

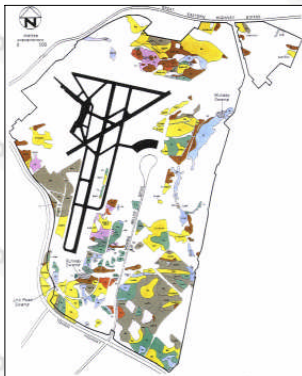


## PROJECTS

### HYDROGEOLOGY

Perth Airport  
Construction of a Subregional Numerical Model:  
Development of an Average Annual Maximum Groundwater Level  
(AAMGL) map

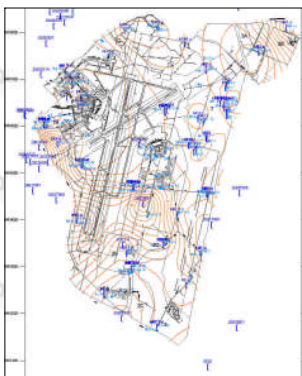
Hydro23



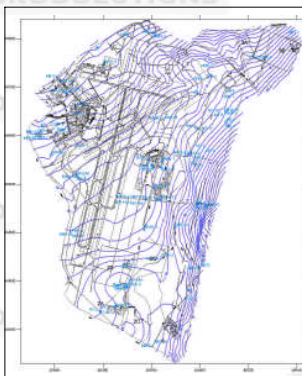
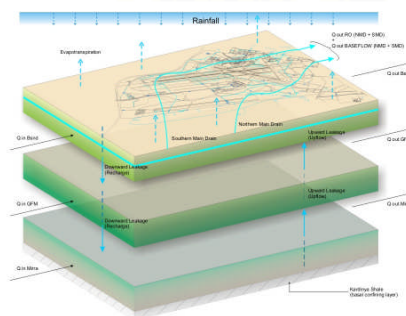
Initial mapping had previously defined wetland associations and typing across the airport.

A detailed hydrogeological investigation was undertaken to provide:

- a network of nested piezometers completed in the three shallow aquifer units across the site.
- Hydrogeological data, including isopachytes, ground levels & hydraulic parameters



A hydrogeological conceptual model was developed as the basis for a numerical model of the aquifer systems.

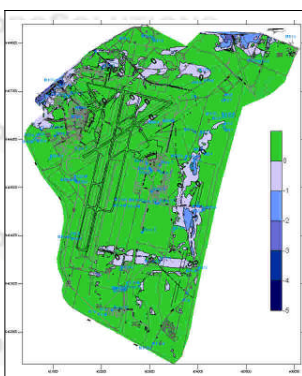


A subregional numerical groundwater model was constructed using MODFLOW to describe the groundwater system to provide:

- a network of nested piezometers completed in the three shallow aquifer units across the site.
- Hydrogeological data, including isopachytes, ground levels & hydraulic parameters

An average annual maximum groundwater levels was developed using:

- the current airport development scenario
- AAMGL levels based on the historical rainfall data



The groundwater supported wetlands were defined based on the AAMGL and a digital elevation model for the site.

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