

Karen Pither

Senior Consultant

Profile

Karen has over 10 years experience in water and environmental management. Karen is an experienced project manager, specialising in the development, implementation and audit of management systems, including drinking water, recycled water and environmental management systems, site-based management plans and risk based management plans.

Karen is an Exemplar Global drinking and recycled water lead auditor, with a background in recycled and drinking water regulation with the Queensland Government. Karen is a specialist in water quality risk assessment and exposure assessments for recycled water reuse.

Karen's environmental experience includes the development of environmental management systems, environmental management plans and environmental risk assessment and environmental monitoring.

Project Experience

Guideline Development and Review

Development of guidance materials – WaterSecure, Department of Energy and Water Supply (DEWS), Mount Isa City Council, NSW Health.

Co-authorship of validation protocols, developed under WaterVal; the National Validation Framework, development of draft guidelines for recycled water auditing, annual and public reporting and review of recycled water management plan and validation guidelines for DEWS. Development of a greywater reuse policy and associated assessment procedures for Mount Isa City Council. Development of Annual Reporting templates for NSW Health.

Management Systems

Karen has developed Drinking Water Management Systems (DWMS) and Environmental Management Systems (EMS) and provided support and assistance in the implementation of the management systems in accordance with regulator requirements.

Recycled Water Quality Management Plans (RWQMP) – Sydney Water, Qld Urban Utilities

Audit and Risk Assessment of QUUs recycled water management framework. Full review and update of nine RWQMP's for Sydney Water. The review included system analysis, facilitation of risk workshop included monitoring plans, critical control points and improvement plans and scheme specific training program.

Drinking Water Management System (DWMS) - Singleton Council, Macquarie Generation, Ballina Shire Council, Lismore City Council, Rous Water, Richmond Valley Council and Kyogle Council

Preparation of drinking water management systems (DWMS) for a number of NSW councils. The DWMS included monitoring plans, critical control point procedures, improvement plans and a staff awareness training package.

Drinking Water Management System Implementation – Snowy Valleys Council, Rous Water, Lismore City Council, Kyogle Council, Carrathool Shire Council, Murray River Council, Tumbarumba Shire Council, Queanbeyan-Palerang Regional Council, Nambucca Shire Council, Lachlan Shire Council.

Working with water utilities to implement their DWMS including review of processes, development of standard operating procedures and monitoring plans, staff training and awareness, emergency and incident planning.



Qualifications

- BSc Ecology and Conservation Biology

Certifications

- Exemplar Global – Drinking and Recycled Water QMS Lead Auditor

Memberships

- Australian Water Association
- AWA Recycled Water Committee

Specialisations

- Environmental Licensing and Compliance
- Risk Management
- Environmental Management
- Drinking Water Quality
- Management and Auditing
- Waste and Wastewater Management

Work History

Jul 2012 – Present

Viridis Consultants Pty Ltd
Senior Consultant

Mar 2009 – Jun 2012

(Contractor March 2009-June 2010)

Office of the Water Supply
Regulator
Principal Scientist – Recycled Water Regulation

Mar 2007 – Jun 2010

Cardno (Qld) Pty Ltd

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Environmental Management Systems - Seqwater, Mount Isa Water Board, Jenolan Caves Reserve Trust

Preparation of documentation to facilitate the implementation of Environmental Management Systems in accordance with the requirements of AS/NZS ISO 14001:2004.

Site Based Management Plans - Rivturf, Mount Isa City Council, Carpentaria Shire Council

Development of a site based management plans for the Mount Isa and Camooweal landfills and sewage treatment plants, Rivturf turf farm irrigating with recycled water and the Karumba Sewage Treatment Plant. These plans assess the risks associated with the site based activities and document the procedures for implementing control measures to reduce or eliminate environmental harm.

Biosolids Reuse Trial and Composting Strategy - Lotus Glen Correctional Facility

Development of a plan for the composting of sewage sludge and onsite wastes and the reuse of composted materials as biosolids.

Auditing

Karen is an Exemplar Global Lead Water Quality Auditor. Karen has audited a diverse range of water and environmental systems as an Audit Team Leader or team member.

Drinking Water Management Plan Audit – Coliban Water, GWM Water, Gippsland Water, Qld Urban Utilities, Cairns Regional, Fraser Coast Regional, Bundaberg Regional, Western Downs Regional, Goondiwindi Shire, Croydon Shire, Etheridge Shire, Douglas Shire, Southern Downs Regional and Livingstone Regional Councils, Torres Strait Island Regional Council

Regulatory audits of over fifteen QLD Councils in the past 2 years (2016-2018). Safe Drinking Water Audit of the Coliban Water and GWM Water Drinking Water Risk Management Plan, pre-audit for Gippsland Water. The audits focus on protection of public health, process improvement and ensuring regulatory compliance.

Recycled Water Management Plan Audit – Bundaberg Regional Council, Sydney Water, Qld Urban Utilities, Jupiters Casino, Ballina Shire Council, Port Macquarie Hastings Regional Council

Regulatory and internal audits of the Stonecutter's Ridge, Port Macquarie, Gatton, Lennox Heads, Ballina, Childers, Thebeban and Jupiters Casino Recycled Water Management Plans. The audits focus on managing public health risk, process improvement and regulatory compliance. Internal audit of 19 of Qld Urban Utilities recycled water scheme and overarching framework.

Licence Plan Audit – Hunter Water Corporation, WaterNSW (IPART)

Engaged by IPART to undertake a Licence Plan Audit of the Hunter Water Corporation (2015) and Water NSW (2016) Operating Licences.

Technology Assessment - Barangaroo South Pre-operational Audit (Lend Lease)

Assessment of validation evidence demonstrating achieved log reductions as part of the pre-operational audit for Barangaroo South recycled water scheme under the *Water Industry Competition Act 2006*.

Environmental Scientist

Oct 2006 - Mar 2007

Habitat Environmental Management
Senior Environmental Scientist

Oct 2005 – Oct 2006

Logan City Council
Environmental Management Officer,
Development Assessment

May 2004 – Oct 2005

Cardno (Qld) Pty Ltd
Environmental Scientist

Publications

Ozwater 2015. Technical paper – *Investigation of Risk-based Release Criteria for the Reuse of Abattoir Wastewater with Respect to Q. Fever.* 2015.

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Environmental Evaluation Audit - Teys Australia Biloela

Environmental Evaluation (Audit) in accordance with the provisions of the Environmental Protection Act 1994.

Risk Management

Karen has extensive experience in risk assessment, including the development of case specific methodology to ensure the risk assessment outcomes manage risk appropriately.

Preliminary Hazard Analysis - Ethtech

Analysis of hazards associated with the production and storage of corrosive, flammable and combustible materials, including modelling of impacts.

Drinking water quality risk assessments – DWMS Macquarie Generation, Singleton Council, Jenolan Caves Reserve Trust, Northern Rivers Water Group

Water quality risk assessments to inform the development of risk based DWMS

Recycled water risk assessments – Qld Urban Utilities, Sydney Water, Teys Australia; Logan City Council, DesignFlow

Facilitation of risk assessments for 10 of Sydney Water's recycled water schemes, Risk assessment including QMRA of abattoir wastewater, recycled water reuse risk assessment for Jimboomba Recycled Water Scheme, Stormwater Reuse Risk Assessment Yarrabilba. Assessment of risks associated with the reuse of treated effluent and assessment effectiveness of onsite controls and development of risk management plans.

Catchment management risk assessment – Rocky Creek Dam, Water Futures/Rous Water

Assessment of risks to the drinking water source for the Nightcap water treatment plant and identification of preventive measures.

Facilitation

Karen has facilitated risk assessment workshops for recycled and drinking water, emergency planning and environmental management systems.

Karen has delivered a range of awareness training, including drinking and recycled water awareness training, incident and emergency awareness and risk assessment awareness.