

RISK ASSESSMENT FOR ANNEX IV SPECIES

FS007084 Donegal County Council Dredging and Beach Nourishment at
Magheraroarty Pier, Co. Donegal

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1 INTRODUCTION

This Annex IV Risk Assessment has been prepared by RPS to assess whether the proposed site investigation works remove the system of strict protection established for Annex IV species, whether a derogation licence is required, and if so, whether the criteria for derogation are met.

1.1 Outline of the Proposed Works

Donegal County Council have submitted a foreshore license application for the annual dredging and beach nourishment of Magheraroarty Pier (Dooley Strand), Gortahork, Co. Donegal. The project involves the relocation of sand material from the area of accretion (Magheraroarty Harbour) to an intertidal area on the strand which experiences natural erosion from wave, wind, and longshore drift action. Magheraroarty Harbour is located on the outer edge of a Natura 2000 designated site, Ballyness SAC (001090), and adjacent to Falcarragh to Meenlaragh SPA (004149). Over the winter months sand continues to be transported along Dooley Strand and deposited along the berthing face of the pier.

A maximum volume of 20,000 tonnes per annum of deposited sand is to be removed from the harbour and dumped onto an intertidal zone encompassing an area of 12.7 ha. The annual maintenance dredging of Magheraroarty Harbour is required to maintain navigational depth to -2.5m Chart Datum (CD) for the Tory Island ferry, commercial fishing boats and charter boats in the local area.

The dredging is scheduled to take place at low tide over a 5–6-day period during the equinoctial spring tides in March/April each year. Completing the dredging work over the spring tide will allow access to the entire berthing area. The sand is to be excavated by 360-degree tracked excavators working at low tide and loading articulated dumpers. The sand will be brought to the adjacent beach, where it will be spread evenly using a 360-degree low bearing tracked excavator. The beach nourishment area and haulage route will be mapped out in advance. The work is restricted by the tide and therefore there will be no build-up of sediment along Dooley Strand during the 5-6-day period of works. It is expected that the total duration of works on-site will be six days (mobilisation, preparation, spreading and demobilisation) with four days of dredging activity during that period.

No plant or equipment will be parked on the beach overnight or outside working hours. Access to the beach will be restricted during the works, usually four hours per day over the 5-6-day period. Works will be advertised on local radio and signs posted to notify users.

Prior to the commencement of works an Ecological Clerk of Works is to be consulted to ensure that environmental protection measures are adhered to, and that all haul routes for material and the area for nourishment are clearly delineated.

1.2 Legislation

Under Article 12 and 13 of the Habitats Directive, Member States must establish systems of strict protection for animal and plant species which are particularly threatened, and which are listed on Annex IV of the Habitats Directive. Article 16 provides for derogations from these provisions under limited circumstances. Article 12, 13 and 16 of the Habitats Directive are transposed into Irish law by Regulations 51, 52 and 54 of the European Communities (Birds and Natural Habitats) Regulations 2011, as amended.

Annex IV species are afforded strict protection throughout their range, both inside and outside of designated protected areas. It is an offence to deliberately kill, injure or disturb a specimen in the wild, or damage or destroy a breeding site or resting place of an Annex IV animal species.

The granting of another statutory consent (e.g., a foreshore licence or lease) does not remove the obligation to obtain a derogation licence, and as such, an application for derogation may have to be made to the National Parks and Wildlife Service (NPWS) under Regulation 54, in addition to a foreshore licence or lease application. If satisfied that an application meets the criteria for derogation, the Minister may grant a derogation licence, which may be subject to such conditions, restrictions, limitations, and requirements as the Minister considers appropriate, and these will be specified in the licence.

1.3 Relevant Annex IV Species

All species listed under Annex IV with the potential to be impacted by the proposed site investigation works should be included, even if they have been separately assessed in the AA process.

Of the animal and plant species on Annex IV known to occur in Ireland¹, the following species were identified as relevant to the proposed development:

- All cetacean species;
- All turtle species;
- Otter.

¹ <https://www.npws.ie/legislation>

2 RISK ASSESSMENT

2.1 Baseline

2.1.1 Cetaceans

The applicant has noted that harbour seals (*Phoca vitulina*) and grey seals (*Halichoerus grypus*) have been spotted in the surrounding areas (Ballyness Bay), and there was one incidence of a porpoise carcass being washed up on the beach near Keadew (~30km to the south of Dooley strand) in 1998. It should be noted that the species of seal which occur in Irish waters are in fact not listed in Annex IV, and as such are not considered further in this risk assessment.

Of the 25 species of cetacean recorded in Irish waters, approximately three of these have been recorded off the coast of Magheraroarty and may be present in the vicinity of the application area at least on a seasonal basis. It is unlikely that deep water species such as the blue whale and long-finned pilot whale will be present. The most recent records from the Irish Whale and Dolphin Group (IWDG) has six records of cetacean sightings, totalling 29 individuals, near the site for the period January 2021 to December 2021. Species identified include harbour porpoise (*Phocoena phocoena*); minke whale (*Balaenoptera acutorostrata*); and bottlenose dolphin (*Tursiops truncatus*).

Harbour porpoise, bottlenose dolphin and common dolphin are thought to be present year-round whilst minke whale are considered to be seasonal visitors during summer months (Wall *et al.*, 2013).

2.1.2 Turtles

Turtles were not assessed by the applicant; however, four Annex IV species of turtle are known to occur in Ireland (leatherback turtle, Kemp's Ridley turtle, loggerhead turtle and hawksbill turtle)². Leatherback turtle (*Dermochelys coriacea*) has been reported on a number of occasions around the Irish coastline and in the Irish Sea, most recently in 2020. Between 2000 and 2018, 198 observations of leatherback turtles were recorded in Irish waters (NPWS, 2019). Leatherbacks are known to have an 'atypical migration pattern', as while they must return to tropical waters to breed and reach preferred nesting grounds, they are known to spend the summer months in productive temperate waters, like Ireland's, feeding on jellyfish and sea squirts (Doyle, 2007). Other turtle species have been less commonly observed in Irish waters.

2.1.3 Otters

Otters were not assessed by the applicant as part of the Screening for Appropriate Assessment process; however, otter is listed in Annex IV and occurs throughout Ireland, including along the coast of Co. Donegal (NPWS, 2019).

In Ireland otter populations are found along rivers, lakes, and coasts, where fish and other prey are abundant, and where the bank-side habitat offers plenty of cover. The otter is an opportunistic predator with a broad and varied diet and preys on fish, crabs and molluscs in coastal areas. Otters have diverse habitat preferences: lakes, canals, riverine (streams up to major river systems) marshland and estuaries. Otters that live nearer to the coast tend to require access to freshwater for bathing purposes, while any aquatic environment which has nearby vegetation or rock cover will be used by otters.

Although otters are a mobile species, they have defined territories. Females have territories of 7.5 ± 1.5 km in length along a riverine environment and 6.5 ± 1.0 km in coastal environments, while male otter territory along rivers is approximately 13.2 ± 5.3 km in length with a high degree of variability (Reid *et al.*, 2013).

The main threats to otter include pollution, particularly organic pollution resulting in fish kills; and accidental deaths (road traffic and fishing gear). The most recent Article 17 conservation assessment for otters in the Republic of Ireland deemed the species as being in favourable conservation status (NPWS, 2019).

² <https://www.npws.ie/legislation> Accessed online 07 February 2022

2.2 Summary of Potential Impacts

2.2.1 Cetaceans

Given the temporary nature of the proposed works, and the low to negligible likelihood that any marine mammals will be present on site, it is considered that there will be no risk of collision, injury, or mortality.

The risk of disturbance to life cycle is considered extremely low given that there are unlikely to be any marine mammals in the vicinity of the proposed dredging operation.

As the proposed activity will not cause injury, disturbance, or death to the variety of marine mammal species recorded in the area, given the relatively short duration of the works and that no marine mammals are likely to be exposed to the dredging activities, there is no sensitive time that can be impacted as any disturbance would be temporary in nature. The small numbers that may occur adjacent to the pier are likely to be accustomed to human activities and are unlikely to be affected.

2.2.2 Turtles

Although the application does not assess potential impacts to turtles, given the low numbers recorded over an 18-year time period, it is highly unlikely that turtles will occur within the project area. Given the rarity of occurrence of turtles in Irish waters, and the relatively limited scale and duration of the survey activities, it is concluded that there will be no significant disturbance, injury, or death of turtle species as a result of the survey activities. There will be no deterioration or destruction of breeding sites or resting places.

The proposed works do not offend the system of strict protection of turtles under Article 12 of the Habitats Directive.

2.2.3 Otters

Impacts to otters can occur as a result of permanent loss of breeding or resting sites, habitat loss, disturbance/displacement, and injury/mortality. Although an otter survey has not been carried out, the desk-based review noted that there has been a single sighting for otter (NBDC, 1991³) in the adjacent Ballyness Bay area. It is noted that there is potential for otter to occur within the intertidal zone, commuting or foraging on fish, crabs, and molluscs.

The pier and immediate vicinity are unsuitable for otter holts due to the coastal walls. No resting places or holts have been noted in the vicinity. Given the nature of activities to be carried out within the intertidal zone and the absence of holts, it is considered that no deterioration or destruction of otter breeding sites is likely to occur. There is a low potential for slight noise disturbance of otters using the landfall areas to rest, commute or forage in, however, given the temporary nature of the works, the highly mobile and crepuscular nature of the species, and their favourable conservation status, it is highly unlikely that significant disturbance will occur.

2.3 Conclusion

No significant disturbance, injury or death of otters is predicted as a result of the proposed dredging activities. In addition, there will be no deterioration or destruction of breeding sites or resting places. The proposed works do not offend the system of strict protection of otters under Article 12 of the Habitats Directive.

2.4 Mitigation Measures

No mitigation measures are considered necessary.

³ <https://maps.biodiversityireland.ie/Map/Terrestrial/Species/119290> Accessed online 07 February 2022

3 CONCLUSION

Following review of the information submitted by the applicant, it is the opinion of RPS that the proposed project complies with the system of strict protections afforded by Article 12 of the Habitats Directive to the following species found in Ireland:

- All cetacean species
- All turtle species
- Otter.

It is noted that formal determination of whether further assessment of Annex IV species is required will be made by the Minister of the DHLGH. The Minister's determination shall not be prejudiced by this review.

REFERENCES

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Wall D., Murray C., O'Brien J., Kavanagh L., Wilson C., Ryan C., Glanville B., Williams D., Enlander I., O'Connor I., McGrath D., Whooley P. and Berrow S., 2013. Atlas of the distribution and relative abundance of marine mammals in Irish offshore waters 2005 - 2011. Irish Whale and Dolphin Group, Merchants Quay, Kilrush, Co Clare.