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5 Water Environment

5.1 Executive Summary

1. In the SEAT Statement of Case, Page 21, Paragraph 120, sub section 11.0 Ecology, under sub-heading 'Water', SEAT notes the following:

2. SEAT notes with concern the potential for release of sediments into watercourses as a consequence of the following activities:

“• Soil stripping for tower foundation work areas and other infrastructures;

• Felling of forestry where necessary;

• Soil excavation for tower foundations;

• Run-off and erosion from soil stockpiles (prior to reinstatement); and,

• Dewatering of excavations for tower foundations.”

3. As described in the Technical Report 6: Water Environment, the Consolidated Environmental Statement (ES) contains an assessment of likely impacts arising from the construction and operation of the proposed Tyrone - Cavan Interconnector. The assessment has considered potential adverse impacts on the water environment that may occur during construction including temporary deterioration of water quality from releases of fine sediment. Mitigation measures to avoid, reduce and minimise potential effects are outlined in the Consolidated ES, Chapter 8 – Water Environment, section 8.5 (pages 241 - 247).

4. In James McNally's Statement of Case dated 1 November 2016, Page 3, concerns are raised about transboundary effects to a watercourse and how the transboundary effect will be dealt with in the two jurisdictions.

5. The watercourse raised by Mr McNally is fully assessed in the transboundary assessment for the proposed Interconnector and no adverse effects are predicted. Mitigation measures are proposed in the Consolidated ES and the EIS (for the application in Ireland). Statutory consultees in both jurisdictions have been fully consulted and none have raised any concerns about transboundary effects. Authorities, in both jurisdictions, can work together to monitor the construction period. Transboundary co-operation

between these authorities is currently ongoing. The recent An Bord Pleanála planning approval for the proposed Interconnector in Ireland affirms that there will be no significant hydrology effects, including transboundary effects.

6. Nothing in the objectors' Statements of Case and representations serves to undermine the conclusions set out in the SONI Statement of Case and supporting Technical Reports. As stated in SONI's Main Rebuttal Document, the proposed Tyrone - Cavan Interconnector remains clearly acceptable in planning terms.

5.2 About the Author

7. This Rebuttal document has been prepared by Ms Kathryn Thorp, who is an AECOM specialist for water quality. Ms Thorp is an environmental scientist with over 20 years' experience working in environmental consultancy. The background of the author is set out in more detail in Section 6.2 of the Technical Report 6: Water Environment addressing this subject matter, as appended to SONI's Statement of Case.

5.3 Policy

8. No Policy issues have been raised in relation to the Water Environment.

5.4 Guidance

9. No Guidance issues have been raised in relation to the Water Environment.

5.5 Further Environmental Information for the Purposes of the Inquiry

10. It is not necessary to introduce new information to address any point made by third parties or the Department and its consultees in relation to the Water Environment.

5.6 Water Assessment (SEAT)

11. In the SEAT Statement of Case, Page 21, Paragraph 120, sub section 11.0 Ecology, under sub-heading 'Water', SEAT notes the following:

SEAT notes with concern the potential for release of sediments into watercourses as a consequence of the following activities:

- *Soil stripping for tower foundation work areas and other infrastructures;*
- *Felling of forestry where necessary;*
- *Soil excavation for tower foundations;*
- *Run-off and erosion from soil stockpiles (prior to reinstatement); and,*
- *Dewatering of excavations for tower foundations.*

Response

12. As described in the Technical Report 6: Water Environment, the Consolidated ES contains an assessment of likely impacts arising from the construction and operation of the proposed Tyrone - Cavan Interconnector. The assessment has considered potential adverse impacts on the water environment that may occur during construction including temporary deterioration of water quality from releases of fine sediment. Mitigation measures to avoid, reduce and minimise potential effects are outlined in the Consolidated ES, Chapter 8 – Water Environment, section 8.5 (pages 241 - 247). Measures will include the control of temporary site drainage during construction so as to prevent silt-laden run-off reaching watercourses from the activities described by SEAT above.
13. The extent of mitigation that will be required at each tower location will vary slightly according to the proximity of surface water receptors and the nature of the site (angle of any slope, vegetation cover). All watercourses, irrespective of their size and importance (salmonid rivers), will be treated the same since it is an offence to pollute any controlled waters. The assessment has applied a precautionary principle where site data may be limited and mitigation options have been developed which will enable any potential impact on drains to be addressed. Mitigation measures have been set out to prevent pollution occurring in all locations
14. Runoff from the site will not be allowed to drain directly into any watercourse and will be treated using measures to filter or settle silt. Silt management

(barrier control) measures will be taken to collect and treat drainage from the working areas in order to remove sediments and other contaminants before discharging to surface watercourses. These measures include silt traps, silt fences, filter strips, straw bales and swales as appropriate. The mitigation measures will be positioned within the planning application boundary as close to the working areas as possible. In this way the measures will prevent siltation of the watercourses.

15. Under the terms of the contract, the Contractor will be required to implement the mitigation measures set out in the Consolidated ES. The principal vehicle to do this will be via a Construction Environment Management Plan (CEMP) – an outline of which is enclosed in Consolidated ES Addendum Appendix 9.1 Outline CEMP. This will also require the preparation and implementation of a Silt Management Plan and water quality monitoring, which are both part of the Outline CEMP. The proposed mitigation measures follow recognised good practice for protection of the water environment and include Construction Industry Research and Information Association (CIRIA) and Department of Agriculture Environment and Rural Affairs (DAERA) Pollution Prevention Guidelines. The Contract for the construction of the proposed Tyrone – Cavan Interconnector will require the Contractor to comply with the CEMP. The working areas proposed for the towers and the substation have been adequately sized so as to ensure that pollution control measures can be accommodated within the planning applications boundaries. With these mitigation measures in place, the construction effects are assessed to be minimal.

5.7 Transboundary Water Effects

16. In James McNally's Statement of Case dated 1 November 2016, Page 3, James McNally notes the following:

"The border river which is the boundary between the Republic of Ireland and Northern Ireland runs close to Pylons 106 and 105. This has the potential to be impacted by construction run off from the erection of these towers. Has Soni fully investigated this transboundary impact from an ecological perspective? Has the impact of water pollution in this area been fully investigated and what particular mitigation measures have been proposed for this border river and by whom?"

Who will monitor the transboundary environment during the construction phase, the Developer or the Planning Agency in which state and what authority will they have to regulate on the actual border site?"

Response

17. Our response is the same as that described above in response to the SEAT Statement of Case (see section 1.6 paragraphs 10 and 11 above). In summary, as described in the Technical Report 6: Water Environment, the Consolidated ES contains an assessment of likely impacts arising from the construction and operation of the proposed Tyrone - Cavan Interconnector. The assessment has considered potential adverse impacts on the water environment that may occur during construction including temporary deterioration of water quality from releases of fine sediment. Mitigation measures to avoid, reduce and minimise potential effects are outlined in the Consolidated ES, Chapter 8 – Water Environment, section 8.5 (pages 241 - 247).
18. The extent of mitigation that will be required at each tower location will vary slightly according to the proximity of surface water receptors and the nature of the site (angle of any slope, vegetation cover). All watercourses, irrespective of their size and importance (salmonid rivers), will be treated the same since it is an offence to pollute any controlled waters. Mitigation measures have been set out to prevent pollution occurring in all locations.
19. Runoff from the site will not be allowed to drain directly into any watercourse and would be treated using measures to filter or settle silt. Silt management (barrier control) measures will be made to collect and treat drainage from the working areas in order to remove sediments and other contaminants before discharging to surface watercourses. These measures include silt traps, silt fences, filter strips, straw bales and swales as appropriate. The mitigation measures will be positioned within the planning application boundary as close to the working areas as possible. In this way, the measures will prevent siltation of the watercourses.
20. Under the terms of the contract, the Contractor will be required to implement the mitigation measures set out in the Consolidated ES. The principal vehicle to do this will be via a CEMP. The Contract for the construction of the

proposed Tyrone – Cavan Interconnector will require the Contractor to comply with the CEMP. The working areas proposed for the towers have been adequately sized so as to ensure that pollution control measures can be accommodated within the planning applications boundaries. With these mitigation measures in place, the construction effects are assessed to be minimal.

21. Towers 106 and 105 which are specifically mentioned by Mr McNally lie outside Northern Ireland. As described in the following text which is taken from the Consolidated ES, Chapter 5, section 5.5.5.6 (page 134), para 124:

“The overhead line continues beyond Tower 102 and the Northern Ireland border into the Republic of Ireland. It will be carried on towers to be proposed by EirGrid and to be located in the Republic of Ireland, however, the overhead line passes back into Northern Ireland (described as “oversail”) in the townland of Crossbane, some 1.3km past the first border crossing point at Doohat or Crossreagh and Lemgare. There are no additional towers in Northern Ireland past Tower 102. The line oversail in Northern Ireland in Crossbane is 200m long and will be no less than 9.0m above ground level.”

22. The findings of the Transboundary assessment associated with towers within SONI’s application are reported in the Consolidated ES, Chapter 20 – Transboundary Impacts, sub-section 20.3 Water Environment, page 627, paragraphs 6 and 7 which concludes that there will be no transboundary effects on the surface water environment as a result of the Proposed Development and the relevant paragraph is provided below:

“The tributary of the Clontibret Stream originates south of the border and flows north. No direct effects to this watercourse will occur as a consequence of the Proposed Development. Development of towers 99-102 are in areas where runoff drains to a tributary of this stream. However, all of these sites have been assessed and no adverse effects are predicted, with the implementation of mitigation measures set out in this assessment. Therefore, there will be no transboundary effects on the surface water environment as a result of the Proposed Development.”

23. Statutory consultees in both jurisdictions have been fully informed and have raised not concerns with regard to transboundary water quality effects. Water monitoring will be required to be reported to both sets of statutory consultees. The Department of Agriculture, Environment and Rural Affairs (NI) and the Department of Communications, Climate Action and Environment (Ireland) are required to interface on a range of issues including

the Water Framework Directive. Cross-jurisdiction water catchments are currently being addressed by both departments and other statutory consultees and the proposed Interconnector can also be monitored on a cross-jurisdictional basis.

24. An Outline CEMP has been submitted with both applications in both jurisdictions. This Plan outlines that water quality monitoring will be undertaken by the contractor and can reported to the relevant statutory bodies in both jurisdictions. Independent water quality monitoring may be undertaken by the statutory bodies in addition to the contractor's monitoring.
25. An Bord Pleanála Inspector's Report¹ for the North-South 400kV Interconnection Development was published on 21st December 2016. That report, supported by the Board's Direction, confirmed the planning approval of the proposed Interconnector in Ireland. The Inspector's Report states (Page 617 and 618):

"The proposed development... would not adversely affect the hydrology or hydrogeology of the area...[and]... would not result in significant trans-boundary impacts".

5.8 Conclusions

26. In conclusion, nothing in the objectors' Statements of Case and representations serves to undermine the conclusions set out in the SONI Statement of Case and supporting Technical Reports. As stated in SONI's Main Rebuttal Document, the proposed Tyrone - Cavan Interconnector remains clearly acceptable in planning terms.

¹ <http://www.pleanala.ie/news/VA0017.htm>