Research Round Up

Title of the project: Characterising Chemicals of Concern in Recycled Water
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Funding Body: Premier's Collaborative Research Program (Western Australia)

Collaborating organisations: Water Corporation, WA Department of Health, WA Department of Water, CSIRO Land and Water, National Measurement Institute, Chemistry Centre of WA,

Key issue/s addressed:
- Lack of knowledge of health and environmental risks associated with chemicals of concern (COCs) and their removal by advanced treatment processes are major barriers preventing the implementation of water recycling schemes.

Objectives:
- Develop and validate methods for the analysis of COCs in secondary and tertiary treated wastewater
- To determine concentrations of COCs in treated wastewater.
- To investigate the removal of COCs from wastewater by advanced treatment processes such as micro-filtration (MF) and reverse osmosis (RO).

Planned Outputs/Outcome (by when):
- In collaboration with project partners, determine removal of COCs from wastewater by advanced treatment processes such as micro-filtration (MF) and reverse osmosis (RO). Project end date November 2008.

Methodological approach:
- Develop analytical methods to measure over 200 COCs, including hormones, pharmaceuticals, antibiotics, plus other endocrine disrupting compounds and disinfection by-products to ng L^{-1} level.
- Monitor secondary treated wastewater from Perth's large metropolitan wastewater treatment plants, and tertiary treated wastewater from an existing MF/RO treatment process at the Kwinana Water Reclamation Plant.

Key findings so far:
- Methods for around 200 analytes have been developed and validated for ng/L concentrations.
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Please tick the relevant theme below:

Monitoring/ Analysis X Exposure assessment ☐ Environmental Fate ☐ Effects ☐

Treatment Technology ☐ Risk Assessment ☐ Other ☐