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Department of Planning and Environment

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# Guidance on strategic planning outcome -Understanding environmental impacts

Regulatory and assurance framework for local water utilities

November 2022



# Acknowledgement of Country

The Department of Planning and Environment acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of the land and we show our respect for Elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

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## Acknowledgements

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# 1.Introduction

Local water utilities can best meet the needs of their customers, and manage key risks, when their decisions and activities are based on effective, evidence-based strategic planning.

The NSW Department of Planning and Environment is committed that all local water utilities should have in place effective, evidence-based strategic planning. This will ensure utilities deliver safe, secure, accessible, and affordable water supply and sewerage services to customers. It will also ensure they can manage keys risks now and into the future, and in the event of significant shocks. Local water utilities remain responsible for conducting strategic planning.

The department gives assurance of effective, evidence-based strategic planning. Local water utilities not making dividend payments<sup>1</sup> are encouraged, but not compelled, to use the department's assurance framework, experience and capacity to support effective strategic planning.

Through the department's assurance role under section 3 of the [Regulatory and assurance framework for local water utilities \(PDF, 1613.11 KB\)](#) - Regulatory and Assurance Framework - we establish what outcomes we expect effective, evidence-based strategic planning to achieve (see section 3.2 of the Regulatory and Assurance Framework) and assess if a utility's strategic planning achieves these outcomes to a reasonable standard (see sections 3.3 and 3.4 of the Regulatory and Assurance Framework).

We give separate, optional guidance in the department's guidance [Using the Integrated Planning and Reporting framework for local water utility strategic planning \(PDF, 573.33 KB\)](#) to explain how utilities can achieve the strategic planning outcomes to a reasonable standard using the *Integrated Planning and Reporting Framework* for councils under the *Local Government Act 1993*.

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## 1.1. Purpose of this document

This document supplements the Regulatory and Assurance Framework and gives guidance on achieving the outcome of understanding environmental impacts to a reasonable standard.

This guidance is consistent with the objectives and principles established under the Regulatory and Assurance Framework, including being outcomes focused and risk-based.

This document sets out good practice **for all local water utilities** to apply when doing strategic planning to achieve the outcome of understanding environmental impacts.

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<sup>1</sup> Sections 3 and 4 of the Regulatory and Assurance Framework, are also the Guidelines for council dividend payments for water supply or sewerage services, under section 409(6) of the *Local Government Act 1993*. Before taking a dividend payment from a surplus of the council's water supply and/or sewerage business, a council must have in place effective, evidence-based strategic planning in accordance with section 3 of the Regulatory and Assurance Framework.

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## 1.2. Review of this guidance

As part of our commitment to continuous improvement, we will review the performance of the Regulatory and Assurance Framework within 2 years from finalisation. There will also be periodic reviews of the full suite of relevant regulatory and assurance documents, which will happen at least every 5 years.

We welcome feedback on this guidance and will update it when needed based on feedback or a 'lessons learned' review following our assessment of strategic planning by local water utilities.

## 2. Oversight of local water utility strategic planning

Under section 3 of the [Regulatory and assurance framework for local water utilities \(PDF, 1613.11 KB\)](#), the department establishes what outcomes it expects effective, evidence-based strategic planning to achieve (see section 3.2) and assesses whether a local water utility's strategic planning achieves these outcomes to a reasonable standard (see sections 3.3 and 3.4).

Councils making a dividend payment from a surplus of their water and/or sewerage business must meet the expectations set out in section 3 and section 4 of the Regulatory and Assurance Framework.<sup>2</sup> Local water utilities not making dividend payments are encouraged, but not compelled, to utilise the department's assurance framework, experience and capacity to support effective strategic planning.

For effective, evidence-based strategic planning to occur, the department expects strategic planning to achieve the following outcomes to a reasonable standard:

- Understanding service needs
- Understanding water security
- Understanding water quality
- Understanding environmental impacts (**this guidance**)
- Understanding system capacity, capability and efficiency
- Understanding other key risks and challenges
- Understanding solutions to deliver services
- Understanding resourcing needs
- Understanding revenue sources
- Make and implement sound strategic decisions
- Implement sound pricing and prudent financial management
- Promote integrated water cycle management

A **reasonable standard** is met if the utility considers and addresses an outcome in a way that is:

- **sufficient:** underpinned by evidence-based analysis that supports the conclusions reached
- **appropriate:** underpinned by relevant departmental guidance and industry standard approaches to conduct planning and reach conclusions

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<sup>2</sup> Sections 3 and 4 of the Regulatory and Assurance Framework, are also the Guidelines for council dividend payments for water supply or sewerage services, under section 409(6) of the *Local Government Act 1993*. Before taking a dividend payment from a surplus of the council's water supply and/or sewerage business, a council must have in place effective, evidence-based strategic planning in accordance with section 3 of the Regulatory and Assurance Framework.

- **robust:** underpinned by evidence that draws on appropriate sources and recognises and rebuts potential alternative interpretations.

The assessment considerations the department will apply and how these may be addressed are set out in more detail in the Regulatory and Assurance Framework.

# 3. Guidance on understanding environmental impacts

Under section 3.2 of the Regulatory and Assurance Framework, the department expects utilities to achieve the strategic planning outcome **understanding environmental impacts** to a reasonable standard. This includes considering:

- How will the local water utility address current and future environmental impact risks in its sewerage systems?
- How will the local water utility meet relevant regulatory standards, such as licence requirements set by the environmental regulator?

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## 3.1. Understanding environmental impacts

Achieving this outcome is critical to understanding any current and future environmental impact risks associated with the local water utilities' activities and any measure to manage these risks, especially relating to the management of its sewerage system and any discharges of effluent into the environment. This should inform the development and consideration of any solutions to addressing environmental impacts as part of the utility's strategic planning. The guidance on the outcomes of understanding solutions to deliver services and understanding resourcing needs gives further guidance on the development and evaluation of options.

To inform its strategic planning, a local water utility should have a sound understanding of:

- any impacts on, and risks to, the natural environment (e.g. pollution and/or degradation) and any risks to human health associated with the management of wastewater generated from domestic and associated commercial and industrial premises
- how to address these risks and minimise impacts.

Impacts should be avoided where possible. When that is not possible, the local water utility should conduct an assessment to characterise the risks and consider the potential impact on receiving waters. If the impacts are unacceptable, mitigation measures that prevent or minimise impacts should be implemented.



Local water utilities should be aware of and understand how to meet any:

- requirements of the *Protection of the Environment Operations Act 1997* and associated regulations for scheduled and non-scheduled activities and policies issued under the Act by the appropriate regulatory authority, the NSW Environment Protection Authority (EPA)<sup>3</sup>
- requirements for the protection of the environment set out in any instruments, plans, assessments or consent under the *Environmental Planning and Assessment Act 1979*
- requirements of the *Local Government Act 1993* and associated instruments.

In the following sections we set out **what** the department's expectations are for **understanding environmental impacts** to a reasonable standard.

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## 3.2. How will the local water utility address current and future environmental impact risks in its sewerage systems?

**A local water utility should identify, and understand how to address, any current and future impacts and risks to the natural environment and any risks to human health associated with the management of wastewater generated from domestic, associated commercial and industrial premises.**

This includes managing public health risks associated with poor wastewater management leading to people being exposed to raw sewage, treated effluent and biosolids and getting sick<sup>4</sup>.

To be of reasonable standard, the understanding of current and future impacts and risks and how to address risks and minimise impacts should be based on:

- the *Protection of the Environment Operations Act 1997* and associated regulations and policies issued under the Act by the responsible regulator, the EPA
- Environment Protection Licences issued under the *Protection of the Environment Operations Act 1997*. These licences focus on protecting the environment (including human health) and address air, noise, waste and land contamination issues as well as regulating discharges to waters from premises. Licence conditions relate to pollution prevention and monitoring, and cleaner production through recycling and reuse and the implementation of best practice. Licences can also include Pollution Reduction Programs and are used to achieve improved environmental outcomes in a negotiated timeframe
- the local water utility's environmental management system and the Pollution Incident Response Management Plans (PIRMP) prepared under the *Protection of the Environment Operations Act 1997* for licensed premises

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<sup>3</sup> Under the Protection of the Environment Operations Act and associated regulations, NSW Environmental Protection Authority (EPA) is the appropriate regulatory authority (ARA) for activities carried out by the State or public authority. The NSW EPA is also the ARA for activities listed in Schedule 1 of the Protection of the Environment Operations Act and the premises where they are carried out and any scheduled development works. NSW EPA uses a risk-based, outcomes-focused regulatory and licensing framework to manage environmental risk.

<sup>4</sup> Please note that the understanding of risks to the public from drinking unsafe/contaminated water (which includes contamination with sewage) is covered as a drinking water quality risk under the outcome understanding water quality.

- directions and requirements issued, or to be issued, by relevant regulators, such as by the EPA
- the *Local Government Act 1993* and associated regulations including any policies made under the Act and regulations
- the NSW Framework for the Regulation of Sewerage and Liquid Trade Waste<sup>5</sup>
- the local water utility's liquid trade waste regulation policy, and any approval condition for liquid trade waste accepted for discharge into the local water utility's sewerage systems
- the Australian Guidelines for Water Recycling and the NSW Guidelines for Recycled Water Management Systems
- requirements for the protection of the environment set out in any instruments, plans and policies under the *Environmental Planning and Assessment Act 1979*, such as the State Environmental Planning Policy (Sydney Drinking Water Catchment) including any rules made and guidelines issued under this policy
- conditions of approval issued under the *Environmental Planning and Assessment Act 1979* by the various authorities under their respective Acts and regulations.

This consideration should include:

- current and future sewage loads (as set out in the guidance on understanding service needs)
- the capacity and capability of existing sewage treatment and management facilities (as set out in the guidance on understanding system capacity, capability and efficiency)
- the performance and continued integrity of sewer collection and transfer systems including the extent of groundwater infiltration and stormwater inflows facilities (as set out in the guidance on understanding system capacity, capability and efficiency)
- understanding of values of the environment receiving the effluent and biosolids, including sensitive environmental receptors and their values, relevant geology and climate, including risks from climate change, and long-term environmental sustainability
- impacts from on-site wastewater management systems on private properties, including community-based sewerage systems, approved under the *Local Government Act 1993*<sup>6</sup>
- reliability of facilities, power supply, material supply chain and the end user agreements of by-products
- effectiveness and compliance monitoring of liquid trade water measures and their continued implementation.

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<sup>5</sup> Councils are responsible for approving liquid trade waste discharges to their sewerage systems under section 68 of the *Local Government Act*. However, section 90(1) of the Act and clause 28 of the *Local Government (General) Regulation 2021* require them to obtain concurrence to council approval from the Secretary, Department of Planning and Environment. The department's Water Utilities branch provides concurrence as nominated by the Secretary.

<sup>6</sup> Under s68 of the *Local Government Act*, councils approve and monitor the on-site wastewater management systems on private properties including community-based sewerage systems

## Licensed sewage treatment systems

**Larger sewage treatment facilities** - (equivalent population (EP) > 2500 kL/d or >800kL/d) are a scheduled activity under the *Protection of the Environment Operations Act 1997* and require licensing. Environment Protection Licences (EPLs) for sewage treatment are system licences. This includes the collection and transport system, treatment plant and the effluent application area. Licence conditions and limits provide a useful indication of where environmental impacts occur and where improvements may be sought for the longer term.

**Collection systems** – A high level of reliability and performance is needed from the collection system. This should include consideration of the asset condition, capacity, reliability, number of incidents (e.g. chokes, spills, mechanical failures) and wet weather performance. Greater attention and a higher standard might be needed and/or required in environmentally sensitive areas or areas with high environmental values or where there may be a public health risk for example drinking water catchments or oyster growing areas.

**Sewage treatment plants** – Sewage treatment plant EPLs will typically set limits that protect the environmental values of a waterway receiving a discharge, protect land that might be irrigated and reflect good performance appropriate to the treatment technology. Addressing non-compliance with licence conditions might require strategic consideration. Where a major upgrade is required to address chronic non-compliance, growth or a pollution reduction program a full review of treatment and effluent management options should be undertaken. This should include an assessment of viable effluent management and beneficial reuse options. Consultation with the environmental regulator should be undertaken as a major upgrade is a generational opportunity for improvements in environmental performance.

**Trade waste management** – Trade waste is a significant consideration in environmental performance. Illegal discharges and poor control of trade waste are the most common cause of significant plant and process failure. This can result in odour complaints, significant licence breaches and damage to collection systems, equipment and treatment plants. Residuals from on-site sewage management facilities (e.g. septic tanks) is also an important consideration.

It is noted that local water utilities are required to undertake appropriate regulation of trade waste dischargers including, policy, pricing, inspection and enforcement.

**Biosolids management** – Management of residuals from sewage treatment plants is an important consideration. This can include issues around stabilisation, dewatering, storage, reuse and disposal.

**Effluent reuse** – Beneficial reuse of treated effluent can lessen environmental impact by reducing nutrient loads on receiving waters. The management of any associated health and environmental risks should be considered.

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### 3.3. How will the local water utility meet relevant regulatory standards, such as licence requirements set by the environmental regulator?

**A local water utility should understand and address any regulatory standards and requirements imposed, or likely to be imposed, under any licences required under the *Protection of the Environment Operations Act 1997***

The EPA regulates discharges to water from sewerage systems using conditions it places in the environment protection licences that are issued under the *Protection of the Environment Operations Act 1997*.

The utility should consider guidance issued by the EPA on how it uses environment protection licensing to regulate water pollution.<sup>7</sup> The local water utility should engage as needed with the EPA on strategic considerations related to managing environmental impacts.

When exercising its licensing functions, the EPA is required to consider any of the matters in section 45 of the *Protection of the Environment Operations Act 1997* that are relevant. For example, this is likely to include consideration of:

- the pollution that will be caused and its impact on the environment
- practical measures that can be taken to prevent, control, abate or mitigate the pollution and protect the environment from harm
- the environmental values of water affected by the proposed discharge and the practical measures that can be taken to restore or maintain those values.

It is the responsibility of the local water utility to assess the potential impact of discharges on receiving waters. The level of assessment required will depend on a range of case and site-specific circumstances, including the level of risk to the environmental values of the waterway. The assessment should demonstrate that:

- where the environmental values are currently being achieved in a waterway, they will be protected
- where the environmental values are not currently being achieved in a waterway, the proposed discharge will contribute towards their achievement over time.

If the impacts are unacceptable, practical measures that prevent or minimise impacts on water quality should be implemented. The practical measures will vary according to case and site-specific factors, including:

- the type and scale of activity
- site configuration, size, and topography
- the local climate (particularly rainfall and evaporation characteristics)
- the proximity of the work to receiving waters

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<sup>7</sup> <https://www.epa.nsw.gov.au/your-environment/water/managing-water-pollution-in-nsw/environment-protection-licensing>

- which measures are most cost-effective in each case to meet the environmental obligations.

The utility should consider guidance issued by the EPA on relevant statutory, policy, and technical considerations when conducting a water pollution impact assessment.<sup>8</sup>

General information on licensing is available in the EPA's Guide to Licensing.<sup>9</sup>

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<sup>8</sup> <https://www.epa.nsw.gov.au/your-environment/water/managing-water-pollution-in-nsw/environment-protection-licensing/water-pollution-discharge-assessments>

<sup>9</sup> <https://www.epa.nsw.gov.au/licensing-and-regulation/licensing/environment-protection-licences/guide-to-licensing>