Submission on draft terms of reference

Provaris Energy Ltd- Tiwi H2 Project

This submission is made under regulation 103 of the Environment Protection Regulations 2020

NT EPA reference number: EP 2022/017

Government authority: NT Health, Centre for Disease Control –Medical Entomology Division

Summary: There are no Medical Entomology objections to the proposal. However, due to the likely presence of pest and potential disease carrying mosquitoes, pest biting midges, and other pest arthropods, mitigation measures should be implemented to reduce the impact on workers. Mitigation measures should also be implemented to prevent the creation of new mosquito breeding sites in the project area.

Section of terms of reference	Theme / issue	Comment
Section 2.4.7 Human Health	Table 9. Potential impacts - Biting insects, ticks and mites	• Port Melville is located nearby to tidal mangrove creeks and swamps. Recent mosquito trapping at Port Melville has revealed potential pest and disease carrying mosquitoes are dispersing to Port Melville from these swamps. • The tidal mangrove creeks located nearby to Port Melville are likely to be sources of pest biting midges, particularly the large creek to the south. • Other arthropods (ticks, mites, spiders, and other insects such as stinging ants, wasps, itch caterpillars) of potential pest/medical importance are also likely to be present in the project area. However, mosquitoes and biting midges are generally the most commonly encountered arthropod pests in the NT. • Construction activities have the potential to create new mosquito breeding sites, particularly via the construction of sediment ponds and discharge of stormwater, and inadvertent creation of shallow ponding during site works. Wastewater facilities can also become mosquito breeding sites if not appropriately managed. Mosquito breeding might also occur in rainwater tanks, used/rimless tyres and other containers that can pond water. • International ports can be at risk of exotic mosquitoes arriving on overseas vessels and cargo.
Section 2.4.7 Human Health	Table 9. Avoidance, mitigation and management	• Biting insect management is listed as a dot point in this section of Table 9. Below are some points to consider as part of the biting insect management for this project. • General guidance regarding preventing the creation of mosquito breeding sites can be found in the Medical Entomology Guideline 'Guidelines for Preventing

		Mosquito Breeding Associated with Construction Practice near Tidal Areas in the NT'. • General guidance regarding personal protection measures to prevent/minimise mosquito and biting midge bites can be found in the Medical Entomology handout 'Personal protection from mosquitoes and biting midges in the Northern Territory'. • Mangrove biting midges and salt marsh mosquitoes, which are present in the Port Melville area, can have predictable abundance peaks due to tides or moon phase. Potential population peaks are outlined in the NTG Biting midge and salt marsh mosquito pest calendars. • There may be a requirement for periodic exotic mosquito monitoring to occur at Port Melville. The assessment of risk, and possible monitoring for exotic mosquitoes at the port, would be the responsibility of the Department of Agriculture, Fisheries and Forestry to determine. The monitoring of endemic mosquito species may be requested/carried out at Port Melville and other areas of the development site by NT Health, if a serious case of mosquito borne disease occurs in the area. • Adult biting insects, and other potential pest arthropods, could be controlled around building areas via the use of residual surface insecticides, applied by a pest control specialist. • Larval mosquitoes could be controlled by ground operations in the development area using suitable larvicides containing methoprene or bacillus thuringiensis var. israelensis, although it is best to avoid the creation of water ponding areas. External mosquito breeding sites could also be controlled using these insecticides via helicopter applications, although this would be subject to the approval of traditional owners. Any routine larval mosquito control would be the responsibility of the proponent. There are no insecticides approved for the control of mangrove biting midges in Australia. Therefore, at present, personal protection and the judicious use of residual surface insecticides would be the main mitigation options to utilise against biting midges.
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