

## 16 ASSESSMENT OF ENVIRONMENTAL EFFECTS

### 16.1 Introduction

Section 16 of the 2001 Offshore EIS summarised the potential environmental effects, proposed mitigation measures and residual impacts (impacts remaining after mitigation) associated with the proposed offshore development.

A reassessment of the potential impacts of the offshore facilities yet to be constructed has been completed as part of this Supplementary Update Report. The reassessment has only considered impacts where newly available project or environmental data are available, including the revised schedule of works and detailed method statements that are now available.

The findings of the reassessment result in some changes to the summary presented in Section 16 of the 2001 Offshore EIS. Potential environmental effects, proposed mitigation measures or residual impacts that *do* differ from 2001 are presented in Table 16-1. The central column of the table lists the changed information that is now available and that could have affected the assessment of impacts.

Throughout this section it is noted that whilst nearshore construction activity commenced during 2008, it continued in the summer of 2009 and will require works over a further season. It is therefore acknowledged that some offshore construction-related impacts will have a greater duration than that originally envisaged.

### 16.2 Accidental Events

There are no changes to the assessment of risks for abnormal operations and accidental events as presented in Section 16.3 of the 2001 Offshore EIS.

**Table 16-1: Assessment of Potential Impacts, Proposed Mitigation Measures and Predicted Impacts for Remaining Facilities Installation**

Aspect/Potential Impact	Control/Mitigation Measures	Predicted Impact/Ecological Significance
<b>CONSTRUCTION OPERATIONS WITHIN CORRIB FIELD</b>		
WELL TIE-IN AND INSTALLATION OF FLOWLINES  Emissions from vessels – Air Water	Use of low sulphur fuel, well maintained engines Efficient black and grey water treatment systems	NEGLIGIBLE  Vessels may be in Corrib field longer than predicted in 2001 Offshore EIS, although impact still predicted to be negligible
<b>OFFSHORE UMBILICAL LAYING OPERATIONS</b>		
PRESENCE & MOVEMENT OF UMBILICAL REEL-LAY VESSEL & OTHER VESSELS:  Emissions from vessels – Air Water	Use of low sulphur fuel, well maintained engines Efficient black and grey water treatment systems	NEGLIGIBLE  Due to the requirement for further construction seasons the duration of impacts is greater than initially anticipated. The vessels will therefore spend longer on offshore construction operations than predicted in 2001 Offshore EIS. The residual impact is still predicted to be negligible.
<b>NEAR-SHORE/LANDFALL ROCK PLACEMENT AND UMBILICAL LAYING OPERATIONS</b>		
NEAR-SHORE ROCK PLACEMENT OPERATIONS:  Emissions from vessels – Air Water  Physical impacts to the seabed / loss of seabed habitat	Use of low sulphur fuel, well maintained engines Efficient black and grey water treatment systems  Rock placement is required for sections of the pipeline and umbilical that require additional stabilisation. Rock will be placed over as small an area as possible to prevent scour and to ensure that the rock placed footprint is minimised as far as possible. Rock selected is an inert granite and will provide valuable substrate for colonisation of epibenthos.	MINOR  The vessels will be present in Broadhaven Bay undertaking rock-placement in 2010 and possibly 2011. The impact is still predicted to be negligible.  Permanent seabed habitat loss for the area of the rock placed footprint. Introduction of an equivalent area of hard substrate for epibenthic colonisation in place of the lost soft sediment habitat. The impact is predicted to be minor.

Aspect/Potential Impact	Control/Mitigation Measures	Predicted Impact/Ecological Significance
<p>LANDFALL WORKS</p> <p>General</p>	<p>Notice of particularly noisy operations will be given to local residents</p>	<p>MINOR Visual impact still temporary and minor even though the duration of works is greater than initially anticipated It is also acknowledged that disturbance will now be over more than one construction season.</p>
<p>PRE-COMMISSIONING – OFFSHORE PIPELINE</p> <p>Noise impact</p> <p>Landscape</p>	<p>Information available on the pre-commissioning nitrogen equipment to be located at Glengad indicate that high noise levels will occur during the pre-commissioning works. Therefore, working hours in relation to running the nitrogen plant may be restricted to 07:00–22:00, provided further attenuation can not be achieved. If noise can be reduced to acceptable levels, it would be proposed to run the pre-commissioning plant on a 24-hour basis.</p> <p>The nitrogen plant will be present on site for approximately 1 to 2 weeks at the Glengad landfall site</p>	<p>NEGLIGIBLE</p> <p>No change to predicted impact even though it is acknowledged that disturbance will be over more seasons than originally envisaged.</p> <p>Any visual impacts will be minimal and only result in short-term landscape and visual impacts.</p>
<p>UMBILICAL INSTALLATION</p> <p>Umbilical pull-in operations</p>	<p>Notice of particularly noisy operations will be given to local residents. Umbilical pull-in will be a continuous, 24-hour operation.</p>	<p>NEGLIGIBLE</p> <p>No change to predicted impact even though it is acknowledged that disturbance will be over more seasons than originally envisaged.</p>
<b>OUTFALL AND OUTFALL DISCHARGES</b>		
<p>FORMATION, CONDENSATION AND RAIN WATER</p> <p>Discharge of surface water run-off from terminal</p> <p>Discharge of produced water</p>	<p>Treated surface water outfall located 2.5km north of Erris Head outside Broadhaven Bay cSAC.</p> <p>Treated produced water to be discharged offshore at the manifold in the Corrib field.</p>	<p>NEGLIGIBLE</p> <p>No change to predicted impact.</p>