

Submission on the significant variation

Castile Resources Pty Ltd– Rover 1 Project

This submission is made under regulation 171 of the Environment Protection Regulations 2020

Government authority: NT Health-Public Health Division-Medical Entomology Branch

Summary: The Middle Arm Peninsular is subject to very high pest biting midge problems, and seasonal mosquito problems. A Biting Insect Management Plan is recommended for the Middle Arm component of the project to protect the health of workers and minimise the potential to create new mosquito breeding sites. There is also a potential for mosquito breeding sites to be created at the mine site, with mitigation strategies provided in the Medical Entomology guideline [Guidelines for preventing mosquito breeding sites associated with mining sites](#).

Section of Referral	Theme or issue	Comment
Variation Report – Section <i>Removal of the downstream processing facility</i>	Downstream processing facility – moving to Middle Arm Peninsular in Darwin Harbour	The Middle Arm Peninsular is known to have very high populations of pest biting midges, originating from the extensive mangrove forests in the area. Areas within 1.5-2km of the mangrove fringe are most impacted. Biting midges can cause irritating bite reactions that can sometimes lead to secondary infection and scarring. Mangrove biting midges are most common during the dry season, however are present all year in areas within about 500m of large mangrove forests. Pest and potential disease carrying mosquitoes are also present in the Middle Arm Peninsular, arising from localised natural and man-made wetlands and waterbodies. A Biting Insect Management Plan should be developed, outlining measures to reduce the impact of biting insects on the workforce. This could include the use of personal insect repellents, protective clothing, residual surface insecticides and minimising outdoor exposure during peak biting times. The Middle Arm facility should also be constructed in a manner that minimises the creation of new mosquito breeding sites. Further information can be found in the Medical Entomology handouts; Personal protection from mosquitoes and biting midges, Guidelines for preventing mosquito breeding sites associated with mining sites, Biting Midge Pest Calendar and Salt Marsh Mosquito Pest Calendar.
Table 2-2. Proposed overview	Potential creation of mosquito breeding sites	There is a potential for the mine site to create new mosquito breeding sites, for example via poorly maintained septic systems, the construction of borrow pits, water ponds, stormwater drains and accumulation of artificial receptacles such as tyres. There is also the potential for the importation of exotic dengue mosquitoes into the NT if mining equipment is sourced from North Queensland. A brief mosquito management plan should be developed for the mine site, outlining relevant measures that will be taken to minimise the creation of mosquito breeding sites. Further guidance can be found in Guidelines for preventing mosquito breeding sites associated with mining sites.