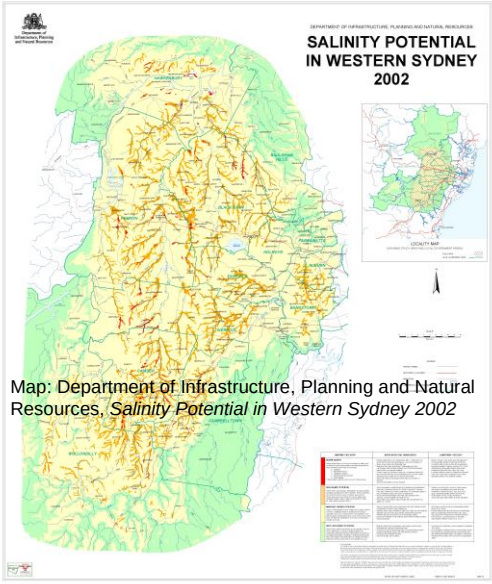
Environment Information
Management of Salinity

Management of salinity is an important issue at Camden Airport. As the area is prone to saline environments it is important that management is undertaken to minimise the risk of salinity



Map: Department of Infrastructure, Planning and Natural Resources, *Salinity Potential in Western Sydney 2002*

Background

Soils containing salts naturally occur in western Sydney due to underlying geological formations. Issues with the natural salinity occur when these salts rise and concentrate at the ground's surface. This is due to changes in the water cycle caused by developments and activities including, but not limited to:

- Vegetation removal and replacement with shallow rooted, high water using plants;
- Concentrated stormwater flows; and
- Leaking underground water pipes.

In 2004 Camden Council identified that much of the Camden Local Government Area (LGA) has evidence of a "mildly" aggressive saline environment.

Why is Salinity Important to Camden Airport?

The *Airports (Environment Protection) Regulations* 1997 (The Regulations) place a general duty on all operators at airports to take all reasonable and practicable measures to promote improving environmental management practices for activities carried out at airport sites. Therefore, Sydney Metro Airports (SMA) has developed these 'Management of Salinity' guidelines to assist operators and contractors to meet this obligation.

Salinity can cause various issues such as:

- *Infrastructure Salt Damage*- this is the deterioration of material and infrastructure (i.e. concrete, metal or brick) caused by the chemical and physical reaction between salt, water and the material.
- *Decline of Vegetation*- concentrations of high salinity can cause the deterioration or death of native plant species.
- *Soil Erosion*- water logging from salinity can alter the soil structure which can cause the formation of gullies over time.

What Has SMA Done? How Can You Help?

Infrastructure

Infrastructure development and approval is overseen by the Airports Building Controller (ABC) through the Federal Department of Infrastructure and Regional Development. SMA has written to the ABC to ensure that all new buildings meet the required guidelines for salinity prone areas.

Vegetation

- SMA has been involved in native bush regeneration projects along the Environmental Protection Zone adjacent to the Hawkesbury Nepean River.
- When vegetation is required for new developments the species planted are assessed and ensured to be native species that can tolerate drought conditions and moderate salinity.
- When planting operators can assist SMA by choosing native species that have minimal water requirements, and can tolerate EC levels of 4000µS/cm.
- Operators are reminded that no vegetation is to be removed without consent from SMA.

2013 Bush Regeneration Project with the Bush Dr and the Local Land Services Branch

Erosion

- Operators can assist SMA by identifying and notifying SMA of erosion on site.

Further Information and Fact Sheet Resources

- Camden Council “Building in a Saline Environment” Policy and Brochure:
- http://www.camden.nsw.gov.au/development/planning-and-building-information/building-in-salinity/
- CSIRO Salinity Fact Sheet
- http://www.watersciencelab.com.au/assets/teacher_ref/SalinityFactsheet_CSIRO.pdfDepartment of the Environment Salinity Facts
- http://www.environment.gov.au/water/quality/publications/factsheet-salinity-and-water-quality

SYDNEY METRO AIRPORTS
BANKSTOWN & CAMDEN

ENVIRONMENT

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