VNI West

Surface water

There are over 230 waterways and irrigation channels, and 25 mapped wetlands that are either in close proximity to the Proposed Easement or have the potential to be traversed by the Proposed Easement. The Proposed Easement was designed and sited to avoid waterways and riparian areas to the extent practicable. Three separate river basins are traversed by the Proposed Easement: the Wimmera-Avon Rivers Basin, Avoca River Basin, and the Loddon River Basin. As the Project connects to the NSW component of VNI West on the Victorian side of the Murray River, this crossing is considered part of the NSW scope.

All EES documents, chapters, technical appendices, and attachments are available to view and download on the VNI West website at **vniwproject.com.au/EES**

EES Chapter 14 and *Technical Appendix G* outline the Project's interactions with above-ground water resources, such as rivers, streams, wetlands, and other riparian areas, which form part of the broader water cycle and support ecosystems, water availability, and catchment functions.

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Chapter 14: Surface water ↗

Technical Appendix G: Surface water ↗

Construction activities associated with the Project may occur over or near existing drainage pathways and waterways, with potential for ground disturbance leading to increased erosion, sediment-laden runoff, altered drainage paths, or localised spills from construction plant and equipment.

Potential impacts will be managed through the preparation and implementation of a Surface Water Management Plan (SWMP), covering all construction phases including planning and site preparation. The SWMP would set out legislative requirements, roles and responsibilities, existing environmental conditions, and mitigation to protect downstream receiving environments. With these measures in place, construction phase water quality and flooding impacts are expected to be effectively managed, resulting in low residual impacts.

Flooding impacts during construction are also expected to be low, with potential impacts able to be mitigated through site design, optimisation, and construction management practices.

During operation, potential impacts include changes to stormwater runoff quality and potential alterations to local drainage and flood regimes associated with permanent infrastructure. These impacts would be managed through best practice stormwater design, including maintaining minimum 30 m setbacks from waterways and drainage lines wherever practicable to preserve existing flow paths. With these measures in place, residual operational impacts to water quality and drainage are expected to be low.

The construction of the Tragowel Terminal Station is expected to result in a localised increase in flood depth of approximately 20 mm on the immediately adjacent downstream property during a 1:100-year flood event. This area is already subject to flooding. Proposed Environmental Performance Requirements (EPRs), including storage and conveyance solutions and further optimisation of the terminal station layout during detailed design, will reduce flood impacts; however, a residual impact of low-level afflux to the neighbouring property remains. While the potential afflux has been discussed with the landholder and is considered manageable, the residual flood impact at this location during operation is still assessed as medium.

Overall, the Project has considered potential effects on waterways, floodplains, and wetlands, including interactions between infrastructure and flood behaviour. With the implementation of the SWMP and design-based mitigation, residual impacts associated with water quality and drainage are expected to remain low across all phases, except for localised flooding impacts at the Tragowel Terminal Station, which remain medium.