

# Groundwater Assessment and Protection Consulting Services



**EARTH SYSTEMS**  
*Environment - Water - Sustainability*

## CAPABILITIES

Protecting groundwater resources from contamination, and identifying and implementing remediation strategies for polluted aquifers is a foundation of good environmental management. Earth Systems provides specialist expertise in the assessment and management of groundwater-related issues - from identifying and preventing potential groundwater contamination, through to providing 'real world' solutions for aquifer clean-up. Earth Systems can provide specialist groundwater advice in the areas of aqueous geochemistry, water-rock interaction, local and regional groundwater flow systems and groundwater investigation methodology.

## SERVICES PROVIDED

- Hydrogeology and groundwater flow system analysis of aquifer systems.
- Groundwater resource assessment, protection and management.
- Stratigraphic analysis.



- Benchmark groundwater characterisation assessments.
- Groundwater management strategies to meet environmental guidelines.
- Risk assessment and development of risk management strategies for the prevention and management of off-site migration of contaminated groundwater.
- Design, implementation and management of comprehensive groundwater remediation and rehabilitation strategies for contaminated groundwater.

- Develop detailed and fully site-specific groundwater monitoring and/or groundwater sampling programs to meet regulatory environmental requirements.
- Coordinate multi-disciplinary environmental hydrologic projects.

## OUR EXPERIENCE

Earth Systems personnel have recently been involved in:

- Project management, data collection and design of water quality assessments for salinity programs in a variety of environments. Projects include areas of the Murray Basin and Lower Murray Lakes in Southeastern Australia.



- Characterising groundwater contamination and acid-rock drainage issues on coal and metalliferous mine sites. Current projects in Australia identify hydro-geochemical processes and potential contamination pathways in complex geological systems.
- Assessment of groundwater contamination in tailing-rich riverbank deposits downstream of a metalliferous mine in Tasmania, Australia.
- Assessment of potential groundwater contamination at mining sites.
- Design of a geochemical investigation program for a contaminated site in Sydney, Australia. Evaluation of the geochemical data permitted the development of a series of potential groundwater remediation strategies.
- Training of site personnel in groundwater well-installation, monitoring and sampling methods.

[www.earthsystems.com.au](http://www.earthsystems.com.au)

[enviro@earthsystems.com.au](mailto:enviro@earthsystems.com.au)

Tel: (61-3) 9810 7500

**Melbourne, Australia**  
[www.earthsystems.com.au](http://www.earthsystems.com.au)

**Sydney, Australia**  
[www.earthsystems.com.au](http://www.earthsystems.com.au)

**Vientiane, Lao PDR**  
[www.earthsystems.com.lao](http://www.earthsystems.com.lao)

**Shanghai, China**  
[www.earthsystems.com.cn](http://www.earthsystems.com.cn)