



PROJECTS

HYDROLOGY

Groundwater discharge supporting surface water flows at Perth airport

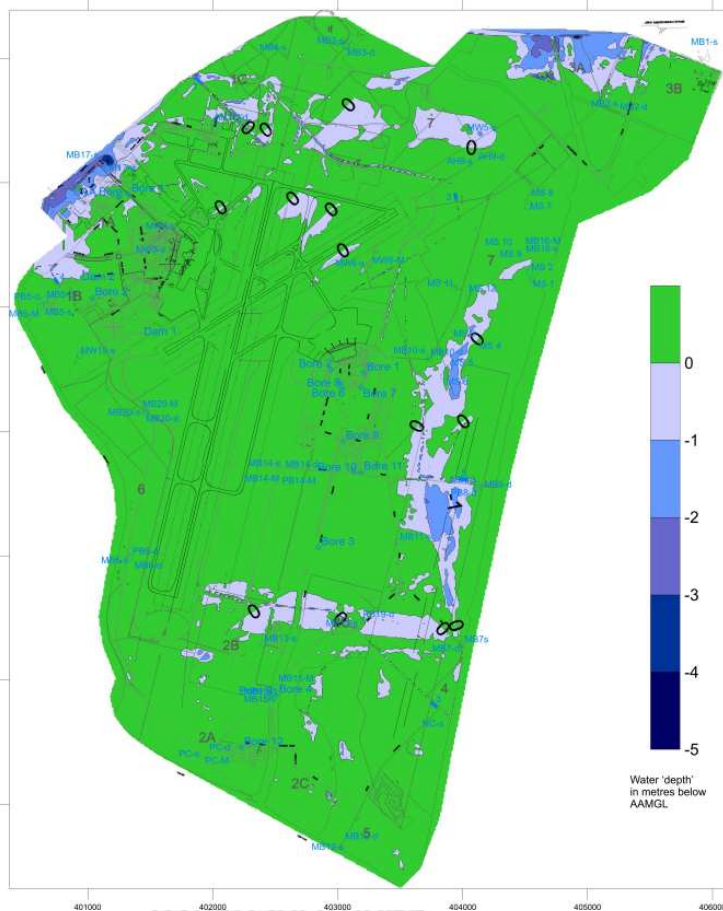
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A sub-regional numerical groundwater model was constructed of Perth airport and its immediate vicinity. The model was calibrated against historical groundwater level data.



The airport is crossed by the artificial Northern and Southern Main Drains, which are the major groundwater levels control structures for the airport, and were incorporated within the model. In addition, natural wetlands are present across the site, including Poison Gully swamp, which has a high ecological and cultural significance. Other man-made surface water features include the 'Living-Stream'.

The numerical model produced an average annual maximum groundwater level (AAMGL) surface for the site. This surface was then combined with a high resolution digital elevation model (DEM), and the surface then 'subtracted' to identify surface water features which are supported by groundwater discharge, and potentially associated groundwater dependent ecosystems (GDEs).



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