

## AGRICULTURE AND EFFLUENT IRRIGATION

- 2003 Hydrogeological Assessment for Wastewater disposal, 'Greengrove' Dubbo.** Hydrogeological review, geophysics, drilling program.
- 2000 Hydrogeological assessment of wastewater treatment and disposal, Violet Town, VIC,** for Piper & Associates.
- 1998 'Greengrove' Effluent Irrigation Study, Dubbo, NSW.** Assessment of groundwater and surface water vulnerability in relation to "Greengrove" and a number of other properties proposed for use for effluent irrigation - for Hassall and Associates and Dubbo City Council.
- 1997 Free-Stall Dairy, Gooloogong, NSW.** Assessment of groundwater impacts of effluent irrigation on Lachlan River terraces, assessment and liner design for effluent treatment ponds, location of groundwater supply borehole for dairy and irrigation.
- 1995 'Bungaribee' Sewage Disposal, Dubbo, NSW.** Investigation of groundwater conditions and assessment of impact of a proposed effluent irrigation operation - including drilling, geophysical logging, electromagnetic and resistivity surveys - for the NSW Public Works Department and Dubbo City Council.
- Investigation of Leakage from Effluent Holding Ponds, Dubbo, NSW.** Resistivity and electromagnetic surveys - for Dubbo City Council.
- Effluent Irrigation, Yarrawonga and Bundalong, Victoria.** Assessment of groundwater conditions and hydrogeological impact of irrigation with sewage effluent, including electromagnetic (EM34) and resistivity surveys - for Piper Associates.
- Effluent Irrigation, Bannockburn, Victoria.** Assessment of groundwater conditions at proposed effluent irrigation site, including electromagnetic survey - for Barwon Water.
- Off-stream Water Storage and Irrigation, Bourke, NSW.** Investigation of groundwater conditions and potential impacts, including an extensive drilling program, electromagnetic (EM34 and EM31) and resistivity surveys, and groundwater flow modelling - for Clyde Agriculture Ltd.
- 1994 Beef Cattle Feedlot, Grenfell, NSW.** Assessment of the impact of a proposed beef cattle feedlot on groundwater resources - for P. D. Mulligan (Holdings) Pty Ltd.
- Minimbah Abattoir, Hunter Valley, NSW.** Assessment of the impact of effluent irrigation from a proposed abattoir on groundwater conditions - for Detike Pty Ltd.
- Parkville Piggery, Hunter Valley, NSW.** Review of impacts of proposed expansion of the Parkville Piggery on the groundwater resources of the Kingdon Ponds alluvial aquifer - for Scone-Parkville Environmental Watch.
- Assessment of Impact of Intensive Piggery Developments on Groundwater, Young, NSW.** Hydrogeological studies for Statutory EIS - for a confidential client.
- Assessment of Impact of Beef Cattle Feedlot Development on Groundwater, Forbes, NSW.** Hydrogeological studies, including field investigation and numerical groundwater modelling for EIS, design of a contaminant plume capture system for EPA and DLWC compliance - for a confidential client.
- Assessment of Impact of Abattoir and Wool Scour Development on Groundwater, Dubbo, NSW.** Hydrogeological studies for Statutory EIS, EPA and DWR compliance, including an extensive drilling program and establishment of a network of monitoring piezometers and lysimeters - for a confidential client.
- 1991 Wastewater Disposal, Hartley Valley, NSW.** Investigation of ground conditions for on-site disposal of wastewater on 47 blocks of a proposed subdivision. Specification of

wastewater treatment system to meet stringent discharge requirements - for John Bowden and Co.

**Wastewater Disposal, Springwood, NSW.** Appraisal of site conditions for disposal of treated effluent from a macrophyte wastewater treatment system at Waratah retirement village, including representation at a successful appeal in the Land and Environment Court - for Frank Hudson.

**Peechelba Feedlot, Wangaratta, VIC.** Assessment of groundwater pollution from waste storage lagoons on a beef cattle feedlot - for ICM Farm Products Pty Ltd.

**Metung Sewerage Scheme, Tambo, VIC.** Review of groundwater aspects of land disposal of sewage effluent on shores of Lake King - for South East Engineering Survey and Services.

**1987 Environmental Study, Wallagoot Lagoon, Bega, NSW.** Study of the impact of subdivision of agricultural land on a coastal lagoon - for Bega Valley Shire Council.

**'Kabinga' Feedlot, Narromine, NSW.** Study to assess the likely impact of a large beef-cattle feedlot on surface and subsurface water resources. Design of a monitoring network - for Killara (Quirindi) Pty Ltd.