VNI West

Geology and soils

Construction of the Project would involve site establishment for transmission line towers and terminal stations, access track development, piling and earthworks, and the storage and handling of fuels, chemicals, and other hazardous materials. During operation, similar materials would be used for inspection and maintenance activities.

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 9 and ***Technical Appendix B*** outline the composition, structure and condition of the ground environment in the Project area, assessing potential impacts from contaminated, saline, dispersive, and acid sulphate soils.

READ MORE ↗

Chapter 9: Geology and soils ↗

Technical Appendix B: Geology and soils ↗

The Project is located predominantly within broadacre agricultural land, with generally low potential for existing contamination. Desktop review of relevant databases and aerial imagery identified no Environment Protection Authority (EPA) Priority Sites, environmental audits, or Groundwater Quality Restricted Use Zones (GQRUZ) within the study area, indicating a low likelihood of contaminated land.

Key potential impacts relate to encountering previously unknown contamination, disturbance of saline, dispersive, or acid sulphate soils, interaction with brackish or contaminated groundwater, management of spoil, and potential spills or leaks of hazardous materials. These impacts will be managed through the implementation of a Construction Environmental Management Plan (CEMP), Operational Environmental Management Plan (OEMP) and Decommissioning Environmental Management Plan (DEMP), including controls for fuel and chemical storage, spill response, and erosion and sediment management.

Laydown Area 3, located approximately 400 m south of Kerang Aerodrome and in proximity to a potential contamination source, will be subject to soil characterisation in accordance with the National Environment Protection (Assessment of Site Contamination) Measure 1999. Any identified contamination will be managed in accordance with relevant regulatory requirements.

The assessment identified widespread potential for saline and dispersive soils across the easement, particularly associated with Sodic Red Sodosols in the Gannawarra, Loddon, Buloke, and Northern Grampians Local Government Areas. Acid sulphate soils may also be present in low-lying areas associated with the Murray River, wetlands, billabongs, and alluvial sediments at watercourse crossings. Targeted pre-construction investigations will confirm acid sulphate soils areas, with management measures implemented through an Acid Sulphate Soils Management Plan (ASSMP) where required.

Two Proposed Easement options at Tragowel and Teddywaddy were assessed, with minimal difference in encountering contaminated land due to similar land use and environmental conditions. A closed landfill located approximately 200 m from the western Tragowel option was identified; however, no significant impact is anticipated due to separation distance and the absence of sensitive receptors.

Overall, with implementation of the CEMP, OEMP, DEMP and relevant management plans, together with pre-construction investigations and standard contamination controls, residual impacts associated with contaminated land, saline soils, dispersive soils, and acid sulphate soils are expected to be low across all stages of the Project.