

Environment Protection Notices (EPNs) currently being issued in relation to Wastewater Treatment Plants (WWTPs) require the responsible person to develop a plan to appropriately manage inflow (typically via direct rainwater ingress) and infiltration (typically via delayed seepage of rainfall, groundwater or seawater) into the sewerage system.

This guideline has been prepared to outline the EPA's expectation for information to be contained in the Inflow and Infiltration (I&I) Management Plan to allow the Director's approval of the Plan.

Background

The development of an I&I management plan should be undertaken in accordance with best practice environmental management principles, as defined in the *Environmental Management and Pollution Control Act 1994*:

“... the best practice environmental management of an activity is the management of the activity to achieve an ongoing minimization of the activity's environmental harm through cost-effective measures assessed against the current international and national standards applicable to the activity.”

To assist in the development of an acceptable plan the person responsible should refer to relevant standards and current best practice guideline documents. Suggested references include the documents below, or any updates thereof:

- 'National Water Quality Management Strategy Guidelines for Sewerage Systems – Sewerage Systems Overflows, November 2004'
- Tasmanian Sewage Pumping Station Environmental Guidelines, October 2019
- Water Services Association of Australia “Management of Wastewater System Infiltration and Inflow – Good Practice Guideline”, WSAA 2011
- National benchmarking assessments, such as the annual National Performance Reports for Urban Water Utilities, published by the Australian Bureau of Meteorology

If the person responsible makes the decision to produce a generic plan to cover several WWTPs, it is important that the generic plan provides a sufficient level of detail for each WWTP to comply with the requirements listed below.

The development of an I&I management plan presents an opportunity to establish a holistic approach to I&I management and focus expenditure on measures which will provide the greatest public health and environmental benefits.

Components of an Inflow and Infiltration Management Plan

When reviewing a submitted I&I management plan, the EPA will consider whether the plan addresses the following factors, or if this is not feasible, provides a path to addressing them within a reasonable time frame:

1. The I&I Management Plan adopts a best practice approach and demonstrates how elements of the relevant standards and guideline documents have been addressed.
2. An evidence-based assessment of current levels of I&I within the sewerage catchment for each WWTP under the plan is provided. Criteria to be considered include indices of rainfall impacted flow rates against dry weather flow rates, historical wet weather overflow rates, the rainfall

intensity linked to sewage overflows or wastewater treatment bypasses and indicators for saline water intrusion.

3. An evidence-based assessment of public health and environmental impacts of I&I within each WWTP catchment is provided. The assessment should consider impacts
 - within the reticulations system and at the WWTP
 - on protected environmental values and sensitive receptors in receiving waters
 - on existing or potential future beneficial reuse of treated effluent.
4. Identification of critical information gaps and a strategy to address identified gaps, including appropriate monitoring of wastewater flow rates and rainfall rates, sewage overflows frequencies and volumes and receiving environment impacts.
5. An assessment of WWTP catchments and sub-catchments for I&I risk, taking into account any impacts on identified sensitive receptors.
6. A schedule for actions to mitigate unacceptable I&I risks. Where the identified mitigation works cannot reasonably be addressed within the review period of the plan, the plan should include a strategy to address mitigation works over multiple years. In this case mitigation actions should be prioritised in order of severity of public health and environmental risks posed.
7. Identification of suitable performance indicators to measure success of I&I risk mitigation actions
8. Where mitigation works are proposed to span multiple years, a review and reporting schedule to monitor progress, including review against commitments and I&I mitigation actions of previous versions of the plan at intervals of not more than 12 months apart.

Note: This document was updated in July 2021 to ensure links, contacts and legislative references were current. Existing content has been reformatted to improve document accessibility. Unless specifically noted, all other content remains unchanged from the date of original publishing.

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