Environmental Assessment of Proposed Options

FOR

Proposed Upgrade to the N83

AT

Dunmore Co. Galway

03/03/2020

ON BEHALF OF

OCSC
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Introduction:

The following is a high-level review of the five options for the proposed upgrade to the N83 at Bridge St Dunmore Co. Galway. Options 1 to 5 where stated relate to these options as detailed on Drawing Number G467-OCSC-XX-XX-SK-C-0003 (see Figure 1.)

In general, these options are reviewed for any potential environmental impact and presented in a matrix in conformance with the *Project Appraisal Guidelines for National Roads Unit 7.0 – Multi Criteria Analysis*, TII Publications 2016.

In addition, these options are also examined to attempt to identify if, at this early stage, it can be determined if a full Natura Impact Statement will be required for any or all of the proposed options.

It should be noted that any assessment contained within this report is at a high level and is based solely on a desk study and a site walkover visit that was carried out on 4th February 2020

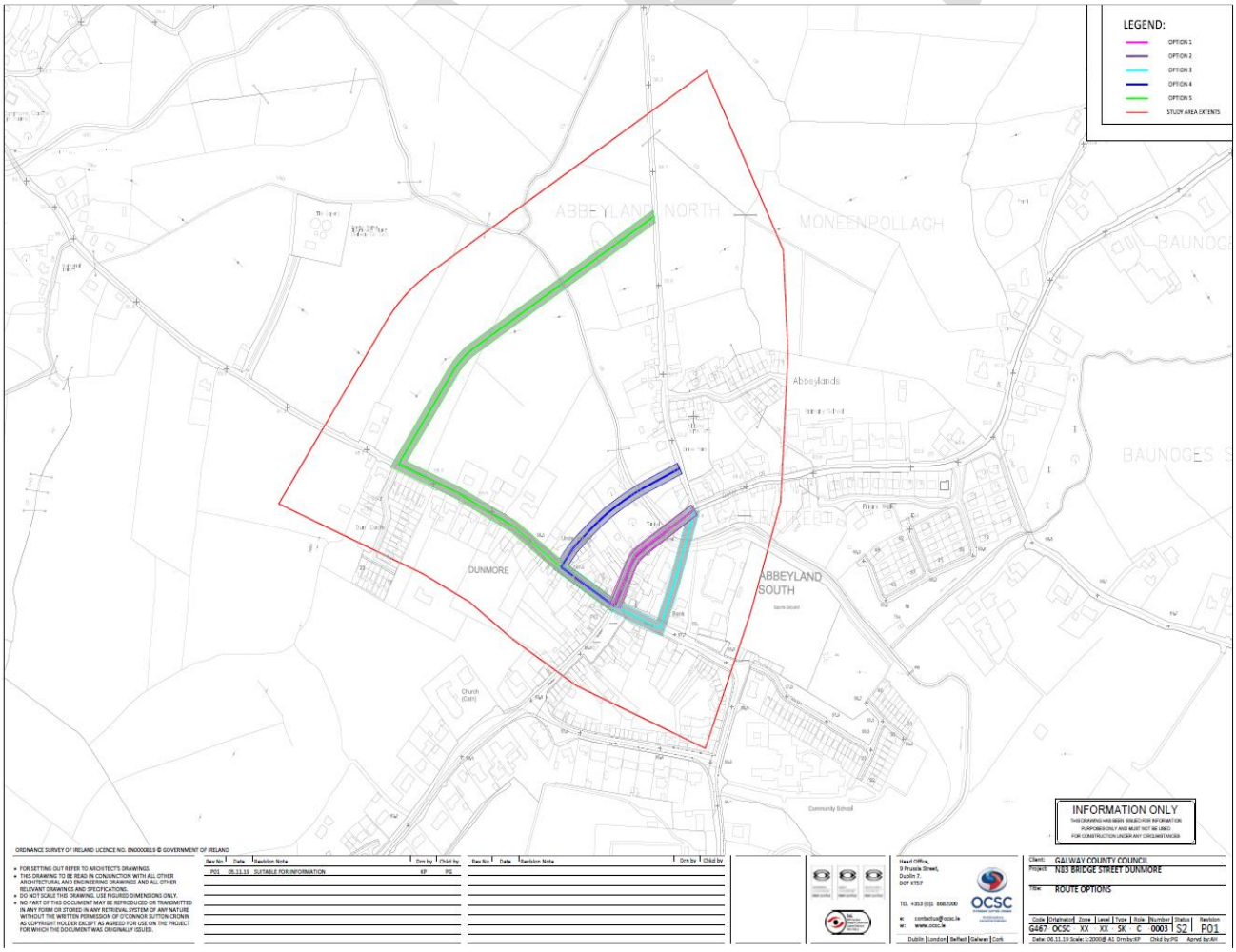

Figure 1 Proposed Options.

Option 0. Do Nothing.

Criterion	Sub-Criteria	Quantitative Assessment	Qualitative Assessment	Score*
Environmental	Air Quality & Climate	No overall change. No change in traffic pollutants – opportunity to improve is lost	No change to existing baseline conditions.	3
	Noise	No overall change.	No change to existing baseline conditions.	4
	Waste	No waste generation required.	No waste generation required.	7
	Biodiversity (Flora and Fauna)	No identified impact based on leaving the existing bridge in situ.	No identified impact based on leaving the existing bridge in situ.	4
	Agriculture	No identified impact	No identified impact	4
	Non-Agricultural Properties	None identified at this point.	No impacts identified at this point.	4
	Architectural Heritage			
	Archaeological & Cultural Heritage			
	Landscape & Visual (including light)	No major change. Missed opportunity for improvement to visual impact.	No major change. Missed opportunity for improvement to visual impact.	3
	Soils and Geology	Neutral impact on local geology	Neutral impact on local geology	4
	Hydrology	Installation of interceptors removes any risk to Sinking River. This is an improvement on existing situation	Installation of interceptors removes any risk to Sinking River.	5
	Hydrogeology	Considered slight or neutral due to existing infrastructure.	Considered slight or neutral due to existing infrastructure.	4
Environment Sub-Total Score				**42**

*Scoring procedure: 7 – Major or highly positive; 6 – Moderately positive; 5 – Minor or slightly positive; 4 – not significant or neutral; 3 – Minor or slightly negative; 2 – Moderately negative; 1 – Major or highly negative.

Option 1.

Criterion	Sub-Criteria	Quantitative Assessment	Qualitative Assessment	Score*
Environmental	Air Quality & Climate	No overall change. Risk of dust during construction phase.	No change to existing baseline conditions following construction phase.	3
	Noise	No overall change. Risk of increased noise during construction phase.	No change to existing baseline conditions following construction phase.	3
	Waste	Demolition of existing buildings required. Quantities or duration of works not yet defined.	Extra traffic movements on site to remove any waste.	2
	Biodiversity (Flora and Fauna)	No identified impact based on leaving the existing bridge in situ. Possible impact on bats.	No identified impact based on leaving the existing bridge in situ. Possible impact on bats.	3
	Agriculture	No identified impact	No identified impact	4
	Non-Agricultural Properties	Requirement for demolition of buildings. Nature and extent is not clear at this point.	Requirement for demolition of buildings	2
	Architectural Heritage			
	Archaeological & Cultural Heritage			
	Landscape & Visual (including light)	Requirement for demolition of buildings. Nature and extent is not clear at this point	Requirement for demolition of buildings. Nature and extent is not clear at this point	2
	Soils and Geology	May have slight impact on local geology but thought slight due to the proposed development being in a built area.	May have slight impact on local geology but thought slight due to the proposed development being in a built area.	3
	Hydrology	Proximity to the Sinking River creates a risk. No change to existing bridge and installation of interceptors will improve the situation.	Proximity to the Sinking River creates a risk. No change to existing bridge and installation of interceptors will improve the situation.	5
	Hydrogeology	Considered neutral due to existing infrastructure and proposed interceptors.	Considered neutral due to existing infrastructure and proposed interceptors.	4
Environment Sub-Total Score				**31**

Option 2.

Criterion	Sub-Criteria	Quantitative Assessment	Qualitative Assessment	Score*
Environmental	Air Quality & Climate	No overall change. Risk of dust during construction phase.	No change to existing baseline conditions following construction phase.	3
	Noise	No overall change. Risk of increased noise during construction phase.	No change to existing baseline conditions following construction phase.	3
	Waste	Demolition of existing buildings required. Quantities or duration of works not yet defined.	Extra traffic movements on site to remove any waste.	2
	Biodiversity (Flora and Fauna)	No identified impact based on leaving the existing bridge in situ. Possible impact on bats.	No identified impact based on leaving the existing bridge in situ. Possible impact on bats.	3
	Agriculture	No identified impact	No identified impact	4
	Non-Agricultural Properties	Requirement for demolition of buildings. Nature and extent is not clear at this point.	Requirement for demolition of buildings	2
	Architectural Heritage			
	Archaeological & Cultural Heritage			
	Landscape & Visual (including light)	Requirement for demolition of buildings. Nature and extent is not clear at this point	Requirement for demolition of buildings. Nature and extent is not clear at this point	2
	Soils and Geology	May have slight impact on local geology but thought slight due to the proposed development being in a built area.	May have slight impact on local geology but thought slight due to the proposed development being in a built area.	3
	Hydrology	Proximity to the Sinking River creates a risk. No change to existing bridge and installation of interceptors will improve the situation.	Proximity to the Sinking River creates a risk. No change to existing bridge and installation of interceptors will improve the situation.	5
	Hydrogeology	Considered neutral due to existing infrastructure and proposed interceptors.	Considered neutral due to existing infrastructure and proposed interceptors.	4
Environment Sub-Total Score				**31**

Option 3.

Criterion	Sub-Criteria	Quantitative Assessment	Qualitative Assessment	Score*
Environmental	Air Quality & Climate	No overall change. Risk of dust during construction phase.	No change to existing baseline conditions following construction phase.	3
	Noise	No overall change. Risk of increased noise during construction phase.	No change to existing baseline conditions following construction phase.	3
	Waste	Quantities or duration of works not yet defined. Little or no demolition required. Construction waste will be generated in bridge building.	Extra traffic movements on site to remove any waste.	2
	Biodiversity (Flora and Fauna)	Potential for negative impact in building bridge. Some loss of habitat identified.	Potential for negative impact in building bridge.	2
	Agriculture	No identified impact	No identified impact	4
	Non-Agricultural Properties	Nature and extent is not clear at this point.	Limited requirement for demolition of buildings	3
	Architectural Heritage			
	Archaeological & Cultural Heritage			
	Landscape & Visual (including light)	Nature and extent is not clear at this point. Neutral impact predicted.	Nature and extent is not clear at this point. Neutral impact predicted.	4
	Soils and Geology	Slight to moderate impact on local geology due to excavations and construction of bridge.	Slight to moderate impact on local geology due to excavations and construction of bridge.	2
	Hydrology	Proximity to the Sinking River creates a risk. A bridge is required for this option creating a greater risk.	Proximity to the Sinking River creates a risk. A bridge is required for this option creating a greater risk.	1
	Hydrogeology	Considered moderate to slight due to excavation and requirement for a bridge to be built..	Considered moderate to slight due to excavation and requirement for a bridge to be built..	2
Environment Sub-Total Score				**26**

Option 4.

Criterion	Sub-Criteria	Quantitative Assessment	Qualitative Assessment	Score*
Environmental	Air Quality & Climate	No overall change. Risk of dust during construction phase.	No change to existing baseline conditions following construction phase.	3
	Noise	No overall change. Risk of increased noise during construction phase.	No change to existing baseline conditions following construction phase.	3
	Waste	Quantities or duration of works not yet defined. demolition required. Construction waste will be generated in bridge building.	Extra traffic movements on site to remove any waste.	2
	Biodiversity (Flora and Fauna)	Potential for negative impact in building bridge. Some loss of habitat identified.	Potential for negative impact in building bridge.	2
	Agriculture	No identified impact	No identified impact	4
	Non-Agricultural Properties	Nature and extent is not clear at this point.	Limited requirement for demolition of buildings	3
	Architectural Heritage			
	Archaeological & Cultural Heritage			
	Landscape & Visual (including light)	Nature and extent is not clear at this point. Neutral impact predicted.	Nature and extent is not clear at this point. Neutral impact predicted.	4
	Soils and Geology	Slight to moderate impact on local geology due to excavations and construction of bridge.	Slight to moderate impact on local geology due to excavations and construction of bridge.	2
	Hydrology	Proximity to the Sinking River creates a risk. A bridge is required for this option creating a greater risk.	Proximity to the Sinking River creates a risk. A bridge is required for this option creating a greater risk.	1
	Hydrogeology	Considered moderate to slight due to excavation and requirement for a bridge to be built..	Considered moderate to slight due to excavation and requirement for a bridge to be built..	2
Environment Sub-Total Score				**26**

Option 5.

Criterion	Sub-Criteria	Quantitative Assessment	Qualitative Assessment	Score*
Environmental	Air Quality & Climate	No overall change. Greater risk of dust during construction phase from other options due to size.	No overall change. Greater risk of dust during construction phase from other options due to size.	2
	Noise	Risk of increased noise during construction phase due to size.	Risk of increased noise during construction phase due to size.	2
	Waste	Quantities or duration of works not yet defined. demolition required. Construction waste will be generated in bridge building.	Extra traffic movements on site to remove any waste.	2
	Biodiversity (Flora and Fauna)	Potential for negative impact in building bridge. Some loss of habitat identified.	Potential for negative impact in building bridge.	2
	Agriculture	Some impact on agricultural fields identified.	Some impact on agricultural fields identified.	3
	Non-Agricultural Properties	None identified.	None identified.	4
	Architectural Heritage			
	Archaeological & Cultural Heritage			
	Landscape & Visual (including light)	Slight to moderate impact predicted due to size of option.	Slight to moderate impact predicted due to size of option.	2
	Soils and Geology	Slight to moderate impact on local geology due to excavations and construction of bridge.	Slight to moderate impact on local geology due to excavations and construction of bridge.	2
	Hydrology	Proximity to the Sinking River creates a risk. A bridge is required for this option creating a greater risk.	Proximity to the Sinking River creates a risk. A bridge is required for this option creating a greater risk.	1
	Hydrogeology	Considered moderate to slight due to excavation and requirement for a bridge to be built.	Considered moderate to slight due to excavation and requirement for a bridge to be built.	2
Environment Sub-Total Score				**22**

AA Screening and Natura Impact Assessment

A high level overview in respect of whether or not a Natura Impact Statement would be required was taken. While no conclusion can be fully made prior to having a full and detailed project description and having undertaken an Appropriate Assessment Screening the following can be noted:

The Sinking River which is crossed in all of the options (in 1&2 by the existing bridge and by a proposed new bridge in 3,4 & 5) is flows into the Clare River which in turn flows into Lough Corrib Special Area of Conservation – a Natura 2000 site.

In the event that a bridge is to be constructed across the Sinking River it is likely that a risk to the SAC cannot be ruled out without the use of mitigation measures and therefore an NIS will be required.

If options 1 or 2 are the preferred option then it may be possible based on the proposed Construction Environmental Management Plan that the construction methodology employed will provide sufficient safeguards to ensure that it can be determined beyond reasonable scientific doubt that there will be no significant impact on the SAC. If that is the case then an AA Screening Report will suffice. If not an NIS will be required.

Summary: Based on the information currently available the preferred options with the highest environmental score is the Do-Nothing Scenario, Option 0 with a score of 42. This is followed by Options 1 & 2 with scores of 27 each followed by Options 3 & 4 with scores of 26 each with Option 5 as the least favourable option with a score of 22.