

Kinsale Energy Limited

**Kinsale Area Decommissioning
Project**

Response to Request for Further
Information

REP_RFI

Issue 1 | 12 December 2018

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

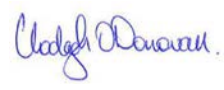

Job number 253993-00

Ove Arup & Partners Ireland Ltd

Arup
One Albert Quay
Cork
T12 X8N6
Ireland
www.arup.com

ARUP

Document Verification

Job title		Kinsale Area Decommissioning Project		Job number	
				253993-00	
Document title		Response to Request for Further Information		File reference	
Document ref		REP_RFI			
Revision	Date	Filename	253993_Response to RFI.docx		
Draft 1	19 Oct 2018	Description	First draft		
			Prepared by	Checked by	Approved by
		Name	Various	Clodagh O'Donovan	Paul Brady
		Signature			
Issue 1	12 Dec 2018	Filename	253993_Response to RFI.docx		
		Description	Issue 1		
			Prepared by	Checked by	Approved by
		Name	Various	Clodagh O'Donovan	Paul Brady
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			

Issue Document Verification with Document



Contents

	Page	
1	Introduction	1
2	AA Screening and Article 12	2
2.1	DCCAЕ Query:	2
2.2	Response:	2

1 Introduction

On 30th November 2018 the Petroleum Affairs Division, Department of Communications, Climate Action and Environment (DCCAE) wrote to PSE Kinsale Energy Limited (KEL) requesting further information on its application to decommission certain of the Kinsale Head/ Ballycotton gas field facilities and the application by PSE Seven Heads Limited for the decommissioning of certain of the Seven Heads gas field facilities.

KEL has considered the points raised in the DCCAE letter and encloses herein a detailed response to this request for further information.

2 AA Screening and Article 12

2.1 DCCAE Query:

While it is noted that Section 9 of the Request for Further Information has provided a response to Query No. 1 of the Ministers Request for the further information, further clarification is required from PSE Kinsale Energy to inform Screening for Appropriate Assessment, as follows:

PSE Kinsale are requested to provide an assessment on all Natura 2000 sites within the zone of influence, including the sites excluded for further assessment. The assessment should list the qualifying interests of each Natura 2000 site and provide a rationale as to why the sites and their associated qualifying interests were included or excluded for further assessment based on their conservation objectives. A tabular format may be appropriate.

2.2 Response:

All of the relevant sites within the Zone of Influence (ZoI) as defined in Section 4 of the AA screening document along with their qualifying interests and conservation objectives are shown in Table 1 below¹. For each site, a consideration is made of the impact pathways between activities associated with the proposed Kinsale Area Decommissioning Project (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. This tabulation documents the reasoning for those sites which were not considered further beyond their identification as being within the ZoI, and those subject to assessment in Section 5 of the AA Screening document.

As noted 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)², and confined to locations relating to rig and heavy lift vessel (HLV) anchoring, and platform and other subsea infrastructure removal or remediation.

¹ Note that the assessment has considered all of those attributes and targets which are part of the conservation objectives series of documents for the SACs and SPAs.

² 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.

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, and it is not considered likely that the physical disturbance will result in a likely significant effect.

- 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.

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.

These conclusions remain relevant to this response but for clarity, each are also briefly considered against the relevant sites. Those sites within the ZoI are listed in Table 1 below along with reference as to whether they were considered further in the AA screening and links to the appraisal of each site which is documented in Sections 2.2.1 and 2.2.2 for SACs and SPAs respectively.

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

Site code	Site name	Site considered further in AA screening	Page number of site appraisal in this document
SACs			
002123	Ardmore Head SAC	No	5
000077	Ballymacoda (Clonpriest & Pillmore) SAC	No	7
001040	Barley Cove to Ballyrisode Point SAC	No	9
002170	Blackwater River SAC	Yes	11
000091	Clonakilty Bay SAC	No	13
001230	Courtmacsherry Estuary SAC	No	15
001058	Great Island Channel SAC	Yes	18
000665	Helvick Head SAC	No	19
000764	Hook Head SAC	No	21
001061	Kilkeran Lake and Castlefreke Dunes SAC	No	23
000097	Lough Hyne Nature Reserve and Environs SAC	No	25
002162	River Barrow & River Nore SAC	No	26
000101	Roaringwater Bay and Islands SAC	Yes	29
000671	Tramore Dunes and Backstrand SAC	No	32
002171	Bandon River SAC	No	34
SPAs			
004022	Ballycotton Bay SPA	No	36
004023	Ballymacoda Bay SPA	No	38
004028	Blackwater Estuary SPA	No	40
004081	Clonakilty Bay SPA	No	42
004030	Cork Harbour SPA	Yes	44
004219	Courtmacsherry Bay SPA	No	46
004032	Dungarvan Harbour SPA	No	48
004190	Galley Head to Duneen Point SPA	No	50
004192	Helvick Head to Ballyquin SPA	No	51
004193	Mid-Waterford Coast SPA	No	53
004021	Old Head of Kinsale SPA	Yes	55
004191	Seven Heads SPA	No	57
004156	Sheep's Head to Toe Head SPA	No	58
004124	Sovereign Islands SPA	No	60
004027	Tramore Back Strand SPA	No	62

2.2.1 SACs

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.			
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.			

Site Name: Ardmore Head SAC
Site Code: 002123

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.			
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.			

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

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 Zol

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 Zol and was excluded from further assessment.

Site Name: Barley Cove to Ballyrisode Point SAC			
Site Code: 001040			
Site information			
<p>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</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 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. 			
<p>Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001040.pdf</p>			
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			
<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 95km 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 (95km distant). There is no foreseeable interaction between the placement of rock and the relevant qualifying interest habitats of the site.</p>			

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

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 Zol). 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 Zol

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 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: 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 maritimae*), otter, Mediterranean salt meadows (*Juncetalia maritimi*), Killarney fern *Trichomanes speciosum*, water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-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 maritimae*)
- To restore the favourable conservation condition of otter
- 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 *Ranunculion 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.

Site Name: Blackwater River SAC			
Site Code: 002170			
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			
<p>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.</p>			
Underwater noise from vessels, cutting, rock placement and post-decommissioning survey			
<p>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; 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.</p>			
Physical disturbance from rig placement, rig and vessel anchoring, and infrastructure removal and rock placement			
<p>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.</p>			
Discharges to sea			
<p>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</p>			

Site Name: Blackwater River SAC
Site Code: 002170

(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.

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 *Ammophila arenaria* (white dunes), fixed coastal dunes with herbaceous vegetation (grey dunes), Atlantic decalcified fixed dunes (*Calluno-Ulicetea*)

Site Name: Clonakilty Bay SAC Site Code: 000091			
Summary Conservation objectives: 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
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 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.			
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 (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.			
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.			

Site Name: Clonakilty Bay SAC
Site Code: 000091

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.

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 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).

Site Name: Courtmacsherry Estuary SAC
Site Code: 001230

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*)
- To maintain the favourable conservation condition of Mediterranean salt meadows (*Juncetalia maritim*)
- 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.

Site Name: Courtmacsherry Estuary SAC
Site Code: 001230

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.

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 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 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 (<i>Glauco-Puccinellietalia maritima</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 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 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

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

Summary Conservation objectives:

- 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.

Site Name: Helvick Head SAC Site Code: 000665			
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			
<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 57km from any offshore works such that there is no foreseeable interaction.</p> <p>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.</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 (57km 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 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.</p> <p>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 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>			

Site Name: Helvick Head SAC Site Code: 000665
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 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 ZoI 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: <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 								
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								
<table border="1"> <tr> <td>Subsea wells & other subsea structures:</td> <td>100</td> <td>Offshore pipelines:</td> <td>82</td> </tr> <tr> <td>Offshore platforms</td> <td>98</td> <td>Onshore terminal (ZoI for terminal is 15km):</td> <td>n/a</td> </tr> </table>	Subsea wells & other subsea structures:	100	Offshore pipelines:	82	Offshore platforms	98	Onshore terminal (ZoI for terminal is 15km):	n/a
Subsea wells & other subsea structures:	100	Offshore pipelines:	82					
Offshore platforms	98	Onshore terminal (ZoI for terminal is 15km):	n/a					

Site Name: Hook Head SAC
Site Code: 000764

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 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

Site Name: Hook Head SAC
Site Code: 000764

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 ZoI and was excluded from further assessment.

Site Name: Kilkeran Lake and Castlerefere 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.
- 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 (ZoI 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

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

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.

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 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 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			
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 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.			

<p>Site Name: Lough Hyne Nature Reserve and Environs SAC Site Code: 000097</p>
<p>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). 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 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.</p> <p>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</p>
<p>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.</p>

<p>Site Name: River Barrow & River Nore SAC Site Code: 002162</p>
<p>Site information</p> <p>Relevant qualifying interests: Desmoulin's whorl snail <i>Vertigo moulinsiana</i>, freshwater pearl mussel <i>Margaritifera margaritifera</i>, white-clawed crayfish <i>Austropotamobius pallipes</i>, sea lamprey <i>Petromyzon marinus</i>, brook lamprey <i>Lampetra planeri</i>, river lamprey <i>Lampetra fluviatilis</i>, twaite shad <i>Alosa fallax</i>, Atlantic salmon <i>Salmo salar</i> (only in fresh water), estuaries, mudflats and sandflats not covered by seawater at low tide, <i>Salicornia</i> and other annuals colonizing mud and sand, Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>), otter <i>Lutra lutra</i>, Mediterranean salt meadows (<i>Juncetalia maritimi</i>), Killarney fern <i>Trichomanes speciosum</i>, Nore freshwater pearl mussel <i>Margaritifera durrovensis</i>, water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation, European dry heaths, hydrophilous tall herb fringe communities of plains and of the montane</p>

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

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 *Ranunculion fluitantis* and *Callitricho-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*
- 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

Site Name: River Barrow & River Nore SAC Site Code: 002162			
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			
<p>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.</p> <p>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.</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 (91km distant). There is no foreseeable interaction between the placement of rock and the relevant habitat of qualifying interests of the site.</p> <p>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.</p> <p>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.</p>			

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

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.

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 *Phocoena phocoena*, otter *Lutra lutra*, grey seal *Halichoerus grypus*, European dry heaths, submerged or partly submerged sea caves

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 vegetated sea cliffs of the Atlantic and Baltic coasts.

Site Name: Roaringwater Bay and Islands SAC Site Code: 000101			
<ul style="list-style-type: none"> 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. 			
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			
<p>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.</p>			
<p>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.</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 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).</p>			

Site Name: Roaringwater Bay and Islands SAC
Site Code: 000101

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.

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.

<p>Site Name: Tramore Dunes and Backstrand SAC Site Code: 000671</p>			
<p>Site information</p>			
<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 maritim</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 maritim</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>			
<p>Closest distance (km) to decommissioning works</p>			
<p>Subsea wells & other subsea structures:</p>	<p>104 n/a (outside of Zol)</p>	<p>Offshore pipelines:</p>	<p>80</p>
<p>Offshore platforms</p>	<p>104 n/a (outside of Zol)</p>	<p>Onshore terminal (Zol for terminal is 15km):</p>	<p>n/a</p>
<p>Consideration of site interest features against potential sources of likely significant effect</p>			
<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>			

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

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.

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.

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.

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 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 <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation, alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>), freshwater pearl mussel <i>Margaritifera margaritifera</i> , brook lamprey <i>Lampetra planeri</i>			
Summary Conservation objectives:			
<ul style="list-style-type: none"> 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			
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			
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 (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.			
Underwater noise from vessels, cutting, rock placement and post-decommissioning survey			
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.			

Site Name: Bandon River SAC
Site Code: 002171

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

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.

Discharges to sea

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 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 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 Zol and was excluded from further assessment.

2.2.2 SPAs

Site Name: Ballycotton Bay SPA Site Code: 004022			
Site information			
<p>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</p> <p>Summary Conservation objectives:</p> <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. <p>Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004022.pdf</p>			
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			
<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 (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.</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>			

Site Name: Ballycotton Bay SPA
Site Code: 004022

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 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

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.

Site Name: Ballycotton Bay SPA
Site Code: 004022

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.

Site Name: Ballymacoda Bay SPA
Site Code: 004023

Site information

Relevant qualifying interests: Wigeon (*Anas penelope*), teal (*Anas crecca*), ringed plover (*Charadrius hiaticula*), golden plover (*Pluvialis apricaria*), grey plover (*Pluvialis squatarola*), lapwing (*Vanellus vanellus*), sanderling (*Calidris alba*), dunlin (*Calidris alpina*), black-tailed godwit (*Limosa limosa*), bar-tailed godwit (*Limosa lapponica*), curlew (*Numenius arquata*), redshank (*Tringa totanus*), turnstone (*Arenaria interpres*), black-headed gull (*Chroicocephalus ridibundus*), common gull (*Larus canus*), lesser black-backed gull (*Larus fuscus*), Wetland & Waterbirds

Summary Conservation objectives:

- 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
Offshore platforms	51	Onshore terminal (ZoI 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 (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 *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.

Site Name: Ballymacoda Bay SPA
Site Code: 004023

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 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.

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.

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 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

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.

Site Name: Ballymacoda Bay SPA
Site Code: 004023

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.

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.

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 (ZOI 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 (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 *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.

Site Name: Blackwater Estuary SPA
Site Code: 004028

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 (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.

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 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 (<i>Tadorna tadorna</i>), dunlin (<i>Calidris alpina</i>), black-tailed godwit (<i>Limosa limosa</i>), curlew (<i>Numenius arquata</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 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 <i>et al.</i> 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.			

Site Name: Clonakilty Bay SPA
Site Code: 004081

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.

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 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 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			
<p>Relevant qualifying interests: Little grebe (<i>Tachybaptus ruficollis</i>), great crested grebe (<i>Podiceps cristatus</i>), cormorant (<i>Phalacrocorax carbo</i>), grey heron (<i>Ardea cinerea</i>), shelduck (<i>Tadorna tadorna</i>), wigeon (<i>Anas penelope</i>), teal (<i>Anas crecca</i>), pintail (<i>Anas acuta</i>), shoveler (<i>Anas clypeata</i>), red-breasted merganser (<i>Mergus serrator</i>), oystercatcher (<i>Haematopus ostralegus</i>), golden plover (<i>Pluvialis apricaria</i>), grey plover (<i>Pluvialis squatarola</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>), redshank (<i>Tringa totanus</i>), black-headed gull (<i>Chroicocephalus ridibundus</i>), common gull (<i>Larus canus</i>), lesser black-backed gull (<i>Larus fuscus</i>), common tern (<i>Sterna hirundo</i>), Wetland & Waterbirds</p>			
<p>Summary Conservation objectives:</p> <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. 			
<p>Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004030.pdf</p>			
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			
<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 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 were KADP activities are proposed, such that there is the potential for interaction with core foraging areas.</p>			
<p>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.</p>			
<p>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.</p>			

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.

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			
<p>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</p>			
<p>Summary Conservation objectives:</p> <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. 			
<p>Feature attributes and targets defining favourable conservation status: https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004219.pdf</p>			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	42	Offshore pipelines:	32
Offshore platforms	53	Onshore terminal (ZoI 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 (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 <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 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).</p>			

Site Name: Courtmacsherry Bay SPA
Site Code: 004219

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.

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			
<p>Relevant qualifying interests: Great crested grebe (<i>Podiceps cristatus</i>), light-bellied brent goose (<i>Branta bernicla hrota</i>), shelduck (<i>Tadorna tadorna</i>), red-breasted merganser (<i>Mergus serrator</i>), oystercatcher (<i>Haematopus ostralegus</i>), golden plover (<i>Pluvialis apricaria</i>), grey plover (<i>Pluvialis squatarola</i>), lapwing (<i>Vanellus vanellus</i>), knot (<i>Calidris canutus</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>), Wetland & Waterbirds</p>			
<p>Summary Conservation objectives:</p> <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. 			
<p>Feature attributes and targets defining favourable conservation status:</p> <p>https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004032.pdf</p>			
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			
<p>The physical presence of vessels in field and in transit</p> <p>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).</p>			
<p>Underwater noise from vessels, cutting, rock placement and post-decommissioning survey</p> <p>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.</p>			

Site Name: Dungarvan Harbour SPA
Site Code: 004032

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 (0.46-0.75km²) 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.

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 (<i>Phalacrocorax carbo</i>), peregrine (<i>Falco peregrinus</i>), herring gull (<i>Larus argentatus</i>), kittiwake (<i>Rissa tridactyla</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/CO004192.pdf								
Closest distance (km) to decommissioning works								
<table border="1"> <tr> <td>Subsea wells & other subsea structures:</td> <td>65</td> <td>Offshore pipelines:</td> <td>37</td> </tr> <tr> <td>Offshore platforms</td> <td>69</td> <td>Onshore terminal (Zol for terminal is 15km):</td> <td>n/a</td> </tr> </table>	Subsea wells & other subsea structures:	65	Offshore pipelines:	37	Offshore platforms	69	Onshore terminal (Zol for terminal is 15km):	n/a
Subsea wells & other subsea structures:	65	Offshore pipelines:	37					
Offshore platforms	69	Onshore terminal (Zol for terminal is 15km):	n/a					

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

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). The mean maximum foraging range of the herring gull is 61km (Thaxter *et al.* 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 (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).

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.

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.

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.

Site Name: Helvick Head to Ballyquin SPA Site Code: 004192
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 (<i>Phalacrocorax carbo</i>), peregrine (<i>Falco peregrinus</i>), herring gull (<i>Larus argentatus</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/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			

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

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 *et al.* 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 (0.46-0.75km²) 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 (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 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.

Site Name: Mid-Waterford Coast SPA Site Code: 004193
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								
<table border="1"> <tr> <td>Subsea wells & other subsea structures:</td> <td>34</td> <td>Offshore pipelines:</td> <td>25</td> </tr> <tr> <td>Offshore platforms</td> <td>46</td> <td>Onshore terminal (Zol for terminal is 15km):</td> <td>n/a</td> </tr> </table>	Subsea wells & other subsea structures:	34	Offshore pipelines:	25	Offshore platforms	46	Onshore terminal (Zol for terminal is 15km):	n/a
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								

Site Name: Old Head of Kinsale SPA
Site Code: 004021

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 (0.46-0.75km²) 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 (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.

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 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

Site Name: Old Head of Kinsale SPA Site Code: 004021
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 (<i>Pyrhocorax 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/CO004191.pdf			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	42	Offshore pipelines:	32
Offshore platforms	53	Onshore terminal (ZoI 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.			

Site Name: Seven Heads SPA Site Code: 004191
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.
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

Site Name: Sheep's Head to Toe Head SPA Site Code: 004156			
Closest distance (km) to decommissioning works			
Subsea wells & other subsea structures:	65	Offshore pipelines:	65
Offshore platforms	84	Onshore terminal (ZoI 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 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.</p> <p>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).</p> <p>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).</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 (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.</p> <p>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 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 terrestrial or may forage coastally (peregrine), is considered to be unlikely.</p> <p>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</p>			

Site Name: Sheep's Head to Toe Head SPA Site Code: 004156
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 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								
<table border="1"> <tr> <td>Subsea wells & other subsea structures:</td> <td>33</td> <td>Offshore pipelines:</td> <td>16</td> </tr> <tr> <td>Offshore platforms</td> <td>46</td> <td>Onshore terminal (Zol for terminal is 15km):</td> <td>n/a</td> </tr> </table>	Subsea wells & other subsea structures:	33	Offshore pipelines:	16	Offshore platforms	46	Onshore terminal (Zol for terminal is 15km):	n/a
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								

Site Name: Sovereign Islands SPA
Site Code: 004124

The physical presence of vessels in field and in transit

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 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), 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.

Site Name: Sovereign Islands SPA Site Code: 004124
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 (<i>Branta bernicla hrota</i>), golden plover (<i>Pluvialis apricaria</i>), grey plover (<i>Pluvialis squatarola</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>), 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/CO004027.pdf			
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			

Site Name: Tramore Back Strand SPA
Site Code: 004027

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 *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 (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.

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.

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.

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: Tramore Back Strand SPA
Site Code: 004027

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.

2.2.3 References

- Critchley EJ, Grecian WJ, Kane A, Jessopp MJ & Quinn JL (2018). Marine protected areas show low overlap with projected distributions of seabird populations in Britain and Ireland. *Biological Conservation* **224**: 309-317.
- Garthe S & Hüppop O (2004). Scaling possible adverse effects of marine wind farms on seabirds: developing and applying a vulnerability index. *Journal of Applied Ecology* **41**: 724-734.
- Kaiser MJ (2002). Predicting the displacement of common scoter *Melanitta nigra* from benthic feeding areas due to offshore windfarms. Centre for Applied Marine Sciences, School of Ocean Sciences, University of Wales, BANGOR. Report for COWRIE, 8pp.
- Schwemmer P, Mendel B, Sonntag N, Dierschke V & Garthe S (2011). Effects of ship traffic on seabirds in offshore waters: implications for marine conservation and spatial planning. *Ecological Applications* **21**: 1851-1860.
- Thaxter CB, Lascelles B, Sugar K, ASCP Cook, Roos S, Bolton M, Langston RHW & Burton NHK (2012). Seabird foraging ranges as a preliminary tool for identifying candidate Marine Protected Areas. *Biological Conservation* **156**: 53-61.