

Dunmanway to Clashavoon 110kV Overhead Line Environmental Reports

Assessment of Corridors Report – Flora and Fauna

Submission to: ESB International

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September 2010



1. Introduction

This section provides an assessment of the potential route corridors within the study area for the proposed 110kV line from Clashavoon to Dunmanway, Co. Cork. The purpose of this assessment is to recommend the route corridor that causes the least ecological impacts.

A previous Constraints Report identified the most significant ecological constraints within the study area. The potential route corridors have been designed having regard to the identified constraints.

2. Assessment of Route Corridors

The potential ecological impacts of each route corridor are described in a north to south direction. Impacts associated with sites of known ecological importance have primarily been used to differentiate between the various route corridors.

There are a number of potential impacts identified that are common to each route corridor including: local disturbance to fauna during construction phase, localised disturbance and loss of habitat (at locations of angle towers and pole sets); and, potential disturbance to ecology of watercourses at crossing locations. However, the route corridors have not been set apart based on these potential impacts based on an assumption that they are likely to be comparable across all corridors.

Western Route Corridor

Sites of ecological importance occurring within two kilometres of the Western Route Corridor are presented in *Table 2.1*. This entire route corridor avoids crossing any designated or undesignated sites of ecological importance as identified in the constraints report (AOS 2010).

Name	Site Code	Status	Approximate distance from corridor (nearest point)
The Gearagh	108	SAC / pNHA / NNR	1.5 km to East, between Node 3 and 4
The Gearagh	4109	SPA	1.5 km to East, between Node 3 and 4
Prohus Wood	1248	pNHA	1.9 km to West, between Node 3 and 4
Toon Valley	NA	NA	0.5 km East, between Node 2 and 3 (eastern alternative)
Lough Allua	1065	pNHA	0 km West, between Node 2 and 3 (western alternative)
Bandon River	2171	SAC	0.2 km to South, between Node 2 and 3 (western alternative)

Table 2.1: Sites of known ecological importance, as identified in the constraints report, occurring within 2 km of Western route corridor (from North to South).

At it's nearest point, the northern section of the route (between node 3 and 4) passes approximately 1.5km to the Northwest of the Gearagh SPA / SAC. Further south between nodes 2 and 3, at the crossing of the River Lee at Inchinaneave to the East of Inchigeela, the western alternative passes adjacent to and downstream of Lough Allua proposed Natural Heritage Area (pNHA).

Also between node 2 and 3, the eastern alternative passes approximately 0.5km to the west of Toon Valley, an important Whooper Swan feeding site (see *Whooper Swan Report, Crushell 2010*). The swans using this feeding site make regular flights to and from the Gearagh to the East and to date have not been observed flying in proximity to the proposed route corridor which passes to the West of the feeding site. Based on these observations, the collision risk is therefore considered low.

Further south, the western alternative of the route corridor between node 2 and 3 crosses the Cummernamart River and an unnamed stream. Both these watercourses are tributaries of the River Bandon SAC, which occurs 2km and 0.5km downstream respectively. A qualifying interest of the SAC is the presence of Freshwater Pearl Mussel (*Margaritifera margaritifera*), a species that is especially sensitive to any deterioration in water quality. In the vicinity of the crossings, there is potential for adverse impacts on the SAC should there be any reduction in surface water quality. These potential impacts would be associated with the construction phase of the project.

Between node 1 and 2 the corridor runs parallel to the River Bandon SAC, approximately 1km to the East. Along this section, the corridor crosses two unnamed watercourses that feed directly into the River Bandon SAC to the west. Again, potential negative impacts on the SAC may result from any deterioration in water quality associated with the construction phase.

Central Route Corridor

Sites of ecological importance occurring within two kilometres of the Central Route Corridor are presented in *Table 2.2*.

Name	Site Code	Status	Approximate distance from corridor (nearest point)
The Gearagh	108	SAC / pNHA / NNR	2km to West, between Node 4 and 8.
The Gearagh	4109	SPA	2km to West between Node 4 and 8.
Sullane Delta	NA	NA	0km; Corridor passes through part of this site at Mashanaglass, between Node 4 and 8.
Dunisky Culvert	NA	NA	0.5km West, at Node 8
Dunisky Souterrain	NA	NA	1km North, between Node 7 and 8
Boylegrove Wood	1854	pNHA	1km North-west, between Node 7 and 8
Bandon River	2171	SAC	0.5km West, between Node 1 and 5

Table 2.2: *Sites of known ecological importance (see constraints report) within 2 km of Central Route Corridor (from North to South).*

This route corridor avoids crossing any sites designated for nature conservation as identified in the constraints report (AOS 2010), however, part of the corridor passes through and adjacent to the Inishcarra Reservoirs (also known as Carrigadrohid Reservoir), an undesignated site of ecological interest. This large site attracts high numbers of wildfowl and waders during winter (AOS 2010). At two locations the corridor passes through the site, firstly at Mashanaglass in proximity to the Sullane Delta, and secondly at Rosnascalp where the corridor crosses the open water of the main reservoir.

There is potential risk of bird collision at either of these locations due to the high numbers of water birds present throughout the winter. Whooper Swans, a species listed on Annex I of the EU Birds Directive, are especially vulnerable to collision and are known to occur during the winter season in the vicinity of the Sullane Delta (see *Whooper Swan Report, Crushell 2010*).

Further south, the Central Route Corridor is well removed from any sites of known ecological interest.

Eastern Route Corridor

Sites of ecological importance occurring within two kilometres of the Eastern Route Corridor are presented in *Table 2.3*. This route corridor avoids crossing any sites designated for nature conservation as identified in the constraints report (AOS 2010), however, part of the corridor passes through the Inishcarra Reservoirs, an undesignated site of ecological interest.

There are two potential crossing points identified, a western crossing at Coolacareen, and an eastern crossing at Carrigadrohid.

The proposed crossing point at Coolacareen is located in a peripheral part of the site, removed from the main concentrations of birds associated with the Sullane Delta approximately 3km to the south-west. In addition, there are three existing 110kV powerlines crossing the reservoir at this location, reducing any collision risk.

The proposed crossing point at Carrigadrohid is further removed from the main concentrations of birds and also crosses where there is an existing 110kV line. The collision risk at this location is considered low.

The western alternative corridor between Node 1 and 13 passes adjacent to Lough Gal pNHA to the east. This site is known to be of value to water birds, presenting a potential risk of bird collision. However, there is currently a lack of data on the species and abundance of birds at this site to adequately assess the magnitude of this risk.

Name	Site Code	Status	Approximate distance from corridor (nearest point)
Inishcarra Reservoirs (subsite: Sullane Delta)	NA	NA	0 km; Corridor passes through part of this site between node 4 and 11.
Dunisky Culvert (subsite of Inishcarra Reservoirs)	NA	NA	1.5 km West, at Node 11
Lough Gal	1067	pNHA	0 km North-east, at Node 13 (eastern alternative)
Manch Bridge	NA	NA	1.9 km South, at Node 9
Bandon River	2171	SAC	0.5 km East, at Node 1
Killaneer House Glen	1062	pNHA	1 km South, between node 9 and 10

Table 2.3: Sites of known ecological importance (see constraints report) within 2 km of Eastern Route Corridor (from North to South).

3. Selection of Preferred Route Corridor

The most preferred route is the Eastern Route Corridor as the potential for adverse ecological impacts on habitats and species of ecological importance is considered lowest. The western of the two alternatives between Node 4 and 11 is preferred as it is more removed from Lough Gal pNHA. Further south, no distinction is made between the two alternatives between Node 10 and 9 as ecological impacts are likely to be comparable.

An equally preferable route could include a combination of the northern part of the Eastern Corridor (western alternative between Node 4 and 11) with the southern part of the central corridor (any of the alternatives between Node 8 and 1).

The Western Route Corridor is the next preferred option. However, there is potential for adverse impacts on the River Bandon SAC due to proposed river crossings upstream. During the construction phase, site preparation to facilitate the construction of angle towers could lead to deterioration in water quality of surface waters downstream. Of the two alternative sections between Node 2 and 3, the eastern alternative is preferred as it is further removed from both Lough Allua pNHA and Bandon River SAC. This section also avoids two river crossings upstream of the Bandon River SAC.

The least preferred corridor is the Central Route Corridor due to potential adverse impacts on important bird species associated with the Inishcarra Reservoirs. The two alternative sections between Node 1 and 7 are not differentiated as potential ecological impacts associated with each are deemed to be comparable. As mentioned above, a combination of the southern part of the Central Route Corridor (Node 1 to 8) with the Northern part of the Eastern Route Corridor would produce a route corridor (western alternative between Node 4 and 11).