

Human Health and Ecological Risk Assessment: MM Kembla

Summary

In compliance with Voluntary Management Proposal #2 (VMP 2), MM engaged a specialist consultant (EnRisks) to perform a Human Health and Ecological Risk Assessment (HHERA) in respect of the contaminants listed in the EPA Declaration. The HHERA sought to determine if the presence of chlorinated hydrocarbons and light non-aqueous phase liquid (LNAPL) in groundwater beneath the site and offsite areas has the potential to pose a risk to the health of workers, the public or the environment.

The HHERA was based on results of on- and off-site testing. A supplementary data collection programme involving additional groundwater sampling and sampling of pore water and ocean water on MM Beach was also completed. These supplementary data were also considered in the HHERA.

The assessment was conducted in accordance with Australian guidance from enHealth, National Environment Protection Council and the Australian and New Zealand Guidelines for Fresh and marine Water Quality.

The HHERA concluded *“based on the available data, and with consideration of the uncertainties identified, the following is concluded in relation to petroleum hydrocarbons and CHCs:*

- *risks to human health for onsite workers exposed to volatile chemicals present in the subsurface are considered to be low and acceptable*
- *risks to human health for workers involved in intrusive works on the eastern site boundary and offsite are considered to be low and acceptable*
- *risks to human health for recreational use of MM Beach is considered to be low and acceptable*
- *risks to the terrestrial environment of MM Beach are considered to be negligible*
- *risks to the marine environment of MM Beach, should contaminated groundwater migrate to and discharge into the water at the beach are considered to be low and acceptable.*

As risks to human health and the environment are low and acceptable on and off the site, there are no requirements for risk management measures, including the development of risk-based criteria or remediation criteria.

On behalf of MM, Edison Environmental & Engineering Pty Ltd, is in the process of preparing a further Voluntary Management Proposal (VMP #3) based on the results of the HHERA.