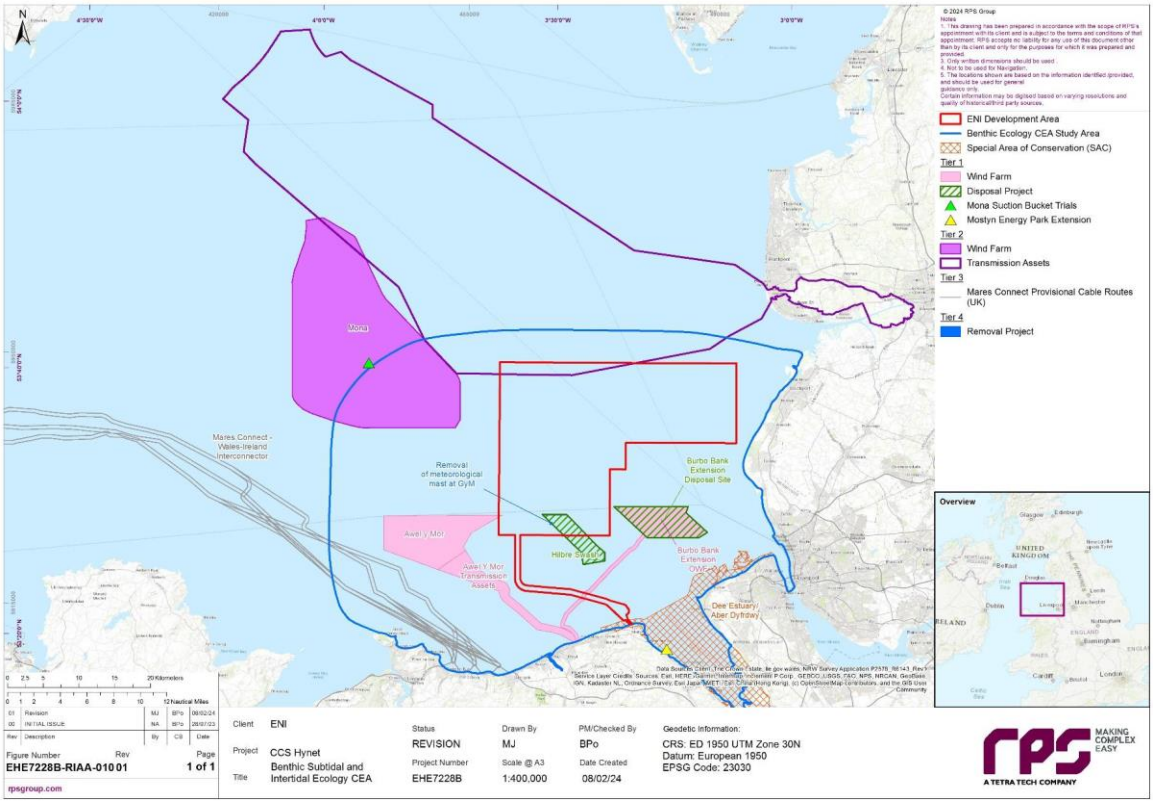

Figure 5: Map of existing infrastructure and proposed new development in the vicinity of the decommissioning operations.

Note: This map was taken from the related Hynet Environmental statement and references some projects which were not deemed relevant to this assessment namely the Gwynt y Môr OWF mast removal project and the MaresConnect – Wales – Ireland Interconnector Cable, which were not considered as there was insufficient information available. Furthermore, the Millon, Calder and Dalton decommissioning project is not shown because at the time the map was created no interaction had been identified.

Appropriate Assessment

Attributes scoped into the In-combination Assessment

Where an attribute has the potential to be significantly affected by the project alone, a further assessment has been undertaken to understand whether the impacts from other plans or projects could act in-combination with those of the DP and cause an adverse effect on the site integrity.

Where attributes are not expected to be significantly affected by the project alone it is deemed unlikely that the project could result in an adverse effect, even in-combination and are thus not considered further as part of the in-combination aspect of the appropriate assessment.

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Attribute Group 1

Feature	Attributes With Potential In-Combination effects*	Attribute Target
Red Throated Diver & Common Scoter	Non-breeding population: distribution	Restore the distribution of the feature; preventing further deterioration, and where possible, reduce any existing anthropogenic influences impacting feature distribution.
Red Throated Diver & Common Scoter	Disturbance caused by human activity	Minimise the frequency, duration and/or intensity of disturbance affecting the feature so that the population, its distribution within the site, or its use of the habitat is not significantly affected.

The risk of other projects causing a disturbance or displacement effect in the SPA which could act in-combination with the DP operations have been summarised in table 9. It is clear from this review that other vessel-based operations may be active during the same wintering seasons as the DP however the effects of these operations are likely to be small and transient, and most projects have requirements to produce and adhere to environmental management plans. These management plans will control vessel operations in a way as to minimise disturbance to Red Throated Divers and Common Scoter as much as possible.

Project	**Potential for disturbance impacts to act in-combination**	**Magnitude of impacts**
Hynet	Yes	Up to 2 vessel transits per day in winter 2026 to 2027. The majority of these will be at the Douglas, Hamilton, Hamilton N but some attending Lennox
Millom, Dalton, Calder DP	Potential	18 transits through SPA between 2027 - 2030
Awel y Mor	Yes	Unknown number of vessels will transit through the SPA, mitigation through the form of a vessel management plan will be employed
Mona OWF	No	Up to 1,929 installation vessel movements (return trips) during construction and up to 126 installation vessel movements during cable laying. These are intended for a construction period out-with the wintering seasons and will be managed by a vessel management plan. Cable installation will not take place in wintering season as controlled by the environmental management plan (Mona OWF;2024). Vessel related disturbance on wintering RTD and CS during construction are not considered likely.
Morgan and Morecambe OWF Transmission Assets	Potential	There could be vessel traffic associated with the construction phase, however the number of vessels involved, and the timing of these works is not clear. They will however be managed by an environmental management plan to minimise disturbance to birds.

Port of Mostyn Expansion	Yes	Vessels and dredgers associated with the construction works may operate within the SPA however they will use regularly used shipping routes and disturbance is unlikely to be significantly above background levels

Table 10: Projects with disturbance impacts to act In-combination

A review of other projects with the potential to impact the SPA during the 2025 -2027 wintering seasons is presented in table 10. At the time of writing only the Hynet and Calder/Millom and Dalton DPs have quantified the number of vessel transits that may interact with the SPA. It is therefore not possible to quantify the total number of vessel transits that will occur in-combination with those of the DP. What is apparent however is that the magnitude of disturbance from these other projects will not be significantly higher than existing baseline conditions and all bar the port of Mostyn expansion will be controlled by bespoke bird/vessel management plans which will limit their disturbance. Thus, despite the presence of previously installed infrastructure which may be causing a long term degradation in site condition, the DP will not result in any new impact which could cause a further significant or persistent change in site condition or integrity

Conclusion: Impact In-combination		
Attribute	Feature	Is an adverse effect possible
Non-breeding population: distribution	Red Throated Diver & Common Scoter	No
Disturbance caused by human activity	Red Throated Diver & Common Scoter	No

Attribute Group 2

Feature	Attributes With Potential In-Combination effects*	Attribute Target
Red Throated Diver	Non-breeding population: abundance	Maintain the size of the non-breeding population at a level which is at or above 1800 individuals (mean peak, 2015, 2018, 2019 & 2020).
Common Scoter	Non-breeding population: abundance	Maintain the size of the non-breeding population at a level which is at or above 141,801 individuals (mean peak 2015, 2018, 2019 & 2020).

To understand whether any mortality associated with the disturbance created by other plans or projects could cause a significant population impact, the developer calculated possible mortality rates associated with those operations. Acknowledging that there is little information on vessel movements associated with these operations the developer used the potential areas of operation to approximate the areas disturbed which are shown in table 11. Due to the use of total project area as opposed to individual vessel movements the figures presented in table 11 likely represent an over precautionary worst-case scenario.

Interpretation of the mortality figures in table 11 must be accompanied with a high degree of caution as there is significant uncertainty regarding the assumptions which underpin these calculations, Specifically mortality associated with disturbance is usually associated with long term displacement from important resources such as feeding areas or chronic and repeated flushing and displacement which causes a decline in the condition of birds over time. It is impossible to state with any degree of certainty that the short term disturbance from the projects are likely to cause the level of mortality shown. The figures in table 11 instead provide a high-level indicator of what risk the SPA population may be exposed to and even under this extreme scenario the increase in mortality is small.

Project	Feature	Increase in Baseline Mortality (%)
Liverpool Bay Hynet Transportation and Storage Project	Red-throated diver	Up to 0.89
	Little gull	Up to 0.040
	Common scoter	Up to 0.98
	Little tern	0.04
	Waterbird assemblage	No data available
Mona offshore wind farm transmission	All features	The transmission aspect of the Mona offshore wind farm was not assessed quantitively. The qualitative assessment was of no significant adverse effects to the Liverpool Bay SPA
Awel Y Mor offshore wind farm transmission	Red-throated diver	Up to 0.582
	Little gull	No data available
	Common scoter	Up to 0.007
	Little tern	Beyond 5km foraging range
	Waterbird assemblage	No data available
Morecambe	Red-throated diver	0.01
	Little gull	No data available
	Common scoter	No data available
	Little tern	Beyond 5km foraging range
	Waterbird assemblage	No data available
Morgan/Morecambe offshore wind farms shared transmission	Red-throated diver	Up to 0.35
	Little gull	No data available
	Common scoter	Up to 0.98
	Little tern	Beyond 5km foraging range
	Waterbird assemblage	No data available
Minimum total in-combination excess mortality*	Red-throated diver	1.932*
	Little gull	0.040*
	Common scoter	1.967*
	Little tern	0.04
	Waterbird assemblage	No data available

* For projects with quantitative data only

Table 11: Summary of The Displacement Results from Other Projects Within the Liverpool Bay Spa

Whilst it is unlikely that short term highly localised displacement from vessel movements associated with the DP will result in increases in mortality, the presence of other projects using vessels in the SPA may act in-combination to create an effect on the population. The potential increases in mortality calculated under worst case scenarios were still very small and unlikely to significant result in significant population changes.

Conclusion: Impact Alone		
Attribute	Feature	Is an adverse effect possible
Supporting habitat: Food availability and quality of prey	Red Throated Diver & Common Scoter	No

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Conclusion of Habitats Regulations Assessment

An assessment has been undertaken to determine whether the Liverpool Bay Partial Decommissioning Programme (the project) could significantly impact the conservation objectives of any site within the UK National Site Network. The likelihood of a significant effect on the conservation objectives of the following site and features could not be ruled out:

- Liverpool Bay SPA – Common Scoter (Non-breeding) and Red Throated Diver (Non-Breeding)

An appropriate assessment was undertaken to ascertain whether the project could adversely affect the site's integrity considering its conservation objectives:

Conservation Objectives:

- Red throated Diver

Subject to natural change, maintain or restore the red-throated diver population, distribution, and its supporting habitats in favourable condition.

- Common Scoter:

Subject to natural change, maintain or restore the common scoter population, distribution, and its supporting habitats in favourable condition.

Red Throated Diver and Common Scoter conservation objectives require the distribution of birds and their supporting habitats to be maintained or restored due to existing pressures in the SPA.

The appropriate assessment has determined that the project will have some effect on the SPA. However, it has been concluded that any effects will be small and transient and will not result in a significant change in the condition of the site or its features. To further minimise any effects, a vessel management plan as described in the mitigation section of this document will be implemented to limit the extent of disturbance.

The Secretary of State, therefore, concludes that the proposed project will not adversely affect the integrity of the SPA, either alone or in-combination with other plans and projects.

Annex

Application documents

Offshore Petroleum Regulator
for Environment
& Decommissioning

Liverpool Bay Asset Partial Decommissioning Programme: Environmental Appraisal. Version 7. February 2025

Offshore Petroleum Regulator
for Environment
& Decommissioning

Statutory Nature Conservation Body (SNCB) Consultation

SNCB	Comment summary	Response
Natural England JNCC NRW	The 3 SNCBs provided similar responses and flagged similar concerns which can be summarised as follows 1) Further information on the baseline shipping activity at Lennox is required to understand if the vessel activity associated with the DP will be significantly above baseline 2) Further commitments that a vessel management will be undertaken and the SNCBs provided guidance on important things to include within the plan 3) Further quantitative assessment was required regarding the in-combination contributions from other plans and projects 4) The SNCBs requested that further mitigation/avoidance measures be employed which requires preclude vessel activity in the sensitive wintering season 5) The SNCBs feel there is insufficient information to support a conclusion that there would be no adverse effect on integrity.	1) The developer has provided further baseline and historic survey information – page 24 2) The developer has provided further details on what the vessel management will include – page 35 3) Furter in-combination assessment is hampered by the lack of available vessel traffic/transit data for the other projects. Further text and clarification have been provided on page 31 and 32 4) It is fully accepted that the best outcome for the SPA would be for operations to be limited to periods outside of the winter, however the decommissioning works are an essential operation and may be subject to other constraints which make it impossible to work in the spring/summer months for example the platforms have high numbers of nesting kittiwakes and removal of the platforms while these are active would constitute an offence 5) The extra vessel information shows the DP operations are not significantly greater than previous production related operations which have occurred throughout the life of the SPA. It is clear the disturbance and subsequent displacement effects will be short-term and that other plans and

	6) Seabed disturbance: Surveys should be undertaken to verify the absence of any sensitive benthic features, namely *sabellaria* or *Artica Islandica*	projects will not be inducing high levels of extra disturbance. Any further degradation in site condition due to the operations will be temporary and not of a magnitude that could further undermine the integrity of the site 6) The developer has stated that drop down imagery will be collected prior to works and efforts made to avoid sensitive features. It should be noted furthermore that *Sabellaria spinulosa* is not commonly found in Liverpool Bay and no oil and gas operation has observed sabellaria reef formations in the area.

References

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Mona OWF Ltd. 2024.HRA Stage 2 Information to Support an Appropriate Assessment. Part Three: Special Protection Areas and Ramsar sites Assessments. https://infrastructure.planninginspectorate.gov.uk/projects/wales/mona-offshore-wind-farm/

Natural England. 2012. Technical Information Note TIN138:Common tern: species information for marine Special Protection Area consultations.

SNCBs. 2022. Joint SNCB Interim Advice On The Treatment Of Displacement For Red-Throated Diver (2022)