



NATURA IMPACT STATEMENT ADDENDUM

Response to Request for Further Information

Bruree Bridge, Bruree, Co. Limerick

Our ref: ABP-322242-25
ABF Ref: 177AE Bruree Bridge

Prepared for: An Bord Pleanála
By Ecology Research and Solutions

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2 INTRODUCTION

This document has been prepared as an addendum to the Natura Impact Statement (NIS) submitted for the proposed works at Bruree Bridge, Co. Limerick (Ref: ABP-322242-25). It has been prepared in response to the Request for Further Information (RFI) issued by An Bord Pleanála.

Each RFI item has been addressed in the format of a stand-alone report section, except in the case of water quality as no further surveying was necessary. Due to the complexity of timings as a result of ecological constraints, the last section (ecological constraints and timing of works) addresses all items in one section. This approach was considered appropriate as the issues raised by the Board required the completion of additional ecological surveys and the preparation of new supporting material. Accordingly, each response includes:

- A restatement of the RFI request for clarity;
- A description of the survey methods employed;
- A summary of the results obtained;
- An assessment of potential impacts;
- Proposed avoidance and mitigation measures; and
- Supporting figures and maps where relevant.

This addendum should therefore be read in conjunction with the original NIS. Together, the two documents provide a comprehensive assessment of the potential impacts of the proposed works and the measures to avoid or mitigate any adverse effects on the integrity of European sites.

3 RFI ITEM 1 - DISTURBANCE TO AND LOSS OF A DAUBENTON'S BAT ROOST

3.1.1 Request (summarised)

An Bord Pleanála note that a bat survey undertaken in June 2024 did not confirm roosting bats within the bridge. However, Daubenton's bats were observed foraging and flying close to the bridge in a manner consistent with immediate post-emergence behaviour. They highlight that bats roosting deep within bridge structures may not be detected by visual inspection, and that other bridges have only been confirmed as roosts following further emergence surveys.

Given the proximity of known Daubenton's roosts at Bruree Bridge and the potential for the surveyed bridge to also serve as a roost, the Board consider there to be a risk of disturbance or loss of a roost if works proceed. They therefore require that the potential for roost presence and associated impacts be fully assessed, and state that a Regulation 54 derogation licence from NPWS would be necessary if a roost is confirmed or likely to be affected.

3.2 METHODOLOGY

Table 1. Survey particulars of 2025 surveys.

Ecologists	Date	Weather	Time
Rory Dalton, Tadhg Healy and Mick O'Connor	18/07/2025	Temperature: 17-19°C Rain: None Cloud: 3/8 Wind: F2	Survey: 21:30-00.00 Sunset: 21:42
Rory Dalton and Mick O'Connor	08/09/2025	Temperature: 14-17°C Rain: None Cloud: 4/8 Wind: F1	Search: 16.30 - 19.45 Emergence Survey: 19:45 – 23.00 Sunset: 20:00
Rory Dalton and James Ambrose	09/09/2025	Temperature: 14-17°C Rain: None Cloud: 3/8 Wind: F2	Survey: 19:45 – 23.00 Sunset: 20:00

The bat surveys were undertaken in accordance with the *Bat Conservation Trust (BCT) Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2023), incorporating the most up-to-date methodologies for heritage structures and transport infrastructure, including stone arch bridges (Bat Conservation Ireland, 2022; NPWS, 2022; EUROBATS, 2024). All work was completed under the relevant statutory licences and adhered to current biosecurity protocols to prevent the spread of pathogens such as *Pseudogymnoascus destructans* (Collins, 2023).

18/07/2025 Emergence Survey and Activity Survey

On the 18th three ecologists surveyed the bridge. Attempts were focused on arches five and six, as these were deemed most likely to house roosting bats from prior inspections. Two ecologists stood in the river, focusing on an arch each. Both ecologists had Bat Box Duets and were positioned approximately 3 metres upstream of the arches. Both had full view of the arches. A third ecologist was positioned on the south bank, approximately 20 metres away from the arches. This ecologist was using a Pixfra Arc A613 thermal scope stationed a tripod. It was aimed at both arches and set to record.

08/09/2025 Evidence of Bat Activity Survey

Visual search of the cracks and holes in the bridge was carried out to search for signs of bat activity in, such as droppings, staining or rub marks at entrances, urine deposits or musky odour. Another method that is especially valid this time of year is to search for spider webs covering holes or cracks, this type of assessment is good because the spider population is at its zenith in preparation for the hard times ahead. As such, any hole that is not regularly used by bats will have been crossed by a web, while any hole/crack that is regularly used will stand out glaringly from the rest.

Two thermal cameras were set up, looking at the bridge from the West. Each thermal camera was monitored by an ecologist throughout the night. Each of the videos were analysed again the following morning on large screened desktop monitors as an extra precaution. Two handheld bat

detectors (Batbox Duet and an Ecometer Touch) were also utilised in the survey to determine the species captured in the thermal footage.

09/09/2025 Emergence Survey and Activity Survey.

Two thermal cameras were set up, looking at the bridge from the East. Each thermal camera was monitored by an ecologist throughout the night. Each of the videos were analysed again the following morning on large screened desktop monitors as an extra precaution. Two handheld bat detectors (Batbox Duet and an Ecometer Touch) were also utilised in the survey to determine the species captured in the thermal footage.

3.3 RESULTS

22/07/2025

No bats were seen emerging from the bridge.

Almost immediately after sunset a bat was picked up approaching the bridge from the mill area to the west, it was seen visually but flew past so quickly the heterodyne receiver couldn't be focused to a frequency to satisfactorily determine the species, although the sound was picked up by it. It was flying low and straight about 1m above the water.

Not long after this bats were seen and heard approaching the bridge from the south, coming down the hill from an area there is an old castle (Ballynoe Tower House) located. These bats were identified using the bat detectors as being soprano pipistrelles (*Pipistrellus pygmaeus*) and numbered up to 20, perhaps 20+. They stayed foraging around the bridge area and the weir approximately 70 metres downstream for the duration of the survey.

Two daubenton's bat (*Myotis daubentonii*) were identified foraging around the bridge and weir area.

08/09/2025

No other evidence of bat presence around cracks and crevices was found, including droppings, staining or rub marks at entrances, urine deposits or a musky odour.

No bats were recorded emerging from the bridge. There was very high degrees of foraging activity along the river channel, with perhaps 20+ soprano pipistrelles foraging along the river channel. An estimated number of 5 brown long-eared bats were observed through the thermal imagery gleaning insects from the hedge that lines the northern bank of the river; these could not be detected on the audio detectors because of their low call volume, however the species was determined through their unique hunting behaviour. It was determined through the thermal footage and through the audio equipment that only 2 individuals from the daubenton's species were foraging along the river within the vicinity of the bridge; these individuals were intermittently seen hunting low over the water.

09/09/2025

No bats were recorded emerging from the bridge.

As with the survey on the 22/07/2025 and the 08/09/2025,

High degrees of bat activity was witnessed with large numbers of soprano pipistrelles foraging along the river channel, a number of brown long-eared bats and 1-2 individual Daubentons bats foraging in the vicinity.

3.4 POTENTIAL IMPACTS

On the survey on the 22 of July and the survey on the 9th of September, the large number of soprano pipistrelles appeared within a short space of time. On both occasions, bats were seen flying towards the river from the south, from the direction of Ballynoe Tower House.

The ecologists who carried out the current survey also carried out a bat survey on the nearby Ballynoe tower house in July 2022. Ballynoe tower house is 150 meters from Bruree bridge and contains excellent bat roosting habitat. During that survey, we found a roost of brown long-eared (*Plecotus auratus*) bats in the stairwell and a roost of soprano pipistrelles. During one of our multiple visits to the tower house, we met a local bat enthusiast with a bat handling licence, who runs the company Bat Rehabilitation Ireland in Bruree. She was bringing an injured soprano pipistrelle to join the roost in the tower house at the time. We met this person again during the current survey of Bruree bridge as she was bringing a group of interested individuals (including a local TD) on a guided bat walk of the tower house. She verified that large numbers of bats were still roosting in the tower house; she verified that it was still brown long-eared and soprano pipistrelles roosting there. She also confirmed our suspicion that there was a roost of Daubenton's bats in the watermill 150m downstream of Bruree bridge. This is a private residence, and so we didn't attempt to carry out an emergence survey on it to concrete this information.

It appears that brown long-eared bats and soprano pipistrelles are roosting in the optimal roosting habitat which is plentiful in Ballynoe Tower house, and that the few individuals of Daubenton's bats are likely roosting in the water mill downstream of the bridge; and these species depend heavily on the bountiful invertebrates present along the river channel as a food source. No bats are roosting in the bridge.

The original NIS extensively searched each crack in the bridge using a telescopic inspection camera and carried out an emergence survey and found no bats present. This year three emergence surveys were conducted using improved methods (thermal imagery) and a survey to check the cracks for signs bats paying particular attention to spider webs due to their extensive presence in early-mid September. No evidence of bats using or emerging from the bridge was found. Previous surveys have identified Ballynoe Tower House as known roost for soprano pipistrelles and brown long eared bats. This was further verified by the local bat enthusiast who runs Bat Rehabilitation Ireland. The team also had suspicions that the Daubenton's that showed up so quickly came from the watermill 150m downstream, this was too verified by the local bat enthusiast.

In total there have been five surveys carried out on the bridge over two summers, equating to 41.5-man hours (see table 2). No evidence of bats staining or markings was ever found or observations of bats leaving the bridge. Whilst nothing can ever be said with 100% certainty, the evidence strongly suggests bats aren't roosting in the bridge and prefer to roost in the other locally available roosts.

Table 2. Total time surveying.

Ecologists	Date	Survey	Hours	Man Hours
Tadhg Healy and	11/06/2024	Roost Inspection	6	12

Mick O'Connor		Survey		
Tadhg Healy and Mick O'Connor	11/06/2024	Emergence Survey	3	6
Rory Dalton, Tadhg Healy and Mick O'Connor	22/07/2025	Emergence Survey	2.5	5
Rory Dalton and Mick O'Connor	08/09/2025	Roost Inspection Survey and Emergence survey	6	12
Rory Dalton and James Ambrose	09/09/2025	Emergence Survey	3 hrs 15 mins	6.5
Total				41.5

3.4.1 Potential Reasons Bats Don't Roost in the Bridge

It was noted during the surveys that there was heavy usage of the road by heavy goods vehicles (HGVs). The bridge notably vibrates and shudders with each pass. Traffic survey data are not available directly for the R518 at Bruree Bridge. The closest available published figures come from traffic counts undertaken on the R518 west of Bruree, beyond the N20 at Cappanahane. Although not taken directly at the bridge, this location lies on the same regional road corridor, which functions as a busy through-route connecting large towns such as Newcastle West and Mitchelstown.

These data indicate an Annual Average Daily Traffic (AADT) of approximately 2,447 vehicles, with around 10% of traffic comprising HGVs. Extrapolating from these values, this equates to approximately 245 HGV passes per day. When averaged across a 24-hour period, this is equivalent to one HGV every six minutes. As the majority of traffic occurs during daylight hours, the effective daytime frequency is closer to one HGV every three to four minutes.

It should be noted here too that there is strong street lighting along the river channel adjacent to the bridge, with one street light immediately adjacent to the bridge, and another just 30m upstream; these shone brightly each night we were present and would constitute a certain deterrence for bats

Both pipistrelles and daubenton's are more tolerant than most species of some disturbance. It could be possible that with the available nearby superior roosting options (the mill and tower house) the bridge is seen as less than ideal roosting habitat even for these tolerant species. Or it could be possible that this disturbance isn't an issue and that the other roosting options are preferred for a reason that only the bats themselves know.

3.4.2 Potential impacts include:

- Disturbance to foraging bats through light spill or noise/vibration.
- Accidental disturbance of roosting bats if bats decide to roost in the bridge before works are carried out.
- Indirect impacts on water quality (cementitious runoff), which could affect aquatic prey availability.

3.5 PROPOSED AVOIDANCE AND MITIGATION MEASURES

The RFI noted;

"It should be feasible, with careful and detailed monitoring and planning to maintain the bridge as a Daubenton's roost and avoid the risk of trapping any remaining bats in the bridge, by selective retention of crevices confirmed to be used by the bats (allowing for some extra alternative options to provide a wider range of microclimatic conditions)¹ – which are more likely to be smaller fissures – and confining the infilling works to crevices confirmed (by means of "Nil" emergence surveys during suitable weather conditions in summer) as not containing bats, which should then immediately be temporarily sealed to prevent subsequent occupancy by bats in advance of the works."

As the surveys didn't observe any emerging bats it didn't seem reasonable or feasible to temporarily cover all the cracks and crevices in the bridge. It is highly likely the works won't be able to start until the earliest, late next year (2026) and it is more likely they won't be carried out until 2027. This is due to the planning process itself, timing of works due to ecological constraints and the construction company scheduling the works, once planning is approved. Due to the amount of time between the survey and the works commencing, there isn't anything the team could use to temporarily cover the holes, that would remain in place adequately, for such a length of time, without becoming free and becoming incident on the watercourse.

As a result of this it is proposed that pre-works roost inspections and emergence surveys are undertaken before the works commence. It could possibly be two years before the works are undertaken and a lot could have changed between now and then. If any bats are witnessed emerging from the bridge at this time, the holes which they didn't emerge from will be temporarily covered over to prevent subsequent occupancy by bats. The holes which contain bats will then be retained.

1. Pre-Works Bat Survey

- A pre-construction emergence survey will be carried out immediately before works commence to reconfirm that no bats are roosting within the bridge structure.

2. Lighting Control

- No new permanent lighting will be introduced.
- Any temporary construction lighting will be low-intensity, warm-spectrum (<3000 K), fully shielded, and directed away from the river channel.

3. Timing of Works

- Shotcreting, grouting, and other high-disturbance activities will be carried out during daylight hours only, avoiding dusk and night-time foraging periods.

4. Sandbag/Dry Cell Management

- Sandbagging will be limited to the two designated arches, with the remaining five arches left open to maintain continuity of the river corridor during works.
- Structures will be checked for bat presence before installation.

5. Concrete and Runoff Control

- Impermeable sheeting and containment systems will be installed within the dry cells to prevent any cementitious runoff entering the river.
- All washout water will be collected in lined facilities.

6. Vegetation and Habitat

- Riparian vegetation providing cover for commuting bats will be retained where possible.
- Any unavoidable clearance will be reinstated post-works with native planting.

7. Monitoring

- An Ecological Clerk of Works (ECoW) will oversee sensitive stages of construction, particularly installation of sandbags and application of shotcrete, to ensure compliance with bat mitigation and water-quality controls.

The majority of these mitigations will be covered in more detail in the water quality and other sections.

3.6 SUPPORTING FIGURES AND MAPS



Figure 1. Map of survey positions and flight lines

4 RFI ITEM 2 – LOSS OF A SAND MARTIN ROOST

4.1.1 Request (summarised)

An Bord Pleanála note that Sand Martins are an Amber-listed species of conservation concern in Ireland due to significant declines in breeding populations. The bridge supports suitable nesting habitat, and it is important to preserve the integrity of this colony where possible.

They request that the assessment considers:

- The potential for co-ordinating retention of Sand Martin nest holes alongside the required bat mitigation works.
- The feasibility of stabilising parts of the bridge structure while retaining a minimum number of nest sites.
- That any works likely to affect nesting Sand Martins should take place only after the breeding season.

- *That an experienced ornithologist should be engaged to survey Sand Martin use of the bridge, supervise works affecting nest holes, and document the post-development re-occupation of any refurbished nest holes*

4.2 METHODOLOGY AND LIMITATIONS

A Sand Martin survey was undertaken at the bridge during the breeding season. The survey comprised a single structured visit during July, coinciding with peak breeding activity when colonies are most detectable. Observations were made from safe vantage points along both banks using binoculars. The survey methodology followed recognised guidelines for colonial nesting bird monitoring (Gilbert et al., 1998).

Adult Sand Martins were recorded entering and exiting nest holes. Due to the nature of the structure, it was not possible to obtain a complete view into all arches, and therefore the full extent of nesting could not be quantified. In the interest of attaining full coverage of the colony, a walk through the arches was carried out once the general activity in the area was understood. The approach is considered sufficient to confirm breeding activity in 2025, but it should be noted that numbers and nest hole occupation may change over the years as birds are lost during both migration journeys and during both resident phases, nests are predated or subject to flooding etc.

4.3 RESULTS

Sand martins were observed to be using the bridge. Activity was centred around the sixth arch. With active nests on the abutments on either side, specifically the south side of the sixth pier (the pier between the 6th and 7th arches) and the north side of fifth pier (the pier between the 6th and 5th arches). There were numerous nests on the sixth pier, difficult to fully tell, estimated between 6-8. It appeared if one was on the fifth pier. There was another nest recorded on the south side of the 4th pier.

The birds appear to prefer the west facing side of the bridge as all were nesting in close proximity to the western rim of the arch; this may have to do with the fact that it receives the evening sun, and so should stay that bit warmer through the night for the occupants. Or it may be due to the presence of street lighting all night on the eastern side of the bridge. In total we estimate somewhere between 10-12 active nests in the bridge in 2025.

4.4 POTENTIAL IMPACTS

Active sand martin colonies are highly sensitive to disturbance. Prolonged construction works and associated noise suddenly starting in the middle of the nesting season, could cause adults not to return to the nests for long periods of time, or even completely abandon the colony, causing the seasons young to be lost completely. As sand martin numbers have declined drastically over recent decades any disturbance to them will be completely avoided.

4.5 PROPOSED AVOIDANCE AND MITIGATION MEASURES

This is simply a matter of timing. No works can take place when the birds are nesting, which can go from April to August. All birds had left the colony in the September visits

The timing of the works will be dealt with in the final section of this document, as it has to account for all of the ecological constraints.

All suitable nest holes in the region of the bridge used for nesting (all holes near the western rim of arches 5,6 and 7) will be kept and will not be pointed or grouted; this matter will be ensured by the project ecologist and the contractor.

5 RFI ITEM 3 – DISTURBANCE TO OTTERS (ANNEX II SPECIES)

Request (summarised)

An Bord Pleanála note that an Otter survey carried out in June 2024 recorded signs of Otter activity under the semi-dry arch of the bridge, though no holts or couches were confirmed. A dense cover of emergent and riparian vegetation is present along the south bank of the river near the works area. NPWS records show Otter spraints in 2024 on a rock c. 40 m downstream of the bridge.

Given this, the Board request:

- *An updated survey of current Otter usage of the bridge area and a 100 m stretch upstream and downstream.*
- *The survey report should clearly describe area covered and level of survey effort.*
- *Mitigation must ensure that Otter passage through the semi-dry arch is not blocked, even temporarily, during works.*
- *Flexibility in dry-cell design should be incorporated (e.g. using lower sandbag heights, only partial arch blocking, or providing access ramps over sandbags).*
- *The final survey should recommend site-specific mitigation, in liaison with the works contractor*

5.1 METHODOLOGY

Ecologists	Date	Weather
Rory Dalton, James Ambrose and Mick O'Connor	18/07/2025	Temperature: 17-19°C Rain: None Cloud: 3/8 Wind: F2

Otter surveys were carried out following guidelines from both national and EU-level best practise, using information from the NPWS (2009) & (2019), CIEEM (2019), the European Commission (2019) and Bailey and Rochford (2006).

Direct observation of otters was not sought on this occasion, instead the bridge, both banks, the downstream weir and any emergent rocks were searched for signs of otters, including holts, couches, resting sites, sprainting sites, feeding remains, and commuting routes. The search was conducted from within the river when feasible and from the banks.

The survey extended for 200 metres downstream and 115 metres upstream. See maps in section in 5.5.

A trail camera was left under arch 1 (the southernmost arch) for a period of 10 days.

As an additional survey methodology, when the bat emergence and activity surveys had been completed on both occasions, the thermal optical equipment was taken for a walk up and down along the channel to look for nocturnal foraging/commuting/social activity.

5.2 RESULTS

Evidence for otters was found at the bridge and up and downstream of the bridge. The river flows from east to west.

5.2.1 East (upstream)

To the east of the bridge there a number of areas where otter spraints were found. In the river channel itself, emergent rocky debris (looks as though from a previous walled bank) was clearly frequented by otters as there were four separate sprainting sites. All sites had fresh and old spraints present. The north bank is a heavily modified man-made structure. There is a slight lip which stays out of the water, except during very large floods. This lip has a lot of otter activity, with a number of fresh and old spraints present. The frequency of spraints was observed to decline as we moved closer to the bridge. No holts, couches, or slides were found on the south bank of the eastern side of the bridge. Signs of otter activity continued for 90 metres upstream of the bridge.

5.2.2 West (downstream)

Downstream there were a total of 9 separate sprainting sites. Activity close to the bridge itself was minimal until the weir is reached. As the weir is old it is damaged in places. Near the southern bank at the western end of the weir, there is a chute in order to facilitate fish passage. Either side of this there was evidence of otters couching. This is an ideal location to hunt. As fish try to make their way up or down the chute they become easily predated by otters. There were spraints close by to the couching locations. Evidence of otter activity continued downstream with any prominent rocks having spraints present. Evidence of otters was found to continue for 175 metres downstream of the bridge. This area consists of a series of stepped pools and cascades which would hold up upward migrating fish and disorientate downward migrating fish; in both cases making them easier to catch for otter. As such, this is excellent otter hunting habitat, and would no doubt be a coveted reach of river territory. No holts or slides were found on the western side of the bridge.

5.2.3 The Bridge

Otter prints were found in arches one and two. These two arches are dry for large parts of the year and otters are known to use dry arches to move up and downstream of bridges. The trail camera was left in place in arch 1 for 10 days and only 1 otter pass was recorded. The pool where the bridge crosses is a large "dead" pool (low velocity flow) due to the presence of the weir, and so it is likely that the otters simply swim through the water most likely along the emergent macrophytes which line the southern bank, encroach 5m into the water and would provide good cover, particularly given the presence of the street lights along the river channel adjacent to the bridge.

5.3 POTENTIAL IMPACTS

The surveys recorded fresh spraints and old spraints upstream and downstream of the bridge, with the largest concentrations occurring in the excellent hunting grounds of the weir area and the cascades downstream of it. There was also good sprainting activity upstream of the bridge, but very little at the bridge itself, particularly given the fact that spraints are sheltered from the elements and have much increased longevity under a bridge. Also, there was only one pass in 10 days on the trail camera under arch 1. Either way it does appear as if the bridge itself is not of particular importance to otter, possibly because of the noise (HGVs) and light (street light) disturbance; there are far more secluded spots from the weir downstream and also upstream of the bridge that would serve them better as a resting spot.

Water Quality Mitigations (see section 6) have been upgraded for the proposed works, and they no longer include the construction of dry cells opting instead to use plastic lined crash decks to envelop the bridge, and the only vegetation to be removed is from the bridge structure. This means impacts to the otter are no longer an issue. There will be minor disturbance from construction works themselves, but this area is already quite busy with numerous HGVs passing each day. As said above, otter activity is concentrated upstream and downstream of the bridge, the way the works are to be done now, means there will be no restrictions on otters' movement in any direction.

5.4 SUPPORTING FIGURES AND MAPS



Figure 2. Otter survey area to the west of the bridge.

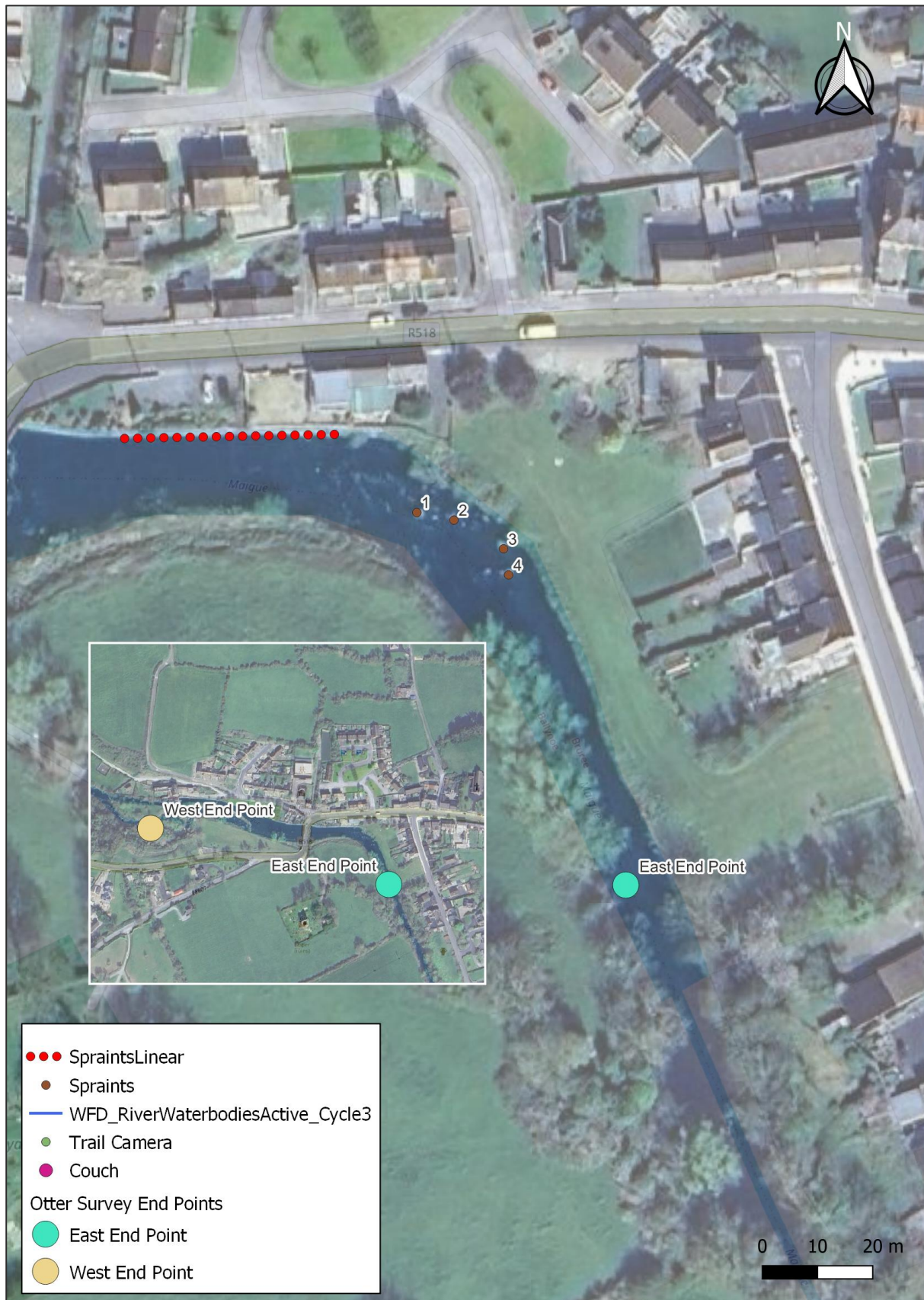


Figure 3. Otter survey area to the east of the bridge.

6 RFI ITEM 4 – ISSUES RELATED TO WATER QUALITY

6.1 REQUEST (SUMMARISED)

An Bord Pleanála note the risk of water contamination from cement during bridge works, especially when using dry cells. With emphasis on:

- Any water that contacts cement (curing water or runoff) must not be pumped back into the river but instead removed off-site.
- The sealed-off dry cell area should only be re-watered after cement at the waterline has fully cured.
- A detailed works schedule and method statement is required, setting out how these measures will be implemented, with ecological input and IFI consultation.
- Because mitigation (including any NPWS licence conditions for bats and otters) could change the works programme, the Board require that the final detailed methodology and ecological reports be submitted for approval before consent is granted.

6.2 SCHEDULE OF WORKS

The refurbishment works to Bruree Bridge are expected to take approximately 6–8 weeks in total. The sequence of activities is outlined below:

1. Pre-commencement

- Site set-up, traffic management, scaffolding erection.
- Agreement of Construction Method Statement with IFI, NPWS, and LCCC Heritage Officer.
- Toolbox talks and ecological briefing by the Ecological Clerk of Works.

2. Vegetation management

- Clearance of vegetation from spandrel and parapet walls.
- Removal undertaken sensitively outside the bird nesting season (September), unless pre-checked by an ecologist.

3. Arch works

- Localised pointing and stitching of cracks in arch barrels using stainless steel bars.
- Lime mortar repointing of arch soffits undertaken from mobile scaffolds.
- Grouting of voids using pump units located at road level, with containment to prevent runoff.
- Works undertaken in low-flow conditions and completed before 15 September.

4. Superstructure works

- Repointing of spandrel and parapet walls with lime mortar.
- Installation of new stainless-steel tie bars and pattress plates from road level.
- Backfilling of tie bar trenches with lean-mix concrete.

- Installation of new stainless-steel railings to parapet walls.

5. Cutwater and abutment repairs

- Masonry repairs to cutwaters and abutments carried out from scaffold platforms.

6. Finishing and demobilisation

- Final inspections and snagging.
- Dismantling of scaffolding and removal of temporary works.
- Site clearance and restoration of working areas.
- Submission of ecological compliance report to IFI and NPWS

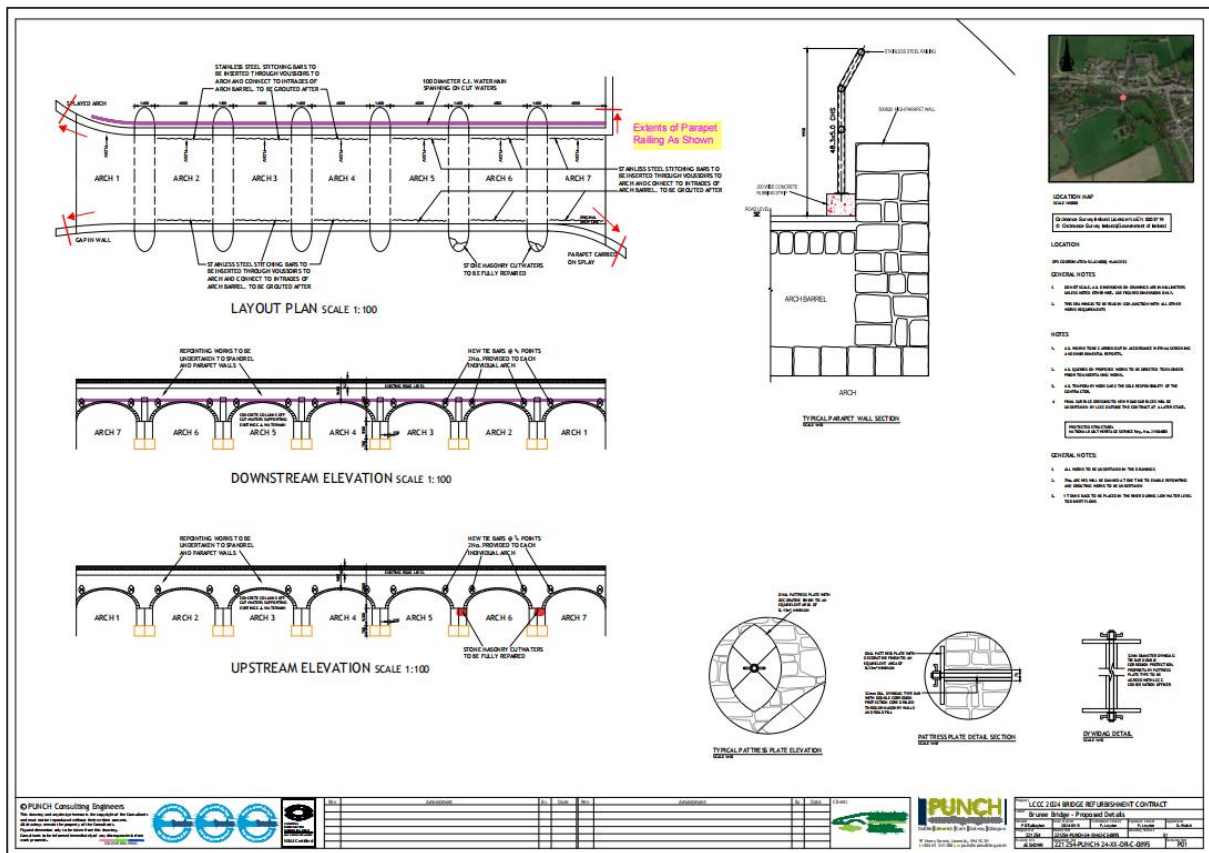


Figure 4. Plan of works.

6.3 REVISED MITIGATIONS

1. Containment of cement and grout

- Temporary timber decking can span onto existing concrete skirtings to provide a work platform
- Scaffolding beneath the arches will be fully sheeted with impermeable heavy-duty tarpaulin or PVC sheeting.
- The sheeting will be lipped at the edges to form a continuous tray beneath the work area.

- Runoff from the tray will be directed into sealed collection containers.
- Secondary debris netting will be installed beneath the sheeting to intercept mortar fragments or chippings.
- This system will ensure that no grout, mortar, or wash water can enter the river.

2. **Mixing and washout controls**

- All grout and mortar mixing will take place at road level or on the riverbank, on impermeable ground protection within a bunded area.
- Washout water, residues, and cement-contaminated runoff will be collected in lined containers or settlement tanks and removed off site by a licensed contractor.
- Washout to ground or drains will not be permitted.

3. **Weather and flow precautions**

- Cement and grouting works will only proceed under dry conditions to minimise the risk of runoff.
- Works will pause if rainfall or rising water threatens to compromise scaffold containment.

4. **Monitoring and supervision**

- The Ecological Clerk of Works (ECoW) will inspect containment daily and keep a log of water protection measures.
- Spot checks for turbidity and pH will be taken upstream and downstream during cement works.
- Works will stop immediately if a plume, elevated turbidity, or pH change is detected, and only resume once the issue is rectified.

5. **Oversight and compliance**

- The Construction Method Statement will be agreed in advance with Inland Fisheries Ireland, NPWS, and Limerick City & County Council Heritage.
- Toolbox talks will be provided to all operatives to ensure understanding and implementation of water protection measures

7 **ECOLOGICAL CONSTRAINTS AND TIMING**

The ecological sensitivities of Bruree Bridge require careful sequencing of works, containment of construction activities, and up-to-date ecological surveys to ensure compliance with the Wildlife Acts and Inland Fisheries Ireland (IFI) requirements. The bridge provides potential nesting opportunities for Sand Martins (*Riparia riparia*), which are amber-listed and fully protected, as well as **potential** roosting crevices for bats. The adjoining river corridor is also an important foraging habitat for Daubenton's bats and other bat species.

As works may not commence for one to two years, ecological use of the bridge may change before construction. To account for this, pre-construction surveys will be undertaken:

- A Sand Martin survey during the April–August breeding season immediately prior to works, to confirm any active nests. All active nest holes will be clearly marked and excluded from grouting or disturbance.
- A bat roost inspection (Preliminary Roost Assessment), supplemented by dusk/dawn emergence surveys as needed. Any confirmed roost crevices will likewise be marked and kept grout-free until inactive, with exclusion zones enforced by the Ecological Clerk of Works (ECoW).

Following these surveys, works below the springing point will commence in September, after Sand Martin nesting has ended, and in low-flow conditions. Scaffolding decks will be supported on the pre-existing concrete skirtings at the base of piers and abutments, avoiding the need for new temporary works within the wetted channel.

Works above the springing point (spandrels, parapets, tie bars, railings) are proposed to continue after September, subject to agreement from IFI. These works are not considered in-stream, given the use of existing concrete skirtings for scaffold support and the absence of any direct interaction with the riverbed.

This approach ensures that: (i) the actual ecological use of the bridge at the time of works is identified and protected through pre-construction surveys and marking of active features; (ii) the construction methodology avoids new in-stream activity by using existing bridge features; and (iii) the programme remains adaptable to ecological and hydrological conditions, with IFI consulted on any activities extending beyond the usual in-stream works window

7.1 KEY POINTS

- **Pre-works surveys:**
 - Sand Martin survey during breeding season before works; all active nests to be marked and excluded from grouting/pointing. Works not to commence until sand martin nests inactive.
 - Bat roost inspection and emergence surveys; potential or confirmed roost crevices to be marked and excluded.
- **Sand Martins (amber-listed):**
 - No disturbance of active nests; below-springing point works to commence only after fledging is complete in September.
- **Bats:**
 - No roosts identified to date, but re-survey required before works.
 - Vegetation removal minimised and lighting strictly controlled.

- **General nesting birds:**
 - Vegetation clearance outside March–August, or subject to ecological pre-check.
- **Works below springing point:**
 - To be undertaken in September, after Sand Martin nesting, under low-flow conditions.
 - Scaffold decks supported on pre-existing concrete skirtings, avoiding new in-stream structures.
- **Works above springing point:**
 - Proposed to continue after September, subject to IFI agreement.
 - Justification: works are not technically in-stream, given scaffold support from existing concrete skirtings.
- **Programme flexibility:**
 - Schedule allows for adjustment based on survey results, ecological monitoring, and water levels.

7.2 REGULATORY CONSULTATION

The sequencing of works at Bruree Bridge requires coordination with both Inland Fisheries Ireland (IFI) and the National Parks and Wildlife Service (NPWS). Prior to commencement, the contractor and project ecologist will meet with IFI regional officers to agree the scope of works below and above the springing point, and to confirm the acceptability of continuing above-springing point works after September on the basis that they are not technically in-stream. Similarly, NPWS will be consulted to review the results of pre-construction surveys for Sand Martins and bats, and to confirm the adequacy of proposed exclusion measures for any active ecological features identified. This early and transparent engagement will ensure that all timing restrictions, method statements, and ecological safeguards are agreed in advance, reducing the risk of delays during construction

8 CONCLUSION

This addendum provides detailed responses to each item raised in the Request for Further Information issued by An Bord Pleanála under ABP Ref: 177AE – Bruree Bridge (Our Ref: ABP-322242-25). The responses include updated survey data, ecological assessments, and refined construction methodologies, all designed to ensure protection of Sand Martins, bats, otters, aquatic habitats, and water quality.

Key measures include pre-construction surveys for protected species, phased programming to avoid sensitive periods, robust containment systems to prevent pollution, and use of existing concrete skirtings to eliminate the need for new in-stream works. The programme is structured to incorporate seasonal constraints and hydrological conditions, with flexibility to adjust as required.

A clear commitment is made to continued consultation with Inland Fisheries Ireland, NPWS, and Limerick City & County Council Heritage staff, with the final Construction Method Statement and ecological safeguards to be agreed in advance of works.

In conclusion, the responses set out in this addendum comprehensively address the matters raised in the RFI and demonstrate that the proposed works can proceed without significant adverse effects on the receiving environment or on the integrity of the Natura 2000 network.