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LEINSTER BRIDGES NON-ROUTINE MAINTENANCE

AA Screening Report

Castlecomer Bridge (KK-N78-007.00)

March 2025

Leinster Bridges Non-Routine Maintenance

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1. DESCRIPTION OF THE STRUCTURE

Castlecomer Bridge is a 5-span masonry arch bridge spanning the River Dinin, east of Castlecomer, Co. Kilkenny. The bridge is 40m in length with each span c. 7m long. The eastern span is on dry land. A weir runs diagonally across the river, through the western span. The arch barrels have all had gunite/ shotcrete added. The structure has a masonry apron extending to c. 5m downstream of the structure.

Recently, a collision led to damage to both parapets. The damage to the northern parapet is limited to cracked masonry joints, whereas the southern parapet has a large hole.

2. PHOTOGRAPHS

Plate 1 Northern parapet with footbridge visible in the background.

Plate 2 **Southern parapet with damage resulting from vehicle strike.**

Plate 3 **Stone from the parapet on the bridge apron below the structure.**

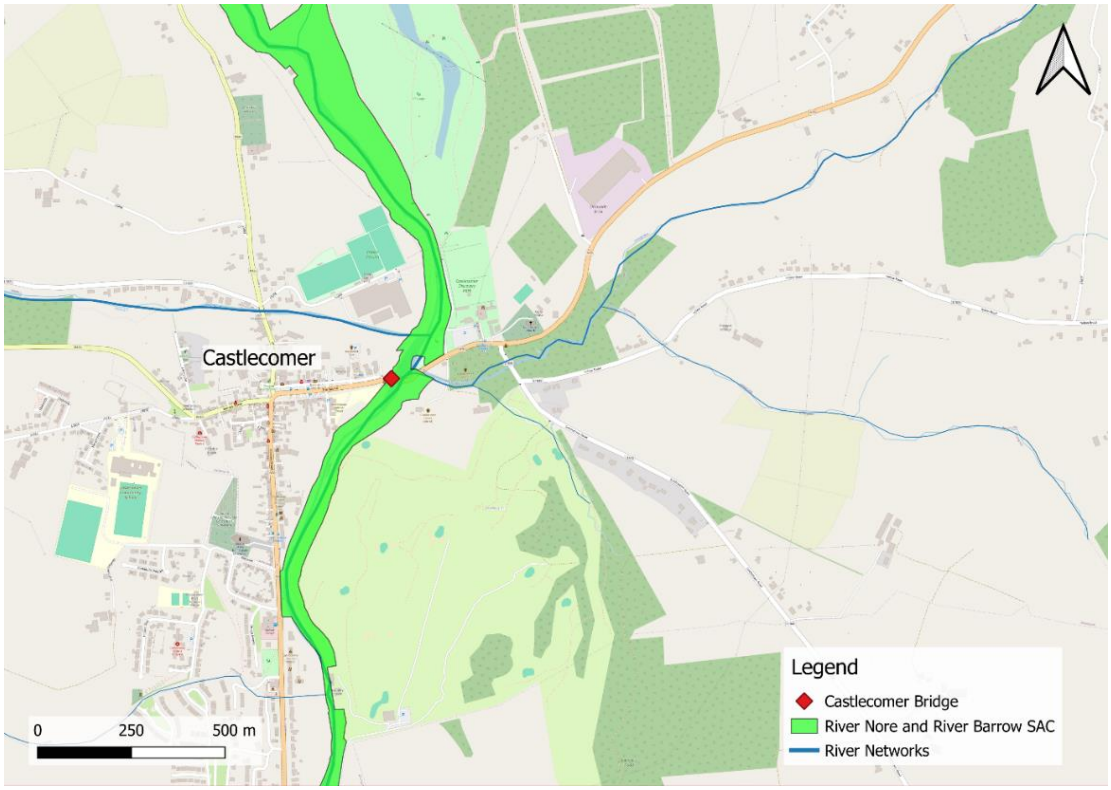
Plate 4 **Castlecomer Bridge with damage to southern parapet circled in red.**

Plate 5 **Southern / downstream side of Castlecomer Bridge.**

Plate 6 Downstream of bridge showing masonry apron.

3. LOCATION OF THE STRUCTURE

The structure is in Castlecomer, Co. Kilkenny, 320m east of the town centre. The bridge spans the River Dinin, which flows into the River Nore c. 25km downstream, at a location 7km north of Kilkenny.



4. THE PROPOSED WORKS

Castlecomer Bridge was damaged by a vehicle strike on the northern and southern parapets. On the northern parapet, the existing facia stone on the roadside of parapet will be removed and replaced (900mm long and 700mm high from ground level), starting from the existing bollard (no. 1022) in an easterly direction. The joint will be repointed (700mm long and 300mm high starting at a point 700mm from GL). The works to the northern parapet will be undertaken from the roadside.

On the southern parapet, the existing capping stone will be infilled and reconstructed. The parapet will be reconstructed (3400mm long x 900mm high x 530mm wide) with the dislodged stone, which has been knocked into river, and will be recovered. The recovery of the stone will be undertaken on foot. No machinery is permitted in the watercourse. If the quantity of existing stone recovered from the river is not sufficient to complete the reconstruction works, a stone of a similar nature and type as the existing one will be sourced from local quarries. The reconstruction of the southern parapet will include pointing with lime mortar. The works on the southern parapet will be completed from the roadside of the parapet and from the river side, using an underbridge unit.

The works are expected to take 5 days to complete.

5. APPROPRIATE ASSESSMENT SCREENING

The Natura 2000 Sites within 15 km are:

- The River Barrow and River Nore SAC
- The River Nore SPA

The proposed works are within the River Barrow and River Nore SAC, and 9km east of the River Nore SPA. The River Nore SPA is c. 16km downstream of the proposed works.

Table 1 Assessment of Likely Significant Effects

Qualifying Interests	Do the proposed works provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?
River Barrow and River Nore SAC	
Estuaries [1130]	The closest example of this habitat is > 50 km downstream along the tidal reaches of the River Barrow. Given the distance and dilution which would occur along the river, it can be concluded that the proposed works do not have potential to lead to likely significant effects.
Mudflats and sandflats not covered by seawater at low tide [1140]	The closest example of this habitat is > 50 km downstream along the tidal reaches of the River Barrow. Given the distance and dilution which would occur along the river, it can be concluded that the proposed works do not have potential to lead to likely significant effects.
Reefs [1170]	The closest example of this habitat is > 50 km downstream along the tidal reaches of the River Barrow. Given the distance and dilution which would occur along the river, it can be concluded that the proposed works do not have potential to lead to likely significant effects.
Salicornia and other annuals colonising mud and sand [1310]	The closest example of this habitat is > 50 km downstream along the tidal reaches of the River Barrow. Given the distance and dilution which would occur along the river, it can be concluded that the proposed works do not have potential to lead to likely significant effects.
Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]	The closest example of this habitat is > 50 km downstream along the tidal reaches of the River Barrow. Given the distance and dilution which would occur along the river, it can be concluded that the proposed works do not have potential to lead to likely significant effects.
Mediterranean salt meadows (Juncetalia maritimi) [1410]	The closest example of this habitat is > 50 km downstream along the tidal reaches of the River Barrow. Given the distance and dilution which would occur along the river, it can be concluded that the proposed works do not have potential to lead to likely significant effects.
Water courses of plain to montane levels with the *Ranunculion fluitantis* and Callitricho-Batrachion vegetation [3260]	This distribution of this habitat in the SAC is unknown but it is assumed to occur in all unmodified areas of the SAC, including immediately upstream and downstream of the bridge. The proposed works will be undertaken from the bridge structure, from an underbridge unit and will require access on foot from the eastern bank of the river to the apron. There is a risk of pollution occurring during the works, should wet mortar be spilled during the parapet reconstruction, however the quantity of mortar being used at any one time will be small and the capacity of the river to dilute any fallen mortar means that there is no risk of likely significant effects.
European dry heaths [4030]	The nearest example of this habitat in the SAC is in the foothills of the Blackstairs Mountains. This is a terrestrial habitat and there are no pathways for likely significant effects as a result of the proposed works.

Qualifying Interests	Do the proposed works provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?
Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]	This distribution of this habitat in the SAC is unknown. This habitat does not occur in the immediate proximity to the structure, which is bordered by woodland, made ground and parkland. The proposed works will be undertaken from the bridge structure, from an underbridge unit and will require access from the eastern bank of the river to the apron. There is a risk of pollution occurring during the works, should wet mortar be spilled during the parapet reconstruction, however the quantity of mortar being used at any one time will be small and the capacity of the river to dilute any fallen mortar means that there is no risk of likely significant effects.
Petrifying springs with tufa formation (Cratoneurion) [7220]	The closest example of this habitat described in the Conservation Objectives for the site is >20km downstream, south of Thomastown, however the distribution of this habitat in the SAC is not fully understood. The proposed works will be undertaken from the bridge structure, from an underbridge unit and will require access from the eastern bank of the river to the apron, where this habitat does not occur. There is a risk of pollution occurring during the works, should wet mortar be spilled during the parapet reconstruction, however the quantity of mortar being used at any one time will be small and the capacity of the river to dilute any fallen mortar means that there is no risk of likely significant effects.
Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	The distribution of this habitat in the SAC is not fully understood. However, this is a terrestrial habitat which is not present in the vicinity of the bridge, and therefore there are no pathways for likely significant effects as a result of the proposed works.
Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0]	The closest example of this habitat described in the Conservation Objectives for the site is >20km downstream, southeast of Kilkenny, however the distribution of this habitat in the SAC is not fully understood. The proposed works will be undertaken from the bridge structure, from an underbridge unit and will require access from the eastern bank of the river to the apron. There is a risk of pollution occurring during the works, should wet mortar be spilled during the parapet reconstruction, however the quantity of mortar being used at any one time will be small and the capacity of the river to dilute any fallen mortar means that there is no risk of likely significant effects.
Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016]	There are no records of this species in the vicinity of the proposed works (NBDC, 2024). The closest record of this species according to the conservation objectives is 20km west of the bridge, east of Rathdowney. This species is found in calcareous habitats with a good cover of tall sedges and grasses, and where water level is at or slightly above ground level for most of the year. This habitat is not present at the bridge. The proposed works will be undertaken from the bridge structure, from an underbridge unit and will require access on from the eastern bank of the river to the apron. Therefore, there is no pathway for likely significant effects between the proposed works and this species.

Qualifying Interests	Do the proposed works provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?
Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]	Castlecomer Bridge is within a Freshwater Pearl Mussel sensitive area. [redacted] The proposed works will be undertaken from the bridge structure, from an underbridge unit and will require access from the eastern bank of the river to the apron. The bridge has a masonry apron extending to c. 5m downstream of the structure. This does not provide suitable habitat for Freshwater Pearl Mussel. There is a risk of pollution occurring during the works, should wet mortar be spilled during the parapet reconstruction, however the quantity of mortar being used at any one time will be small and the capacity of the river to dilute any fallen mortar means that there is no risk of likely significant effects.
Austropotamobius pallipes (White-clawed Crayfish) [1092]	The nearest record is from 2005, and is just north of the bridge. The bridge is in a White-clawed Crayfish Plague Catchment, and as such, the proposed works will not result in the spread of this disease. There is a risk of pollution occurring during the works, should wet mortar be spilled during the parapet reconstruction, however the quantity of mortar being used at any one time will be small and the capacity of the river to dilute any fallen mortar means that there is no risk of likely significant effects.
Petromyzon marinus (Sea Lamprey) [1095]	There are six major obstructions to fish in the River Nore, with the furthest downstream being in Thomastown weir, which is considered to mark the extent of Sea Lamprey distribution in this catchment[1]. Thomastown weir is approx. 45km downstream of Castlecomer Bridge. There is a risk of pollution occurring during the works, should wet mortar be spilled during the parapet reconstruction, however the quantity of mortar being used at any one time will be small and the capacity of the river to dilute any fallen mortar means that there is no risk of likely significant effects.
Lampetra planeri (Brook Lamprey) [1096]	The proposed works will be undertaken from the bridge structure, from an underbridge unit and will require access from the eastern bank of the river to the apron. There is a risk of pollution occurring during the works, should wet mortar be spilled during the parapet reconstruction, however the quantity of mortar being used at any one time will be small and the capacity of the river to dilute any fallen mortar means that there is no risk of likely significant effects.
Lampetra fluviatilis (River Lamprey) [1099]	The proposed works will be undertaken from the bridge structure, from an underbridge unit and will require access from the eastern bank of the river to the apron. There is a risk of pollution occurring during the works, should wet mortar be spilled during the parapet reconstruction, however the quantity of mortar being used at any one time will be small and the capacity of the river to dilute any fallen mortar means that there is no risk of likely significant effects.

[1] Sullivan, A. (2007). Assessment of Fish Passage and the Ecological Impact of Migration Barriers on the River Nore Catchment. Nore Suir Rivers Trust & OPW.

Qualifying Interests	Do the proposed works provide for any potential delay or interruption in the achievement of this Conservation Objective, as defined by its Attributes and Targets?
Alosa fallax fallax (Twaite Shad) [1103]	Twaite shad typically spawn close to the tidal limit of rivers. According to the conservation objectives document, regular spawning has not been confirmed in the River Nore in recent years. The tidal limit of the River Barrow is at St. Mullins, which is >50km downstream. There is a risk of pollution occurring during the works, should wet mortar be spilled during the parapet reconstruction, however the quantity of mortar being used at any one time will be small and the capacity of the river to dilute any fallen mortar means that there is no risk of likely significant effects.
Salmo salar (Salmon) [1106]	Salmon have been recorded passing the Castlecomer Weir in small numbers[1]. The proposed works will be undertaken from the bridge structure, from an underbridge unit and will require access from the eastern bank of the river to the apron. There is a risk of pollution occurring during the works, should wet mortar be spilled during the parapet reconstruction, however the quantity of mortar being used at any one time will be small and the capacity of the river to dilute any fallen mortar means that there is no risk of likely significant effects.
Lutra lutra (Otter) [1355]	Otter is a highly mobile species and occurs throughout the SAC, including in the River Dinin. The works are expected to take 5 days to complete, and are located on an existing road bridge. Given the baseline level of noise and visual disturbance which the area is subject to, the proposed works will not cause disturbance to Otter. The proposed works will be undertaken from the bridge structure, from an underbridge unit and will require access from the eastern bank of the river to the apron. There is a risk of pollution occurring during the works, should wet mortar be spilled during the parapet reconstruction, however the quantity of mortar being used at any one time will be small and the capacity of the river to dilute any fallen mortar means that there is no risk of likely significant effects.
Trichomanes speciosum (Killarney Fern) [1421]	The closest record of this species described in the Conservation Objectives for the site is >20km downstream, south of Inistioge. This species grows in almost permanently moist / humid, sheltered situations, usually on acid rock faces but also trees. This is a terrestrial species and there are no pathways for likely significant effects as a result of the proposed works.
River Nore SPA	
Kingfisher (*Alcedo atthis*) [A229]	THE SPA is > 15km downstream of Castlecomer Bridge. There is a risk of pollution occurring during the works, should wet mortar be spilled during the parapet reconstruction, however given the quantity of mortar being used at any one time will be small, the capacity of the river to dilute any fallen mortar, and the hydrological distance between the works and the SPA, there is no risk of likely significant effects.

6. ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

All repointing works which cannot be reached from the bridge deck will be accessed using an underbridge unit. All work platforms will be covered by geotextile filter layers (or equivalent catch system) extending a minimum of 150mm up the sides of the platforms to prevent mortar or defective concrete falling through the works platform into the watercourse and to allow for any waste material/mortar to be removed from site and disposed of appropriately at an approved site. There is a risk that some mortar may spill beyond the platform during repointing. Personnel entering the river to retrieve the fallen stone will not result in the spread of crayfish plague in the SAC, as it is already present in the catchment. The proposed works will not result in the spread of invasive flora (Japanese Knotweed and Cherry Laurel) which are present at the structure. The works are expected to take 5 days to complete, and are located at an existing road bridge. Given the baseline level of noise and visual disturbance which the area is subject to, and the short duration of the works, the proposed works will not result in disturbance to species.

There is no risk of ongoing pollution, changes to the hydrological regime or disturbance as a result of the works. Therefore, there are no impacts of the proposed works during operation.

7. CONCLUSION

Considering the nature and scale of the works, the location and sensitivities of the Qualifying Interests of the European sites where potential pathways for likely significant effects exist, Roughan & O'Donovan can advise TII, as the competent authority, to conclude that the proposed works will not lead to likely significant effects on the River Barrow and River Nore SAC or any other European Site.

It is the considered opinion of ROD, that, in making its AA Screening determination in respect of the proposed works, Transport Infrastructure Ireland, as the Competent Authority in this case, may determine that, given the nature and scale of the proposed works, the location of the works relative to European sites, and the sensitivities of the Qualifying Interests of those sites, that the proposed development, either individually or in combination with other plans or projects, is not likely to significant effect the integrity of the River Barrow and River Nore SAC, the River Barrow and River Nore SPA, or any other European site.

8. OTHER ECOLOGICAL CONSTRAINTS (NOT RELATED TO APPROPRIATE ASSESSMENT)

Designated Sites

The table below list the designated sites, other than European sites, within 15 km of Castlecomer Bridge.

Site Name	Location relative to Castlecomer Bridge
Coan Bogs NHA	3.3km east
Mothel Church, Coolcullen pNHA	7.3km southeast
Esker Pits pNHA	7.4km southwest
Dunmore Cave pNHA	8.4km south

Bats

Castlecomer Bridge's arches have all had gunite/ shotcrete added. There are no features which could be used by roosting bats.

Invasive Species

Japanese Knotweed (*Reynoutria japonica*) and Cherry Laurel (*Prunus laurocerasus*) and present in the vicinity of Castlecomer Bridge. The proposed works will not lead to the spread of these species.