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**Re: The review of a previous NIS and the results of an updated survey of Ballinloughane Bridge, Athea , County Limerick.**

To whom it may concern,

Ecology Research and Solutions Limited has been engaged by Limerick County Council (henceforth “the Council”) to provide ecological advice and support for repair and upgrade works at a deteriorating bridge located between the townlands of Glenagower and Keale, 5.5km east of Athea, County Limerick. The bridge had been visited by Punch Engineering Consultants a number of years ago, and a series of works had been prescribed for the bridge in order to bring it to a safe working order. On the foot of this, the proposed works set out for the bridge were assessed by Ecofact Ecology Consultants for their capacity to cause impacts to the local environment, particularly to areas protected under the Birds Directive and the Habitats Directive. The findings of this assessment are detailed in an NIS which was compiled for the works planned for the bridge in question. As over two years had lapsed since this NIS was issued to the Council, it was decided to review the NIS and update the surveys that informed it to ensure that the details contained within it, particularly the findings and mitigations, are appropriate to the current situation and the proposed works at the bridge. This decision was taken based on the information provided in the guidance document “*Advice Note on the Lifespan of Ecological Reports and Surveys*” (CIEEM, 2019).

The proposed works for Ballinloughane Bridge are summarised as follows (Punch Consulting Engineers, 2021):

- Existing traffic will be diverted away from the site.
- All vegetation including trees, shrubs and the like will be removed for 10 m upstream and downstream of the bridge over a width of 30 m approximately. All efforts will be made to preserve mature and semi-mature trees, where possible.
- The composite bridge deck, concrete slab and steel beams, will be removed. The top level of the abutments will be removed to a predetermined level and excavated behind to expose the natural rock bed. Mass concrete will be poured behind the abutment walls to form the bearing for the reinforced bench seatings.
- The precast concrete beams will be lowered into place on the bench seatings to form the core of the new bridge structure. A reinforced concrete deck will be poured above the beams. Reference shall be made to Inland Fisheries Ireland publication “Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters”, to protect the quality of the river below.
- The width of the bridge will be increased to allow for widening of the road over and to offset the parapets beyond the edges of the carriageway.
- The remaining excavations will be backfilled with acceptable fill material to road formation level. The roadway will be reinstated using a surface course and binder (base), course of Dense Bitumen Macadam on a granular sub-base.
- Insitu reinforced concrete upstands for the parapet rails and raised plinths will be cast at the road edges on the bridge structure.
- Other ancillary items associated with the bridge construction include; proprietary galvanised steel parapets; road side drainage; traffic signs; etc.

The bridge is located on a third order stream; one of the two headwater streams which make up the Gale River, both known as the Gale River. The bridge site is surrounded by commercial non-native forestry plantations, scrub, wet grassland, improved agricultural grassland and bog habitats in the upper reaches of the catchment.

Ballinloughane Bridge is located within both the Lower River Shannon SAC and the Stack’s to Mullaghareirk Mountains, West Limerick hills and Mount Eagle SPA. The Screening for Appropriate Assessment Report identified the potential for impacts on the Lower River Shannon SAC due to water quality, disturbance and invasive species impacts (Ecofact, 2020). No potential for impacts was identified on the SPA, as there is no suitable breeding habitat for Hen harrier in the immediate vicinity of the bridge. The works will not be directly affecting any foraging or breeding habitat for Hen harrier in the area

The stream itself is used by salmon to spawn, with 25 salmon taken from the two pools below the bridge by locals one Christmas in the 1970s. It is certainly used by brown trout to spawn, and may also be suitable for sea trout to spawn in. There is however, no suitable spawning habitat within the footprint of the works, the closest suitable area being 40m downstream. Brook lamprey likely use the river, but again no suitable spawning or ammocoete habitat is present. River lamprey and sea lamprey are absent, as there are at least two falls that would be considered impassable both species and many other cascades that would cause significant difficulty or may be impassable. Eel also use the stream.

Conservation Interest	Present within or immediately downstream of the works area
Sandbanks which are slightly covered by sea water all the time [1110]	No
Estuaries [1130]	No
Mudflats and sandflats not covered by seawater at low tide [1140]	No
Coastal lagoons [1150]	No
Large shallow inlets and bays [1160]	No
Reefs [1170]	No
Perennial vegetation of stony banks [1220]	No
Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	No
Salicornia and other annuals colonising mud and sand [1310]	No
Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritima</i> ) [1330]	No
Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410]	No
Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260]	No
<i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) [6410]	No
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0]	No
<i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029]	No
<i>Petromyzon marinus</i> (Sea Lamprey) [1095]	No
<i>Lampetra planeri</i> (Brook Lamprey) [1096]	Yes
<i>Lampetra fluviatilis</i> (River Lamprey) [1099]	No
<i>Salmo salar</i> (Salmon) [1106]	Yes

Tursiops truncatus (Common Bottlenose Dolphin) [1349]	No
Lutra lutra (Otter) [1355]	Yes

The original NIS identified the following species as being subject to Potential Impacts/Likely Significant Effects: salmon, otter, brook lamprey, river lamprey and sea lamprey. We would suggest that sea lamprey and river lamprey are absent from this upper reach section of the river as we are privy to local knowledge about barriers to fish passage having walked the entire Gale River from both sources to mouth, and suggest that the list of species subject to Likely Significant Effects be trimmed back to salmon, otter and brook lamprey. The original NIS identifies the following potential impacts for these species: water quality, disturbance, invasive species; this finding remains unchanged.

Section 7 of the NIS outlines the mitigations to be implemented in order to protect the conservation interests of the SAC. They are as follows:

- Detailed Method Statement and CEMP
- Avoidance: limiting the footprint of the works
- Avoidance: timing of the works
- Water quality protection
- Biosecurity
- Site ecologist

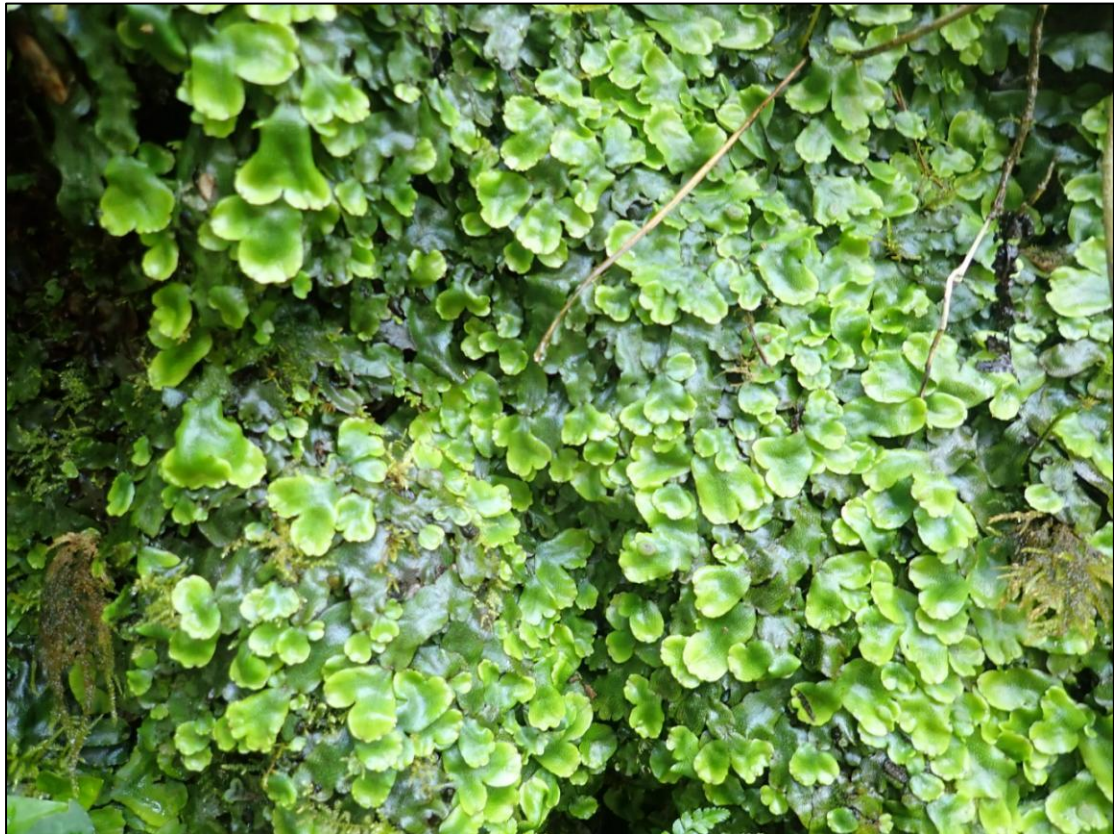












## **Conclusion**

Mitigation measures proposed ensure that there are no residual impacts on the Lower River Shannon SAC. The potential impacts identified, including water quality, disturbance and invasive species, will be successfully reduced to imperceptible in scale following the implementation of the mitigation measures in this NIS. It has therefore been concluded that following an examination, analysis and evaluation of the relevant information, including in particular the nature of the predicted impacts from the proposed works, and with the implementation of the mitigation measures proposed, that the proposed works do not pose a risk adversely affecting the integrity of any Natura 2000 site, either alone or in-combination with other plans or projects.

One thing that should be noted is that the abutments, wingwalls and natural rock cliffs at the site are home to a magnificent array of bryophytes (mosses, liverworts and hornworts) which are present due to the combination of shade, spray/mist from the cascade and springs leaking from the stratified rock. Although smaller examples of this are present in the area, the scale of this mat of bryophytes is exceptional in West Limerick and is thus seen as locally important in terms of biodiversity, and effort should be made to avoid damaging it.

If there are any questions or queries please do get in touch

All the best

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