



SECTION 60 APPROVAL | WATER RECYCLING SCHEMES

Application checklist

To apply for Section 60 approval for a water recycling scheme, applicants should submit a **recycled water management plan** outlining how the recycled water will be used and addressing the 12 elements listed in the Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1). As part of the recycled water management plan, utilities should provide the following information.

General information

- A recycled water policy that formalises the utility's commitment to responsible, safe and sustainable use of recycled water.
- The utility's existing trade waste policy.
- A map indicating the site of the treatment process, the site of any recycled water storage facilities and the end-use locations and their surrounding land uses.
- A legally binding user agreement¹ (where relevant) ensuring all supplier and user responsibilities and obligations are identified and signed off (covering such things as monitoring, signage, irrigation management controls and plumbing controls).

The plan should also include the following information.

Sources

- Identification of all wastewater sources including their locations and current use.
- Assessment of source wastewater quality including potential hazards.
- Quantity of wastewater available from each of the sources expressed as a total daily volumetric flow rate and as average and peak demand flow rates.

Treatment process

- Description of the proposed treatment process to deliver the recycled water quantity and quality required.
- Indicative and/or validated log removal values for each treatment unit in the process (refer to the Australian Guidelines for Water Recycling).
- In the case of an existing system being upgraded to produce recycled water, provide:
 - the existing system process, design and performance specifications
 - a proposal for decommissioning any discarded components of the existing system to allow for the proposed system
 - the existing process and environmental monitoring results and assessments
 - historical inflow data where possible, including storm events and periods of water restrictions
 - identification of contingency arrangements for recycled water management or disposal if supply ceases (e.g. due to contamination).

¹ Given that agreements may contain commercial in confidence information, copies of the actual agreements are not required however, where relevant, evidence that an agreement has been made should be provided.

End uses

- Identification of end uses, including locations, areas of application and current supply sources.
- Quantities required for each end use, considering supply variability. Quantities should be expressed as a total daily volumetric flow rate and as average and peak demand flow rates.
- A water balance analysis to determine the surplus/deficit of recycled water available for the end uses.
- A nutrient balance analysis of the water recycling scheme.
- Identification of onsite controls and associated indicative log removal values for each end use control (refer to the Australian Guidelines for Water Recycling).
- Assessment of the potential public exposure to the recycled water and identification of controls to reduce the exposure, including irrigation timing, signage and fencing.
- Assessment of the potential environmental exposure to the recycled water and identification of controls to reduce the exposure, including:
 - identification of the scheme's potential environmental impacts, including quality or quantity guidelines specified for receiving water or groundwater
 - identification of any sensitive environmental factors at the end use locations
 - assessment of harmful nutrient, salinity or sodicity build-up in any resource impacted by recycled water use and how this will be prevented, monitored and/or rectified.
- Acceptable and unacceptable climate conditions for recycled water application at the end-use locations.
- Identification of appropriate recycled water compliance values and monitoring frequencies for the risk levels identified in the risk assessment.

Risk assessment

- A list of the risk assessment workshop participants.
- A process flow diagram and description of the recycled water scheme (from source to end use) identifying the critical control points and monitoring points.
- Indicative log removal values for the scheme, including treatment and onsite controls (refer to the Australian Guidelines for Water Recycling).
- A risk register that identifies hazardous events and the associated:
 - maximum risk level for each event
 - controls, including critical control points
 - residual risk level for each event.

The results of the risk assessment should be used to formulate and inform the risk management components of the scheme.

Risk management

- Monitoring plans, including:
 - operational monitoring of critical control points, including the analytical parameters, critical control limits, monitoring frequency and responsible party
 - operational monitoring of recycled water at the plant and at all end-use locations
 - verification and/or validation for the treatment processes.
- A training and awareness plan for operators and end users.
- Incident and emergency response procedures.

- Summary of the verification and/or validation monitoring results, including:
 - copies of relevant analytical reports from a laboratory accredited for the specified tests by an independent body acceptable to NSW Health, such as the National Association of Testing Authorities or equivalent
 - the assessed log removal capability of the treatment process.
- A communications strategy for the scheme including any community/stakeholder consultation already completed.
- Reporting and internal auditing procedures.

More information

Visit www.water.nsw.gov.au or contact Nanda Altavilla, Recycled Water Assessment Specialist at nanda.altavilla@services.nsw.gov.au or on 02 9372 9231.

© State of New South Wales through the Department of Trade and Investment, Regional Infrastructure and Services 2012. You may copy, distribute and otherwise freely deal with this publication for any purpose, provided that you attribute the NSW Department of Primary Industries as the owner.

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (November 2012). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the Department of Primary Industries or the user's independent adviser.

Published by the Department of Primary Industries, a division of NSW Department of Trade and Investment, Regional Infrastructure and Services.

11647