

17 IMPACT INTERACTIONS AND CUMULATIVE IMPACTS

17.1 Introduction

Potential impacts of each aspect considered under the scope of the EIA, which culminated in this Volume of the EIS, have been outlined individually in this report. Mitigation measures have been identified and outlined.

However, in any development with the potential for environmental impact there is also potential for interaction between impacts of each environmental aspect. The results of these interactions may either exacerbate the magnitude of the impact or may in fact ameliorate it.

As part of the requirements of an Environmental Impact Statement the interaction of the various environmental criteria and their resultant impacts on the surrounding environment needs to be addressed.

A cumulative impact assessment of the Corrib Gas Field Development, which includes the deposition of peat at Srahmore, has been completed and is provided in Chapter 17 of the Corrib Onshore Pipeline (Volume 1).

The interaction of environmental factors, with respect to the Srahmore Peat Deposition site are summarised in Table 17.1 below. This table highlights where different aspects of the environmental inter-relate with each other. The table shows how one element of the environment can interact with, or have knock-on effect on, other specialist areas. These interactions and cumulative impacts range from very localised in scale (i.e. internal to the Srahmore site) to regional in scale (i.e. external to the Srahmore site) and range in the level of impact.

All specialists' studies have had regard to the potential for interactions and cumulative impacts in their studies and preparation of reports. Cumulative impacts are discussed in the relevant sections of this Volume of the EIS, however, in the interest of completeness these interactions are presented below.

The following sections summaries the main inter-relationships.

Table 17.1: Interaction of Environmental Factors

CAUSE	EFFECT										
	Human Beings (Socio- Economics)	Flora/ Fauna	Soils / Geology	Hydrogeology	Water: Hydrology	Air Quality	Noise and Vibration	Landscape and Visual Impact	Climate	Archaeological/ Architectural/ Cultural Heritage	Traffic
<i>Human Beings (Socio Economics)</i>	●				●	●	●	●	●	●	●
<i>Flora/Fauna</i>	●	●	●	●	●			●			
<i>Soils / Geology</i>		●	●	●	●			●		●	●
<i>Hydrogeology</i>		●	●	●	●						
<i>Water: Hydrology</i>	●	●	●	●	●						●
<i>Air quality</i>	●					●			●		●
<i>Noise & Vibration</i>	●						●				●
<i>Landscape & Visual Impact</i>	●	●	●					●			
<i>Climate</i>						●			●		●
<i>Archaeological/Architectural/ Cultural Heritage</i>	●		●							●	
<i>Traffic</i>	●		●		●	●	●		●		●

Below the anticipated principal interactions, together with mitigation measures have been summarised.

17.2 Assessment of Interactions and Cumulative Impact

17.2.1 Human Beings and Socio-Economic

The operation at the Srahmore Peat Deposition site would occur for a relatively short duration (in line with construction programme for the onshore pipeline), to allow for the import and deposition of the 75,000m³ of peat from the onshore pipeline development.

Overall, the proposed development will have a positive temporary impact on the socio economy of this area. This will take the form of direct and indirect job creation and retention during the peat deposition activity. This positive socio-economic impact is in addition to other elements of the Corrib Gas Field development.

17.2.2 Human Beings, Visual Impact and Flora and Fauna

The Srahmore site is currently covered by the rehabilitation plan prepared by Bord na Móna as part of the original Planning Permission and Waste Licence for the Srahmore Peat

Deposition site. The existing Rehabilitation Plan for the Srahmore Peat Deposition site, was reviewed in light of this development proposal. Owing to the similarity of the activities proposal, the existing Rehabilitation Plan remains unchanged and will continue to provide the objective for successfully rehabilitation in the event of Approval being granted. There are no potential negative impacts on terrestrial ecology and the overall cumulative impact on flora and fauna will be positive. The rehabilitation of the cutover peat lands will have a positive impact on the landscape character and scenic value, and consequently will benefit human beings enjoyment of the visual appearance of the landscape. The rehabilitation of the peatlands will also have a consequential benefit to the flora and fauna of the region.

Any rehabilitation work will only be carried out after the peat stabilisation process and following consultation with relevant statutory and non statutory consultees. The rehabilitation is not presented as ‘blanket bog recreation measure’ but as a management process that will enhance the biodiversity value of the site in its local context.

17.2.3 Human Beings, Traffic and Air Quality

The impact on human beings and air quality has been assessed specifically in Section 11 of this Volume of the EIS. This assessment has concluded that the cumulative impact of peat deposition within the Srahmore site will have a negligible impact on the receiving environment including humans. The activities will be removed significantly from any existing dwellings.

Traffic importing peat from the onshore pipeline development and the Srahmore Peat Deposition site will utilise the public road network. Road maintenance works have previously been undertaken and further preventative maintenance and repair works will be undertaken on the public road network as required during the construction phase. The benefits of the road improvement works will remain for all road users following the completion of the peat deposition activities.

During operations all vehicles carrying fine materials will be covered to minimise dust emissions from vehicles and strict road haulage guidelines will be adhered to by the haulage contractor, as detailed in the Onshore Pipeline Traffic Management Plan (reproduced in Appendix 16.1 of this Volume of the EIS). The proximity of an EPA Licensed Peat Deposition site to the site from which the peat will originate ultimately reduces haul distance and therefore reduces fuel consumption and emissions to the atmosphere, as compared to other alternative disposal sites.

17.2.4 Human Beings, Soils and Geology, Aquatic Ecology and Hydrology

Potential negative impacts of sediment laden run-off, elevated suspended solids in waters and /or pollution incidents have been outlined in Section 7. The potential cumulative effect

of uncontrolled discharges from the site would be to reduce the fish catch in the Muinhin/Owenmore/Tullaghan Fisheries. This could in turn affect tourism and local enjoyment of the watercourses. The mitigation measures employed to prevent this happening are detailed in Section 7 and 9 of this report and take account of the consultations with the NWRFB, the EPA and the NPWS (formally Dúchas) as part of this application and the original application (to which the existing planning permission relates). Based on the control measures employed, there will be no impact on the overall salmonid productivity within the Owenmore catchment and therefore no cumulative impact on tourism or enjoyment of the water resource.

The potential impact of the development will be significantly lessened by the fact that activities within the site will only be undertaken during appropriate weather conditions. The potential cumulative impact is considered to be low to negligible.

17.2.5 Human Beings, Visual Impact and Traffic

There will be a temporary negative impact during the deposition phase. Noise, traffic levels and visual impact caused by the haulage trucks may temporarily affect people locally.

However it is anticipated that the development will occur over a limited operating programme, so the duration of the activity will be limited. Section 16.3.8 of this Volume of the EIS outlines the detailed mitigation measures to be put in place to limit the impact on local people and visitors caused by traffic, and so it is not expected that there will be any significant negative cumulative impacts.

The Traffic Impact Assessment presented in this Volume of the EIS has taken account of the cumulative impact of all traffic associated with the construction of the onshore pipeline together with traffic associated with material imports and workforce movements for the Bellanaboy Bridge Terminal site and the Srahmore Peat Deposition site.

Preventative maintenance and repair works are proposed for the local road network that will impact positively on public road users following the completion of the works.

In addition there will be minimum negative impact due to the peat deposition on site due to the distance of the site from houses. Local people are familiar with activity on the Bord na Móna production areas and so the perception of an impact will be limited.

The overall effect is to ensure no adverse landscape and visual impact from the proposed development after cessation of peat importation works. After a short period vegetative cover will result in the deposition area blending with the surrounding landscape.

17.2.6 Human Beings and Climate

The proposed development will occur to facilitate the construction of the onshore pipeline development and the subsequent use of an indigenous gas supply. The assessment of climate has determined that the deposition of peat at the Srahmore site will have a negligible impact on the climate and therefore no resultant impact on human beings.

17.2.7 Human Beings, Soils and Geology and Archaeology

Previous archaeological investigations within the Srahmore Peat Deposition site have not uncovered any remnants or artefacts of archaeological value.

However, archaeological monitoring of any further excavations into the soil and geological environment will be undertaken within the Srahmore Peat Deposition site. Should any materials be uncovered, this will ultimately add to the historical knowledge base and impact positively on the understanding of the cultural heritage of the region for locals and historians.

17.2.8 Flora and Fauna, Soils and Geology, Hydrogeology and Hydrology

The deposition of peat within the Srahmore site will result in a cumulative impact on the soil and geological environment, flora and fauna environment, the hydrogeological environment and the hydrological environment if control measures are not imposed. However, the existing infrastructure and working methodology has been employed successfully previously and has demonstrated that peat deposition can be conducted in a manner that will not result in peat instability or mobilisation. Therefore, the risk of cumulative adverse impacts arising from peat deposition within the Srahmore site is considered low.

17.2.9 Human Beings, Noise, Traffic and Flora and Fauna

The potential for noise impacts arises from the haulage of peat in Heavy Commercial Vehicles on the public road network and activity of plant and equipment within the Srahmore Peat Deposition site. The noise impact assessment indicates that the cumulative impact of the peat haulage and deposition will not be perceptible to existing receptors.

Within the Srahmore site, there is anticipated to be a very localised and minor impact as a result of the noise and travel of machinery on fauna. This impact will occur only for the duration of deposition works. The Flora and Fauna report proposes monitoring to ensure the impacts are minimised.

17.2.10 Traffic and Soil and Geology

The potential for impact on public roads as a result of haulage of peat material has been

assessed. The traffic management proposals include preventative road maintenance and repair works and operational controls to ensure the haulage of peat does not result in a cumulative adverse impact on the public road network.

17.2.11 Interactions with other developments

In addition to the above development and the assessment of cumulative impacts associated with the construction of the Corrib Gas Field development, a number of other developments have been identified as likely to be in operation at the same time.

- 1) The continued demolition and dismantling of the ESB peat-fired power station at Béal Átha Liag (Bellacorick); and
- 2) The development of a wind farm on cutover peatlands at Béal Átha Liag (Bellacorick).

17.3 Conclusion

While there is potential for the above impacts to interact and result in a cumulative impact, it is unlikely, as a result of the various mitigation measures proposed, that any of these cumulative impacts will result in significant environmental degradation in the environs of the Srahmore Peat Deposition site. The duration of works associated with the Peat Deposition is relatively short and the volume of peat relatively low, especially when compared to the quantum of peat previously successfully transported to and deposited at the site during 2005 and 2007. The level of cumulative impact on human beings and the natural environment is assessed as low.

A cumulative impact assessment of the Corrib Gas Field Development, which includes the deposition of peat at Srahmore, has been completed and is provided in Chapter 17 of the Corrib Onshore Pipeline (Volume 1).

17.4 Do Nothing Scenario

If the proposed development did not proceed, there would be no cumulative impacts associated with the Srahmore Peat Deposition site on other developments.

17.5 Mitigation Measures

The Traffic Management Plan for the onshore pipeline development and the Overall Corrib Gas Field development provides operating procedures and protocols to ensure operations have a minimal impact on users of the public road network and ultimately on human beings. Extensive environmental studies and impact assessments have been undertaken for the various aspects of the onshore pipeline development (including the Srahmore Peat

Deposition site). Extensive mitigation measures and operating procedures are proposed to ameliorate the impact of the development on the environment. With respect to the Srahmore Peat Deposition site, environmental monitoring is established and on-going to assess the performance of the site, to review impacts and to assess other issues arising during the operation and stabilisation phases. This is reported to the EPA in the form of Annual Environmental Reports.

17.6 Monitoring

It is not proposed that any monitoring will be undertaken specifically for cumulative impacts. However, monitoring is and will be undertaken, where required, for the individual phases of the Srahmore Peat Deposition site project. The monitoring of the environmental performance of the site is submitted to the EPA in the form of an Annual Environmental Report.

17.7 Reinstatement and Residual Impacts

There will be no reinstatement undertaken specifically for cumulative impacts. Reinstatement measures will be implemented where required.