

## 15 MATERIAL ASSETS

### 15.1 Introduction

The 2001 Offshore EIS assessed the potential impact of the project on resources that are available to the local community, specifically focusing in the 'Material Assets' section on waste treatment and the local road network. This section presents an update of relevant legislation on waste disposal, and more detailed information on the waste and transport aspects of the offshore pipeline and landfall construction and operation.

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

### 15.2 Solid Waste

#### 15.2.1 Introduction

This section considers the various solid waste materials and substances that will be generated during the installation, operation and decommissioning of the offshore development.

#### 15.2.2 Study Methodology

Since the production of the 2001 Offshore EIS, the implementation of the Waste Management Act has set the category of hazardous waste. Other effects include a more rigorous system for the control and management of waste through licensing by the EPA or via permit at the local authorities.

Section 15.2 of the 2001 EIS refers to waste that has been categorised as general (controlled) waste or special waste. Reference to special waste in the 2001 EIS should now be considered as hazardous waste.

#### 15.2.3 Receiving Environment

##### 15.2.3.1 European Union Legislation

Table 15.1 of the 2001 Offshore EIS provides a list of the European waste legislation relevant to the offshore section of the Corrib development. An updated table showing the most recent legislation is provided in Table 15-1 below.

**Table 15-1: European Waste Legislation**

Directive	Name	Summary
2006/12/EC	Council Directive on Waste	Requires that any establishment that carries out disposal operations or possible recovery operations will require a permit from the competent authority. Permits must cover types and quantities of waste, technical requirements, security precautions, disposal site and treatment method. Directive 2006/12/EC consolidates and replaces Directive 75/442/EEC as subsequently amended.
94/62/EC As amended by 2004/12/EC 2005/20/EC	European Parliament and Council Directive on packaging and packaging waste	Regulation introduces the concept of "producer responsibility" for packaging waste. Member states are required to take measures to achieve 60% recovery by 2011 and material specific targets that range from 15% (wood) to 60% (paper & glass).
75/439/EC As amended by 87/101/EEC 91/692/EEC	Council Directive on the disposal of waste oils	Requires that any establishment undertaking "disposing" of waste oils (such as lubricating oils and used oils but not oil refinery wastes) must obtain a permit from the competent authority. Member states shall take the

Directive	Name	Summary
2000/76/EC		necessary measures to ensure that waste oils are collected and disposed of without causing any avoidable damage to man and the environment.
EC 1013/2006	Council regulation on the supervision and control of shipments of waste within, into and out of the European Community	Establishes a system of supervision and control of all movements of waste. It provides for a common, compulsory notification system and for a standard consignment note for shipments of waste. Requires that any holder of any toxic and dangerous waste who intends to move it across a frontier is required to notify the competent authority of the member states concerned and where applicable, any third state, by means of a consignment note. Conditions are laid down covering packaging, labelling and instructions in the event of danger and an accident.
2000/76/EC	Waste Incineration Directive	Directive introduces controls when incinerating both hazardous and harmless wastes may cause emissions of substances that pollute the air, water and soil, and have harmful effects on human health.
1999/31/EC	Council Directive on the landfill of waste	It defines the different categories of waste (municipal waste, hazardous waste, non-hazardous waste and inert waste) and applies to all landfills, defined as waste disposal sites for the deposit of waste onto or into land. Landfills are divided into three classes: <ul style="list-style-type: none"> <li>- landfills for hazardous waste;</li> <li>- landfills for non-hazardous waste; and</li> <li>- landfills for inert waste.</li> </ul>

### 15.2.3.2 Irish Legislation

The most relevant piece of legislation currently in force is the Waste Management Act 1996 to 2008. The 2001 Offshore EIS lists what this Act provides for. However, as some of the legislation listed has since been revised, an updated list is presented below:

- Waste Management (Licensing) Regulations, 2000 and 2004;
- Protection of the Environment Act 2003;
- Dumping at Sea Act, 1996, As Amended by Dumping at Sea (Amendment) Act 2004 and Sea-Fisheries and Maritime Jurisdiction Act 2006;
- Foreshore Acts 1933–2003;
- Waste Management (Shipment of Waste) Regulations 2007; and
- MARPOL 73/78, Annexes I–VI .

### 15.2.4 Characteristics of the Proposed Development

The characteristics of the proposed development are as detailed in Sections 2 and 3.

### 15.2.5 Potential Impact of the Proposed Development

No change from 2001 Offshore EIS.

### 15.2.6 Do-Nothing Scenario

No change from 2001 Offshore EIS. Further consideration of the do-nothing scenario is addressed in Section 13.7.

## **15.2.7 Mitigation Measures**

### **15.2.7.1 Waste Management Plan**

Each of the contractors engaged in the offshore works will implement a Waste Management Plan, which lists roles and responsibilities within the contractor's organisation for ensuring rigorous management and control of the wastes generated from the offshore development phases. Any waste generated will be transported to licensed waste facilities.

## **15.2.8 Predicted Impact of the Proposed Development**

No change from 2001 Offshore EIS.

## **15.2.9 Monitoring**

No change from 2001 Offshore EIS.

## **15.2.10 Reinstatement and Residual Impacts**

The 2001 Offshore EIS predicted that there would be no impact on the local environment from the production of solid waste associated with rock placement works and installation and operation of the offshore pipeline and umbilical. New legislation concerning the management of waste will further serve to ensure that there are no impacts.

## **15.3 Traffic Impact Assessment**

### **15.3.1 Introduction**

The text below presents an update on plans to manage the movement of traffic associated with the remaining construction works for the offshore pipeline and umbilical. Effectively, the text relating to onshore operations is limited to the remaining offshore construction related works at the landfall site in Glengad.

The primary support port for offshore construction vessels will be Killybegs. There will be some inevitable interruption to normal operations of Killybegs Harbour or to other vessels that are active along the coast. Local marine support for nearshore works will be from Ballyglass Pier. Potential impacts to local marine transport is covered in the text below.

### **15.3.2 Study Methodology**

Further to the traffic impact assessment undertaken as part of the 2001 Offshore EIS, a SEPIL 'Traffic Management Plan for the Landfall and Pull-in of the Gas Pipeline' was produced by TOBIN Consulting Engineers (February 2008) for the works that were undertaken in 2008. This document was subsequently revised for 2009 and is updated on an ongoing basis to reflect current works.

### **15.3.3 Receiving Environment**

#### **15.3.3.1 Offshore and Nearshore**

A number of changes to the fishing activity as described in the 2001 Offshore EIS have since occurred. Fishing activity in the offshore area now consists mainly of shellfish vessels fishing for crab and lobster. There are approximately 110 vessels operating in this type of fishery, in areas close to shore up to 80km offshore. These vessels range in length from 8m to 22m long. The average number of pots fished is 800 per vessel. The pots are fished in trains of approximately 25 for the smaller vessels up to 150 for the largest vessel, with each pot located approximately 30m apart. The ends of each

train are marked with a red surface buoy with a lead rope to the first pot on the seabed. In terms of trawling, the fleet has reduced since 2001, with approximately 8 vessels (12 to 16m in length) operating in mainly inshore waters. An international fleet of large vessels fishing for pelagic fish (including mackerel, herring and scad) operate in the area in spring and again from September to December. The Irish fleet is about 35 strong and with other EU boats, the fleet can swell to 60 vessels at times. Offshore (200m water depth), a number of large Spanish and French trawlers operate year-round (trawling for hake and megrim). Further offshore (up to 800m water depth), Spanish tangle netters are also known to operate.

### 15.3.3.2 Existing Road Network

Material to be hauled to Glengad landfall will travel on the R314, the L1202, L1202-116 and L1202-45. As indicated in the 2001 Offshore EIS, a number of the roads in the vicinity of the landfall were identified as requiring improvements and local widening. Since 2001, various road improvements have been undertaken including strengthening of the L1204 associated with the terminal site. Further improvement works were also undertaken during 2008 including road widening and pavement improvement works along the L1202 between the junction with the R314 and the entrance to the landfall site at Glengad, , as detailed in Table 15-2.

Further details of the recent works along the R314 and L1202 are provided below.

#### **R314 (Terminal Entrance) to L1202 Junction (Bellagelly South)**

During 2008, the existing pavement along this section of the R314 was strengthened by Mayo County Council. The pavement width is generally a minimum of 5.5m and is therefore sufficient to accommodate the safe two-way movement of Heavy Commercial Goods Vehicles (HCV's). The strengthening works comprised a regulating macadam course, a 'meshtrack' fabric and a 100mm layer of bituminous surfacing finished with a double pass of surface dressing.

As the pavement foundation on this section of the R314 was granular material overlying peat there was a risk of pavement damage due to the compressible peat subgrade, which is subject to distortion under loading. To mitigate any damage to the pavement occurring during the landfall works, Mayo County Council were have been undertaking ongoing repair and maintenance of the pavement to an acceptable standard.

#### **L1202**

The L1202 has been strengthened and widened where possible and a weak culvert structure at Aughoos South has been replaced. The L1202 can broadly be divided into two areas:

- Sections of road that have a width of less than 5.5m; and
- Sections of road that have a width of not less than 5.5m.

*Sections of road that have a width of less than 5.5m.*

This results in places where there is insufficient width along the L1202 for two HCVs to pass. In order to manage this situation, it has been possible to provide pause points separated by adequate sight distance, where a priority rule in favour of the loaded vehicle applies. Also, during busy periods, vehicles were moved in batches of up to 5 vehicles operating in a convoy manner through the area of limited width. This approach was successfully adopted in 2008 and 2009.

*Sections of road that have a width of not less than 5.5m*

In these areas there is sufficient width for two HGVs to pass each other. In general, where passing is possible, the pavement has been improved, aiding the management of traffic on the road.

In December 2008, Mayo County Council continued to work on widening and strengthening of the L1202 between the Junction with the R314 at Bellagelly South and the access to the landfall site.

The L1202 pavement was monitored during the landfall works and damaged pavement repaired by Mayo County Council as necessary.

**Table 15-2: Designated Haul Routes for Glengad Landfall upgraded in 2008 and to be maintained**

Road	From
R314	Terminal Gate to L1202 junction
L1202-116	Bellagelly South – Aghoos
L1202-45	Pollatomish – Glengad

### 15.3.4 Characteristics of the Proposed Development

The characteristics of the proposed development are as detailed in Sections 2 and 3.

### 15.3.5 Potential Impact of the Proposed Development

#### 15.3.5.1 Offshore and Near-Shore

Remaining rock placement works in the near shore sections of Broadhaven Bay and installation of the umbilical will require the presence of various offshore vessels in Broadhaven Bay. It is likely that, due to their size and low manoeuvrability, these construction vessels will cause some impacts to the movements of local vessels over the period in which they are present in the bay, or in the area of Ballylglass Pier.

#### 15.3.5.2 Landfall

The movement of plant, labour, materials and any abnormal loads that may need to be brought to the construction site for the umbilical landfall, and the offshore pipeline pre-commissioning activities are likely to result in temporary impacts to the normal usage of the road network in the vicinity of the landfall.

Materials for the umbilical pull-in operation will consist mainly of services and consumables and winching equipment and associated cabling. In the later summer months, there may be haulage away of surplus materials at an estimated –maximum 10 loads per week.

HCV construction traffic associated with the above landfall works is expected to be a maximum 10 HCVs per week during short periods during the summer of 2011 and 2012, with some associated personnel traffic.

### 15.3.6 *Do-Nothing Scenario*

No change from 2001 Offshore EIS. Further consideration of the do-nothing scenario is addressed in Section 13.7.

### 15.3.7 *Mitigation Measures*

#### 15.3.7.1 *Offshore and Near-Shore*

SEPIL employs a fisheries liaison officer (FLO) as a contact point between the company and the local fisheries interests. The FLO is responsible for communicating the construction schedule to the relevant fisheries and maritime organisations throughout the period of the development to enable their members to plan their activities accordingly.

#### 15.3.7.2 *Existing Road Network Inventory*

The updated Traffic Management Plan will be implemented for the on shore pipeline works and all works associated with the umbilical pull-in and offshore pipeline pre-commissioning activities to minimise traffic impacts. These mitigation measures are applicable for the remaining landfall works and include:

- Signage and controls – road signs on the R313, L1204 and R314 were erected during the upgrade works to facilitate the materials haulage operations. These signs were customised for each location, and will continue to act as a preliminary warning to road users of works traffic and traffic controls extending over a stated time period, as well as advising of possible restrictions and alternative routes.
- Communication by radio, telecoms and print media – providing regular progress reports, and provision of a freephone number to allow the public to comment and raise queries;
- Lighting of vehicles – trucks normally operate on dipped headlights to minimise risks of road accidents;
- Areas of restricted carriageway width – signage in place to warn drivers of priority systems to allow the right of way to laden vehicles, and a protocol for convoy travel of up to 5 vehicles regulated with radio control by Traffic Management Operatives;
- Speed limits and separation distances – maximum speed limit of 60 km/hr is imposed for HGVs on the haul route sections on the R313, L1204, L1202 and R314, with the exception of road areas where convoy operations apply, where speed is restricted to 50km/hr;
- Accommodating the needs of local residents – proper road signs, regular communication, awareness of school bus runs, , driving training and communication, speed controls and maintenance of clean loading;
- Record keeping of amongst other things tachographs fitted to heavy commercial vehicles to ensure compliance with national regulations on maximum working hours and breaks;
- Driver training in accordance with a set code of practice;
- Vehicle inspections and report records;
- Road condition maintenance; and
- Emergencies and contingencies procedures.

### ***15.3.8 Predicted Impact of the Proposed Development***

#### **15.3.8.1 Offshore and Near-Shore**

There is no change to the nature of the potential impacts as described in the 2001 Offshore EIS.

#### **15.3.8.2 Landfall**

There is no change to the nature of the potential impacts as described in the 2001 Offshore EIS. The haul routes can accommodate the expected traffic associated with the remaining landfall construction works and has benefited from strengthening and widening.

### ***15.3.9 Monitoring***

SEPIL will ensure that its main contractor and all subcontracting firms involved in the project adhere to the Traffic Management Plan.

### ***15.3.10 Reinstatement and Residual Impacts***

It is anticipated that repair works carried out to the main transport routes, in agreement with Mayo County Council, will result in a better road surface following the construction period than before. In addition, SEPIL is committed to reinstating the pavement, as required, after all construction works are completed.