ATKINS
Member of the SNC-Lavalin Group

[redacted]

Our Ref: 5162160CO249

Vincent O'Malley
Trans_ort Infrastructure Ireland
[redacted]

17th June 2021

By email to: [redacted]

Re. Submission of Natura Impact Statement pursuant to the Minister for Tourism, Culture, Arts, Gaeltacht, Sport and Media pursuant to the requirements of Regulation 49(9)(c) of the European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended)

Northwest Term Maintenance Contract No 3 – Year 3 Structures

Further to the submission of a Natura Impact Statement relating to works proposed to be undertaken a part of Northwest Bridges Term Maintenance Contract No 3 correspondence was received from Gerry Clabby, Head of Ecological Assessment, National Parks and Wildlife Service dated 18th May 2021.

Matters related to Appropriate Assessment

Point 1 – SSCOs

*"The Department would like to highlight the requirement to assess all the identified impacts on each QI and SCI, in view of the conservation objectives, of the relevant European sites in the NIS. Where Site Specific Conservation Objectives (SSCOs) are available, the NIS has not referred to the SSCOs in sufficient detail with respect to the attributes and targets. Noting some of the proposed works are within European sites, the assessment should refer specifically to the attributes and targets of the qualifying interests (for example, White-clawed crayfish (*Austropotambius pallipes*))."*

Response

The European sites that are within the zone of influence (ZoI) of the proposed project and their qualifying interests are summarised in Tables 5-1. In Section 2.2 of the NIS (*Bridge Descriptions*) a short description is included of each bridge where works are proposed; this includes a site photograph and a description of how the bridge relates to European sites. The European sites within the ZoI of the proposed project are then discussed with respect to Special Areas of Conservation in Section 5.2 and Special Protection Areas for birds in Section 5.3. For each European site the following information is presented: -

- Site Overview – extracted from the NPWS site synopsis for the relevant European site;
- Qualifying Interests – list of qualifying interests for which the site has been designated; and
- Links to bridges – this lists the specific bridges within the zone of influence of any given European site.

[redacted]

In each case the site specific Conservation Objectives, Conservation objective supporting documents, site synopses and Natura 2000 forms were downloaded from the NPWS webpage and reviewed; with further supporting information also used as appropriate. As noted in the NIS the qualifying interests that might occur at a given bridge were reviewed in the context of potential occurrence of a given QI and the specific works proposed at each bridge location; a summary of what works are proposed and how they will be undertaken is presented in Section 2.1.1 of the NIS. Table 5.2 (SACs) and 5.3 (SPAs) provides a reference and hyperlink for each Conservation Objectives document utilised in this assessment.

With respect to the SACs, due to the nature and extent of the proposed project and the size and geographic range of the SAC, not all qualifying interests of the SAC are within the ZoI of the proposed project. Thus, the qualifying interests within the ZoI of the proposed project are summarised in Table 5-7; with the type of potential disturbance at each site also hi hli hted this is considered in the context of s ecific works called u at each location [redacted]

Following a discussion of the type of impacts that might arise from proposed works (both alone and In-Combination), Chapter 5.7 (Mitigation) summarises the following: -

- Short description of bridge and links to European site (including site photo);
- Proposed Works – details of works called up at a bridge;
- Mitigation measures – discussion of mitigation measures specific to each type of work called up; and
- Conclusion – findings as to the residual impact and a recommendation with respect to Appropriate Assessment.

As noted, all information and data regarding European sites (e.g. site synopsis, qualifying interests, conservation objectives and threats) was sourced from the NPWS website and is referenced within the NIS.

Crayfish

Specifically, with respect to White-clawed crayfish (*Austropotambius pallipes*), qualifying interests such as crayfish are called up as appropriate throughout the NIS. It is a requirement of the Contract that the appointed Contractor must have a qualified ecologist as part of their team. In the case of Northwest Bridges, the Contractors ecologist is Woodrow Environmental Consultants. It must be stressed that in most cases the scale of maintenance works at a bridge are limited both in extent and the time it would take for completion of works. Furthermore, for mobile species such as White-clawed crayfish the time gap between preparation of the NIS and mobilisation on site requires that an ecologist visit the site prior to commencement of works; notably in the case of instream works.

As set out in the NIS, the Contractor is required to appoint an experience ecologist as part of their team. The Contractor's ecologist will advise on whether translocation of crayfish or electrofishing to remove fish from between the upstream and downstream sandbags is required. Translocation of crayfish will be conducted under licence from the NPWS. IFI issue licences for and liaises in carrying out electrofishing. Where both translocation of crayfish and electrofishing are required, the translocation of crayfish shall be carried out prior to electrofishing. Where dewatering activities occur, instream silts should not be disturbed or removed from the river channel. All surveying and electrofishing activities of protected species, including crayfish, shall be carried out under licence from the appropriate body as outlined above.

Point 2 – Clarification on Works

"The Department notes the assessment of works items listed in Table 5-4 on page 72 of the NIS. In relation to the following works items, the Department recommends clarification with respect to the nature and scale of these works' items, as they have the potential to give rise to negative impacts: -

- *32 Establish drainage facility;*
- *33 Establish Drainage channel;*
- *35 Maintenance of drainage channel."*

Response

32 Establish drainage facility / 33 Establish Drainage channel;

Both 32 and 33 are pretty much identical but are called up under different components, 32 establish drainage facility is called up under bridge surface, while 33 is called up under embankments. The definitions relate to predetermined categories on the Eirspan database to facilitate calling up and describing of works.

Where drainage channels are not provided adjacent to a structure but are required the Contractor shall establish a channel by excavating a water cut in the soft verge to allow excess water to drain off the road into the road embankment. Typically, the water cut shall be 500mm wide and draining at a minimum gradient of 1:5 away from the road. Where catch pit gullies are required they must be connected to the existing road drainage.

35. Maintenance of drainage channel

All drain gullies on or adjacent to structures shall be cleaned of silt, debris and vegetation and all deposits removed for off-site disposal in line with Waste Regulations. The contents of any rodded gully / outlet material cannot be pushed out into / discharged to the watercourse; where required it may be necessary to plug the end of a gully / drain when completing works to prevent material entering the river before such material can be safely removed from site (e.g. by suction).

All gully connections and outlet pipes shall be cleared to ensure the unimpeded flow of water from the gullies and through the drainage outlets. No discharge of waste is permitted on site. Where existing drainage channels are present, these shall be re-profiled. Where drainage channels do not exist and are required, these shall be established by excavating a water cut in the soft verge and drain into the road embankment. Drainage channels will not drain directly to a watercourse.

Point 3a – Mitigation

"Mitigation measures should be clear and specific for each identified impact on each QI and SCI. They must be based on a sound scientific understanding of the habitats or species within the affected European sites and designed to ensure they can be effectively implemented. The Department recommends presenting the mitigation measures more clearly in the NIS with respect to each identified impact. Specific detail and certainty underpins the NIS, the AA process, there should be no uncertainty surrounding the implementation of a mitigation measure in an NIS."

Response

In our response to Point 1 – above – we have presented a detailed description of how the NIS has been prepared. With respect to this question we would draw your attention to Section 5.7 (Mitigation) of the NIS. Following a discussion of the type of impacts that might arise from proposed works (both alone and In-Combination), this section provides the following information on each structure: -

- Short description of bridge and links to European site (including site photo);
- Proposed Works – details of works called up at a bridge;
- Mitigation measures – discussion of mitigation measures specific to each type of work called up; and
- Conclusion – findings as to the residual impact and a recommendation with respect to Appropriate Assessment.

For each bridge, the works called up are listed. Following this, specific mitigation measures are called up which relate to these works. We would therefore submit that details, bridge and works specific mitigation measures are therefore presented for each structure.

Point 3b – Bridge Specific Comments

We note the Department's acknowledgment of additional mitigation which has been proposed for the following bridges with respect to Freshwater pearl mussel (*Margaritifera margaritifera*): -

- 2.2.1.6. Drumrath Bridge/Laghey to Ballybofey Rd. [DL-N15-014.00]
- 2.2.1.8. Glenties Bridge [DL-N56-028.00]
- 2.2.1.10. Owencarrow River Bridge [DL-N56-055.00].

Our comments on specific bridges can be found below: -

- Cloonmore Bridge (GC-N83-004,00) See Table 1
- Owenduff Bridge (GC-N59-009.00) See Table 1
- Lettershea Bridge (GC-N59-022.00) See Table 1
- Oughterard Bridge (GC-N59_040.00) See Table 1; see also further comment below.
- Rathrussel Bridge (MO-N58-004.00) See Table 1
- Erriff Bridge (MO-N59-061.00) See Table 1
- Luga Buide Bridge (MO-N59-062.00) See Table 1
- Anrittabeg Bridge (RN-N63-005.20) See Table 1; see also further comment below.

- Cloonfad Village Bridge (RN-N83-001.00) See Table 1; see also further comment on biosecurity below.
- Michael Hughes Bridge (SO-N04-001.00) See Table 1;
- Ballysadare River Bridge (SO-N59-002.00) See Table 1

Table 1 includes a number of additional bridges to those highlighted by the Department; these are also located within SACs where Otter is a QI.

Atkins have reviewed against the list of Structures within the Northwest Bridges Year 3 NIS to determine which structures are located on watercourses where Otter is a qualifying interest of a European site.

A summary is presented in Table 1. This is informed by an review of site location, site photographs and site survey reports, such as bat surveys undertaken in 2020. In the case of bats surveys the surveyor also looked for signs of other fauna such as nesting birds and otter at all bridges surveyed. The findings at each location are summarised.

In all cases due to the time elapsed from preparation of the NIS and mobilisation of the Contractor, a pre-construction survey will be undertaken. As set out in the Contract, this will be undertaken by the Contractor's ecologist.

Oughterard Bridge

The Department raised concerns regarding instream works required to erect works platforms at Oughterard Bridge. Following consultation with engineers, it can be confirmed that a bridge unit can instead be used for works at Oughterard Bridge removing the need to have the footing of a working platform within the river.

Anrittabeg Bridge

"The works processes outlined in the mitigation (e.g. for masonry repointing), associated with this works item should be clearly numbered. Detailed mitigation should be provided with respect to diverting the water during instream works including a requirement to carry out specific flow tests beforehand."

Proposals as set out in the NIS are as follows: -

No concrete or cementitious product will be permitted to enter the watercourse. This shall be achieved by diverting the water away from the working area with localised fixed shuttering and/or sealed sand bags. If a pumping system is required, the pumping system shall be fitted with appropriate screens to avoid fish entering the system. The discharge pipe of such a pumping system will be required to either have a silt sock attached to prevent the discharge of silt laden water back into the watercourse, or water will be discharged to the grassy embankment and allowed to filter through the vegetation. A secondary pump shall be stored on site in the event of a malfunction of the primary pump. Tools and equipment shall not be cleaned in the watercourse, wash bags shall be used at an appropriate distance from the river. The plant will also not be permitted to enter or refuel within 50m of the watercourse.

Anrittabeg Bridge is a very small watercourse, with very little water management required. For the works called up at this structure and the flow present, it would be most practical to install sandbags across the full width of the channel upstream and flume through span 2 (pipe to go in circa 2m) at the downstream end of span 2, sandbags and a flume to be erected to enable the works to be carried out in the dry. The structure is too small to get a flume pipe the whole way through so dewatering at the upstream end and locally at the downstream end of span 2 is proposed.

Plate 1 Anrittabeg Bridge.

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Table 1 Review of Structures with respect to Otter.

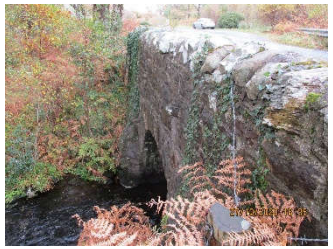
Bridge	Within	Field Surveys undertaken by an Ecologist in 2020	Photo (showing both upstream & downstream)	Information from bat survey
DL-N56-028.00 Glenties Bridge	West Of Ardara/Maas Road SAC	Bat Survey 2020	 	Otter spraints were recorded on rocks under arch. Located within the village of Glenties alongside housing. Sub-optimal holting habitat at the bridge.
DL-N56-055.00 Owencarrow River Bridge	Cloghernagore Bog and Glenveagh National Park SAC	Not surveyed	 	Sub-optimal location for an otter holt.
GC-N59-009.00 Owenduff Bridge	within The Twelve Bens/Garraun Complex SAC	Bat Survey 2020	 	Otter spraint under arch. While otter are using the watercourse the bridge environs is sub-optimal for a holt. Preconstruction survey is required to account for potential changes since preparation of the NIS.

[redacted]

Bridge	Within	Field Surveys undertaken by an Ecologist in 2020	Photo (showing both upstream & downstream)	Information from bat survey
				
GC-N59-022.00 Lettershea Bridge	Within 50m of The Twelve Bens/Garraun Complex SAC (u/s); 1.9km d/s to SAC.	Not surveyed		While the immediate environs of the bridge are sub-optimal for an otter holt, there is, however, extensive areas of woodland cover close to the bridge (downstream). Preconstruction survey is required to account for potential changes since preparation of the NIS.
GC-N59-040.00 Oughterard Bridge	within Lough Corrib SAC	Bat Survey 2020	  	No signs of Otter noted in bat report. Bridge is located within Oughtard. The immediate environs of the bridge are sub-optimal for an otter holt.

Bridge	Within	Field Surveys undertaken by an Ecologist in 2020	Photo (showing both upstream & downstream)	Information from bat survey
GC-N83-004.00 Cloonmore Bridge	within Lough Corrib SAC	Not surveyed	  	The immediate environs of the bridge are sub-optimal for an otter holt; with e.g. rock armouring (gabions) in place. Corners of bridge dominated by GA1; residential properties and revegetated spoil from river drainage. Preconstruction survey is required to account for potential changes since preparation of the NIS.
LM-N16-006.00 Scarden River Bridge	within Lough Gill SAC	Not surveyed	   	As the probability of an otter holt is unlikely, it cannot be fully discounted. Thus, a preconstruction survey is required to account for potential changes since preparation of the NIS.

Bridge	Within	Field Surveys undertaken by an Ecologist in 2020	Photo (showing both upstream & downstream)	Information from bat survey
MO-N05-025.00 Mullenmadoge Culvert West	within River Moy SAC	Not surveyed	   	The immediate environs of the bridge are sub-optimal for an otter holt; with e.g. rock armouring in place.
MO-N58-004.00 Rathrussel Bridge	within River Moy SAC	Bat Survey 2020		No signs of Otter noted in bat report. The immediate environs of the bridge are sub-optimal for an otter holt.
MO-N59-061.00 Erriff Bridge	within Mweelrea/Sheeffry/Erriff Complex SAC	Bat Survey 2020	 	No signs of Otter noted in bat report. The immediate environs of the bridge are sub-optimal for an otter holt.

Bridge	Within	Field Surveys undertaken by an Ecologist in 2020	Photo (showing both upstream & downstream)	Information from bat survey
				
MO-N59-062.00 Luga Buide Bridge	within Mweelrea/Sheeffry/Erriff Complex SAC	Not surveyed	   	The immediate environs of the bridge are sub-optimal for an otter holt.

Bridge	Within	Field Surveys undertaken by an Ecologist in 2020	Photo (showing both upstream & downstream)	Information from bat survey
RN-N63-005.20 Anrittabeg Bridge	Lough Ree SAC ca. 1.3km d/s of bridge	Bat Survey 2020	  	No signs of Otter noted in bat report. The immediate environs of the bridge are sub-optimal for an otter holt.
RN-N83-001.00 Cloonfad Village Bridge	within Lough Corrib SAC	Not surveyed	   	Bridge located in an urbanised environment. The immediate environs of the bridge are sub-optimal for an otter holt.

Bridge	Within	Field Surveys undertaken by an Ecologist in 2020	Photo (showing both upstream & downstream)	Information from bat survey
SO-N59-002.00 Ballysadare River Bridge	within Unshin River SAC	Bat Survey 2020	   	No signs of Otter noted in bat report. Bridge located in an urbanised environment. The immediate environs of the bridge are sub-optimal for an otter holt.
SO-N04-001.00 Michael Hughes Bridge	Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC	Not surveyed	  	Bridge located in a busy, heavily trafficked urbanised environment. The immediate environs of the bridge itself are sub-optimal for an otter holt. There are however a large number of records of otter from within Sligo Harbour & the Garvogue River (Source: NBDC). Road kill has also been recorded form G691367. However, scale of works relative to bridge are small. A preconstruction survey will be undertaken.

[redacted]

Point 4 - Biosecurity to prevent spread of crayfish plague

Biosecurity protocols shall be implemented during the construction phase of the proposed project to prevent the introduction of all invasive species, including those listed on the third schedule of the EC (Birds and Natural Habitats) Regulations 2011, to site and the further spread of diseases. In addition to the consideration of invasive species, particular attention will also be given to the prevention of spread of crayfish plague spores.

1. All equipment intended to be used at the site shall be dry, clean and free from debris prior to being brought to site.

2. Prior to being brought on site, equipment should be : -

    i. power steam washed at a suitably high temperature or at least 65 degrees, or

    ii. disinfected with an approved disinfectant, e.g. Virkon or an iodine-based product. It is important that the manufacturer's instructions are followed and if required, the correct contact times are allowed for during the disinfection process. Items that are difficult to soak should be sprayed or wiped down with disinfectant.

3. During the duration of the proposed project, if equipment is removed off-site to be used elsewhere, the said equipment shall be cleaned and disinfected prior to being brought back to the works area of the proposed project.

4. Appropriate facilities shall be used for the containment, collection and disposal of material and/or water resulting from washing facilities of vehicles, equipment and personnel.

5. Importation of materials shall comply with Regulation 49 of the EC (Birds and Natural Habitats) Regulations 2011.

A pre-construction invasive species survey will be conducted prior to the commencement of works on site. If invasive species are recorded, the invasive species shall be fenced off using a 7m buffer from the outermost edges of the invasive species plant(s).

The current list of watercourses where crayfish plague has been recorded can be viewed at the National Biodiversity Data Centre webpage at - https://www.biodiversityireland.ie/projects/invasive-species/crayfish-plague/.

[redacted]

Point 5 - Invasive Species

Response

An invasive species survey of bridge locations was not undertaken as part of the Contract. Desktop research, including records of invasive species held by TII, were reviewed as were site photos taken by the engineers. Species of concern include species such as Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*), Giant hogweed (*Heracleum mantegazzianum*) etc.

There was no evidence of invasive species at the works location, with the exception is Owencarrow Bridge (DL-N56-055.00) where both Himalayan knotweed and Japanese knotweed were recorded ca. 5m from the bridge in 2016.

However, as the situation on the ground can change over time (i.e. between writing of the NIS and mobilisation of the Contractor), a pre-construction invasive species survey was recommended to be undertaken prior to the commencement of works. If none are recorded then there will be no post consent changes to the proposed works.

Should any invasive species be recorded close to but not within the works, they will be fenced off such that they will not be impacted by proposed works. Again, in this instance there will be no post consent changes to the proposed works.

If, however, an invasive species is located that impinges upon proposed works area, then the design of works may need to be revisited. In this instance the NIS would also be revisited allowing both TII, NPWS and IFI an opportunity to comment on such changes, and in the case of TII allow for the Determination to be revisited.

[*CIEEM, March 2020. Advice Note on COVID-19 and undertaking field surveys*].

Point 6a – Other Matters - Strictly Protected Species

Otter. Please refer to comments on Otter above."

Bats

In the case of **bats**, each year bridges to be repaired are assessed for the potential to negatively impact upon bats. For example, all masonry bridges where masonry repair works are called up are assessed and where appropriate a bat specialist is procured to survey these structures to check whether they support roosting bats. The results will inform what works can be undertaken and whether e.g. a derogation licence application needs to be submitted to the Department. Copies of bat survey reports can be provided to the Department if deemed appropriate. The appointed Contractor has an ecologist on their team who has extensive experience in bat survey and ecology (Woodrow Environmental Consultants). Woodrow Environmental Consultants will co-ordinate any preconstruction checks called up in the bat reports; oversees any mitigation measures required and also oversees the application for derogation licence(s) as appropriate.

Nesting Birds

While works are to take place between July 1st and September 30th, it is noted that this is within the nesting period for birds (i.e. 1st March to 31st August). It should be noted though that the works window selected coincides with the Fisheries Open Season for instream works as defined by Inland Fisheries Ireland.

When considering works, particular attention has been paid to the potential for bridges to support nesting birds. Species of note include the red listed Grey Wagtail (*Motacilla cinerea*) and Kingfisher (*Alcedo atthis*), a species listed on Annex I of the EU Birds Directive). Consideration is also given to species such as Dipper (*Cinclus cinclus*), Pied Wagtail (*M. alba*), and Wren (*Troglodytes troglodytes*) all can nest under bridges or within neighbouring riverbanks.

Where bridges have been visited to undertake bat surveys, any evidence of nesting birds has been recorded by the ecologist. As noted above (for bats) the appointed Contractor has an experience ecologist on their team. In the case of Northwest Bridges this is Woodrow Environmental Consultants. They will advise the Contractor with respect to any restrictions that must be imposed should an active nest be recorded. This is the only practical way to address bird's nests, due to the time that elapses between the preparation of the NIS and mobilisation of the Contractor to undertake works.

Point 6b - Vegetation Removal

"The Department notes vegetation removal is specified in the mitigation however the Department would like to highlight the specific requirements under S.40 of the Wildlife Act 1976-2018 in this regard."

Section 40(1) (a) of the amended Wildlife Act, states that "*It shall be an offence for a person to cut, grub, burn or otherwise destroy, during the period beginning on the 1st day of March and ending on the 31st day of August in any year, any vegetation growing on any land not then cultivated*".

However, Subsection (1) of this section shall not apply in relation to: -

(c) the cutting, grubbing or destroying of vegetation in the course of any works being duly carried out for reasons of public health or safety by a Minister of the Government or a body established or regulated by or under a statute;

(d) the destroying of any noxious weed to which the Noxious Weeds Act, 1936, applies.

Proposed vegetation removal takes two forms. The first is the removal of vegetation found to be growing on or out of a bridge; this tends to be more common on masonry bridges. Thus, in many cases it is necessary to remove vegetation in order to prevent structural damage. It is, however, acknowledged that masonry bridges can often support botanically diverse communities. In a related submission on Munster Bridge the Department has noted that *"Masonry bridges are a valuable habitat for a myriad of saxicolous vascular, bryophyte and lichen species."* These concerns have been communicated to TII with a view to exploring how the need to protect saxicolous vascular, bryophyte and lichen species can be integrated into the need to protect a bridge from damage and structural deterioration. Overall, it is an objective of the Contract that removal of vegetation from the bridge surface, parapets and embankments, should be carried out judiciously. This ties in with TII's objective to avoid and / or minimise the use of herbicides during the control of vegetation. Furthermore, grubbing out of vegetation is not permitted nor is scraping clear vegetation such that areas of clear ground remain. (Please refer to comments below on birds which nest on or near bridges).

The second element involves the cutting back of vegetation on embankments; removal of vegetation is to be restricted to the clearance of a 1m strip alongside the bridge to facilitate safe access to the bridge on by workers on foot. Large scale removal of vegetation is not proposed. Clearance of large areas of semi-natural habitat or removal of trees is not permitted. It should be noted that vegetation removal was undertaken in Year 1 and 2, such that large scale removal of vegetation is not anticipated.

It should be noted that these access points are also frequently used by members of the public, such as fishermen accessing the river. The legal protection of nesting birds / nests is acknowledged. As noted, the appointed Contractor has an ecologist on their team to advise in this regard.

Yours sincerely

Paul O'Donoghue
Associate Director / Ecolo ist
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