Appendix 1: DMRB Screening Matrix

Table A1.1 (Stage 1) Screening Matrix for Tully Bog SAC

Project Name:	**A5 WTC**	
Natura 2000 Site under Consideration:	**Tully Bog SAC**	
Date:	**Author (Name/Organisation):**	**Verified (Name/Organisation):**
5th August 2014	**S.Ireland, Mouchel**	**P.Reid, Mouchel**

Description of Project

The proposed 85km A5 Western Transport Corridor (A5 WTC) scheme forms part of a strategically important transport route between Londonderry/Derry in Northern Ireland (NI) and to Dublin in the Republic of Ireland (ROI). The proposed scheme involves replacement of the existing A5 from a point north of New Buildings Londonderry in the north to a point south of Aughnacloy in the south with a dual carriageway along an alignment off-line from the existing road. In NI the existing road passes through New Buildings, Strabane, Sion Mills, Newtownstewart, Omagh and Aughnacloy. The proposed scheme will be close to the designated site in a number of other locations. It is anticipated the proposed scheme will be built in three phases. It is anticipated that each phase will take some 2 to 3 years to construct.

Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the European Site by virtue of:

Size and scale *(road type and probable traffic volume)*	The project involves the construction of an 85 km long dual carriageway involving the crossing of large number of watercourses that will run for the entire length of the scheme, with associated drainage and local road improvements. Traffic volumes are anticipated to be a maximum of 23300 AADT (to the nearest 100) within 15 years of the road opening. This may impact on water quality and thus on features of the SAC.
Land-take	No works are proposed to take place within the SAC.
Distance from the European Site or key features of the site *(from edge of the project assessment corridor)*	The main carriageway is 205m from the SAC boundary, with slip roads 125m from the boundary.
Resource requirements *(from the European Site or from areas in proximity to the site, where of relevance to consideration of impacts)*	None
Emissions *(e.g. polluted surface water runoff – both soluble and insoluble pollutants, atmospheric pollution)*	1. Nitrogen Deposition – the scheme could lead to higher levels of Nitrogen being deposited from traffic emissions. 2. Construction Dust – as standard construction mitigation measures are very successful at controlling dust, it is unlikely that construction dust would impact on the site.

Excavation requirements *(e.g. impacts of local hydrogeology)*	Although part of the route will be in cutting nearby, no drainage features associated with the bog will be affected. Also, this type of bog sites above the water table, and is therefore unlikely to be impacted by changes to the groundwater regime.
Transportation requirements	Construction related traffic and operational use of the scheme may result in potential depositional impacts upon bog features comprising qualifying features of the SAC.
Duration of construction, operation, etc	It is anticipated that construction of phases 2 will last for approximately three years. Phases 1 and 3 are located outside of the zone of influence for Tully Bog such that their construction will have no implications for the SAC.
Other	None
Description of avoidance and/or mitigation measures *Describe any assumed (plainly established and uncontroversial) mitigation measures, including information on:*	
Nature of proposals	Best practice working procedures will be implemented during construction such as damping down of dust which will reduce airborne matter from contaminating the site during construction. PPGs will be followed during construction to avoid adverse impacts on local water quality.
Location	All works within 500m of the SAC
Evidence for effectiveness	Legally required and widely accepted best practice
Mechanism for delivery (legal conditions, restrictions or other legally enforceable obligations)	Legal conditions of national legislation & best practice guidance through NIEA PPGs. Contractual obligations placed on the contractor by Road Service and monitored by Road Service's appointed Environmental Representatives.
Characteristics of European Site(s) *A brief description of the European Site should be produced, including information on:*	
Name of European Site and its EU code	**Tully Bog SAC UK0030326**
Location and distance of the European Site from the proposed works	Tully Bog SAC is located at NI OS Grid Reference H419754 and its boundary is 205m from the proposed carriageway and 125m from the slip roads for a junction.
European Site size	The SAC covers 35.99Ha
Key features of the European Site including the primary reasons for selection and any other qualifying interests	The site consists of a raised bog displaying typical bog vegetation surrounded by former cuttings supporting birch woodland. Its primary reason for selection is the 'active raised bog' habitat. No other reasons or qualifying features are given.

Vulnerability of the European Site – any information available from the standard data forms on potential effect pathways	The major threats to the site are drying of the surface through excessive drainage and increased nutrient levels through airborne pollutants. Either of these have the potential to damage the quality of the bog vegetation.
European Site conservation objectives – where these are readily available	1. Maintain the extent of intact lowland raised bog and actively regenerating raised bog vegetation. 2. Maintain and enhance the quality of the lowland raised bog community types including the presence of notable species. 3. Seek to expand the extent of actively regenerating raised bog vegetation into degraded (non-active) areas of cutover bog. 4. Maintain the diversity and quality of other habitats associated with the active raised bog, e.g. acid grassland, fen and swamp, especially where these exhibit natural transition to the raised bog. 5. Maintain the hydrology of the raised bog peat mass. 6. Seek nature conservation management over suitable areas immediately outside the SAC where there may be potential for lowland raised bog rehabilitation.
Assessment Criteria *Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European Site.*	
Degradation of Annex 1 habitat through airborne pollutants Airborne pollutants in the form of particulate matter and nitrogen compounds could lead to deterioration of the raised bog habitat. Therefore the potential impacts of airborne pollutants cannot be ruled out without further investigation.	
Initial Assessment *The key characteristics of the site and the details of the European Site should be considered in identifying potential impacts.* *Describe any likely changes to the site arising as a result of:*	
Reduction of habitat area	No direct loss of qualifying habitat anticipated. However, impacts from airborne pollutants could result in a reduction in habitat area if unmitigated.
Disturbance to key species	N/A
Habitat or species fragmentation	It is not anticipated that there will be any fragmentation of habitats within the SAC.
Reduction in species density	Density of species associated with a healthy raised bog surface may be reduced if airborne pollutant deposition is shown to be increased beyond levels anticipated without the proposed scheme.
Changes in key indicators of conservation value (water quality, etc)	Air quality changes could lead to changes in the key indicator species of the bog.

Climate change	The scheme has the potential to contribute to the problem of climate change by increasing the carrying capacity of the current road network. Changes in rainfall patterns due to climate change could have direct impacts on the integrity of the site.
Describe any likely impacts on the European Site as a whole in terms of:	
Interference with the key relationships that define the structure of the site	None.
Interference with key relationships that define the function of the site	None.
Indicate the significance as a result of the identification of impacts set out above in terms of:	
Reduction of habitat area	There could be significant effects subject to mitigation.
Disturbance to key species	N/A
Habitat or species fragmentation	No significant effect predicted.
Loss	None
Fragmentation	None
Disruption	None
Disturbance	None
Change to key elements of the site *(e.g. water quality, hydrological regime etc)*	There could be significant effects subject to mitigation.
Describe from the above those elements of the project, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known. An assessment of the potential effects on air quality including climate change would necessitate detailed studies of anticipated traffic flow during and after construction. However air quality modelling has identified that increases of NOx and deposits of particulate matter are not anticipated on Tully Bog with increases only expected within the immediate vicinity of the proposed works (Mouchel 2010).	
Outcome of screening stage (delete as appropriate).	Significant Effect Possible on Qualifying Habitats. Assessment progressed to Stage 2.
Are the appropriate statutory environmental bodies in agreement with this conclusion? (Delete and attach appropriate communication).	**YES/NO**