

**From:** Terry McMahon [mailto:Terry.McMahon@Marine.ie]  
**Sent:** 22 August 2016 12:42  
**To:** Ann Banville  
**Subject:** RE: FS6598 America Europe Connect Ltd

Ann

America Europe Connect Ltd has made an application for a foreshore licence to facilitate geophysical and geotechnical marine site investigations on the foreshore along a survey route in an area off the north coast of Mayo, including Killala Bay. The proposed survey route is shown in

- Drawing No. 1294-101, "Foreshore Licence Map 1 Site Investigations Route Offshore, Rev2, dated 8/07/2016
- Drawing No. 1294-102 "Foreshore Licence Map 2 Site Investigations Route Inshore, Rev1, dated 18/04/2016

The purpose of the proposed site investigations is to collect the necessary data to inform the final design and route selection for a proposed fibre optic cable, Celtic Norse, extending from landfall in Killala Bay to Tondheim in Norway, with a connection to Iceland.

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 Ross village in Killala Bay.

The overall scope of the geotechnical works involves:

- 3 No. Trial Pits on the beach at Enniscrone
- 10 No. bar probes the beach at Enniscrone
- 10 No. bar probes from the low water mark to the 3m depth contour
- 13 No. Grab samples from the 3m depth contour to the 15m depth contour
- 8No. Gravity Cores or Cone Penetration Tests from the 15m depth contour to the limit 12 nautical mile limit.

It is noted that foreshore licence to carry out a similar site investigation survey in this area was granted in May 2014 (Foreshore Licence Ref No. FS 006280) as part of the development of a fibre optic cable system, extending from Long Island in the USA to Ireland, with landfall at Ross village in Killala Bay. This cable system was installed in 2015 (Foreshore Licence Ref No. FS006492)

Given the nature, scale and location of the proposed site investigations the Marine Institute is satisfied that the activity will not have a significant impact on the marine environment in the survey area, will not interfere with other legitimate users of the area and therefore has no objections to a licence being granted. It is recommended that the following specific conditions should be attached to any licence that may issue.

1. The licensee shall use that part of the Foreshore the subject matter of this licence for the purposes as outlined in the application and for no other purposes whatsoever.
2. The licensee shall notify the Department of the Environment, Community and Local Government at least 14 days in advance of the commencement of the works on the foreshore.

3. The licensee shall ensure that the beach and inshore survey works are conducted in such a manner so as to minimise disturbance to recreational and all other legitimate users of the area
4. On completion of the works the licensee shall ensure that all equipment and materials are removed and the foreshore is reinstated to its original condition

Dr. Terry McMahon  
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Re: Foreshore Licence application FS6598 Marine and Site Investigation Works by America Europe Connect Ltd. - Ross Beach and Enniscrone Beach.

A Chara,

On behalf of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs I refer to the above.

Outlined below please find the Underwater Archaeology & Nature Conservation observations.

#### **Nature Conservation**

1. Under no circumstance should seals hauled out in the area be disturbed such that they enter the water. This is unlikely, as this area is not recognised as a haul out area.
2. All site investigations should not take place if brent geese or other birds of conservation interest are present in the immediate area. If roosting birds are present on the upper shore, the survey should be postponed until the birds depart, without provocation.
3. Drift lines if present should be avoided by machinery.
4. The bucket of the digger should have teeth, so as to minimize scraping of metal against rock/boulders, if these are found to be present.
5. The trial pits should be dug on a receding tide. This is to ensure all operations are done on one tidal cycle and should be completed before an incoming tide when many of the birds return to feed and in-fauna are exposed to a minimum amount of disturbance.
6. Trial pits should be dug within the tracks of disturbance caused by machinery. Machinery should exit the beach on the same tracks that it entered the beach.
7. The sand layer should be treated as a separate layer and stored on the surface separately to ensure the integrity of the sandflat upon completion of the site investigation.
8. Images should be taken of the process and upon completion for inspection.
9. The survey must comply with "Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters". The latest version of this document was published in January 2014 and is available to download from <http://www.npws.ie/marine/bestpracticeguidelines/>.

## Underwater Archaeology

It is noted that the proposed development is within an area of underwater archaeological potential. The Shipwreck Inventory of Ireland lists numerous wrecks for Killala Bay, which are subject to statutory protection under section 3 of the 1987 National Monuments (Amendment) Act. Given the location of the proposed development it is possible that underwater archaeology may be impacted by the development.

It is therefore recommended that the geophysical surveys be carried out in advance of the geotechnical works taking place in Killala Bay (samples S1-S16). The geophysical data for all proposed geotechnical investigation locations and grab sample locations should be assessed by a suitably qualified archaeologist to ensure that the proposed works do not negatively impact on locations where there is known or potential archaeology. A report summarising the assessment of the geophysical data should be forwarded to this office for review prior to the geotechnical works taking place. Where archaeological material/features are shown to be present, preservation *in situ*, avoidance, preservation by record (archaeological excavation) or archaeological monitoring may be required. The applicant shall be prepared to be advised by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs in this regard.

The proposed excavation works on Enniscrone beach should be subject to archaeological monitoring licenced under the National Monuments Acts 1930-2014.

The proposed geophysical surveys and archaeological dive surveys should be licenced under the National Monuments Acts 1930-2014. The dive survey should be accompanied by a hand-held metal detection survey which should also be licenced under the National Monuments Acts 1930-2014.

The results of the geotechnical investigations should be assessed by a suitably qualified archaeologist and this assessment should form part of the overall archaeological assessment of the proposed cable route.

Mise le meas,

Simon Dolan  
Development Applications Unit  
Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.  
Newtown Road  
Wexford

tel: 0539117377

22 September 2016

**Foreshore Licence application FS6598- Addendum** to the Nature Conservation observations dated 22nd of September 2016.

Re: Foreshore Licence application FS6598 by Marine and Site Investigation Works by America Europe Connect Ltd. - Ross Beach and Enniscrone Beach.

A Chara,

On behalf of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs I refer to the above.

Outlined below please find an addendum to the Nature Conservation observations dated on the 22<sup>nd</sup> of September 2016.

### **Nature Conservation**

The Department refers to the above foreshore application for the carrying out of bathymetry surveys and localised site investigations in marine and intertidal areas in connection with the possible development of the Celtix Norse subsea fibre optic cable by America Europe Connect Ltd: FS006598. Reference is also made to reports which accompany the application, including the report prepared by Altemar, which is entitled both 'Natura Impact Statement' and 'Appropriate Assessment Screening ...'.

The observations below are not exhaustive and are offered to assist your Department in meeting the obligations that arise in relation to European sites, and natural habitats and protected species in the context of this project. This includes the screening for appropriate assessment and the appropriate assessment, if necessary, which must be carried out by a public authority under Regulation 42 of the European Communities (Birds and Natural Habitats) Regulations, 2011.

The surveys and investigations will be undertaken within the European sites, Killala Bay/Moy Estuary cSAC (site code 000458) and Killala Bay/Moy Estuary SPA (site code 004036). Some adverse effects on these sites and their conservation objectives are identified in the Altemar report, and mitigation measures are specified. It is considered unlikely that the surveys and investigations can be completed before the end of September (2016), in line with the mitigation measures specified in relation to bird disturbance. It is advised that thorough analysis is undertaken when reviewing this report and its findings to reach a determination as to whether or not an appropriate assessment is required in this case.

Mise le meas,

Simon Dolan  
Development Applications Unit  
Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.  
Newtown Road  
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tel: 0539117377



An Roinn Ealaíon, Oidhreachta,  
Gnóthai Réigiúnacha, Tuaithe agus Gaeltachta  
Department of Arts, Heritage,  
Regional, Rural and Gaeltacht Affairs

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## **Applicants Comments on Nature Conservation**

**From:** Rory Ryan [<mailto:rory@mdmeng.ie>]  
**Sent:** 11 November 2016 10:44  
**To:** Ann Banville  
**Cc:** 'Terry McMahon'; Edwin Mooney  
**Subject:** RE: FS6598 America Europe Connect

Ann

We have received to your email of the 05/10/2016, we refer to the observations of Nature Conservation and the Underwater Archaeology Unit and we comment as follows:

1. Under no circumstance should seals hauled out in the area be disturbed such that they enter the water. This is unlikely, as this area is not recognised as a haul out area.

This is acknowledged and we confirm that if seals are encountered they will not be disturbed such that would enter the water.

2. All site investigations should not take place if brent geese or other birds of conservation interest are present in the immediate area. If roosting birds are present on the upper shore, the survey should be postponed until the birds depart, without provocation.

This is acknowledged and is perfectly acceptable.

3. Drift lines if present should be avoided by machinery.

This is acceptable.

4. The bucket of the digger should have teeth, so as to minimize scraping of metal against rock/boulders, if these are found to be present.

This is acceptable.

5. The trial pits should be dug on a receding tide. This is to ensure all operations are done on one tidal cycle and should be completed before an incoming tide when many of the birds return to feed and in-fauna are exposed to a minimum amount of disturbance.

This is accepted and is covered in Para 3.20 of the report which accompanied the application.

6. Trial pits should be dug within the tracks of disturbance caused by machinery. Machinery should exit the beach on the same tracks that it entered the beach.

This is acceptable.

7. The sand layer should be treated as a separate layer and stored on the surface separately to ensure the integrity of the sandflat upon completion of the site investigation.

This is accepted and is covered in Para 3.21 of the report which accompanied the application.

8. Images should be taken of the process and upon completion for inspection.

This is accepted.

9. The survey must comply with "Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters". The latest version of this document was published in January 2014 and is available to download from <http://www.npws.ie/marine/bestpracticeguidelines/>.

This is accepted and is covered in paras 4.2 and 4.5 of the report which accompanied the application.

#### Underwater Archaeology

The recommendations and comments of the Underwater Archaeology Unit are acknowledged and are acceptable.

Regards

Rory

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**From:** Rory Ryan [mailto:rory@mdmeng.ie]  
**Sent:** 22 November 2016 10:39  
**To:** Ann Banville  
**Subject:** RE: FS6598 America Europe Connect

Ann,

The Appropriate Assessment Screening Report prepared by Altamar Ltd. and submitted with the Licence Application concluded that "*no significant impact on associated NATURA 200 sites is foreseen.*"

However, six mitigation measures were prescribed in the Appropriate Assessment Screening report prepared by Altamar Ltd. and submitted with the Licence Application. The second of these mitigation measures is associated with the timing of the proposed works as follows;

2. All site investigations should not take place if brent geese or other birds of conservation interest are present in the immediate area. If roosting birds are present on the uppershore or intertidal, the survey should be postponed until the birds depart, without provocation. Although the works are proposed to be carried out in September, an ecologist should be on site during excavations, due to the proximity of the overwintering bird season and possibility of passage migrants of conservation importance being on site.

It is noted that the above mitigation measure is related to the site investigations aspect of the proposed works. As detailed in the application report, the site investigations aspect of the proposed works apply to Enniscrone only and comprise of the following elements;

- i. A topographic survey of the beach along the line of the proposed cable route from the carpark to the low water mark
- ii. 3 no. trial pits on the beach (2.5m depth, excavated and immediately reinstated by JCB)
- iii. Bar probes on the beach (effectively non-intrusive investigation)

- iv. Bar probes from the Low Water Line to the 3 metre contour (effectively non-intrusive investigation)

It is proposed that all of the site investigation works will be carried out in one day at Enniscrone beach. All mitigation measures prescribed in the Appropriate Assessment Screening Report will be adhered to.

The actual timing of the works is entirely dependent on the Foreshore Application Process and a specific programme of works will be developed and issued prior to any work taking place at Enniscrone.

Regards,

Rory

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#### **MARINE LICENCE VETTING COMMITTEE:**

**Re: FS006631 Foreshore licence application by America Europe Connect Ltd - Geophysical survey and localised site investigations for a subsea fibre optic cable at Killala Bay, Co Mayo - Ross Beach and Enniscrone Beach**

***Request for observations from Ms. Ann Banville (DECLG) dated 18.8.2016***

This application relates to marine site investigations for archaeological, ecological and geotechnical purposes, including geophysical surveys, a dive survey, benthic sampling and installation of boreholes. The survey aims to provide detailed information on ground conditions in order to select an optimal cable route.

A series of separate approaches is proposed, depending on the water depth:

##### **1. Landfall Site Survey & Site Investigations**

A non-intrusive topographic survey (Enniscrone landfall only) of the beach along the line of the proposed cable route is required from the carpark to the low water mark.

- 3 No. Trial Pits on the beach (2.5m depth, excavated and immediately reinstated by JCB)
- Bar probes on the beach (effectively non-intrusive investigation)
- Bar probes from the Low Water Line to the 3 metre contour (effectively non-intrusive investigation)

##### **2. Diver Swim Survey**

The Diver Swim Survey will extend from the low water line outward to the small boat survey limits in accordance with the defined overlaps. A diver swim rope with 25m gradations will be positioned along the route. Dive lines will be configured to provide representative coverage across the entire survey corridor (nominally spaced at 125m).

Bathymetry will be measured by diver depth gauge at each 25m gradation.

Geomorphology will be determined by underwater video along the length of the diver swim rope.

The diver video will be undertaken along each line in the survey swathe

### **3. Small boat survey**

The area extending seaward from the 3m water depth contour and inshore of the safe working draft limits of the primary survey vessel will be accurately surveyed with a small craft using Multibeam Echosounder (MBES), sidescan sonar and sub-bottom profile equipment.

### **4. Offshore survey**

A continuous bathymetric swathe (Multibeam Echosounder), along with side scan sonar imagery and sub-bottom profile will be obtained

### **5. Seabed sampling**

A series of sampling procedures are proposed for seabed sampling. These include trial pits and use of bars on the beach and shallow-water areas and use of grab sampling and cores in deeper water out to the 12-mile limit

Items 1, 2 and 5 above do not cause any issues for IFI. However, Items 3 and 4 involve sound-generation equipment that emit sounds, to levels in excess of 200 dB into the aquatic environment.

#### **IFI comment:**

Inland Fisheries Ireland's (IFI) brief includes conservation of relevant fish species. Of relevance in the present case are

- migratory species traversing the coastline and entering into the Moy river – including Atlantic salmon, sea trout and sea lamprey
- marine sport fish species, such as tope and smoothhound (both members of the shark family and caught via off-shore deep water leisure angling)

Of particular concern to IFI in this application is the proximity of the survey area to the migration routes of both Atlantic salmon and sea lamprey, both species listed in Annex II of the Habitats Directive and both of whom are listed in the River Moy Special Area of Conservation (SAC). The European eel is also protected under EU guidance and regulations. The Moy river and estuary provide passage for

- out-migrating Atlantic salmon smolts in the March – June period annually
- in-migrating adult Atlantic salmon at all periods of the year – with particularly significant and differing windows for grilse (one-sea winter salmon) and for multi-sea winter salmon
- in-migrating adult sea lamprey – March – June period
- out-migrating young adult sea lamprey – autumn-winter
- in-migrating young eel (elvers) - June- July
- out-migrating adult silver eel – October – November

**IFI considers it imperative that the timing of any approved surveys would be agreed with IFI (Ballina office – Dr. John Conneely; Ms. Aisling Donegan). This should be a condition of foreshore licence**

IFI notes that it is proposed to have a Marine Mammal Observer in place during the sound-generating survey activities. It is pointed out that such mitigation provides zero protection for fish species.

Table 4.3 of the supporting documentation indicates sound frequencies and decibel (dB) generation by the survey methods proposed are at or in excess of 200 dB.



IFI would wish to see sound-management mitigations introduced to take account of fish conservation and migration issues (see previous). These should include

- Reduction in the number of sound-requiring test types to be employed (sound-generating testing is proposed for engineering/ground works as well as for archaeological works)
- Reduction in the footprint area for any sound-generating surveys
- Use of soft-start and ramp-up procedures for any sound-generating surveys undertaken
- Use of video camera for geomorphology assessment in deeper water areas, outside the 0-3 m depth zone
- Timing to be in line with requirements of SFPA.

Video camera work is proposed within the diver swim area in order to compile geomorphological information but this technology is not considered for the deeper-water areas. While some areas may be beyond dive depths it is not necessary to have video recording equipment used in 'manual mode' and is assumed that remote video recording of geomorphology along the cable route could be undertaken. If video camera work is adequate to assess geomorphology in the 0-3 m depth zone why is this technology not used throughout, to assess geomorphology? This would, presumably, reduce the requirement for use of the sound-emitting devices?

Mitigations proposed by applicant:

The application proposes mitigation measures including

- Liaising with Sea Fisheries Protection Authority to develop an optimal timing for the survey works in order to avoid or minimise any adverse impact on fisheries, particularly in regard to the spawning season of commercially-important species
- Establishment of a Fisheries Liaison Officer for the inshore and offshore stages of the survey
- Proposals in regard to management of sound-emitting devices at 4.5 and 4.6 are positive

All of these measures above are positive and should be included in any foreshore licence conditions

James J. King (IFI R&D), Aisling Donegan (IFI Ballina)  
Inland Fisheries Ireland  
10.10.2016

CC Terry Mc Mahon MLVC; Declan Mc Gabhann SFPA

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Ann Banville  
Marine Planning/Foreshore  
Dept. of Housing, Planning, Community & Local Government  
Newtown Road  
Wexford

**Your Ref:** FS6598

**Our Ref:** FW/13/17

**Re: Foreshore Application on behalf of America Europe Connect Ltd for site investigation works at Killala Bay, Co. Mayo.**

Dear Ann,

Further to your email dated 18<sup>th</sup> August 2016, please find below observations from this Department.

The proposed site is located in an area of high fishing and aquaculture activities.

Killala Bay is a classified shellfish production area, with several licensed Oyster farms. There may also be seasonal Mussel gathering. The current status for Killala Bay is A class for oysters and B class for mussels. It would be important to maintain the high water quality of Killala Bay and that there would be no deleterious effect on the shellfish production areas.

The area also has an inshore fleet of fishing vessels which predominantly target Lobster and crab by means of pot/creel fishing. There is also fishing by means of nets, with the use of both static and towed nets. There is also some seasonal line or jig fishing.

The applicant has stated that a Fisheries Liaison Officer will be appointed to keep commercial fishermen advised of the survey works including timing, dates of sampling and location of survey vessels. It is recommended that the appointment of a Fisheries Liaison Officer should be a condition of any licence that may issue.

The appropriate assessment screening report has detailed information on the area and planned investigation works. With correct planning, care and consideration the Department does not have any objections to the proposed site investigation works.

Yours sincerely,

Deirdre O'Flynn

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Deirdre O'Flynn  
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