

From: [O'Malley Vincent](#)
To: [Phelan Sarah-Jane](#)
Cc: [Nea Christian](#)
Subject: RE: Re. Mullnaveagh Bridge [DL-N14-011.00]
Date: Wednesday 18 November 2020 11:23:25

Sarah-Jane,
Having reviewed the content of the email from Atkins, I accept the reasoned determination as set out below.
Sincerely
Vincent

From: Phelan Sarah-Jane <[REDACTED]>
Sent: Thursday 12 November 2020 12:44
To: O'Malley Vincent <[REDACTED]>
Cc: Nea Christian <[REDACTED]>
Subject: FW: Re. Mullnaveagh Bridge [DL-N14-011.00]

Vincent,
Having reviewed Paul's email below and having regard to the presence of a buffer distance, I recommend that the following reasoned determination can be made:

"Having performed screening for Appropriate Assessment in respect of the proposed reactive maintenance works detailed in the email received from Paul O'Donoghue dated the 9th of November 2020, and entitled 'Re. Mullnaveagh Bridge [DL-N14-011.00]', I accept the recommendations of Atkins 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."

Kind regards,
Sarah-Jane

From: O'Donoghue, Paul <[REDACTED]>
Sent: Monday 9 November 2020 13:03
To: Nea Christian <[REDACTED]>
Cc: O'Malley Vincent <[REDACTED]>; Phelan Sarah-Jane <[REDACTED]>
[REDACTED]
Subject: Re. Mullnaveagh Bridge [DL-N14-011.00]

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Christian

Re. Mullnaveagh Bridge [DL-N14-011.00]

Mullnaveagh Bridge [DL-N14-011.00] is a single arch masonry bridge (see Figure 1) located on the N14 which crosses the Swilly Burn [EPA River segment - 01_1852] to the southeast of Raphoe, Co. Donegal (circled in red in Figure 2, below). To the east the Swilly Burn discharges to the River Foyle ca. 6.6km downstream of the bridge.



Figure 1. Mullaveagh Bride.

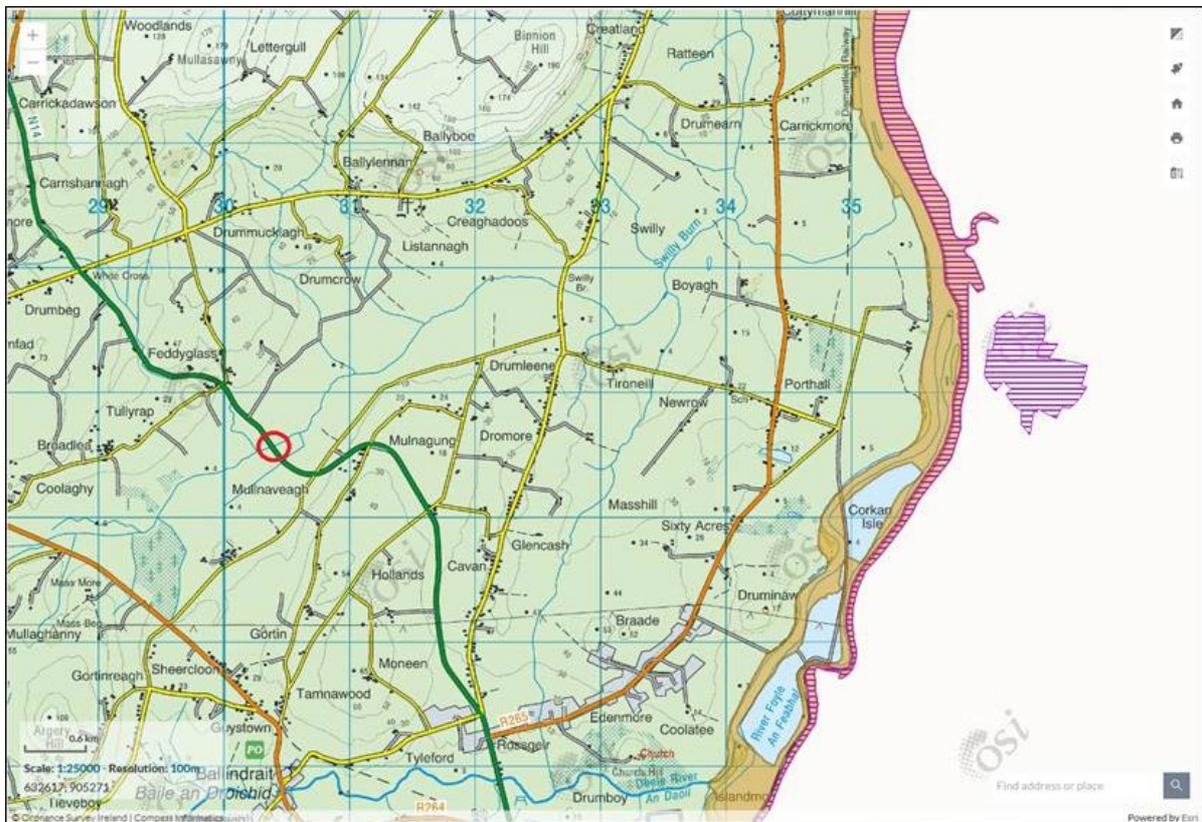


Figure 2. Location of Mullaveagh Bride (circled in red).

Type of Damage Recorded:

It is proposed under Reactive Maintenance to fully rebuild the south end section of the east wingwall and to partially rebuild the north end section of the west wingwall at DL-N14-011.00 Mullaveagh Bridge as the stone masonry was found to be in a poor condition following a recent visual inspection at the bridge.

South end of East Wingwall

The damage to the south end of the east parapet wall comprises masonry joint separation and horizontal displacement (outward by up to 30mm) of the end section of the parapet wall extending some 600mm below adjoining carriageway level and over a horizontal distance of 2m from the end of the wall where the concrete coping also shows displaced cracking at this point. The displaced wall has resulted in some loose masonry to the roadside face of the displaced section as well as separation between the adjoining carriageway surfacing and the wall. Joint separation to the wall (riverside) visible below the displaced section does not extend down into the base section of the wall. Loss of pointing was noted to the base section of exposed masonry immediately above embankment level. Refer also attached photos.

Photos (see East Parapet.zip):

409 – View of exposed masonry at embankment level below displaced wall, some joint separation visible

- 410 – View of displaced section of wall
- 411 – General view of front face of damaged section of wall
- 414 – Joint separation to damaged section of parapet wall
- 417 – View of exposed masonry at embankment level below end of displaced wall

North end of West Wingwall

Localised stepped masonry joint separation to the riverside face of the west parapet wall at the north end was noted where the concrete coping has displaced horizontally by up to 20mm outwards extending over a distance of 2m from the end of the wall. Some localised damage (uplifted section) was noted to the edge of carriageway surfacing at the end of the wall where separation of up to 20mm was also noted between the carriageway surfacing and the wall.

Photos (see Wesy Parapet.zip):

- 429 – Joint separation to north end of parapet wall
- 431 – General view of end of parapet wall

Approach to proposed work:

It is proposed to carry out the proposed remedial repairs in accordance with the following indicative construction sequence:-

South end of East Wingwall

- The existing stone masonry wall to be temporarily back propped off a suitably prepared temporary area on the embankment; this will be done prior to excavation and construction of a mass concrete support backing in the carriageway 2400mm long x 1700mm wide x 2400mm dee. This will be placed immediately adjacent to and fronting the end of the wall prior to taking down and rebuilding the wall itself. The back propping is to remain in place until such time as the concrete backing in the carriageway has fully cured. As a further precautionary measure the soffit of the arch under the bridge will also be propped utilising temporary timber trusses until the concrete backing wall has fully cured.
- Erect temporary access scaffolding, lined on top with a 1000 gauge visqueen type material, on the prepared embankment area behind the wall and take down using hand tools the existing defective stone masonry wall and in-situ concrete coping with any sound masonry salvaged and with any defective masonry removed and disposed of off-site. All debris arising from the construction works to be removed and disposed of off-site
- The wall will be reconstructed, from below existing embankment ground level on blinding concrete starting at a level to match the base of the concrete backing wall; work will be done with hand tools utilising lime mortars, existing sound masonry and locally sourced replacement masonry to match existing as required, all to tie on with the existing wingwall. Proprietary wall ties will secure the reconstructed masonry facings to the constructed concrete support backing.
- New cast in-situ concrete coping to be constructed using shuttered - with the concrete pour being by hand. It is also necessary to carry out concrete repairs to the existing coping at some additional locations across the bridge.
- Existing embankment adjacent to the works is to be fully reinstated and existing edge of carriageway surfacing to be reinstated on top of the new concrete backing.

Attached some sketches indicating the nature and extent of remedial works required to the south east wingwall.

North end of West Wingwall

- The end section of defective stone masonry wall and concrete coping is to be deconstructed to stable material at or just below existing carriageway level using hand tools with any sound masonry salvaged and with any defective masonry removed and disposed off site. All debris arising from the construction works to be removed and disposed of off-site.
- The wall will be reconstructed with hand tools utilising lime mortars, existing sound masonry and locally sourced replacement masonry to match existing as required, all to tie on with the existing wingwall. The extent of reconstruction of the wall will extend up to a horizontal distance of 2m from the end of the wall
- New cast in-situ concrete coping to be constructed to be shuttered in preparation for the concrete pour by hand. Carry out concrete repairs to the existing coping at some random locations across the bridge.
- Existing embankment adjacent to the works is to be fully reinstated.

General:

The mortar and concrete will be mixed away from the structure to prevent contamination of the watercourse. None of the construction works will take place directly above the watercourse but as a precautionary measure silt fencing to control and prevent any pollution of the watercourse will be erected at the edge of the watercourse and hessian laid on the river bank to intercept any runoff that might arise from the construction works. The horizontal distance from the end of the works area on the southeast side to the edge of the watercourse at the base of the embankment is approximately 1.85m. This measure would be put in place whether or not there is a downstream Natura 2000 site in order to protect the watercourse.

Ecological Characteristics:

Mullnaveagh Bridge is located on the Swilly Burn. It is not within a Natura 2000 site. It discharges downstream to the River Foyle, which is designated at this point as the River Finn SAC

- 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 lutra* (Otter) [1355]

The river at this location, however, forms the international border with Northern Ireland; waters with Northern Ireland are designated as River Foyle and Tributaries ASSI 229. The site is designated in particular for its population of Atlantic salmon.

None of the habitats designated for the SAC are present in the vicinity of the bridge. There are no records of otter in the vicinity of the bridge; they have, however, been recorded downstream at Swilly Bridge (C327038 in 2010; Source: NBDC MapViewer). [REDACTED]

There are no records of Japanese knotweed (*Fallopia japonica*), Indian balsam (*Impatiens glandulifera*), Giant hogweed (*Heracleum mantegazzianum*) or Giant-rhubarb (*Gunnera sp.*) (Source: NBDC).

The parapet to be repaired is not suitable for use by roosting bats.

Atkins Findings -

This Screening for Appropriate Assessment is based on the best available scientific information. It is concluded that the proposed project poses no likely significant effects on Natura 2000 sites. Thus, it is recommended that it is not necessary for the proposed project to proceed to Appropriate Assessment.

Findings of TII Appropriate Assessment -

Can you please provide a Reasoned Determination?

Paul O' Donoghue *BSc PhD CEnV MCIEEM*
Principal Ecologist
Ireland

[REDACTED]

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