

Appropriate Assessment Screening – Note TO289/RM12

Project:	5162160_TO 289 NW Bridges		
Subject:	Reactive Maintenance - AA Screening No. 12 [Revision 1.0]		
Author:	Avril McCollum / Paul O'Donoghue, Atkins	Atkins No.:	Appropriate Assessment Screening – Note TO289/RM12. Revision 1.0
Date of Query:	22/11/2019	Date Issued:	26/11/2019
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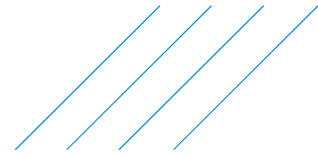
Bridge Details

Bridge	Killydoon Bridge, Killydoon, Co. Cavan
Structure ID	CN-N55-002.00
County	Cavan
Location	On the N55, approximately midway between Cavan and Granard in the village of Killydoon (ING ref: 236722, 291038).

Maps



Map 1. Killydoon Bridge (circled in Red) [Source: <https://maps.biodiversityireland.ie/Map>]



Map 1. Killydoon Bridge. [Source: [GoogleMaps](https://www.google.com/maps)]

Photos



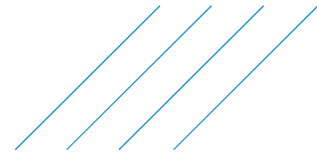
Plate 1. Downstream of Killydoon bridge with damaged parapet to the right.



Plate 2. Discharge pipe downstream of the bridge. [Source: Atkins R.E.; 18/11/2019]

Proposed Works

The parapet wall of the bridge has been damaged recently (see Plate 1) and TII have accepted the proposals to reconstruct / repoint this section of wall. It is proposed under Reactive Maintenance, to rebuild from carriageway level, the damaged end section of wall (including the reconstruction of the concrete footing over a length of 2100mm) to match the existing wall over a length of 4500mm and carry out repointing to the remainder of the damaged wall over a further length of 1500mm, notably to the traffic face of the wingwall.



The replacement masonry for the wall will be sourced locally, though the existing masonry appears to be largely intact. The debris lying behind or fronting the bridge as a result of the damage will be removed and the structure ID reinstated.

The damaged wall will be removed by hand and existing sound masonry salvaged with any defective masonry removed and disposed of off-site. The existing concrete footing will be excavated out utilising a mini-digger, broken up and the resultant debris disposed off-site. The wall will be reconstructed with hand tools utilising lime mortars, existing sound masonry and locally sourced replacement masonry as required. The mortar, and concrete for the replacement footing to be constructed will be mixed away from the structure to prevent contamination of the watercourse. It is anticipated that to allow for the footing to be constructed that it will be shuttered in preparation for the concrete pour, which will be by hand.

None of the construction works will take place directly above the watercourse. The horizontal distance from the end of the damaged wall to the edge of the watercourse at the base of the embankment is approximately 6m, with works, as noted, occurring over a length of 4.5m. Works will take up to 2 days. While the risk of any materials falling into the river is extremely small, the Contractor will be obliged to take all due care to prevent any emission to the watercourse.

Appropriate Assessment Screening Decision Matrix

Natura 2000 Sites The following Natura 2000 sites are located with 15km of the proposed work site:
-

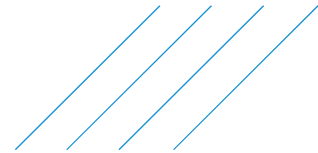
1. Lough Sheelin SPA1 (004065)
2. Lough Kinale and Darragh Lough SPA (004061)
3. Lough Oughter Complex SPA (004049)
4. Moneybeg and Clareisland Bogs SAC (002340)
5. Derragh Bog SAC (002201)
6. Lough Oughter and Associated Loughs SAC (000007)
7. Upper Lough Erne SPA (UK9020071) and SAC (UK0016614) – not located within 15km but potentially connected via. the River Erne.

Killydoon Bridge is on the Erne River, which discharges to Lough Gowna South ca. 5km downstream of the works. The works area is not located within any of the Natura 2000 sites listed above.

Lough Sheelin SPA is designated for the protection of waterbird species including Great Crested Grebe (*Podiceps cristatus*), Pochard (*Aythya ferina*), Tufted Duck (*Aythya fuligula*) and Goldeneye (*Bucephala clangula*); as well as for wetland habitats. It is and located ca. 8km south east of the works. There is no hydrological link between the proposed works and this SPA.

Lough Oughter Complex SPA and Lough Oughter and Associated Loughs SAC are located ca. 11km north of the proposed and are not hydrologically linked to the works area. These SPA is designated for the protection of Great Crested Grebe (*Podiceps cristatus*), Whooper Swan (*Cygnus cygnus*) and Wigeon (*Anas penelope*); as well as for wetland habitats. The qualifying interests of the SAC are

¹ <https://www.npws.ie/protected-sites>



is and Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150], Bog woodland [91D0] and *Lutra lutra* (Otter) (SAC).

Lough Kinale and Derragh Lough SPA is designated for Pochard (*Aythya ferina*) and Tufted Duck (*Aythya fuligula*). This SPA is located ca. 9.2km south of the proposed works. There is no hydrological link between the proposed works and this SPA.

Derragh Bog SAC designated for degraded raised bogs still capable of natural regeneration [7120] and bog woodland [91D0]. It is located ca. 9.5km south of the works. These sites are not hydrologically linked to the proposed works.

Moneybeg and Clareisland Bogs SAC is located ca. 10.4km south of the proposed works and is designated for the protection of Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120] and Depressions on peat substrates of the Rhynchosporion [7150]. This site is not hydrologically linked to the works site.

As none of the Natura 2000 sites in the Republic of Ireland are linked to the proposed works via surface watercourses or by land, there is no potential for impacts (direct or indirect) to these designated sites as a result of the proposed bridge reconstruction works.

Northern Ireland / Trans-boundary: - Although not within 15km of the proposed works area, Upper Lough Erne SPA (UK9020071) and SAC (UK0016614) are located ca. 30km north of the proposed works. The River Erne flows beneath Killydoon bridge before discharging to Lough Gowna south and flowing in a northern direction to Lough Erne. Given the hydrological connection between the proposed works and this site, it will be discussed further below.

Upper Lough Erne SAC is designated for Inland water bodies (Standing water, Running water); Bogs, Marshes, Water fringed vegetation; Humid grassland, Mesophile grassland & Broad-leaved deciduous woodland. Upper Lough Erne SAC qualifying interests are wintering waterbirds, such as Whooper Swan (*Cygnus cygnus*).

Upper Lough Erne has also been designated as a Ramsar Site and ASSI site.

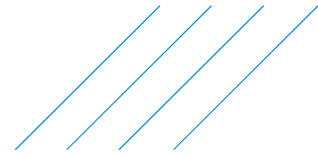
pNHA / NHA There are no pNHAs / NHAs at or in the immediate environs of the site.

Lough Gowna south, located along the River Erne has been designated as a pNHA; Lough Gowna pNHA (000992). It has been designated for peat bog habitat with a woodland fringe also present in places. It's an important site for wintering waterfowl with nationally important populations of Great Grebe, Whooper Swan and Golden Plover. Other species are also present within Lough Gowna.

This site is too remote to be influenced by the proposed works.

Hydrological links The River Erne forms from a number of small tributaries ca. 12km north east of the works (by land) and flows in a general south western direction before being crossed by the Killydoon Bridge and discharging to Lough Gowna ca. 5km downstream of Killydoon Bridge. The River Erne then flows from Lough Gowna in a general northern direction (crossing the border into Northern Ireland) before discharging to Lough Erne which has been designated as an SPA; Upper Lough Erne SPA.

FWPM The works area is not within a *Margaritifera Sensitive Area*. The River Erne is not listed on the Freshwater Pearl Mussel Regulations, 2009. In Northern Ireland the



Waterfoot River (in the Lower Erne Catchment) supports pearl mussel (Reid *et al.*, 2011) ¹ (east of the Pettigo Plateau). The Erne River at Beleek, Co. Fermanagh also supports pearl mussel ². These populations would not, however, be impacted by the localised works proposed. As noted there are no instream works.

¹ Reid, N., Preston, J., & Keys, A. (2011). Freshwater pearl mussel survey of Northern 2011. (Research and Development Series). Northern Ireland Environment Agency.

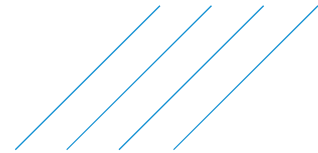
² NIEA (2015). Lower Erne Data Collation for Intereg V.

https://www.seupb.eu/sites/default/files/styles/file_entity_browser_thumbnail/public/INTERREG%20Content%20Type/IVA_Environment_2_4RiverBasins_CatchmentGuidance_LowerErneRiver.sflb.pdf

Bats	The Killydoon Bridge provides a low potential for bats to utilise the bridge due to the tightly fitted masonry (see Plate 1). No works to the arch is to take place.
Invasive Species	There are no records of invasive species, such as Japanese knotweed (<i>Fallopia japonica</i>) from the works area or environs (i.e. the 2km grid square within which the Killydoon Bridge is located; N39Q). It has been reported that Crayfish Plague is recorded within the catchment; River Bruskey / Erne [see - http://www.biodiversityireland.ie/projects/invasive-species/crayfish-plague/].
Other Ecology Notes	NBDC records of otter from the River Erne in the environs of the works area include a record from Kilsaran Bridge (N352906)— downstream of Killydoon Bridge in 2010. Otter were also reported at Killydream Lough, ca. 1km south east of the bridge in 2016. It is probable that otter occur within vicinity of the proposed works area. White-clawed crayfish (<i>Austropotamobius pallipes</i>) have been recorded from Kilsaran Bridge (N353906; 2010) and Legwee Bridge (N377924; 2010), upstream and downstream of Killydoon Bridge (Source: River Biologists' Database (EPA); NBDC).

Brief Description of the Natura 2000 site(s)

Site	Upper Lough Erne SPA (UK9020071) and SAC (UK0016614)
Qualifying Interests (SPA): -	<ul style="list-style-type: none"> ➢ Whooper Swan (<i>Cygnus cygnus</i>))wintering populations)
Qualifying Interests (SAC):	<ul style="list-style-type: none"> ➢ Otter (<i>Lutra lutra</i>) Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation ➢ Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles



Assessment

The location of QIs² in relation to the works area are detailed in the table below.

Qualifying Interest	Location	Within Zone of Influence
<u>Upper Lough Erne SPA</u>		
Whooper Swans	Lough Erne is located ca. 30km north of the proposed works area and is connected to the works via the River Erne catchment. The River Erne flows through Lough Gowna, ca. 5km west of the proposed works before continuing to flow northwards to the sections which are designated as SAC and SPA.	Yes – connected via. River Erne.
<u>Upper Lough Erne SAC</u>		
Otter	Otter have been reported downstream of the proposed works and within a lake to the south east of the proposed works, indicating that the River Erne catchment, within which the works are located, is suitable for otter.	Yes – connected via. River Erne.
Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation	Upper Lough Erne SAC is located ca. 30km north of the proposed works by land. This type of habitat is typical of lakes and does not occur at the proposed works location.	No
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	Upper Lough Erne SAC is located ca. 30km north of the proposed works by land. This woodland habitat does not occur at the proposed works location.	No

Potential impacts during construction: -

The proposed works will not give rise to impacts on Upper Lough Erne SPA and SAC via land and air pathways which as noted is ca. 30kmn from the works area.

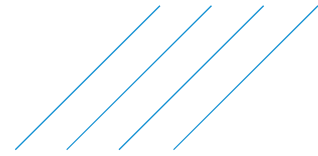
While the works are hydrologically connected to the Upper Lough Erne via the River Erne system, they are at a significant distance upstream (ca. 30km), with a significant volume of water (river / lake) located between the works and these Natura 2000 sites. Furthermore, the works are localised, of short duration (no more than 2 days) and are small in scale; with no instream works proposed. All works will be undertaken from the road. While cement is to be poured into shuttering to reinstate the wall foundations – the volume is small; it is to be poured by hand and works are not over the watercourse. While the risk of any materials falling into the river is extremely small, the Contractor will be obliged to take all due care to prevent any emission to the watercourse.

There is no risk of disturbance to Whooper Swans using the SPA.

Disturbance of otter using the watercourse is limited; works will be of short duration and during daylight; no overnight lighting is to be left in place.

Thus, due to the nature, extent, duration and location of the proposed works, the potential risk of impacts to the Upper Lough Erne SPA and SAC determined to be negligible.

² https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002301.pdf



Potential impacts during operation: -

Impacts during the operational phase of the proposed works are not anticipated. The works will not affect the hydrological regime of the rivers and will not generate further emissions to the watercourses.

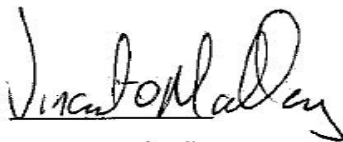
Findings of this Assessment

Atkins Findings This Screening for Appropriate Assessment report is based on the best available scientific information. It is concluded by the authors of this report that the proposed project poses no likely significant effects on Upper Lough Erne SAC or SPA. Thus, it is recommended that it is not necessary for the proposed project to proceed to Appropriate Assessment.

Findings of TII Appropriate Assessment

AA Determination

Having performed screening for Appropriate Assessment in respect of the proposed reactive maintenance works detailed in this document entitled *Appropriate Assessment Screening – Note TO289/RM12*, I accept the recommendations of Atkins Limited that the proposed reactive maintenance works, individually or in combination with other plans or projects, would not be likely to have a significant effect on any European site in view of the best scientific knowledge and the site's conservation objectives. I determine that an Appropriate Assessment of these proposed works is not required, as it *can be excluded* on the basis of objective scientific information following the screening done that the proposed works, individually or in combination with other plans or projects, will have a significant effect on any European site.



26/11/2019

Dr. Vincent O'Malley
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Transport Infrastructure Ireland