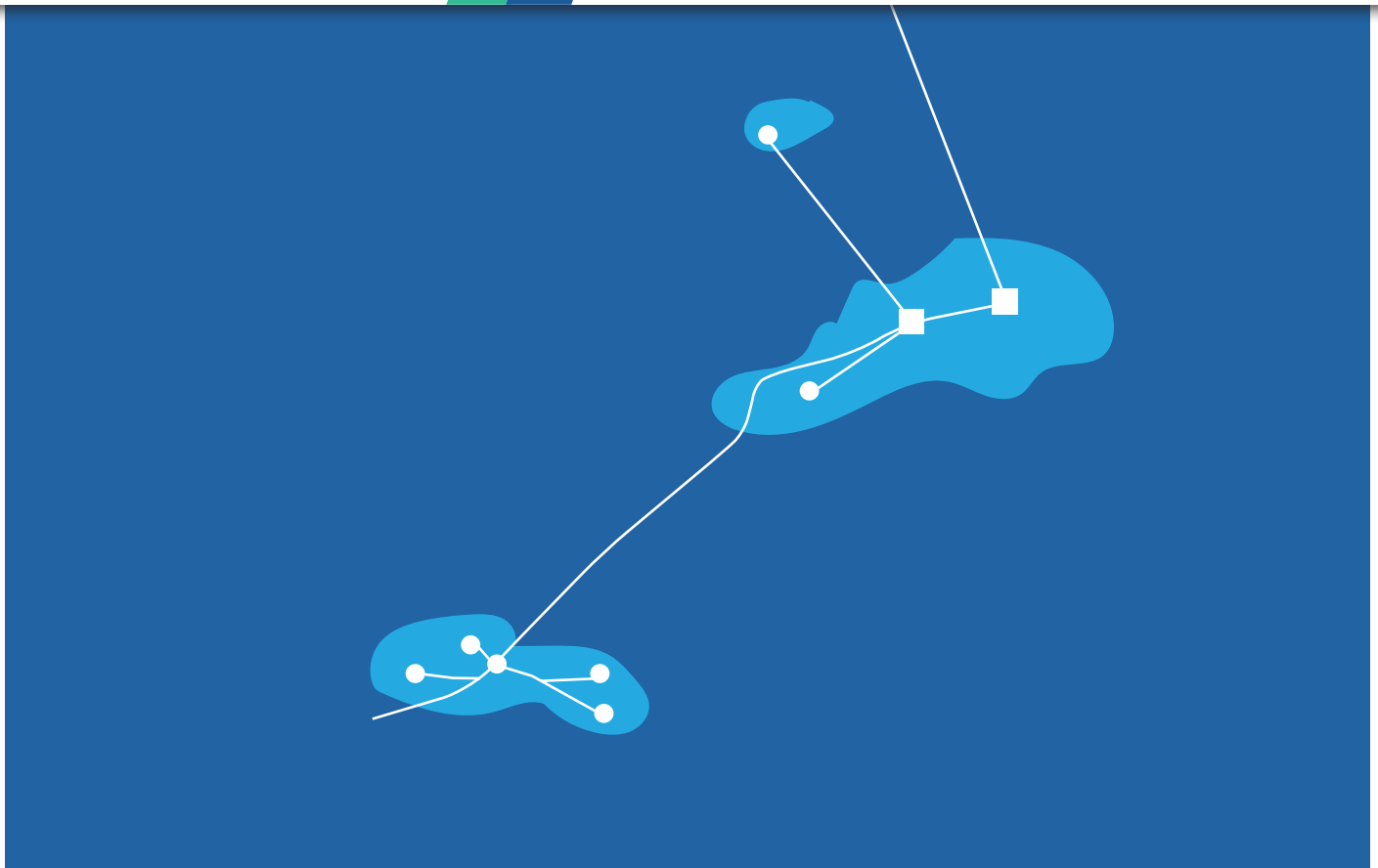
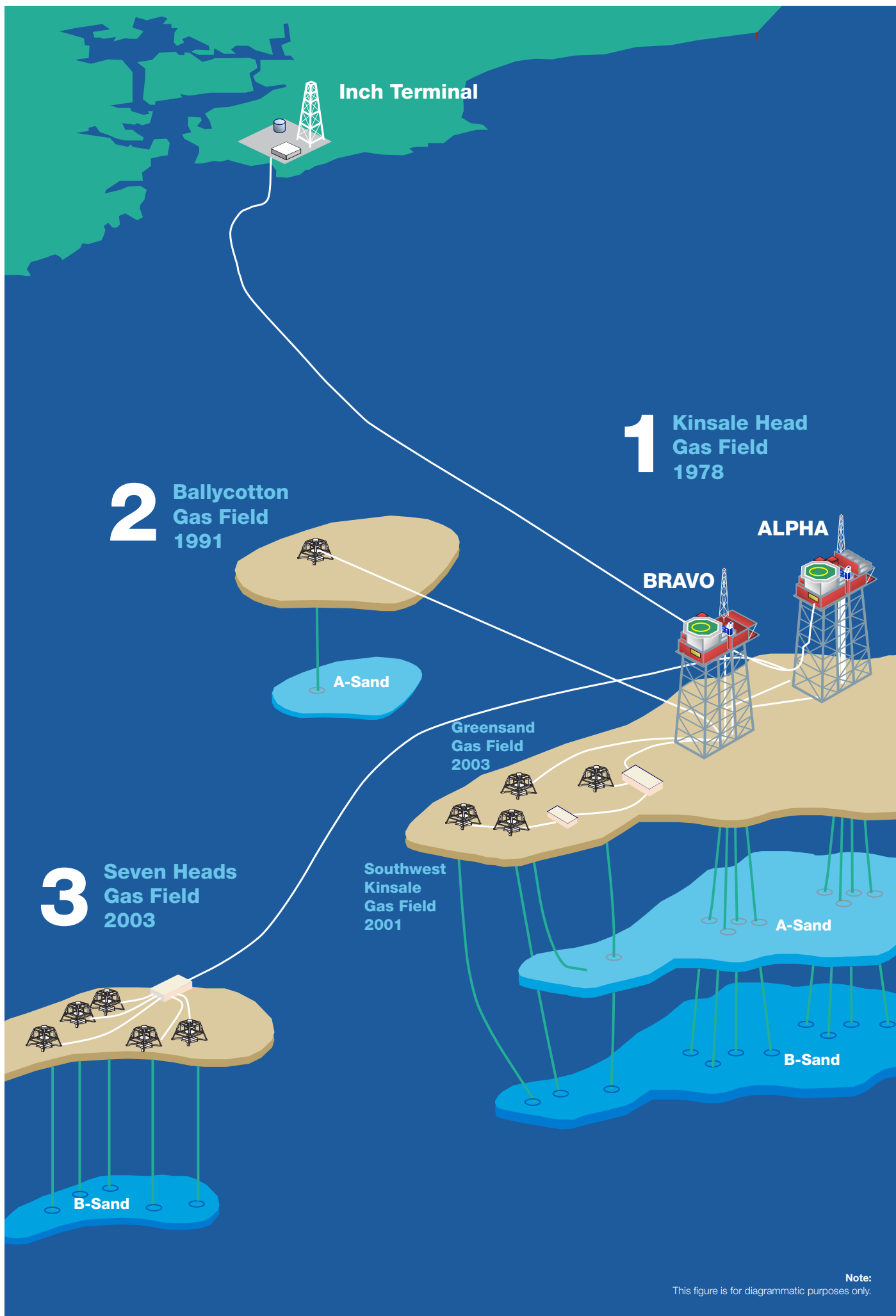




Kinsale Area Decommissioning
**Appropriate Assessment
Screening and Article 12
Assessment Screening
Addendum**





Note:
This figure is for diagrammatic purposes only.

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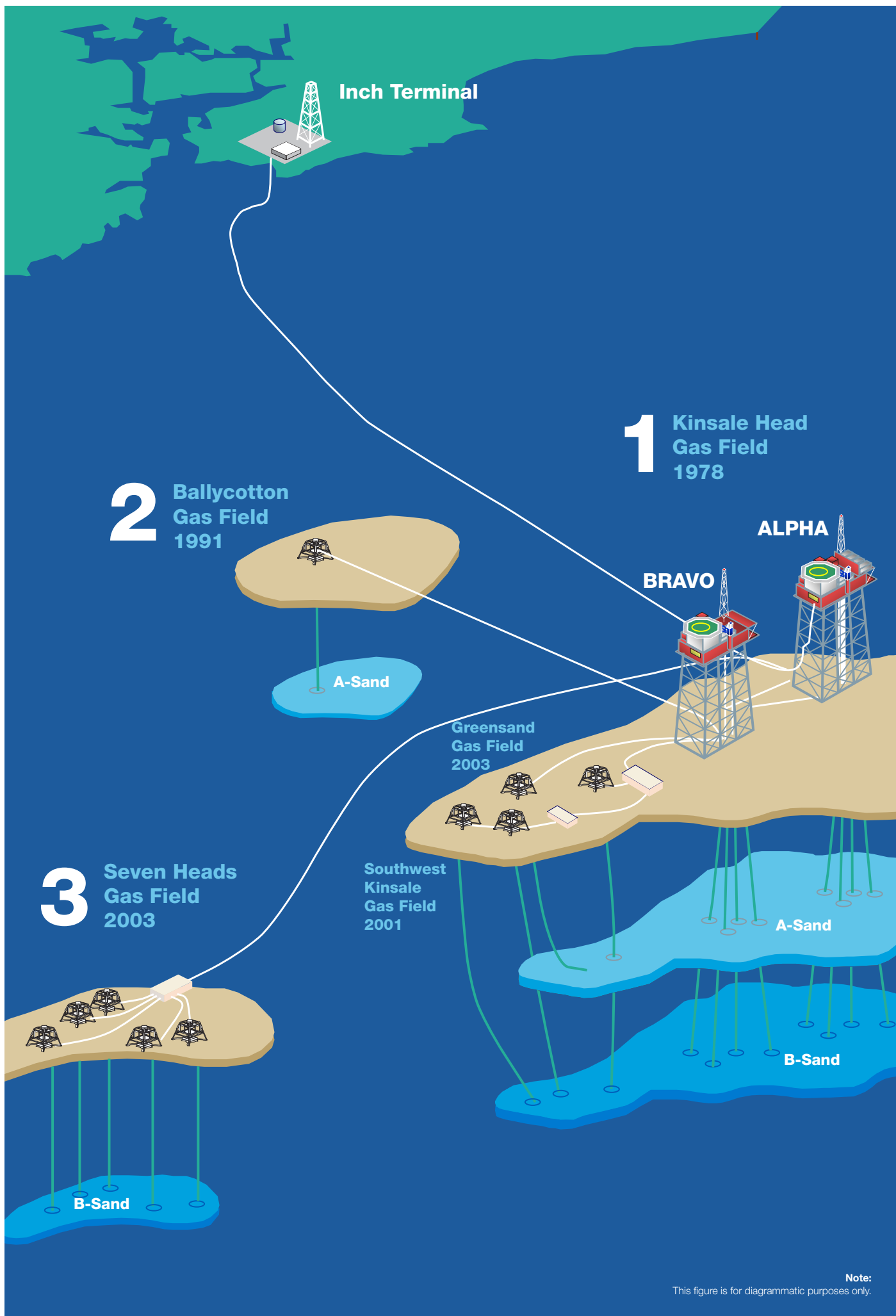
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Appendices

Appendix A

Natura 2000 Site Initial Screening (as part of the RFI responses to Consent Application No. 1)

Glossary of Terms



Note:
This figure is for diagrammatic purposes only.

Glossary of Terms

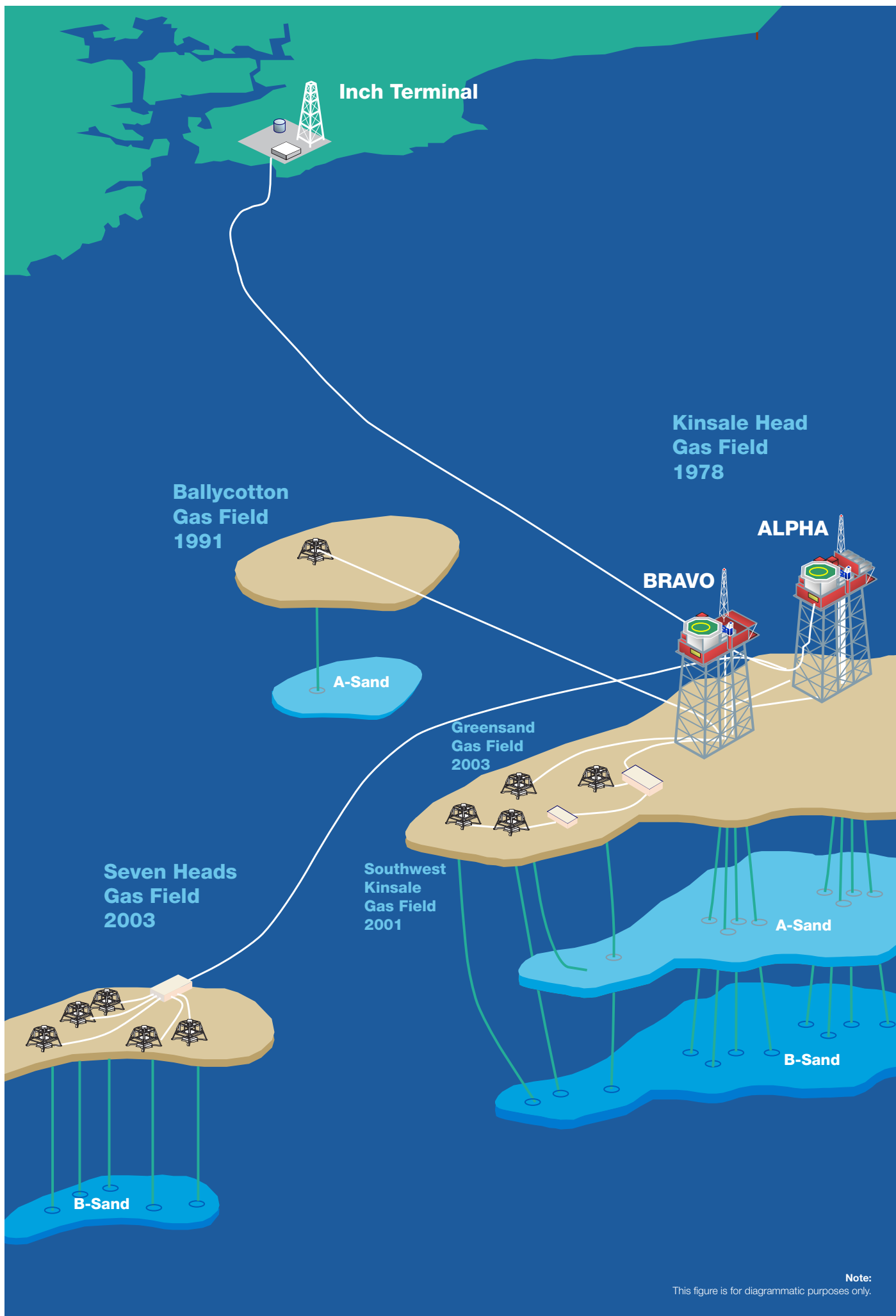
Term	Explanation
AA	Appropriate Assessment
ALARP	As Low As Reasonably Practicable
AHV	Anchor Handling Vessel
Buoyancy tank	An enclosed air-filled section of a boat or ship designed to keep it afloat and prevent it from sinking
Bunkering	Supply of fuel for use by ships in a seaport
CA	Comparative Assessment
Cantilever	Structural element anchored at only one end to a support from which it is protruding
CCS	Carbon Capture and Storage
Concrete mattress	A series of concrete blocks usually connected by polypropylene ropes resembling a rectangular mattress, used for the weighting and/or protection of seabed structures including pipelines
CoP	Cessation of Production: the stage at which, after all economic development opportunities have been pursued, hydrocarbon production ceases.
CRU	Commission for Regulation of Utilities
CSV	Construction Support Vessel
DAA	Dublin Airport Authority
DCCAE	Department of Communications, Climate Action and Environment
DCENR	Department of Communications, Energy and Natural Resources
DECC	Department of Energy & Climate Change (UK)
Decommissioning	Planned shut-down or removal of a building, equipment, plant, offshore installation etc., from operation or usage offshore.
Diesel	A low viscosity distillate fuel
DSV	Diving Support Vessel
DTTAS	Department of Transport, Tourism and Sport
ER	Environmental Report
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
FEAS	Marine Institute's Fisheries Ecosystems Advisory Services
Flowline	Pipeline carrying unprocessed oil/gas within the oil or gas field area
Freespan	A free span on a pipeline is where the seabed sediments have been eroded, or scoured away leaving a void under the pipeline so that the pipeline is no longer supported on the seabed
Grout	Particularly fluid form of concrete used to fill gaps, generally a mixture of water, cement, and sand
HES	Health, Environment and Safety
HFCs	Hydrofluorocarbons

Term	Explanation
HWM	High Water Mark
HLV	Heavy-Lift Vessel
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities
IMO	International Maritime Organisation
<i>In situ</i>	In the original place.
Interconnector	Structure which enables energy to flow between networks, refers to international connections between electricity and natural gas networks
IOSEA	Irish Offshore Strategic Environmental Assessment
IWDG	Irish Whale and Dolphin Group
Jacket	The structure comprising the “legs” of the offshore platform connected together by horizontal and diagonal trusses and usually made of welded tubular steel. The jacket is typically secured to the seabed by piles
KA	Kinsale Alpha platform
KADP	Kinsale Area Decommissioning Project
KB	Kinsale Bravo platform
KPIs	Key Performance Indicators
km	Kilometre: 1,000m, equivalent to 0.54 nautical miles
LPP	Layer Polypropylene
Manifold	A pipe or chamber branching into several openings.
MARPOL	The International Convention for the Prevention of Pollution from Ships
MRCC	Marine Rescue Co-ordination Centres
Natura 2000 sites	Natura 2000 is a network of nature protection areas in the territory of the European Union. It is made up of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) designated respectively under the Habitats Directive and Birds Directive.
NIS	Natura Impact Statement
nm	Nautical Mile (1852m = 1 minute of latitude = 1/60 degree of latitude)
NPWS	National Parks and Wildlife Service
NUI	Normally Unmanned Installation: an installation with minimal facilities which is not permanently crewed and is controlled from a remote location (e.g. other platform or shore)
OGUK	Oil & Gas UK
OSPAR	Oslo and Paris Convention
P&A	Plug and Abandon (wells)
PAD	Petroleum Affairs Division of the Department of Communications, Climate Action and Environment
PEP	Project Execution Plan
PETRONAS	Petroleum Nasional Berhad
PLEM	Pipeline End Manifold

Term	Explanation
PSV	Platform Supply Vessel
PUDAC	Permit to Use or Discharge Added Chemicals
ROV	Remotely Operated Vehicle: a small, unmanned submersible used for inspection and the carrying out of some activities such as valve manipulation
SAC	Special Area of Conservation: established under the Habitats Directive
Seafastening	Action of fastening/securing cargoes on ship with the aim of preventing them from movement while the ship is in transit
Semi-submersible rig	A floating mobile drilling rig supported on a number of pontoons, and typically anchored to the seabed while on station
SFPA	Sea Fisheries Protection Authority
Shears	Cutting instrument in which two blades move past each other
SPA	Special Protection Area: established under the Birds Directive
Subsea manifold	Large metal piece of equipment made up of pipes and valves, designed to transfer oil or gas
SWK	South West Kinsale
TEG	Triethylene Glycol
Tie-backs	Link between a satellite field and an existing production facility
Topsides	The collective name for the many drilling, processing, accommodation and other modules which when connected together make up the upper section of the platform which rests on the jacket
Umbilical	Cable and/or hose which supplies required electrical power and chemicals for subsea well control
WDC	Western Drill Centre
Wet Gas	Any gas with a small amount of liquid present

Section 1

Introduction



Note:
This figure is for diagrammatic purposes only.

1 Introduction

1.1 Introduction and Background

PSE Kinsale Energy Limited (Kinsale Energy) is preparing for the decommissioning of the Kinsale Area gas fields and facilities (incorporating the Kinsale Head gas fields and facilities and the Seven Heads gas field and facilities), which are coming to the end of their productive life. Together the decommissioning of the entirety of the Kinsale Area gasfields and facilities is collectively referred to as the Kinsale Area Decommissioning Project (KADP).

Pursuant to Section 13 of the Petroleum and Other Minerals Development Act 1960 as amended (1960 Act), Kinsale Energy propose to submit Decommissioning Plans as addenda to the existing plans of development relevant to the Kinsale Area and Seven Heads Leases; which were submitted to and agreed with the then Minister under the terms of the Petroleum Leases under section 13 of the 1960 Act.

The entire KADP plan consists of:

- Facilities preparation: disconnect and degas process plant and pipelines (pipelines displaced with seawater, and inhibited seawater in the case of the 24" export pipeline).
- Wells: plug and abandon all platform and subsea wells and removal of any surface component of these wells, including wellhead structures and platform conductors.
- Platform topsides: complete removal in accordance with OSPAR Decision 98/3.
- Subsea structures: (e.g. manifolds, wellhead protection structures): full removal in accordance with OSPAR Decision 98/3, including the removal of connecting spool pieces, umbilical jumpers and protection materials.
- Platform jackets: complete removal in accordance with OSPAR Decision 98/3.
- Offshore pipelines and umbilicals: rock cover of freespans and/or remaining exposed sections and remaining in situ protection materials.
- Export pipeline (offshore and onshore section): fill onshore section with grout (if a viable re-use option is not identified) and rock cover of freespans and/or remaining exposed sections in offshore section.
- Decommissioning the Inch Terminal (full removal and reinstatement to agricultural use, as per the terms of the site planning permission, Cork County Council planning reference 2929/76).

To reflect project scheduling requirements and to facilitate studies on the potential for any re-use options for the Kinsale Area facilities, a two stage consent application process for the Decommissioning Plans was originally proposed by Kinsale Energy. Decommissioning Plans covering the first stage (Consent Application No. 1) were submitted on 28th June 2018 covering the following works:

- Facilities preparation: disconnect and degas process plant and pipelines (pipelines displaced with seawater, and inhibited seawater in the case of the 24" export pipeline and the 18" Seven Heads pipeline).

- Wells: plug and abandon all platform and subsea wells and removal of any surface component of these wells, including wellhead structures and platform conductors.
- Platform topsides: complete removal in accordance with OSPAR Decision 98/3.
- Subsea structures: (e.g. manifolds, wellhead protection structures): full removal in accordance with OSPAR Decision 98/3, including the removal of connecting spool pieces, umbilical jumpers and protection materials.

A subsequent application was proposed to cover the remaining offshore works required to complete the KADP. A separate planning application will be made for the decommissioning of the onshore gas terminal at Inch.

In accordance with Section 13A of the 1960 Act, an Appropriate Assessment Screening Report (“**AA Screening Report**”) is required to accompany the Decommissioning Plans, in accordance with the provisions of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended). The AA Screening Report informs and assists the competent authority, the Minister for Communications, Climate Action and the Environment (the “**Minister**”), in carrying out its screening for Appropriate Assessment as to whether or not the Project is likely to have any significant impacts on any European sites, either alone or in combination with other plans and projects, taking into account their conservation objectives in light of the best scientific knowledge in the field. Accordingly, an AA Screening Report was submitted with Consent Application No. 1.

Following a request for further information from the Minister, and a second request for supplementary information, both of which were formally responded to by Kinsale Energy, Ministerial consent for Consent Application No. 1 was received on 26th April 2019.

1.2 Updated Consent Application Process

Subsequent to the above consent being granted, and following ongoing discussions with potential users of the facilities and information received from potential decommissioning contractors, it has become apparent that there is no viable option for future re-use of the platform jackets. However, there are ongoing studies by others which may result in a future re-use of one or more of the subsea pipelines. To allow these studies to be concluded, it is proposed that Consent Application No.2 will consist of the decommissioning of the platform jackets only. Consent Application No.2 incorporates the conditions stipulated in Consent Application No.1, where relevant.. The pipelines and associated umbilicals will be included in a future application or applications, as required. The scope of work to be covered by this and future applications is therefore:

- **Works covered in Consent Application 2:**
 - **Platform jackets:** complete removal in accordance with OSPAR Decision 98/3.
- **Works covered in future applications:**
 - **Offshore pipelines and umbilicals:** rock cover of freespans and/or remaining exposed sections and remaining *in situ* protection materials.
 - **Export pipeline (offshore and onshore section):** fill onshore section with grout (if a viable re-use option is not identified) and rock cover of freespans and/or remaining exposed sections in offshore section.

1.3 Document Purpose and Scope: Screening for Appropriate Assessment and Article 12 Addendum

This AA Screening Addendum (“**AA Screening Report Addendum**”) has been produced to accompany the AA Screening Report, to reflect the additional information provided to the Minister on 14th November 2018 and 12th December 2018 during the Consent Application No. 1 process, and additional relevant environmental information which has been published in the interim. This document should be read in conjunction with the **AA Screening Report** which has also been submitted as part of this consent application.

The legislation and guidance documents previously described or listed in the AA Screening Report (**Section 2**), and the description of the project (**Section 3**) are unchanged, and so are not described again in this document. Additionally, those sites previously identified as relevant to the assessment, their status, and related information such as conservation objectives, have not changed, nor have any new relevant Natura 2000 sites been proposed or designated.

Consistent with the AA Screening Document for the KADP submitted as part of Consent Application No. 1, this addendum has been produced to cover all staged consent applications, for both the Kinsale Head gas fields and Seven Heads gas field. Alongside the AA Screening Report, this AA Screening Report Addendum contains the information required by the consenting authority, the Minister, to undertake screening to determine if a full Appropriate Assessment (AA) of the KADP is required.

The addendum AA screening information is presented in this report as follows:

- AA Screening for likely significant effects (**Section 2**)
- AA Screening Statement (**Section 3**)

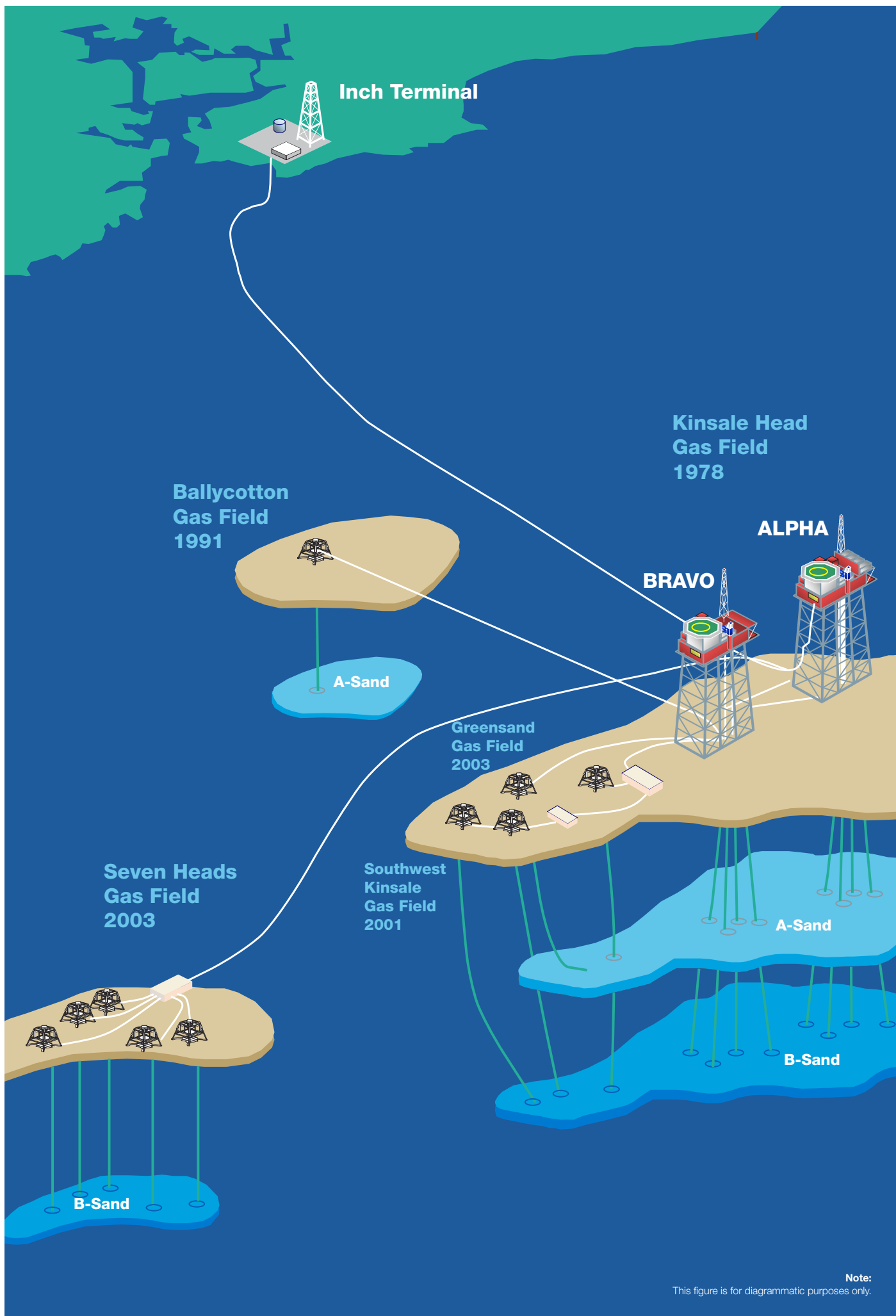
Addendum information to the AA Screening Report has also been provided which is relevant to the consideration of the potential effects on species listed under Annex IV of the Directive (termed Annex IV species). Addendum Annex IV Species screening information is presented in this report as follows:

- Screening for effects on Annex IV Species (**Section 4**)
- Article 12 Screening Conclusions (**Section 5**)

The screening assessments will consider the potential for significant effects to be caused by activities associated with the KADP in relation to both relevant Natura 2000 sites and Annex IV species, but only in the context of the updated environmental information referred to above.

Section 2

AA Screening for Likely Significant Effects



2 AA Screening for likely significant effects

2.1 AA Screening for likely significant effects

As noted in Section 1, no new Natura 2000 sites have been proposed or designated within the Zone of Influence (Zol) previously described in Sections 4.1 and 4.2 of the AA Screening Report.

2.2 Identification of Potential Sources of Effects

This section assesses the likelihood for significant negative direct, indirect and in-combination effects to the qualifying interests of relevant Natura 2000 sites based on those methods previously presented and in the context of the updated information that was provided as part of the RFI responses to Consent Application 1 in 2018 (see Section 2.3 below), and any new information which has since become available in relation to potential in-combination effects (see Section 2.4 below). Those main sources of potential effect relevant to the Natura 2000 sites and their qualifying interests remain the same:

- the physical presence of vessels in field and in transit;
- underwater noise from vessels, cutting, rock placement and post-decommissioning survey (note that no explosive cutting is proposed);
- physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement;
- discharges to sea;
- accidental events;
- waste recycling, reuse and disposal;
- atmospheric emissions;
- noise associated with the demolition of Inch terminal; and
- dust emissions associated with the terminal demolition works.

2.3 Clarification on the Consideration of Potential Effects

All of the relevant sites within the Zone of Influence (Zol), as defined using a precautionary approach in **Section 4 of the AA Screening Report**, along with their qualifying interests and conservation objectives are shown in Appendix A. In line with the response to the Request for Information of 30th November 2018, an assessment is made for each site of the impact pathways between activities associated with the proposed KADP and the qualifying interests, and whether, in view of the site's conservation objectives, KADP activities represent a source of likely significant effect that needed to be considered further. The tabulation in Appendix A documents this assessment and the reasoning why certain sites were not considered further beyond their identification as being within the Zol, and why certain sites were subject to

assessment in Section 5 of the AA Screening document. The output of this exercise is documented in Appendix A, and is summarised in Table 1 below ⁶.

As discussed in Section 5.1 of the AA Screening, a number of activities were not considered further as they did not represent a source of likely significant effect for Natura 2000 sites. These included:

Physical Disturbance:

The collective direct physical disturbance which could result from the decommissioning activities is estimated to be small (between 0.46-0.75km²)⁷, and confined to locations relating to rig and heavy lift vessel (HLV) anchoring, and platform and other subsea infrastructure removal or remediation.

- As these activities do not take place within any Natura 2000 sites, and are ~8km distant from the nearest site designated for Annex I seabed habitat (Great Island Channel SAC), it is considered that any interaction can be discounted as the distance of any effect that could be generated by physical disturbance and therefore its footprint is considerably smaller than the distance to the nearest site (for example refer to **Section 7.4 of the Environmental Impact Assessment Report**. It is, therefore, not considered that physical disturbance will result in a likely significant effect for any relevant site.
- Moreover, it should be noted that all recent benthic sampling and photographic surveys in the Kinsale Area have been consistent in reporting no indication of sensitive species or habitats which would be subject to protection under the EU Habitats Directive (92/43/EEC) i.e. Annex I habitats. Thus, potential impacts from the physical disturbance of the seabed are not considered further in this assessment.

Waste Recycling, Reuse and Disposal

- Wastes generated by the KADP will be managed in accordance with the relevant waste legislation requirements and recovered or disposed of in appropriate licensed waste facilities and will not cause a significant impact on Natura 2000 sites.

Atmospheric Emissions

- Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. However, the overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on Natura 2000 sites.

⁶ Also see Kinsale Energy response to request for further information as part of the Consent Application No. 1 process: <https://www.dccae.gov.ie/en-ie/natural-resources/topics/Oil-Gas-Exploration-Production/environment/statutory-consents/ministerial-decisions/decommissioning-kinsale-head-and-seven-heads-facilities/Pages/Decommissioning%20Kinsale%20Head%20and%20Seven%20Heads%20Facilities.aspx>

⁷ This figure is based on the range of potential decommissioning options, and includes physical disturbance resulting from rig and HLV anchoring, platform removal, pipeline end and spool removal, removal of protection materials and subsea structures, and that from rock placement – refer to the KADP Environmental Report for more information.

Accidental Events arising from the terminal demolition

- Prior to the commencement of demolition works, the terminal will be rendered hydrocarbon and chemical free and the facility will be disconnected from the power grid. Accidental events arising from the terminal demolition works are therefore not envisaged. The likelihood that an uncontrolled release of contaminated surface water during the terminal demolition works could cause a significant impact on Natura 2000 sites is considered not feasible given that the activities proposed are standard in nature and well understood, the volumes are small, and given the distance to the closest Natura 2000 site.

Note that the five sites highlighted in Table 1 have already been considered in the AA Screening Report. Additional information was supplied in response to the Request for Information of 24th September 2018 which was relevant to two of the SPAs within the Zol in relation to two activities associated with the KADP (see Table 2 below). These material updates to the assessment text are presented in Sections 2.3.1 and 2.3.2 below.

Table 1: Relevant sites within the Zol appraised for AA screening

Site code	Site name	Site considered further in AA screening
SACs		
002123	Ardmore Head SAC	No
000077	Ballymacoda (Clonpriest & Pillmore) SAC	No
001040	Barley Cove to Ballyrisode Point SAC	No
002170	Blackwater River SAC	Yes
000091	Clonakilty Bay SAC	No
001230	Courtmacsherry Estuary SAC	No
001058	Great Island Channel SAC	Yes
000665	Helvick Head SAC	No
000764	Hook Head SAC	No
001061	Kilkeran Lake and Castlefreke Dunes SAC	No
000097	Lough Hyne Nature Reserve and Environs SAC	No
002162	River Barrow & River Nore SAC	No
000101	Roaringwater Bay and Islands SAC	Yes
000671	Tramore Dunes and Backstrand SAC	No
002171	Bandon River SAC	No
SPAs		
004022	Ballycotton Bay SPA	No
004023	Ballymacoda Bay SPA	No
004028	Blackwater Estuary SPA	No
004081	Clonakilty Bay SPA	No
004030	Cork Harbour SPA	Yes

Site code	Site name	Site considered further in AA screening
SACs		
004219	Courtmacsherry Bay SPA	No
004032	Dungarvan Harbour SPA	No
004190	Galley Head to Duneen Point SPA	No
004192	Helvick Head to Ballyquin SPA	No
004193	Mid-Waterford Coast SPA	No
004021	Old Head of Kinsale SPA	Yes
004191	Seven Heads SPA	No
004156	Sheep's Head to Toe Head SPA	No
004124	Sovereign Islands SPA	No
004027	Tramore Back Strand SPA	No

Table 2: Source of Potential Effects and Receptors

Facility	Decommissioning Option Assessed	Activity/Source of Potential Impact	Receptors relevant to Irish Natura 2000 Sites and the Identified Source of Potential Impact	Relevant Natura 2000 sites	Assessed in:
Future Consent Applications					
Pipelines, Umbilicals and protection materials	Leave In-situ	Physical presence: decommissioning operations Physical presence in field and in transit of vessel	Birds	Cork Harbour SPA (approx. 4km away)	Section 2.3.1
		Underwater Noise and vibration Underwater noise from vessels including DP and rock placement	Birds	Cork Harbour SPA (approx. 4km away) Old Head Kinsale SPA (approx. 25km away)	Section 2.3.2

2.3.1 Physical Presence

Table 3: Sources of physical presence – relevant updates

Facility	Activity/Source of Potential Effect
• Future Applications	
Pipelines and umbilicals	Physical presence in field and in transit of vessels, mainly rock fall-pipe vessel and post-decommissioning survey vessel

Birds (information previously included in RFI 2 response)

Cork Harbour SPA is ~4km from the offshore export pipeline though is between 37km (subsea wells and other structures) and 50km (offshore platforms) from the wider Kinsale Area. Amongst other species (see **Section 5.2.1 of the AA Screening Report**), the site contains cormorant, a coastal species judged to be highly sensitive to disturbance by shipping (Garthe & Hüppop 2004). From a review of available information on seabird foraging ranges, Thaxter *et al.* (2012) present the maximum foraging range for great cormorant as 35km, the mean maximum as 25km (± 10 km), and the mean as 5.2km (± 1.5 km). As a coastal species, much of their foraging movement will occur parallel to the coast rather than far offshore, which, when combined with our understanding of their foraging ranges from colonies, suggests that their occurrence in the vicinity of the Kinsale Area is likely to be minimal. A recent modelling study (Critchley *et al.* 2018) combined seabird colony counts with a distance-weighted foraging radius to produce predicted foraging ranges of 25 species breeding in Britain and Ireland; mapped outputs highlight the coastal distribution of cormorants with predicted densities decreasing to near zero at distances of 25-30km offshore. Therefore, the only pathway for potential effects on great cormorant qualifying features of Cork Harbour SPA is that of vessel disturbance associated with pipeline works close to shore and vessel movements between the KADP area and adjacent ports, which represent a very small proportion of the overall decommissioning programme. As noted in the AA Screening Report, this small increase in vessel traffic within the wider area and context of existing vessel traffic is anticipated to cause no more than temporary and localised disturbance to a small proportion of the qualifying features, and will not result in a likely significant effect on the Cork Harbour SPA.

2.3.2 Underwater Noise and Vibration

Table 4: Sources of noise and vibration – relevant updates

Facility	Activity/Source of Potential Effect
• Future Applications	
Pipelines and umbilicals	Underwater noise from vessels including DP and rock placement

Birds (information previously included in RFI 2 response)

Rock placement activities will periodically generate underwater noise of short duration, with source levels of up to 170 dB re 1 μ Pa@1m which are unlikely to be readily discernible over the noise generated by associated vessels in the area (e.g. see Nedwell & Edwards 2004, Pangerc *et al.* 2016, Molvaer & Gjestland 1981).

The overall estimated vessel times for the pipeline, umbilical and protective material decommissioning, which includes rock placement, is variable at between 16 and 104 days. This range of potential timescales can be attributed to the options to either place rock on the pipeline ends and freespans (16 days) or to place rock on pipeline ends and all exposures (104 days). Active rock placement is estimated to take 5 and 51 days respectively (6.25 and 63.75 days with 25% contingency) for these options, with the remaining activity associated with vessel mobilisation and demobilisation (i.e. portside activities) and transit to the areas to be subject to rock placement. Much of the rock placement activity would take place a significant distance offshore at pipeline and umbilical ends and along infield pipelines, and depending on the selected option up to approximately 34 days could be spent placing rock on the export pipeline.

The precise timing of the rock placement activities is not yet known. Although it is more likely to take place in summer where favourable sea-states are more common, for the purposes of this assessment, and consistent with that presented in the accompanying Environmental Impact Assessment Report (EIAR), it is assumed that it may take place at any time of year. Seasonal variation in bird species and densities occurs both at the coast (e.g. resident and visiting seabird attendance at colonies during the summer breeding season and the presence of overwintering and on-passage waterbirds) and at sea (e.g. during breeding season foraging and post-breeding seabird dispersal). Relevant species are reflected as qualifying features of the majority of the sites listed in **Table 4.1 of the AA Screening Report** (also see Appendix A), the closest being Cork Harbour SPA which is approximately 4km from the export pipeline, and contains a range of breeding seabird and overwintering waterbird features. In relation to the potential effects of noise from the KADP, and specifically rock placement, it is considered that diving seabirds are most exposed (e.g. guillemot, razorbill, puffin), with the closest site of relevance being Old Head of Kinsale SPA (at least 25km distant). Other relevant species such as grebes and redbreasted merganser (Cork Harbour SPA) are coastal features, and with the exception of Cork Harbour SPA (~4km), relevant sites are at least 32km from any of the works associated with the KADP.

For context, while several studies have reported mortality of diving birds in close proximity (i.e. tens of metres) to underwater explosions (Yelverton *et al.* 1973, Cooper 1982, Stemp 1985, Danil & St Leger 2011), mortality of seabirds has not been observed during extensive seismic operations in the North Sea and elsewhere. The noise produced by vessels associated with the KADP will be very substantially lower than such activities, and noise from rock placement is unlikely to be readily discernible over the noise generated by associated vessels in the area. Any incremental effect on diving bird species would therefore be temporarily additive to existing levels of shipping in the area, for example commercial ships, ferries, trawlers etc. which operate on a year-round basis (as indicated in **Section 4.5.2 of the EIAR**, also see below).

Data relating to the potential behavioural disturbance of diving birds due to underwater noise are very limited.

As noted in **Section 5.2.2 of the AA Screening Report**, an understanding of hearing sensitivity for a range of diving duck species, red-throated diver and gannet (see Crowell *et al.* 2015) suggests a low potential for disturbance from vessel noise. While seabird responses to approaching vessels are highly variable among species, flushing disturbance would be expected to displace most diving seabirds from close proximity to vessels, particularly among species more sensitive to visual disturbance such as divers and cormorant (Garthe & Hüppop 2004), limiting potential interactions.

In view of the seasonal variation of birds likely to be present in the Kinsale area, there is a greater potential for interaction across a range of species and behaviours from a lengthier rock placement programme of works. It can, however, be concluded that this seasonal variation will not contribute to the generation of a likely significant effect for any qualifying species of sites within the Zone of Influence. This is because of: vessel noise from rock placement activities is the main source of potential effect and significant effects are not predicted; the low potential for either mortality or significant disturbance during the breeding and non-breeding season from vessel activity, and; the minor increment of a vessel in transit or engaged in rock placement for up to 104 days in context of the wider annual vessel traffic levels.

Shipping activity in the vicinity of the KADP was described in **Section 4.5.2 of the EIAR** and is expanded and updated here. There are no IMO adopted routing measures present in the Kinsale area which mark definitive shipping lanes. However, general navigation routes are explained in Admiralty sailing directions for the area and are also visible within Automatic Identification System (AIS) data for the region.

The Celtic Sea has a comparatively low level of shipping compared with the western Irish Sea which includes busy routes and approaches to Dublin, Wexford and Dundalk, in addition to major routes northward towards the North Channel. A shipping study based on Automatic Identification System (AIS) data completed for IOSEA4 (DCENR 2011) indicated that generally up to 300-750 vessels per year were present in waters off the south coast of Ireland and in the vicinity of the Kinsale Area. Highest vessel numbers (≥ 700 vessels per year) were recorded for a route connecting Cork harbour to the northern end of the IMO traffic separation scheme immediately off the coast of the UK (Cornwall), and which passes some 10km to the north east of the Kinsale Area (see other data sources including MMO 2014 and subsequent data updates, and EMODnet 2019). Other routes visible in the AIS data connecting to Cork harbour are generally coastal and with a frequency of 300-750 vessels per year. Numbers are in the order of 50-300 vessels per year over the Kinsale Area; only authorised vessels are permitted within the exclusion zones around the platforms. In view of the small number of vessels involved and for short time periods of activity both offshore in the Kinsale Area and along the export pipeline route, when taken in the context of existing levels of vessel traffic, significant effects on birds which are qualifying interests of relevant SPAs are not considered to be likely.

2.3.3 Dust Emissions Associated with the Terminal Demolition Works

It was noted in the AA Screening Report that no significant effects were predicted on any SPA or SAC (the closest being Cork Harbour SPA and Great Island Channel SAC) from dust generated from the terminal demolition works.

Statutory controls and industry best practice, including a dust minimisation plan were referred to, but these are used for general environmental management on construction sites to avoid nuisance for workers/local residents, and do not constitute any form of mitigation for the purposes of avoiding any effect on a relevant site. The inclusion or otherwise of a dust management plan has no impact on the findings of the AA Screening Report.

Given the size and scale of the proposed works, the results of the bird surveys undertaken at the onshore terminal site and the distance from the Cork Harbour SPA, there will be no significant impacts on the qualifying bird species as a result of the demolition of the Inch terminal. Similarly, given the size of the existing terminal and the

localised and temporary nature of the demolition works, together with the distance of the site from Great Island Channel SAC, there will be no significant impact on the relevant qualifying interests from the demolition of the Inch terminal.

2.4 Consideration of Potential In-Combination Effects

No new projects or activities have been proposed since the publication of the AA Screening Report which are considered to be a source of potential in-combination effects either for the decommissioning of the offshore facilities or the Inch Terminal.

Some further definition of the Celtic Interconnector Project has become available with shortlisted cable landings at Ballinwilling Strand, Redbarn Beach, and Claycastle Beach although as concluded in the AA Screening Report, no in-combination effects with KADP activities are foreseen.

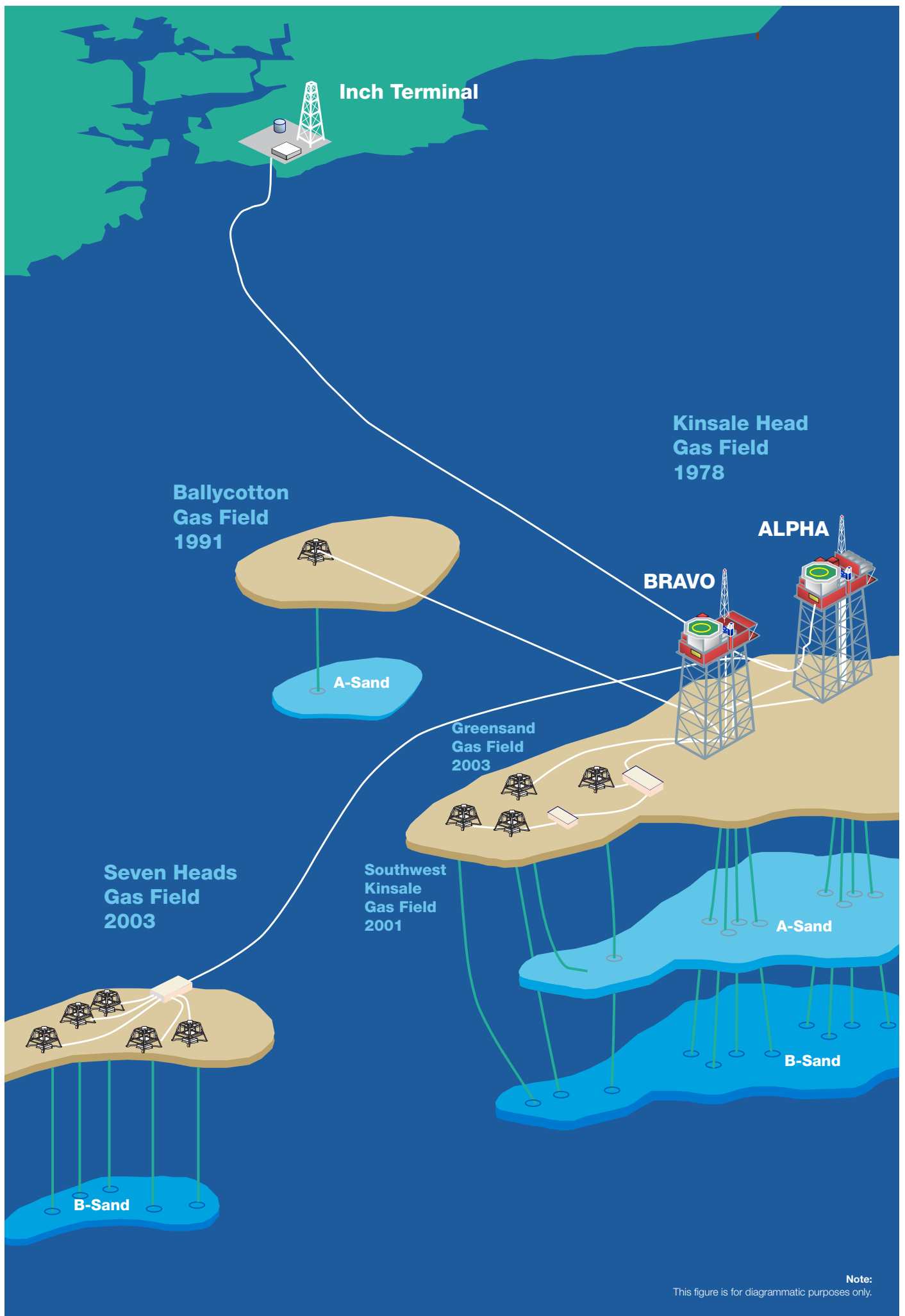
The Barryroe oil discovery and the potential for further exploration and development was acknowledged in the AA Screening Report. Since that time, an application has been made to conduct a site survey within the Barryroe licence area (EL 1/11). The application was submitted in February 2019 and consent was granted in July 2019. The temporary nature of the survey (16 days) and the proposed survey schedule (within April to November 2019, or February to November 2020), are such that interactions are not considered likely, as KADP activities associated with those sources of effect identified in Section 2.2 are primarily to take place in 2021-2022.

As noted in the AA Screening Report, while there are a number of exploration licence areas in the vicinity of the Kinsale Area, project plans for additional exploration are not known or are uncertain, and therefore no cumulative effects are predicted at this time.

It is concluded that no further sources of in-combination effect are available to assess, such that the conclusion of the AA Screening Report remains unchanged.

Section 3

AA Screening Statement and Conclusions



Note:
This figure is for diagrammatic purposes only.

3 AA Screening Statement and Conclusion

The activities associated with the proposed KADP (see Section 3 of the AA Screening Report) are not considered to result in likely significant effects (alone or in-combination) on the Conservation Objectives of any relevant Natura 2000 site within the Zones of Influence considered. This is in view of:

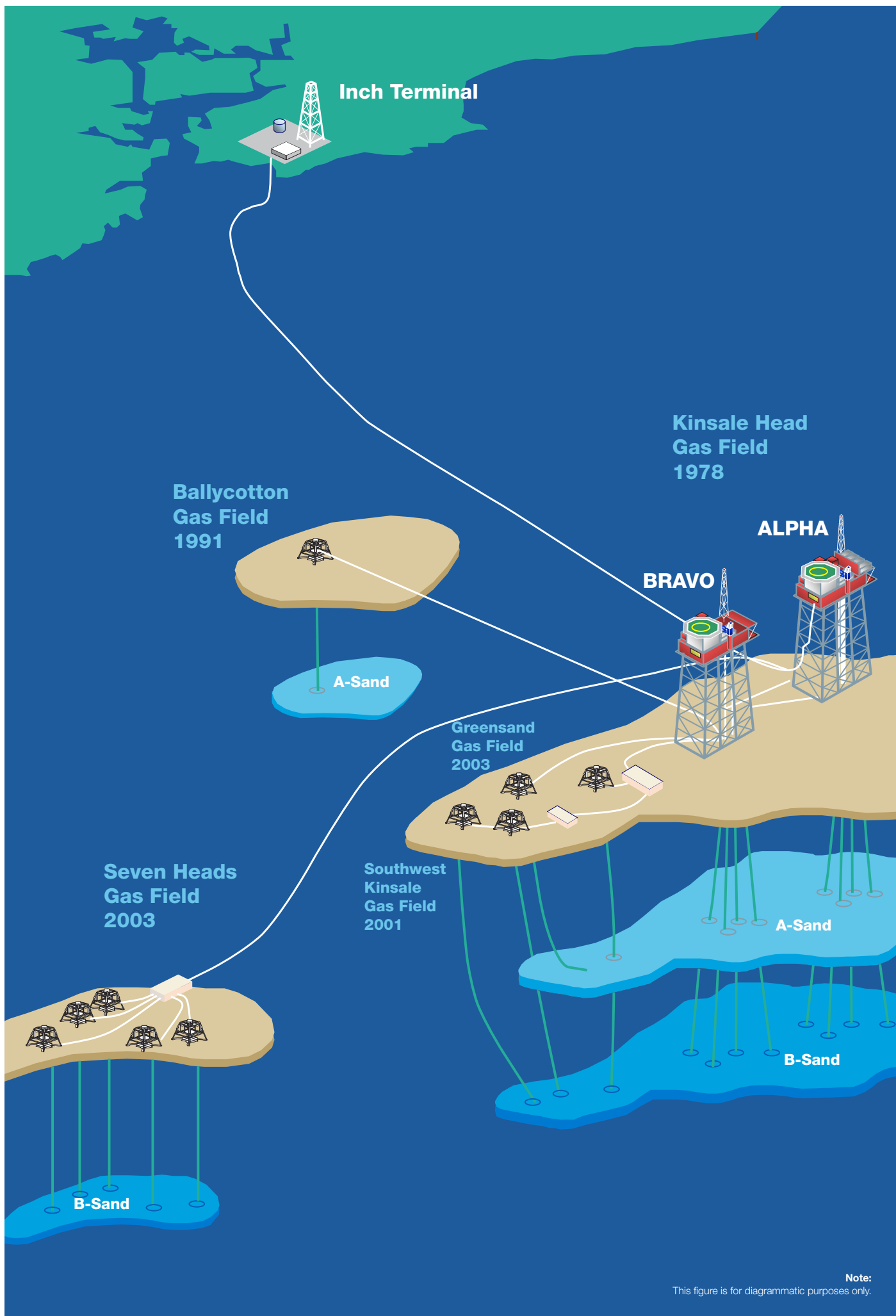
- the assessment presented in the AA Screening Report,
- that information and additional assessment presented in Section 2 which reflects relevant updates provided as part of Consent Application No. 1,
- additional information including in relation to in-combination effects with other plans and programmes, which were not found to be a source of likely significant effect.

Consistent with the AA Screening Report, the additional assessment made in this addendum has not taken into account any mitigation measures designed to avoid or reduce the harm of the project on any site.

In light of the findings of the AA Screening Report, when considered in the context of the information presented in this addendum, it is concluded that it is not considered necessary to undertake any further stage of the Appropriate Assessment process. The competent authority will make the final determination in this regard.

Section 4

Annex IV Species Screening for Likely Effects



Note:
This figure is for diagrammatic purposes only.

4 Annex IV Species Screening for Likely Effects

4.1 Introduction

Updated environmental information is available for some relevant Annex IV Species, which is presented below.

4.1.1 Cetaceans

There are two main surveys/studies which have provided relevant data on marine mammals additional to that presented in the AA Screening Report: the 2018 annual Celtic Sea Herring Acoustic Survey (CSHAS) and the ObSERVE programme.

In the 2018 CSHAS, 88 hours of visual survey effort by dedicated marine mammal observers recorded a similar diversity and relative abundance of marine mammals as was recorded in previous years (O'Donnell et al. 2018). Common dolphins were observed throughout coastal and offshore waters, and were by far the most frequently sighted and numerous species (66 sightings, including a total of 893 individuals). Fin whales were the second most numerous (14 sightings, including a total of 20 individuals), and also observed in offshore waters and off the coast of Co. Waterford. Single sightings were recorded for each of harbour porpoise, bottlenose dolphin, humpback and minke whale.

As part of the ObSERVE programme, widespread aerial surveys of Ireland's offshore waters were conducted in both summer and winter seasons of 2015 and 2016 in order to investigate the occurrence, distribution and abundance of seabirds, cetaceans and other marine megafauna (Rogan et al. 2018). Offshore waters off the south coast of Ireland, including the Kinsale area, fell within Stratum 4 - a large area of 62,510km² extending from approximately 15-20km off the coast to the RoI/UK median line and shelf waters west to longitude 11°W. Stratum 8, which was only surveyed in summer and winter 2016, covered 9,506km² of coastal waters off the south and south-west coasts of Ireland. Cetacean sightings and abundance estimates within these two strata are summarised in Table 4.1.

For Stratum 4 (offshore), the abundance of bottlenose, common and unidentified dolphins was considerably higher in winter. The opposite was observed for harbour porpoise, which were by far the most abundant species recorded in Stratum 4 in summer. In Stratum 8 (coastal), both harbour porpoise and all species of dolphin showed higher abundance in summer. Minke whale abundance was estimated to be similar across two summer and one winter surveys, although the number of sightings was low. Within Stratum 8 (coastal), minke whales were not sighted in the winter survey, but observed 20 times in summer, with sightings clustered off the south-west coast.

Table 5: Cetacean sighting numbers and abundance estimates for waters south of Ireland from the ObSERVE aerial surveys in 2015 and 2016

Species & season	Stratum 4 (offshore)		Stratum 8 (coastal)	
	N groups (mean group size)	Abundance; density (CV)	N groups (mean group size)	Abundance; density (CV)
Harbour porpoise				
Summer 2015	41 (1.2)	14,190; 0.227 (27.4)	-	-
Winter 2015-16	11 (1.3)	3,752; 0.060 (41.3)	-	-
Summer 2016	42 (1.3)	14,196; 0.227 (37.2)	8 (1.6)	1,977; 0.208 (62.6)
Winter 2016-17	0 (na)	na	3 (1)	568; 0.060 (73.2)
Bottlenose dolphin¹				
Summer 2015	7 (6)	3,885; 0.062 (64.3)	-	-
Winter 2015-16	26 (2.9)	6,217; 0.098 (28.4)	-	-
Summer 2016	17 (4)	5,549; 0.088 (47.7)	39 (7.2)	11,266; 1.161 (59.9)
Winter 2016-17	91 (7.8)	58,647; 0.929 (22.3)	17 (3.8)	3,322; 0.342 (47.6)
Common dolphin and common/stripped dolphin²				
Summer 2015	3 (4.5)	2,554; 0.041 (73.8)	-	-
Winter 2015-16	45 (8.9)	40,027; 0.639 (51.5)	-	-
Summer 2016	0	na	5 (5.2)	1,319; 0.139 (45.5)
Winter 2016-17	0	na	2 (4.0)	779; 0.082 (76.0)
Risso's dolphin^{1, 3}				
Summer 2015	0	na	-	-
Winter 2015-16	1 (1)	40; 0.001 (101.6)	-	-
Summer 2016	2 (10)	809; 0.013 (94.8)	3 (7.7)	549; 0.057 (50.9)
Winter 2016-17	0	na	0	na
Unidentified dolphin¹				
Summer 2015	19 (4.9)	4,814; 0.076 (43.9)	-	-

Species & season	Stratum 4 (offshore)		Stratum 8 (coastal)	
	N groups (mean group size)	Abundance; density (CV)	N groups (mean group size)	Abundance; density (CV)
Winter 2015-16	92	27,348; 0.433 (39.0)	-	-
Summer 2016	27 (3.3)	4,982; 0.079 (37.2)	57 (6.2)	10,047 (45.0); 1.035
Winter 2016-17	107 (7.1)	38,413; 0.608 (20.9)	28 (3.5)	4,142 (41.4); 0.427
Minke whale				
Summer 2015	4 (1.0)	836 (66.6); 0.013	-	-
Winter 2015-16	4 (1.0)	751 (64.8); 0.012	-	-
Summer 2016	4 (1.0)	761 (63.3); 0.012	20 (1.0)	2,242 (66.1); 0.236
Winter 2016-17	0	na	0	na
Fin whale^{1, 3}				
Summer 2015	0	na	-	-
Winter 2015-16	0	na	-	-
Summer 2016	0	na	0	na
Winter 2016-17	0	na	1 (2.0)	33 (98.4); 0.003

Notes. 1. Abundance estimates for these species are uncorrected for detection probability and are therefore likely to be underestimates. 2. Includes a small number of sightings where the two species could not be differentiated; as Strata 4 and 8 are restricted to shelf waters and striped dolphins favour deeper waters, the values presented here can be assumed to be almost exclusively common dolphins. 3. The abundance estimates for Risso's dolphin and fin whale are based on very few sightings, are highly uncertain and should be interpreted with caution. Abundance estimates are rounded to the nearest whole number; CV rounded to 2 decimal places. Source: Rogan et al. (2018).

4.2 Screening for Effects on Annex IV Species

4.2.1 Identification of Potential Effects

The purpose of this section is to examine the possibility that the proposed KADP either individually or in combination with other plans and projects, may result in the deliberate disturbance or destruction of cetacean species listed in Annex IV of the Habitats Directive which may be present in the study area, with reference to the updated baseline information presented. Those potential sources of effect relating to the KADP identified in Section 2.1 are also regarded to be relevant to Annex IV species, and are considered below where relevant.

4.2.2 Consideration of Potential Effects

Potential sources of effects are discussed in the following sections in the context of Annex IV species for which interactions could not be discounted, but only in the context of information relating to updated baseline characterisation and effects assessment.

4.2.3 Physical Presence

The ObSERVE aerial survey data provide a greater level of quantification and seasonal information on cetaceans than was previously available for waters off the south coast of Ireland, including the Kinsale area. However, the general pattern of species composition and relative abundance is unchanged from that which was previously described and assessed in the Article 12 assessment as presented in the AA Screening Report (see Section 7.2.1 of that report). These new data confirm the high diversity of cetacean species which occur off the south coast of Ireland, along with the seasonal patterns for the area which previous data had suggested.

While providing an update to baseline understanding of marine mammal abundance in the Kinsale area, the results do not materially change the conclusions of the AA Screening Report, in relation to the potential for disturbance to marine mammals from vessels. These indicated that the physical presence of the decommissioning activities, including large, slow-moving vessels around areas of existing activity, and the temporary presence of anchored barges/rigs, would cause no more than temporary and localised low-level behavioural responses similar to those from normal operations, such that significant effects will not occur.

4.2.4 Underwater Noise and Vibration

Analogous to the assessment for physical presence, the data now available from ObSERVE does not alter the conclusions of the AA Screening Report with reference to underwater noise effects on Annex IV species.

The assessment in the AA Screening Report made reference to hearing injury thresholds published by NMFS (2016, widely referred to as the NOAA thresholds). While an update (NMFS 2018) provided additional discussion of the thresholds, the values and accompanying frequency weighting curves remained unchanged. These NOAA thresholds were recently adopted in the peer-reviewed literature by Southall et al. (2019), with a small change in the terminology of functional hearing groups: those described as 'mid-frequency' and 'high frequency' in NMFS (2018) are categorised as 'high frequency' and 'very high frequency', respectively in Southall et al. (2019). Kinsale Energy acknowledge the updated literature in this area, but it is concluded that they make no material change to the assessment formerly undertaken.

4.3 Consideration of Potential In-Combination Effects with Other Plans and Projects in the Area

No new projects or activities have been proposed since the previous screening for potential effects against Annex IV species was undertaken which are considered to be a source of potential in-combination effects either for the decommissioning of the offshore facilities or the Inch Terminal.

Some further definition of the Celtic Interconnector Project has become available with shortlisted cable landings at Ballinwillling Strand, Redbarn Beach, and Claycastle Beach although no in-combination effects with KDAP activities are foreseen.

The Barryroe oil discovery and the potential for further exploration and development was acknowledged in the AA Screening Report.

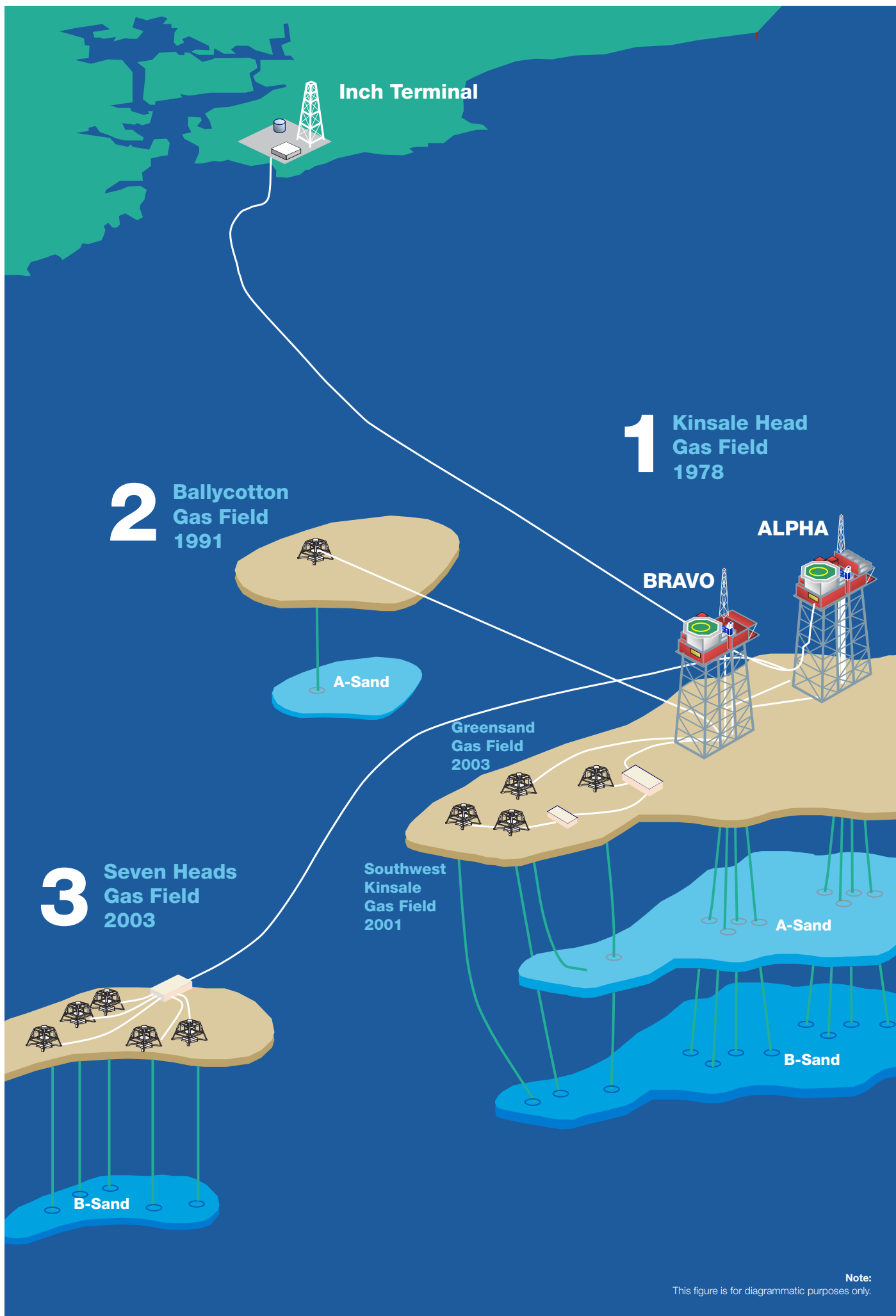
Since that time, an application has been made to conduct a site survey within the Barryroe licence area (EL 1/11). The application was submitted in February 2019 and consent was granted in July 2019. The temporary nature of the survey (16 days) and the proposed survey schedule (within April to November 2019, or February to November 2020), are such that interactions are not considered likely, as KADP activities associated with those sources of effect identified in Section 2.2 are primarily to take place in 2021-2022.

While there are a number of exploration licence areas in the vicinity of the Kinsale Area, project plans for additional exploration are not known or are uncertain, and therefore no cumulative effects are predicted at this time.

It is concluded that no further sources of in-combination effect are available to assess, in relation to Annex IV species, and no in-combination effects with other plans and projects in the area have been identified.

Section 5

Annex IV Species Screening Conclusions



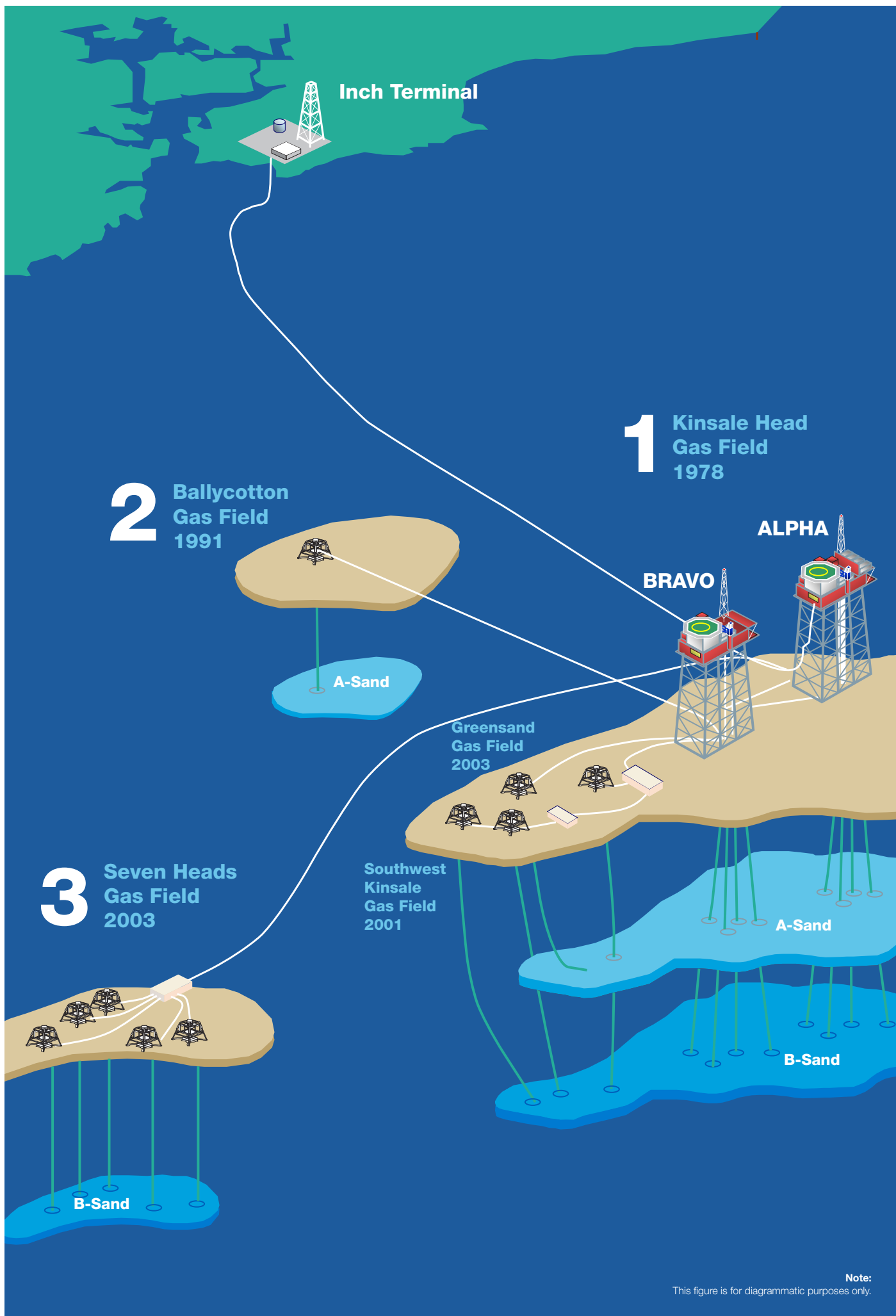
5 Annex IV Species Screening Conclsions

Whilst Annex IV species may be present in the vicinity of the proposed KADP, the localised scale and duration of the works will not result in the deliberate disturbance or destruction of any of the species listed in Annex IV of the Habitats Directive which may be present in the study area.

In light of the findings of the Annex IV assessment in the AA Screening Report, in the context of the information presented here (see Section 4), it can be concluded that it is not considered necessary to undertake any further Annex IV Species (European Protected Species) Impact Assessment. The competent authority will make the final determination in this regard.

Section 6

References



Note:
This figure is for diagrammatic purposes only.

6 References

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Appendix A

Natura 2000 Site Initial Screening

A1.1 SAC'S

Site Name: Ardmore Head SAC Site Code: 002123			
Site information			
Relevant qualifying interests: Vegetated sea cliffs of the Atlantic and Baltic coasts, European dry heaths Summary Conservation objectives: <ul style="list-style-type: none"> To maintain the favourable conservation condition of vegetated sea cliffs of the Atlantic and Baltic coasts To maintain the favourable conservation condition of European dry heaths Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002123.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	61	Offshore pipelines:	40
Offshore platforms	65	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
The physical presence of vessels in field and in transit None of the site qualifying interests (including species of habitats) are sensitive to the physical presence of vessels, and all are at least 40km from any offshore works such that there is no foreseeable interaction.			
Underwater noise from vessels, cutting, rock placement and post-decommissioning survey Site qualifying interests are terrestrial, none (including species of habitats) are noise sensitive, and there is no foreseeable interaction with KADP activities.			
Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement The closest potential offshore works relate to rock placement on the export pipeline (40km distant). There is no foreseeable interaction between the placement of rock and the relevant qualifying interests of the site.			

Site Name: Ardmore Head SAC**Site Code: 002123****Discharges to sea**

Site qualifying interests are terrestrial, and there is no foreseeable interaction between the site qualifying interests (including species of habitats) and discharges associated with the KADP.

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 61km distant), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). No interactions between the site qualifying interests and such an event are foreseeable.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The site qualifying interests are terrestrial and some distance (at least 40km) from KADP activities, and when considered in relation to the footprint of these activities and the nature of the qualifying interests, there is no foreseeable interaction. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining favourable conservation status. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Ballymacoda (Clonpriest & Pillmore) SAC Site Code: 000077			
Site information			
Relevant qualifying interests: Estuaries, mudflats and sandflats not covered by seawater at low tide, <i>Salicornia</i> and other annuals colonising mud and sand, Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>), Mediterranean salt meadows (<i>Juncetalia maritimi</i>)			
Summary Conservation objectives: <ul style="list-style-type: none"> To maintain the favourable conservation condition of estuaries To maintain the favourable conservation condition of mudflats and sandflats not covered by seawater at low tide To restore the favourable conservation condition of <i>Salicornia</i> and other annuals colonizing mud and sand To maintain the favourable conservation condition of Atlantic salt meadows 			
Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000077.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	84	Offshore pipelines:	17
Offshore platforms	58	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
The physical presence of vessels in field and in transit None of the site qualifying interests (including species of habitats) are sensitive to the physical presence of vessels, and all are at least 17km from any offshore works such that there is no foreseeable interaction.			
Underwater noise from vessels, cutting, rock placement and post-decommissioning survey None of the site qualifying interests (including species of habitats) are noise sensitive, and there is no foreseeable interaction with KADP activities.			
Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement The closest potential offshore works relate to rock placement on the export pipeline (17km distant). There is no foreseeable interaction between the placement of rock and the relevant qualifying interests of the site.			

Site Name: Ballymacoda (Clonpriest & Pillmore) SAC
Site Code: 000077

Discharges to sea

The closest discharges are associated with well abandonment (84km distant) or the release of inhibited water from the export pipeline (58km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly such that there is no foreseeable interaction with the site qualifying interests.

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 58km distant), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). No interactions between the site qualifying interests and such an event are foreseeable.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal ZOI

Conclusion

The site qualifying interests are distant from KADP activities (at least 17km) and when considered in relation to the footprint of these activities and the sheltered nature of the site with respect to the offshore pipeline, there is no foreseeable interaction. Therefore the KADP will not affect those site attributes or related targets set for each qualifying interest towards achieving the conservation objectives of maintaining or restoring favourable conservation status as appropriate. The site was therefore not considered to be relevant beyond its initial identification as being within the ZOI and was excluded from further assessment.

Site Name: Barley Cove to Ballyrisode Point SAC Site Code: 001040			
Site information			
Relevant qualifying interests: Mudflats and sandflats not covered by seawater at low tide, perennial vegetation of stony banks, <i>Salicornia</i> and other annuals colonising mud and sand, Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>), Mediterranean salt meadows (<i>Juncetalia maritimi</i>), shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes), fixed coastal dunes with herbaceous vegetation (grey dunes), European dry heaths			
Summary Conservation objectives: <ul style="list-style-type: none"> To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide To maintain the favourable conservation condition of perennial vegetation of stony banks To maintain the favourable conservation condition of <i>Salicornia</i> and other annuals colonizing mud and sand To restore the favourable conservation condition of Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) To restore the favourable conservation condition of Mediterranean salt meadows (<i>Juncetalia maritimi</i>) To restore the favourable conservation condition of Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes') To restore the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation ('grey dunes') To maintain the favourable conservation condition of European dry heaths 			
Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001040.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	95	Offshore pipelines:	95
Offshore platforms	118 n/a (outside of Zol)	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
The physical presence of vessels in field and in transit None of the site qualifying interests (including species of habitats) are sensitive to the physical presence of vessels, and all are at least 95km from any offshore works such that there is no foreseeable interaction.			
Underwater noise from vessels, cutting, rock placement and post-decommissioning survey None of the site qualifying interests (including species of habitats) are noise sensitive, and there is no foreseeable interaction with KADP activities.			

Site Name: Barley Cove to Ballyrisode Point SAC
Site Code: 001040

Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement

The closest potential offshore works relate to pipeline remediation (95km distant). There is no foreseeable interaction between the placement of rock and the relevant qualifying interest habitats of the site.

Discharges to sea

The closest discharges are associated with well abandonment (95km distant) or the release of inhibited water from the export pipeline (118km – outside of the KADP ZOI). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly such that there is no foreseeable interaction with the site qualifying interests.

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 95km distant), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). No interactions between the site qualifying interests and such an event are foreseeable.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal ZOI

Conclusion

The site qualifying interests are some distance (at least 95km) from KADP activities, and when considered in relation to the footprint of these activities, there is no foreseeable interaction. Therefore the KADP will not affect those site attributes or related targets set for each qualifying interest towards

Site Name: Barley Cove to Ballyrisode Point SAC
Site Code: 001040

achieving the conservation objectives of maintaining or restoring favourable conservation status as appropriate. The site was therefore not considered to be relevant beyond its initial identification as being within the ZOI and was excluded from further assessment.

Site Name: Blackwater River SAC
Site Code: 002170

Site information

Relevant qualifying interests: Freshwater pearl mussel *Margaritifera margaritifera*, white-clawed crayfish *Austropotamobius pallipes*, sea lamprey *Petromyzon marinus*, brook lamprey *Lampetra planeri*, river lamprey *Lampetra fluviatilis*, twaite shad *Alosa fallax*, Atlantic salmon *Salmo salar* (only in fresh water), estuaries, mudflats and sandflats not covered by seawater at low tide, perennial vegetation of stony banks, *Salicornia* and other annuals colonizing mud and sand, Atlantic salt meadows (*Glauco-Puccinellietalia maritima*), otter, Mediterranean salt meadows (*Juncetalia maritimi*), Killarney fern *Trichomanes speciosum*, water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation, old sessile oak woods with *Ilex* and *Blechnum* in the British Isles, alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*), *Taxus baccata* woods of the British Isles.

Summary Conservation objectives:

- To restore the favourable conservation condition of the freshwater pearl mussel
- To maintain the favourable conservation condition of white-clawed crayfish
- To restore the favourable conservation condition of sea lamprey
- To maintain the favourable conservation condition of brook lamprey
- To maintain the favourable conservation condition of river lamprey
- To restore the favourable conservation condition of twaite shad
- To maintain the favourable conservation condition of Atlantic salmon
- To maintain the favourable conservation condition of estuaries
- To maintain the favourable conservation condition of mudflats and sandflats not covered by seawater at low tide
- To maintain the favourable conservation condition of perennial vegetation of stony banks
- To maintain the favourable conservation condition of *Salicornia* and other annuals colonizing mud and sand
- To restore the favourable conservation condition of Atlantic salt meadows (*Glauco-Puccinellietalia maritima*)
- To restore the favourable conservation condition of otter

Site Name: Blackwater River SAC**Site Code: 002170**

- To maintain the favourable conservation condition of Mediterranean salt meadows (*Juncetalia maritimi*)
- To maintain the favourable conservation condition of Killarney fern
- To maintain the favourable conservation condition of water courses of plain to montane levels with the *Ranunculon fluitantis* and *Callitricho-Batrachion* vegetation
- To restore the favourable conservation condition of old sessile oak woods with *Ilex* and *Blechnum*
- To restore the favourable conservation condition of alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)
- The status of *Taxus baccata* woods of the British Isles as a qualifying Annex I habitat for the Blackwater River (Cork/Waterford) SAC is currently under review.

Feature attributes and targets defining favourable conservation status:

https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002170.pdf

Closest distance (km) to decommissioning works

Subsea wells & other subsea structures:	58	Offshore pipelines:	26
Offshore platforms	64	Onshore terminal (Zol for terminal is 15km):	n/a

Consideration of site interest features against potential sources of likely significant effect**The physical presence of vessels in field and in transit**

KADP activities will result in a small increase in vessel traffic within the wider Kinsale Area (typically 3-6 vessels), being present during the entire programme of works over a 12-18 month period, though not necessarily continuously. With respect to potentially sensitive qualifying species (e.g. sea lamprey, river lamprey, twaite shad, Atlantic salmon and by association the freshwater pearl mussel) these are expected to cause no more than temporary and localised low-level behavioural responses similar to those from current normal Kinsale offshore operations and wider shipping activity in the Kinsale and Cork Harbour areas. However, given the distance to the nearest offshore works (26km) and the migratory nature of some of the qualifying species, there is the potential for interaction with site qualifying interests.

Underwater noise from vessels, cutting, rock placement and post-decommissioning survey

Section 5.2.2 of the AA Screening Report provides a summary of the key sources of noise and vibration associated with the decommissioning operations. The primary contributor to underwater noise from the KADP will be vessel activity, as subsea activities such as cutting and rock placement are not discernible above their associated vessel noise source. The increased vessel activity associated with the KADP will add to the overall ambient noise in

Site Name: Blackwater River SAC
Site Code: 002170

the Kinsale Area; however, the continuous noise from vessels is not reported to result in injury to fish. Similarly, noise associated with the post-decommissioning survey is not regarded to result in likely significant effects for fish. However, given the distance to the nearest offshore works (26km) and the migratory nature and potential sensitivity of some of the qualifying species, there is the potential for interaction with site qualifying interests.

Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement

The closest potential offshore works relate to rock placement on the export pipeline (26km distant). There is no foreseeable interaction between the physical disturbance generated by the placement of rock and the relevant qualifying habitat interests or habitats of qualifying interest species of the site.

Discharges to sea

The closest discharges are associated with well abandonment (58km distant) or the release of inhibited water from the export pipeline (64km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly and there is no foreseeable interaction or effect with the site qualifying interests. The discharges will be subject to a Permit to Use or Discharge Added Chemicals (PUDAC) based on final chemical selection for well abandonment and pipeline decommissioning. Other discharges are those associated with normal shipping operations for which there are adequate existing regulatory standards and controls which will be in place.

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 58km distant), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). No interactions between the qualifying habitat interests of the site and such an event are foreseeable, but the migratory nature of certain species (sea lamprey, Atlantic salmon) are such that there is the potential interaction for these, noting that there is an extremely low likelihood of a large spill occurring.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Site Name: Blackwater River SAC Site Code: 002170
Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works n/a – outside of terminal Zol
Conclusion
The potential for interaction with KADP activities and the sensitivities of the species interest features of the site identified above are such that the site was considered in the AA screening.

Site Name: Clonakilty Bay SAC Site Code: 000091			
Site information			
Relevant qualifying interests: Mudflats and sandflats not covered by seawater at low tide, annual vegetation of drift lines, embryonic shifting dunes, shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes), fixed coastal dunes with herbaceous vegetation (grey dunes), Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>)			
Summary Conservation objectives: <ul style="list-style-type: none">• To maintain the favourable conservation condition of mudflats and sandflats not covered by seawater at low tide• To maintain the favourable conservation condition of annual vegetation of drift lines• To maintain the favourable conservation condition of embryonic shifting dunes• To maintain the favourable conservation condition of shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes')• To restore the favourable conservation condition of fixed coastal dunes with herbaceous vegetation ('grey dunes')• To maintain the favourable conservation condition of Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>)			
Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000091.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	54	Offshore pipelines:	45

Site Name: Clonakilty Bay SAC Site Code: 000091			
Offshore platforms	63	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
<p>The physical presence of vessels in field and in transit None of the site qualifying interests (including species of habitats) are sensitive to the physical presence of vessels, and all are at least 45km from any offshore works such that there is no foreseeable interaction.</p> <p>Underwater noise from vessels, cutting, rock placement and post-decommissioning survey None of the site qualifying interests (including species of habitats) are noise sensitive, and there is no foreseeable interaction with KADP activities.</p> <p>Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement The closest potential offshore works relate to pipeline remediation (45km distant). There is no foreseeable interaction between the placement of rock and the relevant habitat of qualifying interests of the site which are intertidal or coastal in nature.</p> <p>Discharges to sea The closest discharges are associated with well abandonment (54km distant) or the release of inhibited water from the export pipeline (63km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly such that there is no foreseeable interaction with the site qualifying interests.</p> <p>Accidental events The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 54km distant), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). No interactions between the site qualifying interests and such an event are foreseeable.</p> <p>Waste recycling, reuse and disposal There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.</p> <p>Atmospheric emissions</p>			

Site Name: Clonakilty Bay SAC**Site Code: 000091**

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The site qualifying interests are some distance from KADP activities (at least 45km), and when considered in relation to the footprint of these activities, there is no foreseeable interaction. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining or restoring favourable conservation status as appropriate. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Courtmacsherry Estuary SAC**Site Code: 001230****Site information**

Relevant qualifying interests: Estuaries, mudflats and sandflats not covered by seawater at low tide, annual vegetation of drift lines, perennial vegetation of stony banks, *Salicornia* and other annuals colonizing mud and sand, Atlantic salt meadows (*Glauco-Puccinellietalia maritima*), Mediterranean salt meadows (*Juncetalia maritimi*), embryonic shifting dunes, shifting dunes along the shoreline with *Ammophila arenaria* (white dunes), fixed coastal dunes with herbaceous vegetation (grey dunes)

Summary Conservation objectives:

- To maintain the favourable conservation condition of estuaries
- To maintain the favourable conservation condition of mudflats and sandflats not covered by seawater at low tide
- To maintain the favourable conservation condition of annual vegetation of drift lines
- To maintain the favourable conservation condition of perennial vegetation of stony banks
- To restore the favourable conservation condition of *Salicornia* and other annuals colonizing mud and sand
- To restore the favourable conservation condition of Atlantic salt meadows (*Glauco-Puccinellietalia maritima*)

Site Name: Courtmacsherry Estuary SAC
Site Code: 001230

- To maintain the favourable conservation condition of Mediterranean salt meadows (*Juncetalia maritimi*)
- To maintain the favourable conservation condition of embryonic shifting dunes
- To maintain the favourable conservation condition of Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes')
- To maintain the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation ('grey dunes')

Feature attributes and targets defining favourable conservation status:

https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001230.pdf

Closest distance (km) to decommissioning works

Subsea wells & other subsea structures:	51	Offshore pipelines:	32
Offshore platforms	55	Onshore terminal (Zol for terminal is 15km):	n/a

Consideration of site interest features against potential sources of likely significant effect

The physical presence of vessels in field and in transit

None of the site qualifying interests (including species of habitats) are sensitive to the physical presence of vessels, and all are at least 32km from any offshore works such that there is no foreseeable interaction.

Underwater noise from vessels, cutting, rock placement and post-decommissioning survey

None of the site qualifying interests (including species of habitats) are noise sensitive, and there is no foreseeable interaction with KADP activities.

Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement

The closest potential offshore works relate to rock placement on the export pipeline (32km distant). There is no foreseeable interaction between the placement of rock and the relevant habitat of qualifying interests of the site.

Discharges to sea

The closest discharges are associated with well abandonment (51km distant) or the release of inhibited water from the export pipeline (55km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly such that there is no foreseeable interaction with the site qualifying interests.

Site Name: Courtmacsherry Estuary SAC
Site Code: 001230

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 51km distant), which has a low probability of occurrence. Modelling undertaken for the Middleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). No interactions between the site qualifying interests and such an event are foreseeable.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The site qualifying interests are some distance from KADP activities (at least 32km), and when considered in relation to the footprint of these activities and the nature of the qualifying interests, there is no foreseeable interaction. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining or restoring favourable conservation status as appropriate. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Great Island Channel SAC
Site Code: 001058

Site information

Relevant qualifying interests: Mudflats and sandflats not covered by seawater at low tide, Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

Site Name: Great Island Channel SAC Site Code: 001058			
Summary Conservation objectives: <ul style="list-style-type: none"> To maintain the favourable conservation condition of mudflats and sandflats not covered by seawater at low tide To restore the favourable conservation condition of Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) 			
Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001058.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	48	Offshore pipelines:	8
Offshore platforms	59	Onshore terminal (Zol for terminal is 15km):	8
Consideration of site interest features against potential sources of likely significant effect			
The physical presence of vessels in field and in transit None of the site qualifying interests (including species of habitats) are sensitive to the physical presence of vessels, and all are at least 8km from any offshore works such that there is no foreseeable interaction.			
Underwater noise from vessels, cutting, rock placement and post-decommissioning survey None of the site qualifying interests (including species of habitats) are noise sensitive, and there is no foreseeable interaction with KADP activities.			
Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement The closest potential offshore works relate to rock placement on the export pipeline (8km distant). There is no foreseeable interaction between the placement of rock and the relevant qualifying interest habitats of the site.			
Discharges to sea The closest discharges are associated with well abandonment (48km distant) or the release of inhibited water from the export pipeline (59km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly such there is no foreseeable interaction with the site qualifying interests.			

Site Name: Great Island Channel SAC**Site Code: 001058****Accidental events**

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 48km distant), which has a low probability of occurrence. Modelling undertaken for the Middleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). No interactions between the site qualifying interests and such an event are foreseeable.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

None of the site qualifying interests (including species of habitats) are noise sensitive, and there is no foreseeable interaction with terminal demolition activities. With respect to dust emissions, see Section 5.2.6 of the AA Screening Report.

Conclusion

No interactions between the offshore KADP activities and the qualifying interests of the site were identified. In view of the distance of the site to the nearest onshore works (8km), the potential for an effect to occur in relation to dust emissions associated with terminal demolition works was considered further in the AA screening.

Site Name: Helvick Head SAC**Site Code: 000665****Site information**

Relevant qualifying interests: Vegetated sea cliffs of the Atlantic and Baltic coasts, European dry heaths

Site Name: Helvick Head SAC Site Code: 000665			
Summary Conservation objectives: <ul style="list-style-type: none"> To maintain the favourable conservation condition of vegetated sea cliffs of the Atlantic and Baltic coasts To maintain the favourable conservation condition of European dry heaths 			
Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000665.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	76	Offshore pipelines:	57
Offshore platforms	79	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
The physical presence of vessels in field and in transit None of the site qualifying interests (including species of habitats) are sensitive to the physical presence of vessels, and all are at least 57km from any offshore works such that there is no foreseeable interaction.			
Underwater noise from vessels, cutting, rock placement and post-decommissioning survey Site qualifying interests are terrestrial, none (including species of habitats) are noise sensitive, and there is no foreseeable interaction with KADP activities.			
Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement The closest potential offshore works relate to rock placement on the export pipeline (57km distant). There is no foreseeable interaction between the placement of rock and the relevant qualifying interest habitats of the site.			
Discharges to sea Site qualifying interests are terrestrial, and there is no foreseeable interaction between the site qualifying interests (including species of habitats) and discharges associated with the KADP.			
Accidental events The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 76km distant), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel			

Site Name: Helvick Head SAC
Site Code: 000665

inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). No interactions between the site qualifying interests and such an event are foreseeable.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The site qualifying interests are some distance from KADP activities (at least 57km), and the nature of the qualifying interests are such that there is no foreseeable interaction. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining favourable conservation status. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Hook Head SAC
Site Code: 000764

Site information

Relevant qualifying interests: Large shallow inlets and bays, reefs, vegetated sea cliffs of the Atlantic and Baltic coasts

Summary Conservation objectives:

- To maintain the favourable conservation condition of large shallow inlets and bays
- To maintain the favourable conservation condition of reefs

Site Name: Hook Head SAC Site Code: 000764			
<ul style="list-style-type: none"> To maintain the favourable conservation condition of vegetated sea cliffs of the Atlantic and Baltic coasts 			
Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000764.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	100	Offshore pipelines:	82
Offshore platforms	98	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
The physical presence of vessels in field and in transit None of the site qualifying interests (including species of habitats) are sensitive to the physical presence of vessels, and all are at least 82km from any offshore works such that there is no foreseeable interaction.			
Underwater noise from vessels, cutting, rock placement and post-decommissioning survey None of the site qualifying interests (including species of habitats) are noise sensitive, and there is no foreseeable interaction with KADP activities.			
Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement The closest potential offshore works relate to rock placement on the export pipeline (82km distant). There is no foreseeable interaction between the placement of rock and the relevant qualifying interest habitats of the site.			
Discharges to sea The closest discharges are associated with well abandonment (100km distant) or the release of inhibited water from the export pipeline (98km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly such that there is no foreseeable interaction the site qualifying interests.			
Accidental events The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 98km distant), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel			

Site Name: Hook Head SAC
Site Code: 000764

inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). No interactions between the site qualifying interests and such an event are foreseeable.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The site qualifying interests are some distance from KADP activities (at least 82km), and when considered in relation to the footprint of these activities and the nature of the qualifying interests, there is no foreseeable interaction. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining favourable conservation status. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Kilkeran Lake and Castlefreke Dunes SAC
Site Code: 001061

Site information

Relevant qualifying interests: Coastal lagoons, embryonic shifting dunes, shifting dunes along the shoreline with *Ammophila arenaria* (white dunes), fixed coastal dunes with herbaceous vegetation (grey dunes)

Summary Conservation objectives:

- To restore the favourable conservation condition of coastal lagoons

Site Name: Kilkeran Lake and Castlefreke Dunes SAC**Site Code: 001061**

- To maintain the favourable conservation condition of embryonic shifting dunes
- To maintain the favourable conservation condition of shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)
- To restore the favourable conservation condition of fixed coastal dunes with herbaceous vegetation (grey dunes)

Feature attributes and targets defining favourable conservation status:

https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001061.pdf

Closest distance (km) to decommissioning works

Subsea wells & other subsea structures:	56	Offshore pipelines:	56
Offshore platforms	58	Onshore terminal (Zol for terminal is 15km):	n/a

Consideration of site interest features against potential sources of likely significant effect**The physical presence of vessels in field and in transit**

None of the site qualifying interests (including species of habitats) are sensitive to the physical presence of vessels, and all are at least 56km from any offshore works such that there is no foreseeable interaction.

Underwater noise from vessels, cutting, rock placement and post-decommissioning survey

None of the site qualifying interests (including species of habitats) are noise sensitive, and there is no foreseeable interaction with KADP activities.

Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement

The closest potential offshore works relate to pipeline remediation and the removal of subsea wells and structures (56km distant). There is no foreseeable interaction between the placement of rock or localised seabed disturbance associated with the removal of subsea wells and structures and the relevant qualifying interest habitats of the site.

Discharges to sea

The closest discharges are associated with well abandonment (56km distant) or the release of inhibited water from the export pipeline (58km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly such that there is no foreseeable interaction with the site qualifying interests.

Site Name: Kilkeran Lake and Castlefreke Dunes SAC**Site Code: 001061****Accidental events**

The only accidental event considered possible is the spill of diesel from the rig or HLV(at least 56km distant), which has a low probability of occurrence. Modelling undertaken for the Middleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). No interactions between the site qualifying interests and such an event are foreseeable.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The site qualifying interests are some distance from KADP activities (56km), and when considered in relation to the footprint of these activities and the nature of the qualifying interests, there is no foreseeable interaction. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining or restoring favourable conservation status as appropriate. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Lough Hyne Nature Reserve and Environs SAC**Site Code: 000097****Site information**

Relevant qualifying interests: Large shallow inlets and bays, reefs, submerged or partially submerged sea caves

Site Name: Lough Hyne Nature Reserve and Environs SAC

Site Code: 000097

Summary Conservation objectives:

- To maintain the favourable conservation condition of large shallow inlets and bays
- To maintain the favourable conservation condition of reefs
- To maintain the favourable conservation condition of submerged or partially submerged sea caves

Feature attributes and targets defining favourable conservation status:

https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000097.pdf

Closest distance (km) to decommissioning works

Subsea wells & other subsea structures:	69	Offshore pipelines:	78
Offshore platforms	79	Onshore terminal (Zol for terminal is 15km):	n/a

Consideration of site interest features against potential sources of likely significant effect

The physical presence of vessels in field and in transit

None of the site qualifying interests (including species of habitats) are sensitive to the physical presence of vessels, and all are at least 69km from any offshore works such that there is no foreseeable interaction.

Underwater noise from vessels, cutting, rock placement and post-decommissioning survey

None of the site qualifying interests (including species of habitats) are noise sensitive, and there is no foreseeable interaction with KADP activities.

Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement

The closest potential offshore works relate to the removal of subsea wells and structures (56km distant). There is no foreseeable interaction between the associated localised seabed disturbance and the relevant habitat of qualifying interests of the site.

Discharges to sea

The closest discharges are associated with well abandonment (69km distant) or the release of inhibited water from the export pipeline (79km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly such that there is no foreseeable interaction with the site qualifying interests.

Site Name: Lough Hyne Nature Reserve and Environs SAC**Site Code: 000097****Accidental events**

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 69km distant), which has a low probability of occurrence. Modelling undertaken for the Middleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). No interactions between the site qualifying interests and such an event are foreseeable.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The site qualifying interests are some distance from KADP activities (at least 69km), and when considered in relation to the footprint of these activities, there is no foreseeable interaction. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining favourable conservation status. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and therefore was excluded from further assessment.

Site Name: River Barrow & River Nore SAC**Site Code: 002162****Site information**

Relevant qualifying interests: Desmoulin's whorl snail *Vertigo moulinsiana*, freshwater pearl mussel *Margaritifera margaritifera*, white-clawed crayfish *Austropotamobius pallipes*, sea lamprey *Petromyzon marinus*, brook lamprey *Lampetra planeri*, river lamprey *Lampetra fluviatilis*, twaite shad *Alosa fallax*,

Site Name: River Barrow & River Nore SAC
Site Code: 002162

Atlantic salmon *Salmo salar* (only in fresh water), estuaries, mudflats and sandflats not covered by seawater at low tide, *Salicornia* and other annuals colonizing mud and sand, Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*), otter *Lutra lutra*, Mediterranean salt meadows (*Juncetalia maritimi*), Killarney fern *Trichomanes speciosum*, Nore freshwater pearl mussel *Margaritifera durrovensis*, water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation, European dry heaths, hydrophilous tall herb fringe communities of plains and of the montane to alpine levels, petrifying springs with tufa formation (*Cratoneurion*), old sessile oak woods with *Ilex* and *Blechnum* in the British Isles alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)

Summary Conservation objectives:

- The status of the freshwater pearl mussel (*Margaritifera margaritifera*) as a qualifying Annex II species for the River Barrow and River Nore SAC is currently under review.
- To maintain the favourable conservation condition of white-clawed crayfish
- To restore the favourable conservation condition of sea lamprey
- To restore the favourable conservation condition of brook lamprey
- To restore the favourable conservation condition of river lamprey
- To restore the favourable conservation condition of twaite shad
- To restore the favourable conservation condition of salmon
- To maintain the favourable conservation condition of estuaries
- To maintain the favourable conservation condition of the mudflats and sandflats not covered by seawater at low tide
- To maintain the favourable conservation condition of *Salicornia* and other annuals colonizing mud and sand
- To restore the favourable conservation condition of Atlantic salt meadows
- To restore the favourable conservation condition of otter
- To restore the favourable conservation condition of Mediterranean salt meadows
- To maintain the favourable conservation condition of Killarney fern
- To restore the favourable conservation condition of the Nore freshwater pearl mussel
- To maintain the favourable conservation condition of water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation
- To maintain the favourable conservation condition of European dry heaths
- To maintain the favourable conservation condition of hydrophilous tall herb fringe communities of plains and of the montane to alpine levels
- To maintain the favourable conservation condition of petrifying springs with tufa formation (*Cratoneurion*)
- To restore the favourable conservation condition of old oak woodland with *Ilex* and *Blechnum*

Site Name: River Barrow & River Nore SAC**Site Code: 002162**

- To restore the favourable conservation condition of alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)

Feature attributes and targets defining favourable conservation status:

https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002162.pdf

Closest distance (km) to decommissioning works

Subsea wells & other subsea structures:	115 n/a (outside of Zol)	Offshore pipelines:	91
Offshore platforms	114 n/a (outside of Zol)	Onshore terminal (Zol for terminal is 15km):	n/a

Consideration of site interest features against potential sources of likely significant effect**The physical presence of vessels in field and in transit**

KADP activities relevant to this consideration (export pipeline remediation and post-decommissioning survey) will result in a small increase in vessel traffic (a rock placement or survey vessel), being present during part of the wider KADP programme of works (active rock placement taking a total of 51 days for all pipelines in the event that the worst case rock placement scenario is undertaken). With respect to potentially sensitive qualifying species (e.g. sea lamprey, river lamprey, twaite shad, Atlantic salmon and by association the Nore freshwater pearl mussel) these would be expected to cause no more than temporary and localised low-level behavioural responses similar to those from normal Kinsale offshore operations and wider shipping activity in the Kinsale and Cork Harbour areas. However, given the distance to the nearest offshore works (91km), there are no foreseeable interactions with the site qualifying interests.

Underwater noise from vessels, cutting, rock placement and post-decommissioning survey

The primary contributor to underwater noise from the KADP and which is relevant to this consideration will be vessel activity, as rock placement is not discernible above the associated vessel noise source. The increased vessel activity associated with the KADP (in particular pipeline remediation) will add to the overall ambient noise in the Kinsale Area; however, the continuous noise from vessels is not reported to result in injury to fish. Similarly, noise associated with the post-decommissioning survey is not regarded to result in likely significant effects for fish. Given the distance to the nearest offshore works (91km), there is no foreseeable interaction with site qualifying interests.

Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement

The closest potential offshore works relate to rock placement on the export pipeline (91km distant). There is no foreseeable interaction between the placement of rock and the relevant habitat of qualifying interests of the site.

Site Name: River Barrow & River Nore SAC**Site Code: 002162****Discharges to sea**

The closest discharges are associated with well abandonment (115km distant) or the release of inhibited water from the export pipeline (114km) and are therefore outside of the Zol for the KADP.

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 114km distant and therefore outside of the KADP Zol), which has a low probability of occurrence. Modelling undertaken for the Middleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost (note HLV and rig inventories are similar), there was zero percent probability of beaching. No interactions between the site qualifying interests and such an event are foreseeable.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The site qualifying interests are some distance from KADP activities (at least 91km for export pipeline remediation, and beyond the Zol for all others) and when considered in relation to the footprint of these activities, there is no foreseeable interaction. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining or restoring favourable conservation status as appropriate. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Roaringwater Bay and Islands SAC Site Code: 000101			
Site information			
Relevant qualifying interests: Large shallow inlets and bays, reefs, vegetated sea cliffs of the Atlantic and Baltic coasts, harbour porpoise <i>Phocoena phocoena</i> , otter <i>Lutra lutra</i> , grey seal <i>Halichoerus grypus</i> , European dry heaths, submerged or partly submerged sea caves			
Summary Conservation objectives: <ul style="list-style-type: none"> To maintain the favourable conservation condition of large shallow inlets and bays To maintain the favourable conservation condition of reefs To maintain the favourable conservation condition of vegetated sea cliffs of the Atlantic and Baltic coasts To maintain the favourable conservation condition of harbour porpoise To restore the favourable conservation condition of otter To maintain the favourable conservation condition of grey seal To maintain the favourable conservation condition of European dry heaths To maintain the favourable conservation condition of submerged or partly submerged sea caves i 			
Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000101.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	74	Offshore pipelines:	74
Offshore platforms	94	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
The physical presence of vessels in field and in transit KADP activities will result in a small increase in vessel traffic within the wider Kinsale Area (typically 3-6 vessels), being present during the entire programme of works over a 12-18 month period, though not necessarily continuously. With respect to potentially sensitive qualifying species (e.g. harbour porpoise and grey seal) these are expected to cause no more than temporary and localised low-level behavioural responses similar to those from normal Kinsale offshore operations or shipping activity in the Kinsale and Cork Harbour areas. However, given the potential presence of these qualifying species in the KADP area there is the potential for interaction which was considered further in the AA screening.			

Site Name: Roaringwater Bay and Islands SAC**Site Code: 000101****Underwater noise from vessels, cutting, rock placement and post-decommissioning survey**

Section 5.2.2 of the AA Screening Report provides a summary of the key sources of noise and vibration associated with the decommissioning operations. The primary contributor to underwater noise from the KADP will be vessel activity, as subsea activities such as cutting and rock placement are not discernible above their associated vessel noise source. The increased vessel activity associated with the KADP will add to the overall ambient noise in the Kinsale Area. Given the potential presence of noise-sensitive qualifying species (e.g. harbour porpoise and grey seal) in the KADP area there is the potential for interaction which was considered further in the AA screening.

Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement

The closest potential offshore works relate to pipeline remediation and the removal of subsea wells and structures (74km distant) or pipeline remediation (74km). There is very little potential for interaction between the placement of rock or localised seabed disturbance associated with the removal of subsea wells and structures and the qualifying interests of the site or relevant supporting habitat (e.g. of prey species).

Discharges to sea

The closest discharges are associated with well abandonment (74km distant) or the release of inhibited water from the export pipeline (74km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly and there is no foreseeable interaction or effect with the site qualifying interests.

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 74km distant), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). Given the potential presence of sensitive qualifying species (e.g. harbour porpoise and grey seal) in the KADP area there is the potential for interaction which was considered further in the AA screening.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Site Name: Roaringwater Bay and Islands SAC Site Code: 000101
Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works n/a – outside of terminal Zol
Conclusion
Given the potential for qualifying interest species (e.g. harbour porpoise and grey seal) to be present in the KADP area, and their relative sensitivity to certain sources of effect (e.g. noise), the site was included for further assessment in the AA Screening Report.

Site Name: Tramore Dunes and Backstrand SAC Site Code: 000671
Site information
<p>Relevant qualifying interests: Mudflats and sandflats not covered by seawater at low tide, annual vegetation of drift lines, perennial vegetation of stony banks, <i>Salicornia</i> and other annuals colonising mud and sand, Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>), Mediterranean salt meadows (<i>Juncetalia maritimi</i>), embryonic shifting dunes, shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes), fixed coastal dunes with herbaceous vegetation (grey dunes)</p> <p>Summary Conservation objectives:</p> <ul style="list-style-type: none"> • To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide • To maintain the favourable conservation condition of annual vegetation of drift lines • To maintain the favourable conservation condition of perennial vegetation of stony banks • To restore the favourable conservation condition of <i>Salicornia</i> and other annuals colonizing mud and sand • To maintain the favourable conservation condition of Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) • To maintain the favourable conservation condition of Mediterranean salt meadows (<i>Juncetalia maritimi</i>) • To maintain the favourable conservation condition of embryonic shifting dunes • To maintain the favourable conservation condition of shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes') • To restore the favourable conservation condition of fixed coastal dunes with herbaceous vegetation ('grey dunes') <p>Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000671.pdf </p>

Site Name: Tramore Dunes and Backstrand SAC Site Code: 000671			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	104 n/a (outside of Zol)	Offshore pipelines:	80
Offshore platforms	104 n/a (outside of Zol)	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
<p>The physical presence of vessels in field and in transit None of the site qualifying interests (including species of habitats) are sensitive to the physical presence of vessels, and all are at least 80km from any offshore works such that there is no foreseeable interaction.</p> <p>Underwater noise from vessels, cutting, rock placement and post-decommissioning survey None of the site qualifying interests (including species of habitats) are noise sensitive, and there is no foreseeable interaction with KADP activities.</p> <p>Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement The closest potential offshore works relate to rock placement on the export pipeline (80km distant). There is no foreseeable interaction between the placement of rock and the relevant qualifying interest habitats of the site.</p> <p>Discharges to sea The closest discharges are associated with well abandonment or the release of inhibited water from the export pipeline (104km), and are outside of the Zol for the KADP.</p> <p>Accidental events The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 104km distant and therefore outside of the KADP Zol), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost (note HLV and rig inventories are similar), there was zero percent probability of beaching. No interactions between the site qualifying interests and such an event are foreseeable.</p> <p>Waste recycling, reuse and disposal There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.</p>			

Site Name: Tramore Dunes and Backstrand SAC
Site Code: 000671

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The site qualifying interests are some distance from KADP activities (at least 80km for export pipeline remediation, and beyond the Zol for all others) and when considered in relation to the footprint of these activities, there is no foreseeable interaction. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining or restoring favourable conservation status as appropriate. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Bandon River SAC
Site Code: 002171

Site information

Relevant qualifying interests: Water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation, alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*), freshwater pearl mussel *Margaritifera margaritifera*, brook lamprey *Lampetra planeri*

Summary Conservation objectives:

- To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.

Feature attributes and targets defining favourable conservation status:

Not listed - https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002171.pdf

Site Name: Bandon River SAC Site Code: 002171			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	71	Offshore pipelines:	58
Offshore platforms	83	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
<p>The physical presence of vessels in field and in transit</p> <p>None of the site qualifying interests (including species of habitats) are sensitive to the physical presence of vessels (the brook lamprey does not migrate to sea and would not therefore be exposed to vessels), and all are at least 58km from any offshore works such that there is no foreseeable interaction. While supporting a population of Atlantic salmon, this is not a qualifying interest of the site. As Atlantic salmon forms a critical part of the lifecycle of the freshwater pearl mussel interest feature, it is considered here as if it were an interest feature. With respect to this potentially sensitive species, KADP activities would be expected to cause no more than temporary and localised low-level behavioural responses similar to those from normal Kinsale offshore operations and wider shipping activity in the Kinsale and Cork Harbour areas. However, given the distance to the nearest offshore works (58km), there are no foreseeable interactions with the site qualifying interests.</p> <p>Underwater noise from vessels, cutting, rock placement and post-decommissioning survey</p> <p>None of the site qualifying interests (including species of habitats) are noise sensitive (the brook lamprey does not migrate to sea and would not therefore be exposed to relevant noise). As above, in view of the freshwater pearl mussel interest feature, the potential for interaction with Atlantic salmon is considered here. The primary contributor to underwater noise from the KADP and which is relevant to this consideration will be vessel activity, as cutting and rock placement are not discernible above the associated vessel noise source. The increased vessel activity associated with the KADP will add to the overall ambient noise in the Kinsale Area; however, the continuous noise from vessels is not reported to result in injury to fish. Similarly, noise associated with the post-decommissioning survey is not regarded to result in likely significant effects for fish. Given the distance to the nearest offshore works (58km), there is no foreseeable interaction with site qualifying interests.</p> <p>Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement</p> <p>The closest potential offshore works relate to pipeline remediation (58km distant). There is no foreseeable interaction between the placement of rock and the relevant qualifying interest habitats of the site.</p> <p>Discharges to sea</p>			

Site Name: Bandon River SAC
Site Code: 002171

The closest discharges are associated with well abandonment (71km distant) or the release of inhibited water from the export pipeline (83km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly and there is no foreseeable interaction or effect with the site qualifying interests.

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 71km distant), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). No interactions between the site qualifying interests and such an event are foreseeable.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal ZoI

Conclusion

The site qualifying interests are some distance from KADP activities (at least 58km), and when considered in relation to the footprint of these activities, there is no foreseeable interaction. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining favourable conservation status. The site was therefore not considered to be relevant beyond its initial identification as being within the ZoI and was excluded from further assessment.

A1.2 SPA's

Site Name: Ballycotton Bay SPA Site Code: 004022			
Site information			
Relevant qualifying interests: Teal (<i>Anas crecca</i>); ringed plover (<i>Charadrius hiaticula</i>); golden plover (<i>Pluvialis apricaria</i>); grey plover (<i>Pluvialis squatarola</i>); lapwing (<i>Vanellus vanellus</i>); black-tailed godwit (<i>Limosa limosa</i>); bar-tailed godwit (<i>Limosa lapponica</i>); curlew (<i>Numenius arquata</i>); turnstone (<i>Arenaria interpres</i>); common gull (<i>Larus canus</i>); lesser black-backed gull (<i>Larus fuscus</i>); Wetland & Waterbirds			
Summary Conservation objectives: <ul style="list-style-type: none"> To maintain the favourable conservation condition of those qualifying interests listed above in Ballycotton Bay SPA, including the wetland habitat as a resource for the regularly occurring migratory birds that utilise it. 			
Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004022.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	43	Offshore pipelines:	9
Offshore platforms	51	Onshore terminal (Zol for terminal is 15km):	9
Consideration of site interest features against potential sources of likely significant effect			
The physical presence of vessels in field and in transit Physical disturbance of seaduck and other waterbird flocks by vessel traffic is possible, but the distance from vessels at which flushing of birds could take place is significantly less than the minimum distance of potential works (9km from the export pipeline). For example, evidence of disturbance distance for the common scoter, which is known to be a shy species, was observed to be 2km from a 35m vessel, though smaller flocks were less sensitive and put to flight at a distance of 1km (Kaiser 2002, also see Schwemmer <i>et al.</i> 2011). Gull species, while having the potential to forage within range of the KADP activities (see Thaxter <i>et al.</i> 2012), are regarded to have a low sensitivity to shipping traffic (Garthe & Hüppop 2004). There is either no potential for interaction, or the sensitivity of the qualifying interests are such that effects are not considered likely.			
Underwater noise from vessels, cutting, rock placement and post-decommissioning survey			

Site Name: Ballycotton Bay SPA
Site Code: 004022

None of the qualifying interests are diving seabirds which are likely to be most at risk of any underwater noise effects, and therefore no interactions with KADP activities are foreseeable.

Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement

The closest potential offshore works relate to rock placement on the export pipeline (9km distant). There is no foreseeable interaction between the placement of rock and the relevant habitat of qualifying interests of the site, including the wetland habitat.

Discharges to sea

The closest discharges are associated with well abandonment (43km distant) or the release of inhibited water from the export pipeline (51km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly and there is no foreseeable interaction or effect with the habitat of the qualifying interests.

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 43km distant), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). Interaction with site qualifying interests which are primarily coastal, though containing gull species which may forage in the Kinsale Area, is considered to be unlikely.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

Prior to the commencement of demolition works, the terminal will be rendered hydrocarbon and chemical free and the facility will be disconnected from the power grid. Accidental events arising from the terminal demolition works are therefore not envisaged. Given the localised and temporary nature of the

Site Name: Ballycotton Bay SPA Site Code: 004022
demolition works, the habitats present within the terminal site (not of particular importance to the qualifying bird species), and the distance to the site (9km) interaction with site qualifying interests with respect to terminal demolition works is considered to be unlikely.
Conclusion <p>The coastal nature of the qualifying interests, their distance to sources of potential effect of the KADP and the footprint of those effects, and their relative sensitivity to those sources of effect are such that there is no foreseeable interaction or likelihood of effect in the context of the site conservation objectives. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining favourable conservation status. The site was therefore not considered to be relevant beyond its initial identification as being within the ZOI and was excluded from further assessment.</p>

Site Name: Ballymacoda Bay SPA Site Code: 004023			
Site information			
Relevant qualifying interests: Wigeon (<i>Anas penelope</i>), teal (<i>Anas crecca</i>), ringed plover (<i>Charadrius hiaticula</i>), golden plover (<i>Pluvialis apricaria</i>), grey plover (<i>Pluvialis squatarola</i>), lapwing (<i>Vanellus vanellus</i>), sanderling (<i>Calidris alba</i>), dunlin (<i>Calidris alpina</i>), black-tailed godwit (<i>Limosa limosa</i>), bar-tailed godwit (<i>Limosa lapponica</i>), curlew (<i>Numenius arquata</i>), redshank (<i>Tringa totanus</i>), turnstone (<i>Arenaria interpres</i>), black-headed gull (<i>Chroicocephalus ridibundus</i>), common gull (<i>Larus canus</i>), lesser black-backed gull (<i>Larus fuscus</i>), Wetland & Waterbirds			
Summary Conservation objectives: <ul style="list-style-type: none">To maintain the favourable conservation condition of those qualifying interests listed above in Ballymacoda Bay SPA, including the wetland habitat as a resource for the regularly occurring migratory birds that utilise it.			
Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004023.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	51	Offshore pipelines:	19

Site Name: Ballymacoda Bay SPA Site Code: 004023			
Offshore platforms	51	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
<p>The physical presence of vessels in field and in transit Physical disturbance of seaduck and other waterbird flocks by vessel traffic is possible, but the distance from vessels at which flushing of birds could take place is significantly less than the minimum distance of potential works (19km from the export pipeline) such that there is no foreseeable interaction. For example, evidence of disturbance distance for the common scoter, which is known to be a shy species, was observed to be 2km from a 35m vessel, though smaller flocks were less sensitive and put to flight at a distance of 1km (Kaiser 2002, also see Schwemmer <i>et al.</i> 2011). Gull species, while having the potential to forage within range of the KADP activities (see Thaxter <i>et al.</i> 2012), are regarded to have a low sensitivity to shipping traffic (Garthe & Hüppop 2004). There is either no potential for interaction, or the sensitivity of the qualifying interests are such that effects are not considered likely.</p> <p>Underwater noise from vessels, cutting, rock placement and post-decommissioning survey None of the qualifying interests are diving seabirds which are likely to be most at risk of any underwater noise effects, and therefore no interactions with KADP activities are foreseeable.</p> <p>Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement The closest potential offshore works place relate to rock placement on the export pipeline (19km distant). There is no foreseeable interaction between the placement of rock and the relevant habitat of qualifying interests of the site including the wetland habitat.</p> <p>Discharges to sea The closest discharges are associated with well abandonment (51km distant) or the release of inhibited water from the export pipeline (51km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly and there is no foreseeable interaction or effect with the coastal habitat of the qualifying interests.</p> <p>Accidental events The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 51km distant), which has a low probability of occurrence. Modelling undertaken for the Middleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). Interaction with site qualifying interests which are primarily coastal, though containing gull species which may forage in the Kinsale Area, is considered to be unlikely.</p>			

Site Name: Ballymacoda Bay SPA**Site Code: 004023****Waste recycling, reuse and disposal**

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The largely coastal nature of the qualifying interests, their distance to sources of potential effect of the KADP and the footprint of those effects, and their relative sensitivity to those sources of effect are such that there is either no foreseeable interaction or likelihood of effect in the context of the site conservation objectives. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining favourable conservation status. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Blackwater Estuary SPA**Site Code: 004028****Site information**

Relevant qualifying interests: Wigeon (*Anas penelope*), golden plover (*Pluvialis apricaria*), lapwing (*Vanellus vanellus*), dunlin (*Calidris alpina*), black-tailed godwit (*Limosa limosa*), bar-tailed godwit (*Limosa lapponica*), curlew (*Numenius arquata*), redshank (*Tringa totanus*), Wetland & waterbirds

Summary Conservation objectives:

- To maintain the favourable conservation condition of those qualifying interests listed above in Blackwater Estuary SPA, including the wetland habitat as a resource for the regularly occurring migratory birds that utilise it.

Site Name: Blackwater Estuary SPA Site Code: 004028			
Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004028.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	59	Offshore pipelines:	34
Offshore platforms	65	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
<p>The physical presence of vessels in field and in transit Physical disturbance of seaduck and other waterbird flocks by vessel traffic is possible, but the distance from vessels at which flushing of birds could take place is significantly less than the minimum distance of potential works (34km from the export pipeline) such that there is no foreseeable interaction. For example, evidence of disturbance distance for the common scoter, which is known to be a shy species, was observed to be 2km from a 35m vessel, though smaller flocks were less sensitive and put to flight at a distance of 1km (Kaiser 2002, also see Schwemmer <i>et al.</i> 2011).</p> <p>Underwater noise from vessels, cutting, rock placement and post-decommissioning survey None of the qualifying interests are diving seabirds which are likely to be most at risk of any underwater noise effects and therefore no interactions with KADP activities are foreseeable.</p> <p>Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement The closest potential offshore works relate to rock placement on the export pipeline (9km distant). There is no foreseeable interaction between the placement of rock and the relevant habitat of qualifying interests of the site, including the wetland habitat.</p> <p>Discharges to sea The closest discharges are associated with well abandonment (59km distant) or the release of inhibited water from the export pipeline (65km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly and there is no foreseeable interaction or effect with the coastal habitat of the qualifying interests.</p> <p>Accidental events The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 59km distant), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel</p>			

Site Name: Blackwater Estuary SPA**Site Code: 004028**

inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). No interactions between the site qualifying interests and such an event are foreseeable.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The coastal nature of the qualifying interests, their distance to sources of potential effect of the KADP and the footprint of those effects, and their relative sensitivity to those sources of effect are such that there is no foreseeable interaction. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining favourable conservation status. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Clonakilty Bay SPA**Site Code: 004081****Site information**

Relevant qualifying interests: Shelduck (*Tadorna tadorna*), dunlin (*Calidris alpina*), black-tailed godwit (*Limosa limosa*), curlew (*Numenius arquata*), Wetland & Waterbirds

Site Name: Clonakilty Bay SPA
Site Code: 004081

Summary Conservation objectives:

- To maintain the favourable conservation condition of those qualifying interests listed above in Clonakilty Bay SPA, including the wetland habitat as a resource for the regularly occurring migratory birds that utilise it.

Feature attributes and targets defining favourable conservation status:

https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004081.pdf

Closest distance (km) to decommissioning works

Subsea wells & other subsea structures:	53	Offshore pipelines:	46
Offshore platforms	63	Onshore terminal (Zol for terminal is 15km):	n/a

Consideration of site interest features against potential sources of likely significant effect

The physical presence of vessels in field and in transit

Physical disturbance of seaduck and other waterbird flocks by vessel traffic is possible, but the distance from vessels at which flushing of birds could take place is significantly less than the minimum distance of potential works (46km from the export pipeline) such that there is no foreseeable interaction. For example, evidence of disturbance distance for the common scoter, which is known to be a shy species, was observed to be 2km from a 35m vessel, though smaller flocks were less sensitive and put to flight at a distance of 1km (Kaiser 2002, also see Schwemmer *et al.* 2011).

Underwater noise from vessels, cutting, rock placement and post-decommissioning survey

None of the qualifying interests are diving seabirds which are likely to be most at risk of any underwater noise effects and therefore no interactions with KADP activities are foreseeable.

Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement

The closest potential offshore works relate to rock placement on the export pipeline (46km distant). There is no foreseeable interaction between the placement of rock and the relevant habitat of qualifying interests of the site including the wetland habitat.

Discharges to sea

The closest discharges are associated with well abandonment (53km distant) or the release of inhibited water from the export pipeline (63km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly and there is no foreseeable interaction or effect with the coastal habitat of the qualifying interests.

Site Name: Clonakilty Bay SPA
Site Code: 004081

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 53km distant), which has a low probability of occurrence. Modelling undertaken for the Middleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). No interactions between the site qualifying interests and such an event are foreseeable.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The coastal nature of the qualifying interests, their distance to sources of potential effect of the KADP and the footprint of those effects, and their relative sensitivity to those sources of effect are such that there is no foreseeable interaction. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining favourable conservation status. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Cork Harbour SPA
Site Code: 004030

Site information

Relevant qualifying interests: Little grebe (*Tachybaptus ruficollis*), great crested grebe (*Podiceps cristatus*), cormorant (*Phalacrocorax carbo*), grey heron (*Ardea cinerea*), shelduck (*Tadorna tadorna*), wigeon (*Anas penelope*), teal (*Anas crecca*), pintail (*Anas acuta*), shoveler (*Anas clypeata*), red-

Site Name: Cork Harbour SPA
Site Code: 004030

breasted merganser (*Mergus serrator*), oystercatcher (*Haematopus ostralegus*), golden plover (*Pluvialis apricaria*), grey plover (*Pluvialis squatarola*), Lapwing (*Vanellus vanellus*), dunlin (*Calidris alpina*), Black-tailed Godwit (*Limosa limosa*), bar-tailed godwit (*Limosa lapponica*), curlew (*Numenius arquata*), redshank (*Tringa totanus*), black-headed gull (*Chroicocephalus ridibundus*), common gull (*Larus canus*), lesser black-backed gull (*Larus fuscus*), common tern (*Sterna hirundo*), Wetland & Waterbirds

Summary Conservation objectives:

- To maintain the favourable conservation condition of those qualifying interests listed above in Cork Harbour SPA, including the wetland habitat as a resource for the regularly occurring migratory birds that utilise it.

Feature attributes and targets defining favourable conservation status:

https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004030.pdf

Closest distance (km) to decommissioning works

Subsea wells & other subsea structures:	37	Offshore pipelines:	4
Offshore platforms	50	Onshore terminal (Zol for terminal is 15km):	4

Consideration of site interest features against potential sources of likely significant effect

The physical presence of vessels in field and in transit

Physical disturbance of seaduck and other waterbird flocks by vessel traffic is possible, but the distance from vessels at which flushing of birds could take place is less than the minimum distance of potential works (4km from the export pipeline). The foraging ranges of coastal diving species (cormorant) and seabirds (common gull, lesser black-backed gull) could bring these into locations where KADP activities are proposed, such that there is the potential for interaction with core foraging areas.

Underwater noise from vessels, cutting, rock placement and post-decommissioning survey

There is the potential for interactions between diving bird species (cormorant, red-breasted merganser) and vessels associated with pipeline remediation works and related rock placement.

Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement

The collective footprint of potential physical disturbance is small (0.46-0.75km²) and there will be no disturbance within the site boundary, with works taking place within the existing footprint of Kinsale Area facilities.

Site Name: Cork Harbour SPA
Site Code: 004030

Discharges to sea

The closest discharges are associated with well abandonment (37km distant) or the release of inhibited water from the export pipeline (50km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly and there is no foreseeable interaction or effect on the habitat of the qualifying interests.

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 37km distant), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). There is limited potential for interaction due to the presence of few qualifying interests which forage in nearshore waters (cormorant) or potentially further from the site (gull species), though the probability of such an incident occurring is extremely low.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition

Prior to the commencement of demolition works, the terminal will be rendered hydrocarbon and chemical free and the facility will be disconnected from the power grid. Accidental events arising from the terminal demolition works are therefore not envisaged.

Noise associated with the demolition of Inch terminal

While not considered a significant source of effect in view of the site features and location relative to the Inch terminal, the short distance of the site to the works (4km) indicates a potential for interaction.

Site Name: Cork Harbour SPA Site Code: 004030
Dust emissions associated with the terminal demolition works While not considered a significant source of effect in view of the site features and location relative to the Inch terminal, the short distance of the site to the works (4km) indicates a potential for interaction.
Conclusion The proximity of pipeline remediation works to the site and the presence of potentially noise sensitive diving bird species is such that this site was considered further in the AA screening.

Site Name: Courtmacsherry Bay SPA Site Code: 004219			
Site information			
Relevant qualifying interests: Great northern diver (<i>Gavia immer</i>), shelduck (<i>Tadorna tadorna</i>), wigeon (<i>Anas penelope</i>), red-breasted merganser (<i>Mergus serrator</i>), golden plover (<i>Pluvialis apricaria</i>), lapwing (<i>Vanellus vanellus</i>), dunlin (<i>Calidris alpina</i>), black-tailed godwit (<i>Limosa limosa</i>), bar-tailed godwit (<i>Limosa lapponica</i>), curlew (<i>Numenius arquata</i>), black-headed gull (<i>Chroicocephalus ridibundus</i>), common gull (<i>Larus canus</i>), Wetland & Waterbirds			
Summary Conservation objectives: <ul style="list-style-type: none">To maintain the favourable conservation condition of those qualifying interests listed above in Cork Harbour SPA, including the wetland habitat as a resource for the regularly occurring migratory birds that utilise it.			
Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004219.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	42	Offshore pipelines:	32
Offshore platforms	53	Onshore terminal (Zol for terminal is 15km):	n/a

Site Name: Courtmacsherry Bay SPA
Site Code: 004219

Consideration of site interest features against potential sources of likely significant effect

The physical presence of vessels in field and in transit

Physical disturbance of seaduck and other waterbird flocks by vessel traffic is possible, but the distance from vessels at which flushing of birds could take place is significantly less than the minimum distance of potential works (32km from the export pipeline) such that there is no foreseeable interaction. For example, evidence of disturbance distance for the common scoter, which is known to be a shy species, was observed to be 2km from a 35m vessel, though smaller flocks were less sensitive and put to flight at a distance of 1km (Kaiser 2002, also see Schwemmer *et al.* 2011). Gull species, while having the potential to forage within range of the KADP activities (see Thaxter *et al.* 2012), are regarded to have a low sensitivity to shipping traffic (Garthe & Hüppop 2004). There is either no potential for interaction, or the sensitivity of the qualifying interests are such that effects are not considered likely.

Underwater noise from vessels, cutting, rock placement and post-decommissioning survey

While two qualifying interests are diving bird species and therefore potentially sensitive to underwater noise (great northern diver, red-breasted merganser), the foraging ranges of these birds are such that, relative to the distance to the closest underwater noise source from the KADP (32km), there is no foreseeable interaction. Of those other species, they are either coastal (waterbirds) or not regarded to be sensitive to underwater noise (gull species).

Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement

The closest potential offshore works relate to rock placement on the export pipeline (32km distant). The collective footprint of potential physical disturbance is small (0.46-0.75km²) and there will be no disturbance within the site boundary, with works taking place within the existing footprint of Kinsale Area facilities. No interactions with KADP activities are foreseeable.

Discharges to sea

The closest discharges are associated with well abandonment (42km distant) or the release of inhibited water from the export pipeline (53km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly and there is no foreseeable interaction or effect with the coastal habitat of the qualifying interests.

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 42km distant), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). Interaction with site qualifying interests which are primarily coastal or forage in the nearshore (great northern diver, red-breasted merganser) or possibly within the Kinsale Area (gull species), is considered to be unlikely as the probability of such an incident occurring is extremely low.

Site Name: Courtmacsherry Bay SPA
Site Code: 004219

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The largely coastal nature of the qualifying interests, their distance to sources of potential effect of the KADP and the footprint of those effects, and their relative sensitivity to those sources of effect are such that there is either no foreseeable interaction or likelihood of effect, in the context of the site conservation objectives. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining favourable conservation status. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Dungarvan Harbour SPA
Site Code: 004032

Site information

Relevant qualifying interests: Great crested grebe (*Podiceps cristatus*), light-bellied brent goose (*Branta bernicla hrota*), shelduck (*Tadorna tadorna*), red-breasted merganser (*Mergus serrator*), oystercatcher (*Haematopus ostralegus*), golden plover (*Pluvialis apricaria*), grey plover (*Pluvialis squatarola*), lapwing (*Vanellus vanellus*), knot (*Calidris canutus*), dunlin (*Calidris alpina*), black-tailed godwit (*Limosa limosa*), bar-tailed godwit (*Limosa lapponica*), curlew (*Numenius arquata*), redshank (*Tringa totanus*), turnstone (*Arenaria interpres*), Wetland & Waterbirds

Site Name: Dungarvan Harbour SPA Site Code: 004032			
Summary Conservation objectives: <ul style="list-style-type: none"> To maintain the favourable conservation condition of those qualifying interests listed above in Cork Harbour SPA, including the wetland habitat as a resource for the regularly occurring migratory birds that utilise it. 			
Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004032.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	75	Offshore pipelines:	51
Offshore platforms	80	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
The physical presence of vessels in field and in transit Physical disturbance of seaduck and other waterbird flocks by vessel traffic is possible, but the distance from vessels at which flushing of birds could take place is significantly less than the minimum distance of potential works (51km from the export pipeline) such that there is no foreseeable interaction. For example, evidence of disturbance distance for the common scoter, which is known to be a shy species, was observed to be 2km from a 35m vessel, though smaller flocks were less sensitive and put to flight at a distance of 1km (Kaiser 2002, also see Schwemmer <i>et al.</i> 2011).			
Underwater noise from vessels, cutting, rock placement and post-decommissioning survey While one qualifying interest is a diving bird species and therefore potentially sensitive to underwater noise (red-breasted merganser), the foraging ranges of these birds are such that, relative to the distance to the closest underwater noise source from the KADP (51km), there is no foreseeable interaction. The remaining wetland species are coastal and would be at such a distance from KADP activities that there is no foreseeable interaction.			
Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement The closest potential offshore works relate to rock placement on the export pipeline (51km distant). The collective footprint of potential physical disturbance is small (0.46-0.75km ²) and there will be no disturbance within the site boundary, with works taking place within the existing footprint of Kinsale Area facilities, therefore there is no foreseeable interaction.			

Site Name: Dungarvan Harbour SPA

Site Code: 004032

Discharges to sea

The closest discharges are associated with well abandonment (75km distant) or the release of inhibited water from the export pipeline (80km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly and there is no foreseeable interaction or effect with the coastal habitat of the qualifying interests.

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 75km distant), which has a low probability of occurrence. Modelling undertaken for the Middleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). Interaction with site qualifying interests which are primarily coastal or forage in the nearshore (red-breasted merganser) or possibly within the Kinsale Area (gull species), is considered to be unlikely as the probability of such an incident occurring is extremely low.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The coastal nature of the qualifying interests, their distance to sources of potential effect of the KADP and the footprint of those effects, and their relative sensitivity to those sources of effect are such that there is either no foreseeable interaction. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining favourable conservation status. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Galley Head to Duneen Point SPA Site Code: 004190			
Site information			
Relevant qualifying interests: Chough (<i>Pyrrhocorax pyrrhocorax</i>) Summary Conservation objectives: <ul style="list-style-type: none"> To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA (above). Feature attributes and targets defining favourable conservation status: Not listed - https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004190.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	53	Offshore pipelines:	48
Offshore platforms	64	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
The physical presence of vessels in field and in transit The site is some distance from the nearest potential source of physical presence (48km), and while the qualifying interest nests in sea cliffs, foraging is undertaken onshore. In view of the distance to the nearest activity and the nature of the habitat of the qualifying interest, there is no foreseeable interaction with the KADP.			
Underwater noise from vessels, cutting, rock placement and post-decommissioning survey The habitat of the qualifying interest is terrestrial and there is no foreseeable interaction with KADP activities.			
Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement The habitat of the qualifying interest is terrestrial and there is no foreseeable interaction with KADP activities.			
Discharges to sea The habitat of the qualifying interest is terrestrial and there is no foreseeable interaction with KADP activities.			
Accidental events The habitat of the qualifying interest is terrestrial and there is no foreseeable interaction with any potential accidental event.			

Site Name: Galley Head to Duneen Point SPA
Site Code: 004190

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interest and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

Due to the terrestrial nature of the habitat of the qualifying interest, there is no foreseeable interaction with KADP activities. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Helvick Head to Ballyquin SPA
Site Code: 004192

Site information

Relevant qualifying interests: Cormorant (*Phalacrocorax carbo*), peregrine (*Falco peregrinus*), herring gull (*Larus argentatus*), kittiwake (*Rissa tridactyla*), chough (*Pyrrhocorax pyrrhocorax*)

Summary Conservation objectives:

- To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA (above)

Feature attributes and targets defining favourable conservation status:

Not listed - https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004192.pdf

Site Name: Helvick Head to Ballyquin SPA Site Code: 004192			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	65	Offshore pipelines:	37
Offshore platforms	69	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
<p>The physical presence of vessels in field and in transit With the exception of the herring gull, the qualifying interest foraging habitat is either terrestrial (chough), terrestrial and limited to the coast (peregrine) or are limited to the nearshore (cormorant, with a mean maximum foraging range of 35km). The mean maximum foraging range of the herring gull is 61km (Thaxter <i>et al.</i> 2012). However, seabird density declines at distance from the colony such that interaction with KADP activities (only foreseeable for offshore pipeline remediation at 55km distant from the site) is not considered to be significant, particularly in view of its low sensitivity to shipping (Garthe & Hüppop 2004). There is either no potential for interaction, or the sensitivity of the qualifying interests are such that effects are not considered likely.</p> <p>Underwater noise from vessels, cutting, rock placement and post-decommissioning survey While one qualifying interest is a diving bird species and therefore potentially sensitive to underwater noise (cormorant), the foraging ranges of these birds are such that, relative to the distance to the closest underwater noise source from the KADP (37km), there is no foreseeable interaction. Of those other species, their habitat is either coastal (peregrine) or terrestrial (chough), or they not regarded to be sensitive to underwater noise (gull species).</p> <p>Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement The closest potential offshore works relate to rock placement on the export pipeline (37km distant). The collective footprint of potential physical disturbance is small (0.46-0.75km²) and there will be no disturbance within the site boundary, with works taking place within the existing footprint of Kinsale Area facilities. No interactions with KADP activities are foreseeable.</p> <p>Discharges to sea The closest discharges are associated with well abandonment (65km distant) or the release of inhibited water from the export pipeline (69km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly and there is no foreseeable interaction or effect with the coastal habitat of the qualifying interests.</p>			

Site Name: Helvick Head to Ballyquin SPA
Site Code: 004192

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 69km distant), which has a low probability of occurrence. Modelling undertaken for the Middleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). Interaction with site qualifying interests which are primarily coastal or forage in the nearshore (cormorant) or possibly within the Kinsale Area (gull species), is considered to be unlikely as the probability of such an incident occurring is extremely low.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interest and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The largely coastal nature of the qualifying interests, their distance to sources of potential effect of the KADP and the footprint of those effects, and their relative sensitivity to those sources of effect are such that there is either no foreseeable interaction or likelihood of effect. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Mid-Waterford Coast SPA
Site Code: 004193

Site information

Relevant qualifying interests: Cormorant (*Phalacrocorax carbo*), peregrine (*Falco peregrinus*), herring gull (*Larus argentatus*), chough (*Pyrrhocorax pyrrhocorax*)

Site Name: Mid-Waterford Coast SPA Site Code: 004193			
Summary Conservation objectives: <ul style="list-style-type: none"> To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA (above) 			
Feature attributes and targets defining favourable conservation status: Not listed - https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004193.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	64	Offshore pipelines:	55
Offshore platforms	87	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
The physical presence of vessels in field and in transit With the exception of the herring gull, the qualifying interest foraging habitat is either terrestrial (chough), terrestrial and limited to the coast (peregrine) or are limited to the nearshore (cormorant, with a mean maximum foraging range of 35km) such that there is no foreseeable interaction. The mean maximum foraging range of the herring gull is 61km (Thaxter <i>et al.</i> 2012). However, seabird density declines at distance from the colony such that interaction with KADP activities (only foreseeable for offshore pipeline remediation at 55km distant from the site) is not considered to be significant, particularly in view of its low sensitivity to shipping (Garthe & Hüppop 2004). There is either no potential for interaction, or the sensitivity of the qualifying interests are such that effects are not considered likely.			
Underwater noise from vessels, cutting, rock placement and post-decommissioning survey While one qualifying interest is a diving bird species and therefore potentially sensitive to underwater noise (cormorant), the foraging ranges of these birds are such that, relative to the distance to the closest underwater noise source from the KADP (55km), there is no foreseeable interaction. Of those other species, their habitat is either coastal (peregrine) or terrestrial (chough), or they are not regarded to be sensitive to underwater noise (gull species).			
Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement The closest potential offshore works relate to rock placement on the export pipeline (55km distant). The collective footprint of potential physical disturbance is small (0.46-0.75km ²) and there will be no disturbance within the site boundary, with works taking place within the existing footprint of Kinsale Area facilities. No interactions with KADP activities are foreseeable			
Discharges to sea			

Site Name: Mid-Waterford Coast SPA
Site Code: 004193

The closest discharges are associated with well abandonment (55km distant) or the release of inhibited water from the export pipeline (87km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly and there is no foreseeable interaction or effect with the coastal habitat of the qualifying interests.

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 69km distant), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). Interaction with site qualifying interests which are primarily coastal or forage in the nearshore (cormorant) or possibly within the Kinsale Area (gull species), is considered to be unlikely as the probability of such an incident occurring is extremely low.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interest and waste recycling, reuse and disposal, which will take place at a licensed facility

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The largely coastal nature of the qualifying interests, their distance to sources of potential effect of the KADP and the footprint of those effect, and their relative sensitivity to those sources of effect are such that there is either no foreseeable interaction or likelihood of effect, in the context of the site conservation objectives. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Old Head of Kinsale SPA Site Code: 004021			
Site information			
Relevant qualifying interests: Kittiwake (<i>Rissa tridactyla</i>), guillemot (<i>Uria aalge</i>)			
Summary Conservation objectives: <ul style="list-style-type: none"> To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA (above) 			
Feature attributes and targets defining favourable conservation status: Not listed - https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004021.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	34	Offshore pipelines:	25
Offshore platforms	46	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
The physical presence of vessels in field and in transit While having a generally low sensitivity to shipping (Garthe & Hüppop 2004), kittiwake and guillemot may forage at a distance from the site such that there is the potential for interaction with KADP activities.			
Underwater noise from vessels, cutting, rock placement and post-decommissioning survey There is the potential for interactions between a diving seabird species (guillemot) which is potentially sensitive to underwater noise, and KADP activities.			
Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement The closest potential offshore works relate to rock placement on the export pipeline (25km distant). The collective footprint of potential physical disturbance is small (0.46-0.75km ²) and there will be no disturbance within the site boundary, with works taking place within the existing footprint of Kinsale Area facilities. No interactions with KADP activities are foreseeable.			
Discharges to sea The closest discharges are associated with well abandonment (34km distant) or the release of inhibited water from the export pipeline (46km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly and there is no foreseeable interaction or effect with the coastal habitat of the qualifying interests.			

Site Name: Old Head of Kinsale SPA**Site Code: 004021****Accidental events**

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 69km distant), which has a low probability of occurrence. Modelling undertaken for the Middleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). Interaction with site qualifying interests is considered to be unlikely as the probability of such an incident occurring is extremely low, but in view of the wide foraging range (particularly of the gannet qualifying interest feature) there is a potential for interaction although colony or population scale effects are not considered feasible.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interest and waste recycling, reuse and disposal, which will take place at a licensed facility

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

In view of the foraging range and diving behaviour of the guillemot qualifying interest feature, The Old Head of Kinsale SPA was considered in the AA Screening.

Site Name: Seven Heads SPA**Site Code: 004191****Site information**

Relevant qualifying interests: Chough (*Pyrrhocorax pyrrhocorax*)

Site Name: Seven Heads SPA Site Code: 004191			
Summary Conservation objectives: <ul style="list-style-type: none"> To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA (above) 			
Feature attributes and targets defining favourable conservation status: Not listed - https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004191.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	42	Offshore pipelines:	32
Offshore platforms	53	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
The physical presence of vessels in field and in transit The site is some distance from the nearest potential source of physical presence (32km), and while the qualifying interest nests in sea cliffs, foraging is undertaken onshore. In view of the distance to the nearest activity and the nature of the habitat of the qualifying interest, there is no foreseeable interaction with the KADP.			
Underwater noise from vessels, cutting, rock placement and post-decommissioning survey The habitat of the qualifying interest is terrestrial and there is no foreseeable interaction with KADP activities.			
Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement The habitat of the qualifying interest is terrestrial and there is no foreseeable interaction with KADP activities.			
Discharges to sea The habitat of the qualifying interest is terrestrial and there is no foreseeable interaction with KADP activities.			
Accidental events The habitat of the qualifying interest is terrestrial and there is no foreseeable interaction with any potential accidental event.			
Waste recycling, reuse and disposal There is no foreseeable interaction between the site qualifying interest and waste recycling, reuse and disposal, which will take place at a licensed facility.			

Site Name: Seven Heads SPA Site Code: 004191
Atmospheric emissions Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.
Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works n/a – outside of terminal Zol
Conclusion Due to the terrestrial nature of the habitat of the qualifying interest, there is no foreseeable interaction with KADP activities. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.

Site Name: Sheep's Head to Toe Head SPA Site Code: 004156			
Site information			
Relevant qualifying interests: Peregrine (<i>Falco peregrinus</i>), chough (<i>Pyrrhocorax pyrrhocorax</i>)			
Summary Conservation objectives: <ul style="list-style-type: none">To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA (above)			
Feature attributes and targets defining favourable conservation status: Not listed - https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004156.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	65	Offshore pipelines:	65
Offshore platforms	84	Onshore terminal (Zol for terminal is 15km):	n/a

Site Name: Sheep's Head to Toe Head SPA
Site Code: 004156

Consideration of site interest features against potential sources of likely significant effect

The physical presence of vessels in field and in transit

The qualifying interest foraging habitat is either terrestrial (chough) or terrestrial and limited to the coast (peregrine). In view of the distance to the nearest KADP activities (65km), there is no foreseeable effect.

Underwater noise from vessels, cutting, rock placement and post-decommissioning survey

The habitat of the qualifying interests is terrestrial or terrestrial/coastal and there is no foreseeable interaction with KADP activities in view of the distance to the nearest activities (65km).

Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement

The habitat of the qualifying interests is terrestrial or terrestrial/coastal and there is no foreseeable interaction with KADP activities in view of the distance to the nearest activities (65km).

Discharges to sea

The closest discharges are associated with well abandonment (65km distant) or the release of inhibited water from the export pipeline (84km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly and there is no foreseeable interaction or effect with the coastal habitat of the qualifying interests.

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 65km distant), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). Interaction with site qualifying interests which are primarily terrestrial or may forage coastally (peregrine), is considered to be unlikely.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interest and waste recycling, reuse and disposal, which will take place at a licensed facility

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Site Name: Sheep's Head to Toe Head SPA Site Code: 004156
Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works n/a – outside of terminal Zol
Conclusion
The terrestrial/coastal nature of the qualifying interests, their distance to sources of potential effect of the KADP and the footprint of those effects, and their relative sensitivity to those sources of effect are such that there is either no foreseeable interaction or likelihood of effect, in the context of the site conservation objectives. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment

Site Name: Sovereign Islands SPA Site Code: 004124			
Site information			
Relevant qualifying interests: Cormorant (<i>Phalacrocorax carbo</i>)			
Summary Conservation objectives: <ul style="list-style-type: none">To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA (above)			
Feature attributes and targets defining favourable conservation status: Not listed - https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004124.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	33	Offshore pipelines:	16
Offshore platforms	46	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
The physical presence of vessels in field and in transit			

Site Name: Sovereign Islands SPA
Site Code: 004124

The qualifying interest foraging habitat is limited to the nearshore (cormorant), which has a maximum foraging range of 35km, mean maximum of 25km (± 10 km), and a mean of 5.2km (± 1.5 km) – see Thaxter *et al.* (2012) – with modelled densities nearing zero at 25-30km (Critchley *et al.* 2018). The only pathway for potential effects on cormorant is that of vessel disturbance associated with pipeline works close to shore and vessel movements between the KADP area and adjacent ports which represent a very small proportion of the overall decommissioning programme and would be incremental to existing shipping traffic.

Underwater noise from vessels, cutting, rock placement and post-decommissioning survey

While the qualifying interest is a diving bird species and therefore potentially sensitive to underwater noise, the primarily nearshore foraging habitat of this bird is such that, relative to the distance to the closest underwater noise source from the KADP (16km), there is limited potential for interaction.

Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement

The closest potential offshore works relate to rock placement on the export pipeline (16km distant). The collective footprint of potential physical disturbance is small (0.46-0.75km²) and there will be no disturbance within the site boundary, with works taking place within the existing footprint of Kinsale Area facilities.

Discharges to sea

The closest discharges are associated with well abandonment (33km distant) or the release of inhibited water from the export pipeline (46km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly and there is no foreseeable interaction or effect with the coastal habitat of the qualifying interests.

Accidental events

The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 69km distant), which has a low probability of occurrence. Modelling undertaken for the Middleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). Interaction with site qualifying interests which are primarily coastal or forage in the nearshore (cormorant), is considered to be unlikely as the probability of such an incident occurring is extremely low.

Waste recycling, reuse and disposal

There is no foreseeable interaction between the site qualifying interest and waste recycling, reuse and disposal, which will take place at a licensed facility

Site Name: Sovereign Islands SPA
Site Code: 004124

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The coastal nature of the qualifying interest, their distance to the major sources of potential effect of the KADP and the footprint of those effects, and their limited scope for interaction is such that there is either no foreseeable likelihood of effect, in the context of the site conservation objectives. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment

Site Name: Tramore Back Strand SPA
Site Code: 004027

Site information

Relevant qualifying interests: Light-bellied brent goose (*Branta bernicla hrota*), golden plover (*Pluvialis apricaria*), grey plover (*Pluvialis squatarola*), lapwing (*Vanellus vanellus*), dunlin (*Calidris alpina*), black-tailed godwit (*Limosa limosa*), bar-tailed godwit (*Limosa lapponica*), curlew (*Numenius arquata*), Wetland & Waterbirds

Summary Conservation objectives:

- To maintain the favourable conservation condition of those qualifying interests listed above in Cork Harbour SPA, including the wetland habitat as a resource for the regularly occurring migratory birds that utilise it.

Feature attributes and targets defining favourable conservation status:

https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004027.pdf

Site Name: Tramore Back Strand SPA Site Code: 004027			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	104 n/a (outside of Zol)	Offshore pipelines:	87
Offshore platforms	103 n/a (outside of Zol)	Onshore terminal (Zol for terminal is 15km):	n/a
Consideration of site interest features against potential sources of likely significant effect			
<p>The physical presence of vessels in field and in transit Physical disturbance of waterbird flocks by vessel traffic is possible, but the distance from vessels at which flushing of birds could take place is significantly less than the minimum distance of potential works (87km from the export pipeline) such that there is no foreseeable interaction. For example, evidence of disturbance distance for the common scoter, which is known to be a shy species, was observed to be 2km from a 35m vessel, though smaller flocks were less sensitive and put to flight at a distance of 1km (Kaiser 2002, also see Schwemmer <i>et al.</i> 2011).</p> <p>Underwater noise from vessels, cutting, rock placement and post-decommissioning survey None of the qualifying interests are diving seabirds which are likely to be most at risk of any underwater noise effects and therefore no interactions with KADP activities are foreseeable.</p> <p>Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement The closest potential offshore works relate to rock placement on the export pipeline (87km distant). There is no foreseeable interaction between the placement of rock and the relevant habitat of qualifying interests of the site, including the wetland habitat.</p> <p>Discharges to sea The closest discharges are associated with well abandonment or the release of inhibited water from the export pipeline (103km). In view of the nature and scale of these discharges in relation to the water depths at the discharge points (~90-100m) these will disperse rapidly and there is no foreseeable interaction or effect with the coastal habitat of the qualifying interests.</p> <p>Accidental events The only accidental event considered possible is the spill of diesel from the rig or HLV (at least 103km distant), which has a low probability of occurrence. Modelling undertaken for the Midleton well located 20km north-east of the Kinsale Head area concluded that for a scenario where the entire rig fuel inventory was lost, there was zero percent probability of beaching (note HLV and rig inventories are similar). Interaction with site qualifying interests which are primarily coastal, though containing gull species which may forage in the Kinsale Area, is considered to be unlikely.</p>			

Site Name: Tramore Back Strand SPA**Site Code: 004027****Waste recycling, reuse and disposal**

There is no foreseeable interaction between the site qualifying interests and waste recycling, reuse and disposal, which will take place at a licensed facility.

Atmospheric emissions

Activities associated with the KADP will lead to emissions of gases which contribute both to localised and short-term increases in atmospheric pollutants, and to atmospheric GHG concentrations. The overall significance of the impact of atmospheric emissions from the project is considered to be low and will not cause a significant impact on the site qualifying interests.

Accidental events arising from the terminal demolition; noise associated with the demolition of Inch terminal & dust emissions associated with the terminal demolition works

n/a – outside of terminal Zol

Conclusion

The coastal nature of the qualifying interest, their distance to the major sources of potential effect of the KADP and the footprint of those effects, and their limited scope for interaction is such that there is either no foreseeable likelihood of effect, in the context of the site conservation objectives. Therefore the KADP will not affect those site attributes or related targets set for each interest towards achieving the conservation objectives of maintaining favourable conservation status. The site was therefore not considered to be relevant beyond its initial identification as being within the Zol and was excluded from further assessment.