

Table 1 Mardie GWMMP for Optimised Design - main improvement recommendations by peer reviewer (section 3, Conclusions).

item	Main recommendation	How addressed in GWMMP
1	Justification to demonstrate that generated data will accurately represent the baseline	Section 4.4 presents the groundwater/surface water monitoring schedule as will be implemented. Data will be collected up to 6 months prior to the operation of the evaporation ponds, providing a baseline and to inform the regional groundwater model.
2	Installing multilevel bores or set of bores with various screen level	<p>Multilevel bores, for the terrestrial bore network, were installed in February 2022 to establish baseline data and to enable continual groundwater quality monitoring throughout the life of the project.</p> <p>Additional bores will be installed, on the west side of the evaporation ponds, as access via the pond walls is feasible.</p> <p>Section 4.2 describes the monitoring bore network for the project.</p>
3	Monitoring bores at the location west side of pond 1 and around Robe River delta	<p>Groundwater monitoring bores were installed targeting the Fortescue River Alluvial Valley due to the transmissivity of the geologic formation. Subsequent bores will be installed west and south of pond 1 within the Rob River Delta Mangrove Management Area (RRDMMA). These bores will monitor the effects of the operations on the RRDMMA, specifically potential impacts to mangrove habitats because of altered surface water flows.</p> <p>The GWMMP is a live document and will be updated as additional bores are installed and groundwater data becomes available.</p> <p>Additional comments have been included in Section 4.2.2 and 4.3.3.</p>
4	Rationalisation for the monitoring well positions and their adequacy	Additional rational in response to the peer review has been provided in Section 4.2.1 and 4.2.2.
5	Plan and potential steps to minimise identified preliminary triggers	Preliminary triggers will be defined as described in Section 6.2. To establish triggers, water levels will be taken, and water quality samples will be acquired from selected bores for laboratory analysis routinely as per Section 4.4.1 (Water Levels and Quality). It is expected that up to 6

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		months' worth of groundwater data will be analysed prior to the evaporation ponds becoming operational. This will provide the baseline to establish suitable triggers.
6	Hydrological regime in the project area to address the gaps of the baseline data	In response to the peer review additional conceptual information has been included in Section 2.2.3. The section defines the potential groundwater systems to be investigated, including the hydrogeological regime beneath the salt flats and at Mardie Pool using transects of nested bores.
7	Establishing an adequate linkage between the investigations and the claimed identification data for the conceptualisation	Groundwater modelling data will be identified as part of the monitoring investigation and from the literature review for the modelling process itself. All uncertainties from the investigation will be included in Section 2.3 in subsequent versions of the GMMP.
8	Deeper discussion of the uncertainties about natural recharge and evaporation estimates and changes	Additional discussions on the uncertainties around natural recharge and evaporation estimates will be included as part of the groundwater modelling investigation (Section 8.1). Such findings will be included in subsequent revisions of the GMMP.
9	Saline water flow influence on regional groundwater flows paths	Interpretation of hydrostratigraphic pressures, gradients, and salinity as they apply to the groundwater flow system and recharge/discharge processes will be presented post groundwater modelling. This has been described in section 8.1.1.
10	Collecting the water quality data for Mardie pool and creeks.	Surface water monitoring data has been described within Section 4.5 surface water monitoring.
11	Review and elaboration on the indirect impacts of the project on BCH, availability of historical data	Additional details have been included in Section 1.4 on how indirect impacts on BCH have been considered.
12	Estimation of the evapotranspiration, quantification of the acceptable level of impact	Estimates of the evapotranspiration and quantification of the acceptable level of impact will be established during the groundwater modelling process. This is explained in Section 8.1.2 - Stage 1 Modelling.

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13	Salt precipitation and dissolution processes in modelling	Interpretation of salt precipitation and dissolution processes is too fine for the proposed regional groundwater modelling. Such investigations will be included as additional research if identified as required.
14	Management and mitigation actions of the potential environmental impacts and risks of long- term environmental changes such as climate change.	Additional detail relating to management and mitigation actions of potential environmental impacts and risk of long-term environmental changes such as climate change have been added to Section 1.3.