

Appropriate Assessment Report

Appropriate Assessment screening of the likely impacts of a marine site investigation survey in respect of proposed fibre optic cable with landfall at Old Head beach, Clew Bay, Co. Mayo (FS006814)

Project Description:

America Europe Connect 2 Ltd has made an application for a foreshore licence to carry out geophysical and geotechnical marine site investigations on the foreshore along a survey route in an area off the coast of Mayo, with landfall at Old Head beach in Clew Bay. The proposed survey route is shown in the following drawings submitted by the applicant:

- Drawing No. 1318-101, “Foreshore Licence Map 1 Offshore Section Old Head Beach Landfall”, Rev 0, dated 20/12/17
- Drawing No. 1318-102, “Foreshore Licence Map 2 Inshore Section Old Head Beach Landfall” Rev 0, dated 20/12/17
- Drawing No. 1318-103, “Site Location Map Old Head Beach” Rev 0, dated 21/12/17

The purpose of the proposed site investigations is to collect the necessary data to inform the final design and route selection for a fibre optic cable (Havfrue), being planned by Aqua Comms, extending from New Jersey, USA to Blaaberg, Denmark, with spurs to Ireland and Norway. The spur to Ireland is planned to extend from a sub-sea branching unit in the Rockall Trough, circa 290 Km off the north Mayo coast, to landfall at Old Head Beach, in Clew Bay.

The proposed geophysical survey includes the collection bathymetric, sidescan sonar, sub-bottom profiler and magnetometer along the survey route. The geotechnical survey includes the collection of seabed samples using corers and grabs, bar probing in shallow water (<3m depth) and Cone Penetration Tests along the survey route. It is also proposed to excavate 3 No. Trial pits on the beach at the landfall site at Old Head Beach, in Clew Bay.

The proposed survey corridor would be 250m wide for water depths < 3m and 500m wide for water depths > 3m

The overall scope of the geotechnical works involves:

- 3 No. Trial Pits on the beach at Old Head
- 7 No. bar probes the beach at Old Head
- 20 No. bar probes from the low water mark to the 3m depth contour
- 2 No. Grab samples from the 3m depth contour to the 15m depth contour
- 6 No. Gravity Cores or Cone Penetration Tests from the 15m depth contour to the limit 12 nautical mile limit.

It is anticipated that the survey works would be completed within a period of 2 weeks, subject to weather conditions.

The survey route is not within a currently designated Natura 2000 site but is adjacent to (within 15Km) of a number of Natura Sites including:

Oldhead Wood SAC (150m from survey corridor) - No impact on the qualifying interests of this SAC is foreseen, due to the terrestrial nature of the site.. All foreshore operations will be in the intertidal and subtidal and will not involve terrestrial works. The works will not impact the qualifying interests of this site.

West Connacht Coast SAC (500m from survey corridor) - The survey will involve acoustic equipment and the generation of underwater noise. Further assessment is required (see below)

Clare Island Cliffs SAC (1.75km from survey corridor) - No impact on the qualifying interests of this SAC is foreseen, due to the terrestrial nature of the site. All operations will be a minimum of 1.75 km from the SAC in an area whose qualifying interests are terrestrial. The works will not impact the qualifying interests of this site.

Achill Head SAC (3.2km from cable corridor) - No impact on the qualifying interests of this SAC is foreseen. All survey operations will be a minimum of 3.2 km from the SAC in an area that has regular boat traffic. The proposed route has been selected to avoid reef areas to assist in the laying of the cable. Sampling of the seabed may create localised disturbance of the sediment but this is deemed not to be of significance to the qualifying interest of this SAC.. The works will not impact the qualifying interests of this site.

Corraun Plateau SAC (3.9km from survey corridor) - No impact on the qualifying interests of this SAC is foreseen, due the fact that the survey is in the intertidal and subtidal, 3.9km from this SAC whose qualifying interests are terrestrial habitats and species. There is no direct link to this SAC. The works will not impact the qualifying interests of this site.

Mweelrea/Sheeffrey/Erriff Complex SAC (4.25 km from survey corridor) - No impact on the qualifying interests of this SAC is foreseen. The majority of qualifying interests of this SAC are terrestrial and do not have a stage in the marine environment. However, Atlantic salmon do have a stage in their lifecycle in the marine environment. All watercourses in the vicinity of Old Head Beach are short and do not extend in to this SAC.. If salmon were in the vicinity of the physical sampling equipment they have the ability to avoid the area. If present minor and short term disturbance may occur and this would not be seen as damaging to individual salmon or the conservation objectives of this SAC.

Clew Bay Complex SAC (4.75km from survey corridor) - All operations will be a minimum of 4.75 km from the SAC in an area that has regular boat traffic and in close proximity to Old Head beach and pier. No impact on the qualifying interests of this SAC is foreseen, due limited nature of the survey in both area and temporal extent. However, Harbour Seal that utilise this SAC may be in the vicinity of the survey. Therefore full compliance with the requirements set out in the NPWS (2014) “Guidance to Manage the Risk to Marine Mammals from Man-made Sound sources in Irish Waters”, including a Marine Mammal Observer is recommended to

ensure that Harbour Seals are not disturbed by the proposed survey. The works are not likely to impact the qualifying interests of this site

Croaghau/Slievemore SAC (6.1km from survey corridor) - No impact on the qualifying interests of this SAC is foreseen, due the fact that the survey is in the intertidal and subtidal, 6.1km from this SAC whose qualifying interests are terrestrial habitats and species. There is no direct link to this SAC. The works will not impact the qualifying interests of this site.

Keel Machair/Menaun Cliffs SAC (6.7km from e survey corridor) - No impact on the qualifying interests of this SAC is foreseen, due the fact that the survey is in the intertidal and subtidal, 6.7km from this SAC whose qualifying interests are terrestrial habitats and species. The works will not impact the qualifying interests of this site.

Lough Cahasy, Lough Baun and Roonah Lough SAC (7.75km from survey corridor) - No impact on the qualifying interests of this SAC is foreseen, due the fact that the survey is in the intertidal and subtidal, 7.75km from this SAC whose qualifying interests are terrestrial and coastal habitats. The works will not impact the qualifying interests of this site.

Lough Gall Bog SAC (11.6km from survey corridor) - No impact on the qualifying interests of this SAC is foreseen, due limited nature of the survey in both area and temporal extent. All operations will be a minimum of 11.6 km from the SAC in an area that has regular boat traffic and in close proximity to Old Head beach, which is a designated bathing water. The works will not impact the qualifying interests of this site.

Cross Lough (Killadoon) SAC (12.25 km from survey corridor) - No impact on the qualifying interests of this SAC is foreseen, due limited nature of the survey in both area and temporal extent. All operations will be a minimum of 12.25km from the SAC in an area that has regular boat traffic and in close proximity to Old Head beach, which is a designated bathing. The works will not impact the qualifying interests of this site.

Bellacragher Samtmarsh SAC (12.6km from survey corridor) - No impact on the qualifying interests of this SAC is foreseen, due limited nature of the survey in both area and temporal extent. All operations will be a minimum of 12.6 km from the SAC in an area that has regular boat traffic and in close proximity to Old Head beach, which is a designated bathing water. The works will not impact the qualifying interests of this site.

Blackloon Woods SAC (13.25km from survey corridor) - No impact on the qualifying interests of this SAC is foreseen, due limited nature of the survey in both area and temporal extent. All operations will be a minimum of 13.25 km from the SAC in an area that has regular boat traffic and in close proximity to Old Head beach, which is a designated bathing water. The works will not impact the qualifying interests of this site.

Bills Rocks SPA (1.2km from survey corridor) - No impact on the bird species representing the qualifying interests of this SPA is foreseen, due limited nature of the survey in both area and

temporal extent. All operations will be a minimum of 1.2km from the SPA in an area that has regular boat traffic.

Clare Island SPA (1.5 km from survey corridor) - No impact on the bird species representing the qualifying interests of this SPA is foreseen, due limited nature of the survey in both area and temporal extent. All operations will be a minimum of 1.5 km from the SPA in an area that has regular boat traffic.

Owenduff/Nephin Complex SPA (10.75 km cable survey corridor) - No impact on the bird species representing the qualifying interests of this SPA is foreseen, due limited nature of the survey in both area and temporal extent. All operations will be a minimum of 10.75 km from the SPA in an area that has regular boat traffic.

Cross Lough (Killadoon) SPA (12.5km cable survey corridor) - No impact on the bird species representing the qualifying interests of this SPA is foreseen, due limited nature of the survey in both area and temporal extent. All operations will be a minimum of 12.5 km from the SPA in an area that has regular boat traffic. Disturbance would be minor and temporary in nature and unlikely to impact Sandwich Tern populations in this SAC.

Potential Impact on Cetaceans

All cetaceans are listed under Annex IV of the Habitats Directive, which means that they are protected wherever they occur. Bottle-nosed Dolphin and Harbour Porpoise are also listed under Annex II of the Directive. Annex II species require that core areas of their habitat are designated as sites of Community importance i.e. SAC's. West Connacht Coast SAC has been designated for *Tursiops truncatus* (common bottlenose dolphin, also known as bottlenose dolphin or bottle-nosed dolphin). Cetaceans have been recorded near the proposed survey route, with bottle-nosed dolphin (*Tursiops truncatus*) being the species most frequently reported inshore followed by *Phocoena phocoena* (Harbour porpoise) with *Delphinus delphis* (short-beaked common dolphin) being noted in deeper water, proximal to the proposed survey route. The proposed survey could impact on cetaceans primarily through the emission of noise due to the vessel and acoustics from survey equipment including multibeam.

The potential impacts on cetaceans can be mitigated by ensuring that the site investigations are carried out in full compliance with requirements set out in the NPWS (2014) "Guidance to Manage the Risk to Marine Mammals from Man-made Sound sources in Irish Waters". The employment of a Marine Mammal Observer can also mitigate potential impacts on marine mammals including Harbour seals.

It is recommended that the full compliance with requirements set out in the NPWS (2014) "Guidance to Manage the Risk to Marine Mammals from Man-made Sound sources in Irish Waters" be a specific condition of any licence that may be granted.

Conclusion

Based on the above it is concluded that the proposed site investigations will not have a significant adverse impact on the Conservation Objectives of any adjacent Natura 2000 site.

Prepared by Marine Institute, on behalf of the MLVC
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