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Appropriate Assessment Screening – Note TO289/RM01

Project:	5162160_TO 289 NW Bridges		
Subject:	Reactive Maintenance - AA Screening No.1		
Author:	Paul O'Donoghue, Atkins Principal Ecologist	Atkins No.:	Appropriate Assessment Screening – Note TO289/RM01. Revision 1.1
Date of Query:	21/10/2018	Date Issued:	21/10/2018
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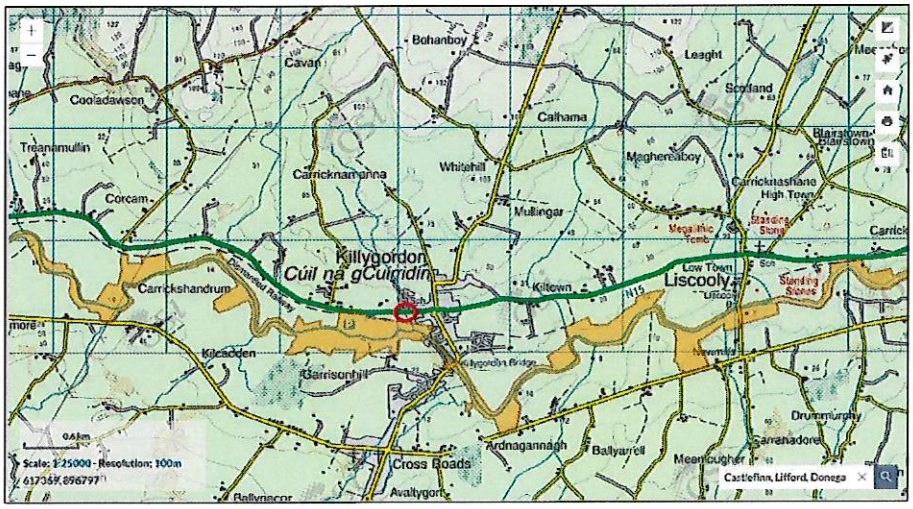
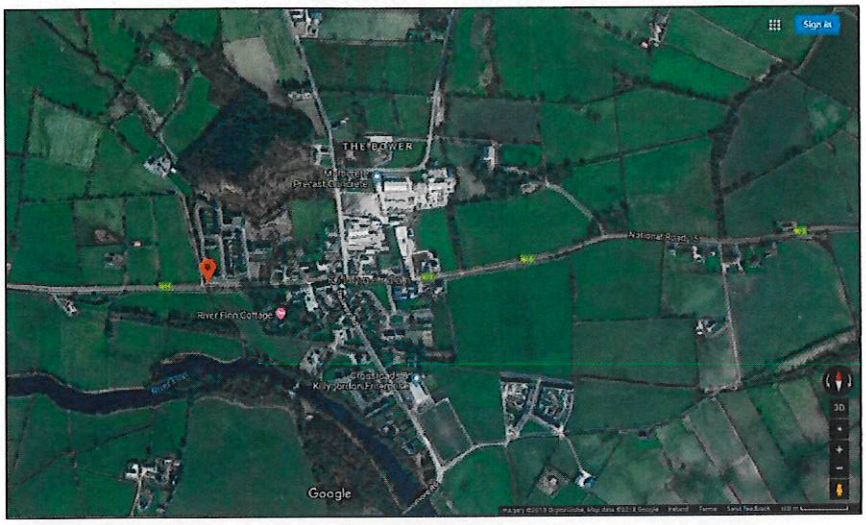
Bridge / Culvert Details

Bridge	Killygordon Culvert, Killygordon
Structure ID	DL-N15-001.90
County	Donegal
Location	On the N15, approximately 4.5km west of Castlefinn town, Co. Donegal and approximately 4km east of the town of Killygordon (ING ref: 220052 394358).
Maps	

Map 1. Killygordon Culvert (circled in Red); Finn River SAC shown in brown.

[Source: https://maps.biodiversityireland.ie/Map]



Map 1. Killygordon Culvert. [Source: GoogleMaps]

Photos

Plate 1. Upstream of Killygordon Culvert with damage parapet to right.

Plate 2. Outfall at upstream side of culvert; safety fence along damaged parapet.

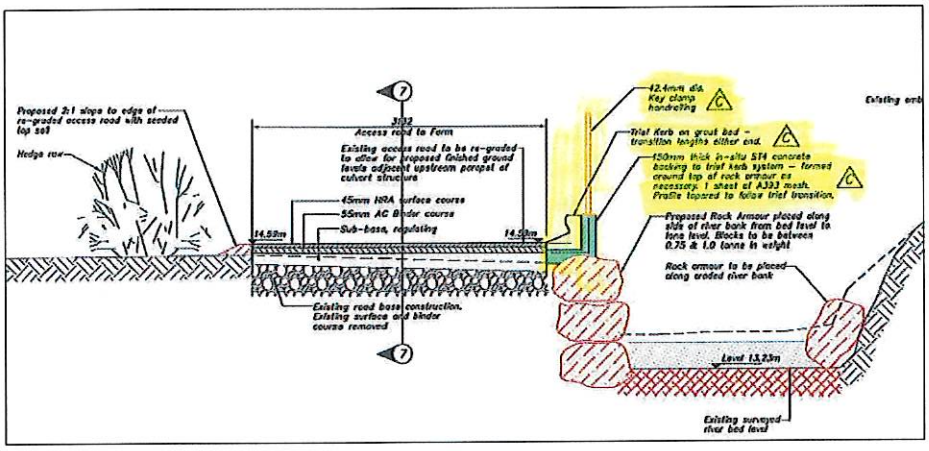
Plate 3. Downstream headwall & debris in river downstream of culvert. [Source: Atkins R.E.; 1/10/2018]

Proposed Works

This 2.0m culvert has been recently installed and as such will be a new entry to the Eirspan Bridge Management system. The bridge name is Killygordon Culvert and the ID is DL-N15-001.90. Its installation was subject to Appropriate Assessment screening in 2017.

> Inis Environmental Consultants (January 2017). Killygordon Culvert Upgrade Works, Co. Donegal. Stage 1 Appropriate Assessment Stage 1: Screening. Report prepared for Doran Consulting.

Due to safety concerns, reactive Maintenance is now required for the installation of a key clamp fence, trief kerb and concrete backing at Killygordon culvert (as shown on the section below); the works area is also shown on the right bank of the river in Plate 1).



The trief kerb will be formed from precast units; with the backing (in green above) cast on site by pouring concrete into a mould made by shuttering; the safety fence will be erected on top of this. The capacity of the shuttering will be designed to exceed that required for the backing in order to prevent overspill and remove the risk of wet concrete reaching the river. The works area is ca. 15m in length. Works will take no more than 2-4 weeks. There will be no site compound.

Apart from removal of debris from the river, and occasional access to the river by a worker, there are no instream works. Temporary safety fencing was washed into the river (see Plate 3); this is to be removed as is some debris and black plastic in the water course (ca. 6m^2 of debris to be removed from the watercourse).

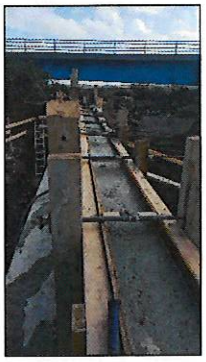


Plate 4. Example of shuttering.

Appropriate Assessment Screening Decision Matrix

Natura 2000 Sites	Natura 2000 sites with 15km: - 1. River Finn SAC[1] (002301) 2. River Foyle and Tributaries SAC (UK 0030320) 3. Moneygal Bog SAC (UK0030211) Killygordon Culvert is on the Mullingar stream, which discharges to the River Finn a short distance downstream of the works (ca. 100m). The works area is not within the River Finn SAC. At the confluence the River Finn is within the River Finn SAC. This is discussed further below. Moneygal Bog SAC[2] is one of the most westerly active raised bogs in Northern Ireland; designated for 7110 Active Raised Bog*. It is located ca. 14km southeast of the proposed works. There is no risk of direct impacts to this site and no hydrological link. The site is not therefore considered further. River Foyle and Tributaries SAC[3] is located just under 5km east of the proposed works in Northern Ireland. As there is a downstream hydrological link this site is also considered further below. Lough Foyle SPA (004087) is downstream of the works, but is at a significant remove from the site. It is not likely to be impacted and is not considered further.
pNHA / NHA	There are no pNHAs / NHAs at or in the immediate environs of the site. An 8km stretch of the River Foyle between Mongalvin and Carrigans south of Derry City is designated as River Foyle, Mogalvin to Carrigans pNHA (002067). This is a section of tidal river designated for habitats, such as mudflats, reedbeds and willow & alder scrub, and wintering birds. This site is too remote to be influenced by the proposed works.
Hydrological links	The second order Mullingar Stream rises in Carricknamanna approximately 1.2 km north of Killygordon and flows in a southerly direction where it enters the Finn River at Killygordon. The River Finn flows across the border into Northern Ireland. The Mullingar stream is located in the Finn (Donegal) _080 River Sub-Basin within the Finn [Donegal] _SC_030 Sub catchment, all of which are located within the Foyle Catchment.
FWPM	The River Finn is within a *Margaritifera* sensitive area (labelled by NPWS as a *Catchment with other extant population*). Pearl mussel is not, however, a qualifying interest of any of the sites to which the Mullingar Stream is linked. The River Finn is not listed on the European Communities Environmental Objectives (Freshwater Pearl Mussel) Regulations, 2009 [S.I. 296 of 2009]. Historic record of dead shells - H264946 – from the River Finn south of Castlefinn (ca. 7.5km downstream) (C. Beasley; 1993/94; NBDC).

[1] https://www.npws.ie/protected-sites/sac/002301

[2] http://jncc.defra.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0030211

[3] http://jncc.defra.gov.uk/ProtectedSites/SACselection/sac.asp?EUCode=UK0030320

Bats	Not suitable for supporting roosting bats.
Invasive Species	While Japanese knotted (*Fallopia japonica*) has been recorded in Killygordon - H29C, there is no evidence of it at the works location (Source: Atkins RE).
Other Ecology Notes	NBDC records of otter from the River Finn include a record from Liscooly Bridge (H230943) in 2010 – downstream of Killygordon. It is probable that it might occur along the Mullingar Stream.

Brief Description of the Natura 2000 site(s)

Site: **River Finn SAC (002301)**

Qualifying Interests: -

- Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]
- Northern Atlantic wet heaths with *Erica tetralix* [4010]
- Blanket bogs (* if active bog) [7130]
- Transition mires and quaking bogs [7140]
- *Salmo salar* (Salmon) [1106]
- *Lutra* (Otter) [1355]

Assessment

The location of QIs[4] in relation to the works area are detailed in the table below.

Qualifying Interest	Location	Within Zone of Influence
Oligotrophic waters	Lakes located in the headwaters of River Finn catchment, a significant distance upstream of Killygordon.	No
Wet heaths	Associated with blanket bogs of the SAC, typically at Tullytresna, Owendoo/ Cloghervaddy and north-east of Lough Finn. These areas are located in the Bluestack Mountain range, approximately 30km west of Killygordon.	No
Blanket Bog	Blanket bogs are located within the SAC, typically at Tullytresna, Owendoo/ Cloghervaddy and north-east of Lough Finn. These areas are located in the Bluestack Mountains range, approximately 30km west of Killygordon.	No
Mires and quaking bogs	This habitat occurs at the interface between bog and waterbodies. It is associated with the bogs of the SAC and Cronakerny and Cronamuck, also located in the Bluestack Mountains. Lakes located in the Bluestack Mountains also support this habitat at their lake edges.	No

[4] https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002301.pdf

	These areas are located approximately 30km west of Killygordon.	
Salmon	The River Finn supports salmon. The culvert is located on the Mullingar stream, approximately 100m upstream of the River Finn.	Yes – via surface water pathways
Otter	The River Finn has the potential to support otter. It offers good supporting holting and foraging habitat for otter.	Yes – via surface water pathways

Potential impacts during construction: -

As shown in the table above, the proposed works will not give rise to impacts via land and air pathways. The works area is hydrologically connected to the River Finn. Thus, the proposed works could potentially affect the water quality of the River Finn and thus, indirectly impact Salmon and Otter through the degradation of water quality. However, as noted, there are no instream works proposed. All works will be undertaken from the road. The key risk is the escapement of concrete during pouring of the concrete backing; however, as noted the capacity of the shuttering will be designed to exceed that required for the backing, in order to prevent overspill and remove the risk of wet concrete reaching the river.

Thus, due to the nature, extent, duration and location of the proposed works, the potential risk of impacts to the River Finn SAC is negligible.

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.

Site	**River Foyle and Tributaries SAC (UK 0030320)**
Qualifying Interests: -	➢ 3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation (aka floating river vegetation); ➢ 1106 Atlantic salmon *Salmo salar*; ➢ 1355 Otter *Lutra lutra*.

Assessment

The location of QIs[5] in relation to the works area are detailed in the table below.

Qualifying Interest	Location	Within Zone of Influence
Floating river vegetation	Floating river vegetation is found in the upper reaches of the River Derg and its tributaries. The River Foyle is slow-flowing and tidal downstream of Strabane with fucoids (seaweeds) being dominant. The River Finn joins the River Foyle approx. 7km upstream of Strabane. Thus, given the brackish nature of the River Foyle at this location, it is not anticipated that floating river vegetation is present in	No

[5] https://www.daera-ni.gov.uk/publications/reasons-designation-special-area-conservation-river-foyle-and-tributaries

	the area of the SAC that has hydrological connectivity with the works area.	
Salmon	The River Foyle and its catchment is important for Salmon. The works area is located approximately 12km upstream of the SAC.	Yes – via surface water pathways
Otter	Otter are found throughout the system. The River Foyle provides good supporting habitat for otter. The works area is located approximately 12km upstream of the SAC.	Yes – via surface water pathways

Potential impacts during construction: -

As shown in the table above, the proposed works will not give rise to impacts via land and air pathways. The works area is hydrologically connected to the River Foyle, via the River Finn. Thus, the proposed works could potentially affect the water quality of the River Finn and thus, the River Foyle. This could pose indirect impacts to Salmon and Otter due to impacts on water quality. However, as noted, there are no instream works proposed. All works will be undertaken from the road. The key risk is the escapement of concrete during pouring of the concrete backing; however, as noted the capacity of the shuttering will be designed to exceed that required for the backing, in order to prevent overspill and remove the risk of wet concrete reaching the river.

Thus, due to the nature, extent, duration and location of the proposed works, indirect impacts to the River Foyle and Tributaries SAC is not anticipated.

Potential impacts during operation: -

Impacts during the operational phase of the proposed works are not anticipated. The works 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 River Finn SAC or River Foyle and Tributaries SAC. Thus, it is recommended that it is not necessary for the proposed project to proceed to Appropriate Assessment.

Findings of TII Appropriate Assessment

Having performed screening for Appropriate Assessment in respect of the proposed reactive maintenance works detailed in this document entitled *Appropriate Assessment Screening – Note TO289/RM01. Revision 1.1,* 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.

Vm O'Malley . 24/10/2018

Dr. Vincent O'Malley
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