

HMAS Waterhen Carpark

Project Director: Chris Pines
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Site Foreman: Rex Gauld
Safety Officer: Peter Lucas



Client: **Royal Australian Navy**
Location: **HMAS Waterhen, NSW**
Project Cost: **\$1,000,000**

In 2007 we completed a challenging project for the Department of Defence to transform a derelict site into a level and paved 5500sqm car park. The project involved the importation and compaction of 12,000 tonnes of crushed sandstone which was overlaid with road base and asphaltic concrete.

The drainage solution for the site involved the formation of a bio-swale at the top of a 32m sheer cliff face followed by placement of 375mm fibre re-enforced concrete (FRC) pipes down the cliff to connect into existing infrastructure at the base.



The original site consisted of exposed sandstone bedrock that had previously been rutted and holed to make way for old footings, pipes and tanks. The site fell over 4 metres from one side to the other with several ledges as shown here. This photo also shows imported material ready for crushing and compaction.



The placement of the 200kg FRC pipes required the use of cranes, scissor lifts and cherry pickers as well as pre-drilling the rock face for the placement of the support brackets using chem-set anchors. The pre-drilling allowed us to place the actual pipes in a single morning which caused minimal disruption to the base personnel.



Nearing completion. The car park has 132 spaces and a large clear area of heavy duty pavement for trucks and container storage. The bio-swale was established using a combination of tube stock and seed and the sub surface drainage flows to the pipes over the cliff face.