



# Statutory protection for wastewater treatment plants against emerging contaminant claims.

# Why?

It is manifestly unjust to hold wastewater treatment plants responsible where pollutants are outside their control.

Wastewater treatment plants (WWTPs) provide a critical public service.

WWTPs treat wastewater from domestic, industrial, trade waste and landfill sources. The treatment is designed to remove organic carbon, nitrogen, phosphorus, and pathogenic microorganisms. Treated effluent biosolids can be beneficially used, and the treated water can be used as recycled water or discharged to the environment.

**WWTPs are unable to control** much of the wastewater that enters their systems. Emerging and persistent contaminants like PFAS and microplastics contaminate the wastewater and are not destroyed by standard WWTP processes. This means that PFAS may pass into the treated water or biosolid streams.

Currently, the law does not adequately hold those benefiting from the use of emerging and persistent contaminants to account for their pollution. Rather, the heavy burden of management and future liability is placed on end-of-line entity WWTPs.

#### How?

#### Statutory amendments to:

- exclude end of line users, who provide critical public services, from being considered a polluter;
- exempt WWTPs (and their networks) from civil liability for the release of emerging and persistent contaminants such as PFAS, where operational compliance is consistent with the general environmental duty or environmental authority;
- exempt WWTPs from civil liability for biosolids containing trace amounts of emerging and persistent contaminants, including PFAS, where the End of Waste Code is complied with; and
- align the regulated waste thresholds for PFAS with the PFAS National Environmental Management Plan.

#### Provide greater government financial assistance:

- to WWTPs to upgrade their infrastructure; and
- to a person whose property is affected by PFAS or other emerging and persistent contaminants from wastewater infrastructure.

**Conduct more research** on soil and water remediation systems relating to emerging and persistent contaminants, especially PFAS.

Collaborate with the Australian Government to **ban PFAS** in all products and to introduce more effective product stewardship laws.

**Work with the insurance industry** so PFAS contamination is reasonably considered in risk assessments and underwriting processes, where PFAS-related claims are not excluded from policies and premiums remain affordable.



# Harmonise urban water sector definitions.

# Why?

Definitional inconsistencies (particularly the definition of recycled water) exist across a range of statutes and instruments which causes confusion, poor management, poor reporting and reduced recycled water operations.

#### How?

- Statutory amendments to legislation including the Water Supply (Safety & Reliability) Act 2008 to better harmonise Acts and to provide a better delineation of responsibilities.
- Introduce the defined term 'reclaimed water' into the Public Health Act.
- The Water Supply (Safety & Reliability) Act defines 'recycled water' to exclude greywater or stormwater. This needs a full policy review to determine if this is still appropriate. Any changes will require the review and amendment to the jurisdiction of the existing Administering Authorities.
- Review the Environmental Protection Policy Water (EPP Water) to give consideration of wastewater produced from wastewater treatment plants into the existing hierarchy.
- Changes to one or more planning instruments could significantly progress the recycled water opportunity and
  grow demand. Simplify the requirements associated with the relevant planning instruments, for example, the
  development of recycled water pipe infrastructure.
- Local governments are not required to consider or prioritise the development of water sustainability measures.
   Amend the Local Government Act to ensure local government plays an active role in drought resilience, water sustainability and disaster resilience.
- To support service providers in delivering safe and reliable services, the Department of Regional Development, Manufacturing and Water maintains a mandatory performance reporting framework which requires annual reporting on key performance indicators (KPIs). There is a need to define 'recycled water' more clearly in the KPI guide for effective data collection and consideration should be given to add additional KPIs for aspects like stormwater reuse and other wastewater types and recycled water uses.



# Build stronger disaster resilience within urban water infrastructure.

## Why?

Disasters, particularly floods, can cause significant damage to urban water infrastructure resulting in public health issues including:

- · impacts to the drinking water supply; and
- contaminated wastewater spilling into the community.

Utilities can lose power; assets can be damaged; and working conditions can become dangerous.

Costs to repair or upgrade this critical infrastructure are significant and difficult in extreme circumstances.

Managing reverse amenity impacts on water infrastructure is becoming increasingly important because new urban residential growth is being explored by Councils and developers in areas that traditionally excluded sensitive uses e.g. industrial locations.

The larger utilities (Urban Utilities and Unitywater) do not have a referral agency role to consider reverse amenity impacts and currently rely on Councils to address amenity impacts in the development assessment process. Site based change via the development process can be challenging and this means that utility companies may need to be an adverse submitter. This is reactive and has resourcing and cost impacts. Urban encroachment also increases the likelihood of complaints.

#### How?

Prioritise government funding to the urban water sector to ensure facilities are operational during disasters:

- development of flood resilience plans to articulate the risks;
- update emergency response plans;
- retrofit or upgrade, where needed, to ensure barriers around key assets, and ensure electrical equipment and essential systems and equipment are protected from potential flood impacts;
- proactive measures and upgrades to infrastructure to manage climate change impacts; and
- provide funding for purchase and installation of back up power systems to ensure vital water supply systems and water treatment remains operational during power outages.

Promote State and Local Government collaboration. Roads to and from critical water and sewerage infrastructure must be upgraded. **Roads are reconstructed** to withstand extreme flood events. Roads must always remain open to permit access for trucks carrying treatment chemicals and equipment and workers to access plants.

Develop a **Precinct Planning approach to land use change where reverse amenity impacts may impact infrastructure**. Precinct Planning enables a more holistic assessment of reverse amenity and a holistic assessment of the impact of change on the water network. This is particularly important for wastewater treatment which is an essential service. Increased growth generates additional demand, and this demand may require augmentation of infrastructure which has capital cost implications. A Precinct Planning process has the benefit of aligning infrastructure requirements (and upgrades) and land use planning outcomes.



## Better planning to:

- accommodate urban water services as residential populations increase and expand;
- facilitate WWTP upgrades;
- · foster water sustainability; and
- streamline approval processes for recycled water infrastructure and connecting networks.

### Why?

Housing density is exponentially increasing. Current planning decisions do not adequately consider the criticality of the urban water sector in progressing residential developments.

Adverse impacts of residential encroachment upon urban water facilities are not considered in planning or public health Acts. Conflict between the uses occurs where there are insufficient environmental buffers to protect against noise, odour, and chemical hazards.

Water sustainability to shield against drought plays a limited role in the current planning legislation. This leaves Queenslanders vulnerable to the damaging effects of drought. The development process to upgrade infrastructure or to install infrastructure in road reserves for recycled water purposes is difficult to navigate and costly resulting in a lag for resilience works.

#### How?

#### Amendments to:

- planning policy to prioritise the reliability of water supply including the use of recycled water in industrial, public open space and agricultural uses;
- include a water hierarchy in the State Planning Policy;
- the planning framework to:
  - o adequately consider increasing residential population catchments against what service can be provided by the relevant utilities
  - allow some 'as-of-right' internal operational upgrades
  - o provide a more direct way to build connecting infrastructure
  - o ensure environmental buffers are incorporated into residential development;
- Local Government legislation so that:
  - o councils are given an expanded responsibility to sustainably use water in their operations and on open space
  - councils (and noting Transport and Main Roads for State-controlled roads) must give consent, when reasonable, to facilitate recycled water infrastructure along, in or under their roads
  - the obligations and liability of councils when using reclaimed or recycled water on open space is clearly articulated;
- amendment to State Code 21: Hazardous Chemical Facilities to include protections from encroachment and necessary
  amendments to current requirements to facilitate the safe and sustainable use of Chlorine Gas and other chemicals for
  the protection of drinking water and safe treatment of wastewater; and
- immediate exclusion from the 30% fee for local councils seeking major amendments with the Department of Environment, Science and Innovation to their Environmental Authorities (amalgamated or not).

#### Prioritise funding for WWTPs to 'land bank' so there are sufficient areas for vegetation offsets.

Collaborate with the Australian Government about prioritising pre-lodgements or referral decisions under the *Environmental Protection and Biodiversity Conservation Act 1999 (Cth)* to avoid unnecessary delays to the construction of critical public service infrastructure.



# Investment to protect essential services in community.

## Why?

More people than ever depend on critical infrastructure systems that provide essential water, sanitation, power, transport and communication services. When this infrastructure fails, the consequences can be catastrophic. When considering resilience, we need to do so in a holistic (whole of system), collaborative, and inclusive manner.

Water is a key connector and enabler, supporting all other infrastructure, construction, growth, economic, environmental and social endeavors. As well as climate change, we need to consider the needs of our growing communities/populations, environmental needs and further obligations. The sector is looking for meaningful asset, resource and technology solutions to ensure future resilience, reliability, and security (for all of Queensland).

#### How?

- Historical funding programs for the water sector have typically been limited, highly competitive and not been effective in
  managing risk or opportunity. As such we call for the introduction of a Sewerage and Water Infrastructure Development
  Scheme (similar to the Transport Infrastructure Development Scheme). The scheme must be co-designed with the
  sector.
- The Maximum Adopted Charge (MAC) contradicts the National Water Initiative (NWI) principles of full cost recovery for
  urban water services by capping investment by developers into trunk infrastructure. These costs are shifted onto future
  water users/ratepayers and the developer removes profit from the system which, if the NWI principles were to be
  followed, would have been invested in the trunk infrastructure capacity of the water services collection, distribution, and
  treatment assets.
- Since its inception, the MAC has not increased in line with inflation and thus a widening gap between funding and the
  costs of investment has evolved for Councils and Utilities. This is an example of State Government policy priorities
  inhibiting cost recovery for water and sewerage infrastructure. Recent Local Government Association of Queensland
  research indicates that a 22% increase is required to the capped infrastructure charge immediately to catch up the
  charges and cover the current costs being borne by ratepayers. The MAC must then be increased annually at a minimum
  of CPI.
- When Priority Development Area's (PDA) are declared by the State Government, the State collects infrastructure
  charges and does not allow funding of existing trunk infrastructure within the precinct. This means that council and utility
  service providers do not recover budgeted charges for already-installed lead trunk infrastructure and further reduces
  cost recovery. The legislation governing PDA's is in direct conflict with the NWI principles and must be immediately
  amended.
- Trunk Infrastructure Charges There is no head or power for Urban Utilities or Unitywater to obtain infrastructure
  charges in a PDA and there is no agreement in place to share the infrastructure charges received when utilities deliver
  new sub-regional infrastructure that supports a PDA. This provides a great deal of uncertainty and impacts revenue. A
  more equitable arrangement with respect to PDA infrastructure charges distribution is needed to deliver essential water
  infrastructure, support more affordable housing and deliver value for customers.

Provide \$450,000 for a Drinking Water Quality Management Plan (DWQMP) Implementation and Support Program to pilot a minimum of ten councils to support the implementation of risk-based drinking water management systems. The program will be delivered in consultation with the water service provider and Queensland Health and requires the commitment of the pilot WSP (via CEO and/or Mayor) at the commencement of the project. The pilots may include the review and advice on improvement and/or optimise water treatment processes, review of the progress of improvements and actions, development of standard operating procedures and incident management procedures, and the provision of training, mentoring and support for staff against the DWQMP.



# Ensuring financial sustainability of urban water providers.

# Why?

A recent report by the Queensland Audit Office has highlighted that 48 of Queensland's 77 councils are financially unsustainable, dominated by regional and remote councils. The report comments that 'dependency on grants is unavoidable for the sector. This is because some councils, due to their remoteness and low population, cannot generate enough income to cover their costs'.

Chronic underinvestment in asset renewals amongst this cohort has been exacerbated by competitive grants schemes focussed on new infrastructure which necessitate councils having a pipeline of "shovel ready" projects to take advantage of short delivery timelines. Councils without the capacity (technical or financial) to undertake integrated planning activities for their assets are trapped in a cycle of reactive asset maintenance and repair, which increases budgetary pressures and reduces the capacity of council to undertake proactive infrastructure renewal.

#### How?

- Commit to **ongoing funding of the Queensland Water Regional Alliance Program (QWRAP) program** and support for necessary innovations and enhancements such as digital metering.
- Commit to affordable bulk and distribution water prices for SunWater and Seqwater schemes so that WSPs and their
  customers are not negatively impacted.
- Urban Water Prices should be set for all water schemes on a five yearly price path basis.
- Timings for these reviews should be locked into legislation.
- Prior to each five year price path a robust prudency and efficiency review of Sunwater and Seqwater expenditure (OPEX and CAPEX) (by the independent economic regulator) should be completed and tabled in the Queensland Parliament.
- Sunwater's five yearly prudency and efficiency review should be formally reviewed by the Infrastructure Committee of the Queensland Parliament through a public enquiry (noting that Seqwater already has measures in place).
- In delivering this prudency and efficiency review, of Sunwater and Seqwater costs, the economic regulator should convene and fund a consultation group of a minimum of six Local Government Water Service Provider engineers and financial experts to provide technical and policy advice into the regulators work program.
- The five yearly prudency and efficiency review of Sunwater by the economic regulator should be funded by the State Government as a "cost of living" protection measure for water users (urban and rural) across the State.
- Local Government investments in existing dam and other Sunwater infrastructure should be agreed and removed from the pricing calculations and grandfathered into the pricing arrangements for Local Governments across the State. (This should be made transparent and published).
- Commit to dam safety being recognised and regulated in perpetuity as a public benefit with the cost borne by State Government via a CSO for transparency. (This includes dam assets owned by local councils).
- Local Government investments in existing dam and other Sunwater infrastructure should be agreed and removed from the pricing calculations and grandfathered into the pricing arrangements for Local Governments across the State. (This should be made transparent and published).
- Commit to discounted electricity pricing for water and wastewater treatment infrastructure while specific sectoral-tariffs can be developed.

- \$20 million over three years for a bore re-sleeving program for those communities reliant on GAB waters.
- \$25 million per year over four years for a specific sewer relining program.
- \$4 million funding and support for a Queensland-wide standardised system of infrastructure mapping system
  within SWIM. This would include support for developing the mapping tool and for propagation of information
  into the system. (This would include replacement of water networks and other legal requirements and would
  allow the sector to red-flag assets at risk).
- \$11 million over two years for asset condition assessments of all urban infrastructure (this will commence a state-wide baseline data).
- Grant program for the purchase of TECTA (or similar) machines or chlorine meters (for reticulation system), funding up to 75 percent of the purchase costs (using benefits of joint procurement through QWRAP regions).



# Ensure the future of our people and communities.

## Why?

Contextualised workforce development opportunities, tailored to all levels of the workforce are essential to attract new entrants and to facilitate meaningful career progression for those already in the sector. While a training system that is relevant to sector requirements and supports the needs of the new and current workforce is critical, our existing and future workforce must develop new skills to ensure the sector maintains public safety and wellbeing, and is sustainable into the future.

Key observations from workforce surveys indicate that:

- High vacancy rates across the sector, especially for water treatment plant operator positions.
- An aging workforce across many critical roles.
- Vacancies are protracted with 45% of water operator positions being vacant for greater than 13 months.
- 79% of water operators and supervisors have at least a Certificate III in water operations.

Water operators bear huge responsibility for the provision of safe drinking water to community. Infrastructure is not a solution in isolation and infrastructure assets will not operate to full design life without ongoing and professional operations.

#### How?

- Provision of **subsidies for Skills Sets** allowing operators to be qualified for both water and wastewater treatment roles.
- Funding of other Skills Sets for areas identified by the sector to meet competency and safety requirements.
- Support for the **establishment of a VET in Schools (VETiS) program for the urban water sector**, including but not limited to the delivery of the Certificate II (water or wastewater operations).
- Assist the sector to develop a **new training facility** to support the professional development of existing workers and trainers; and to train the future workforce while ensuring that the NWP Certificate III is fee free to all individuals interested in a career in the urban water sector.
- Support the sector to develop a system that will document, evidence and identify current and future training and skills needs for the benefit of individuals, employers and governments. This system responds to sector needs and will also enable Queensland to contribute to National developments in skills strategies and workforce planning.

\$2.3 million to support a Reef-Urban Water Extension Work Placement Program for 19 students (one per Reef Guardian Council) based on the success of the <u>Agricultural Extension Scheme</u>. Graduates will be mentored by experienced sector experts to gain skills and experience to support urban water service providers.



# Supporting the sector to transition.

## Why?

Participation in ecosystem services and green programs, including carbon and water credits and support the development of trading markets to provide the sector with additional revenue streams and build trust and recognition with the communities they serve.

#### How?

- Utilise a whole-of-government approach for the development and implementation of policy on the reuse of water from WWTPs as a sustainable option for water security (recycled water development).
- Facilitate the recharge of non-artesian groundwaters using recycled water this requires regulatory amendment.
- The development of a **water quality credits scheme** specifically developed for the urban water sector (see the St Lucia Declaration). In line with their decarbonisation program much of the sector is interested in achieving Nutrient Net Zero.
- Provide resources to the sector for the development of a decarbonisation plan for the urban water sector (in line with recent Australian Government announcement and future state-based targets).
- Funding support for Local Councils to raise awareness of and undertake land scans to determine carbon and other ecosystem market opportunities.
- Funded, targeted research to investigate catchment improvement programs for beneficial water quality outcomes (including but not limited to the Reef and SEQ catchments).
- Commit \$2 million over four years to support a Biosolids Network Program to manage the risks that
  contaminants of emerging concern present to the urban water sector and its customers and to the
  environment.
- \$30 million (co-funded with the Australian Government) for a Murray Darling Basin Local Government Water Recovery Program to address system water losses in urban water networks across the basin. Under this Program the Commonwealth would provide funding for water efficiency infrastructure projects in Local Governments across the Basin.
  - Eligible projects would need to deliver measurable water savings. Likely projects would include but not be limited to:
    - repair or replacement of end of life reservoirs;
    - investments to reduce evaporation from water storage infrastructure;
    - pressure management projects;
    - establishment of district metering;
    - leak detection projects;
    - smart metering projects.
  - Water savings from these investments would be calculated and shared between the Local Governments and the Commonwealth Environmental Water Holder (CEWH).

