

Rio Tinto is spending **\$395 million** on a desalination plant in Western Australia's Pilbara, to shore up water security and supply in the arid region.

The proposed Dampier seawater desalination plant will be located at **Parker Point**, within Rio Tinto's existing iron ore operations in Dampier.

[Rio Tinto](#) Iron Ore chief executive officer Simon Trott said water was a scarce resource, particularly in the Pilbara.

The facilities at Parker Point were built in 1966 not long after the Port of Dampier was established by Rio Tinto-predecessor Hamersley Iron, in 1963.

The plant will initially have capacity of **4 gigalitres per annum**, which could be doubled in the future. The plant will use reverse osmosis to remove salt and impurities from seawater to produce drinking water.

Seawater is pumped in from the Indian Ocean and put through pre-treatment filtration to remove most particles.

The filtered seawater is then forced under pressure through special membranes that remove salt, bacteria, viruses and impurities. The separated waste is then sent back into the ocean through diffusers.

As part of the project Rio Tinto will also build a supply pipeline to connect to the WA water utility Water Corporation's West Pilbara water supply scheme, for distribution to Rio Tinto's communities and operations along the coast.

The proposal development envelope is 57.5 hectares, with most works occurring on previously disturbed land.

Because of that, **WA's Environmental Protection Authority** declared the proposal was not so significant as to warrant assessment. The plan still needs federal government approval.

Trott said that subject to relevant approvals, construction was expected to start in 2024 with the plant expected to be operational and producing water by 2026. At the peak of construction, the project is expected to support about 300 jobs.

"[Rio Tinto](#) has been engaging with all associated Traditional Owners and custodians in relation to the project and would like to thank the Ngarluma people, on whose Traditional lands the plant will be constructed and Murujuga Aboriginal Corporation, who represent the five Traditional Owner groups in the region," Trott said.

Source: mining monthly