PRODUCTIVITY COMMISSION INQUIRY NATIONAL WATER REFORM

URBAN UTILITIES SUBMISSION

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ENRICHING QUALITY OF LIFE

UrbanUtilities

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Productivity Commission Inquiry into National Water Reform

Urban Utilities welcomes the opportunity to respond to the Productivity Commission's inquiry into the progress of Australia's water sector under the National Water Initiative (NWI).

Urban Utilities is the largest distributor-retailer in Queensland, responsible for providing essential water and sewerage services to more than 1.5 million customers across the local government areas of Brisbane, Ipswich, Lockyer Valley, Scenic Rim and Somerset. Established as a statutory body in 2011 under the *South-East Queensland Water (Distribution and Retail Restructuring) Act 2009* and a service provider under the *Water Supply (Safety and Reliability) Act 2008,* Urban Utilities is owned by our shareholding councils and is a statutory assessment authority for water and wastewater connections.

Our purpose is to enrich quality of life and our vision is to play a valued role in enhancing the liveability of our communities. Our core business relates to the provision of water distribution, sewage conveyance and treatment, however we also have an important role in supporting growth and economic development across the region.

As the custodian of our region's network, Urban Utilities is committed to providing services that are sustainable, affordable and reliable, now and into the future. Our strategic direction takes in many of the focus areas from the first national reform inquiry in 2017 including the existing and emerging challenges of population growth, climate variability and changing community aspirations.

For the current inquiry, COVID-19 presents a unique challenge and demand on all water authorities, with Urban Utilities not immune. We have since March been focussed not only on the response and recovery but the medium to long term impacts on the financial sustainability on our business.

Executive Summary

As identified above, Urban Utilities is well aligned with the Productivity Commissions findings[1] of 2017, and agree that more work is still required under the NWI, including, but not limited to:

- Water reform needs to be an ongoing process to ensure Australia is continually adapting to the changing environments in which we live.
- Maintaining our commitments under the NWI because to allow this to slide impacts the key foundations of water management.
- Addressing the devastating effects that climate change has and will have on our environment. With drought conditions worsening, extreme bushfire events becoming more regular and our population growing year on year, the risk to water security is inevitable.
- Addressing the risks and challenges faced by our communities as the demand for water resources increases. Water scarcity places many pressures on our regional and remote communities but the impact it potentially has on public health and the quality and affordability of water supply should continue to be considerations under the NWI.
- Further enhancements to policies for urban and environmental water management.

[1] National Water reform Issues paper, Australian Government Productivity Commission, https://www.pc.gov.au/inquiries/current/water-reform-2020/issues

- Continuing to consider the role that water plays in delivering liveability and amenity outcomes. The Commission has identified that community expectations in this area are growing and it remains a major challenge for the water sector.

These outcomes and more can only be achieved through a national approach. Urban Utilities strongly supports this approach.

Our submission

Urban Utilities has chosen to respond to the Productivity Commission in two parts:

The first part of this submission provides feedback and recommendations in relation to the current NWI, focussing on the particular challenges of urban water management that would benefit from a national agenda.

The second part of the submission provides responses to two key areas identified by the Commission in the *Issues Paper 2020* that underpins our vision as a business.

PART 1 - THE NEED FOR A NATIONAL VOICE

Whilst it is acknowledged that the management of water resources and urban water supply is primarily the jurisdiction of state and local governments, it is becoming increasingly clear that there are a number of issues that need alignment on a nation-wide scale to ensure the security and affordability of safe, reliable water supplies for future generations.

A future of ongoing adaptation

The water industry has a long history of adapting to meet the changing needs of our communities. In South East Queensland (SEQ) we have more than 100 years of successfully implementing changes to improve public health, reduce environmental effects and secure our water supply in the face of severe climate impacts.

Over the next 20 years, the industry across Australia needs to transform the way we provide water and sewerage services. This next shift is critical to ensuring that we can continue to meet the needs of our communities in the face of the challenges that we can already see coming. The issues paper from the commission identifies the challenge to the reliability of our rainfall-dependent water supplies, but there are others that are particular to future urban water supplies including:

- Population density is increasing, placing additional demand on our networks;
- There is a growing expectation in our communities to protect natural water sources, and help make our cities and towns better places to live;
- Our assets are reaching a critical age milestone which will escalate the cost of renewals;
- Our customers have told us loud and clear that they can't afford to pay more for essential services like water and sewerage.

We're also seeing some positive changes that present opportunities to transform our services including:

- The ways people use water are changing and the amount they use is decreasing;
- Technology is offering some great opportunities to change the way we operate for the better.

A national approach to water security planning and urban water management

The decade since the end of the Millennium Drought has seen significant reform in the water industry and yet critical gaps persist in our approach to water security planning and urban water management.

The constraints in the urban water sector in SEQ reflect those faced nationally including:

- Limitations on the options considered for water supply planning and the discouragement of conversations with our communities on options such as purified recycled water for drinking;
- Regulation at odds with community expectations on matters such as water conservation measures, environmental performance and water-related aspects of urban amenity;
- Disconnect between jurisdictional planning responsibilities that results in lost opportunities to fully integrate the urban water cycle and deliver cost-effective options to improve the amenity and climate resilience of our nature-based community spaces;
- Low levels of water literacy in our communities that drives poor perception of value for water services and impacts the trust that communities have in their water service provider.

1. Our nation needs to talk about recycled water for drinking

As our climate continues to get hotter and drier, many of our communities remain dependent on surface water and rainfall. At odds with this challenge, most jurisdictions are constrained in the conversations they can have with their communities where all options for water security are on the table. Despite a broad consensus that open and transparent engagement with communities is critical to good decision making, conversations about climate-independent options such as purified recycled water for drinking are restricted.

In many cases, these options are discarded early in the planning process without fair evaluation because of a lack of regulatory support, and assumed although untested, risk of poor community acceptance.

A national approach is needed to enable transparent conversations with our communities. Nation-wide insights into community acceptance will help to allow a consistent approach to water security planning that sees all options considered, discussed openly and rigorously assessed.

2. Our communities expect permanent water conservation measures

Despite the widely accepted prediction of more frequent, longer and more severe drought events, drought management in many jurisdictions is still reactionary. The focus of water security planning is on the maintenance of “normal” water usage patterns and using demand management as a reactionary tool as part of our drought response. Regulated levels of service based on targets such as the frequency of water restrictions perpetuate cyclical reductions in demand that are proven time and time again to be economically damaging as water use is abruptly reduced from a “normal” baseline.

A national shift in water security planning is needed to recognise the link between “normal” water usage and the magnitude of the impact of abrupt reductions in water availability. Consistently low demand outside of drought is a viable tool in mitigating the impact of abrupt reductions in water availability. Current planning focusses only on asset-based solutions to defer abrupt availability reductions and perpetuates a cycle of sudden demand reduction mechanisms from a high usage

baseline. This cycle exacerbates the impacts and exaggerates the trade-offs. Consistently low demand smooths the curve so to speak.

Perhaps more importantly, permanent water conservation measures align with the expectations of communities in protecting what they consider to be a precious resource.

In SEQ we currently have little restriction on water use outside of drought and cyclical restrictions as required when supplies are low. This approach is at odds with our community expectations and we see evidence of this through our engagement programs and feedback mechanisms, particularly when drought is prominent in the media.

A nationally consistent approach to permanent water conservation measures is needed to align our industry with the expectations of our communities and build trust in our water service providers as custodians of a scarce resource.

3. We need to rethink our approach to integrated water cycle management

Our water industry is one of the most tightly connected industries in terms of knowledge sharing across Australia and internationally. And yet, despite a plethora of guidelines, discussion and expertise, we continue to be challenged with integrating water cycle management in Australia and struggle to support liveability objectives beyond our core services.

The finger is most often pointed at two underlying factors:

- Customer insights show strong support for greater involvement of water utilities in liveability outcomes, yet invariably demonstrate an unwillingness for customers to see this reflected in an increased price for water and wastewater services;
- Disconnect between jurisdictional planning responsibilities that results in lost opportunities to fully integrate the urban water cycle.

What is missing from this conversation is an acknowledgement of the basic cost drivers for water and sewerage services. We continue to pursue solutions that require duplication of assets for treatment, storage and reticulation, insisting on maintaining the separation of our “water for liveability” and “water for drinking” systems despite a growing number of technological options that will allow us to treat all water sources as equal.

The affordability and liveability challenges that our water industry faces in Australia are inextricably linked to the “all options on the table” conversation. Only when we have navigated this challenge will we be able to fully contemplate the integration of our water cycle, a single water cycle for all purposes.

4. We must achieve generational uplift in water literacy and community engagement

Our national conversation about water is dominated by the natural water cycle and rainfall dependent water sources for drinking and irrigation. Even in our education system, the focus is heavily on climate and rainfall patterns with little connection to the systems and processes required to consistently deliver safe drinking water to our taps.

Many Australian communities take water quality for granted and, whilst this is one of many great privileges our nation enjoys, this leaves people vulnerable to fearmongering when we talk about innovation in our drinking water cycle. The other downside is generally poor perception of the value

placed on water and sewerage services, a factor that erodes trust in water service providers and the quality of services we provide.

We need a nationally consistent conversation with our communities that builds an understanding of the fundamentals of water quality and an appreciation for the safe, secure and reliable water supply our country enjoys. Water literacy is a generational challenge that we need a national voice to ensure that our future communities are connected to water and value the critical services that enrich their quality of life.

PART 2 - RESPONSE TO THE ISSUES PAPER

Information request 10 - Water Quality in our regional areas

The Commission's Issues Paper outlines concerns regarding the availability of "healthy, safe and reliable water supplies" in regional areas especially those affected by drought, and in some remote Indigenous communities. Also highlighted is whether there is adequate planning in place to cope with extreme events such as drought and bush fires.

Urban Utilities provides drinking water services to 1.5 million customers residing within five local government areas across our 14,384km2. Our 12 drinking water supply schemes are the distribution systems within the five local government boundaries Brisbane, Ipswich, Lockyer Valley, Scenic Rim and Somerset with the latter three being regional areas. While these regions have significantly fewer water connections, the customer service standards are consistent, and each region derives benefits from being serviced by an urban water distribution system. The quality of the drinking water in these regional areas has been consistently compliant with Queensland legislation and the Australian Drinking Water Guidelines (ADWG).

Risks in regional and urban schemes

While not considered poor water quality, we have observed that Trihalomethanes (THMs) is still a high risk in some of our regional areas, and the risk increases in some schemes during rainfall events in the associated catchment. Despite this, the risk of a THM ADWG health limit exceedance in chloraminated drinking water is low. The locations in the schemes with the greatest likelihood of a THM exceedance are those that are free chlorinated, have high water age and require additional chlorine dosing to maintain disinfection targets.

Conversely, E. coli detections were more frequent in the urban schemes, not unexpected based on the size of the urban service area and associated sampling regime. Some regional schemes may also experience aesthetic changes due to source water changes by our bulk water supplier, Seqwater. Of interest, is that most catchments regardless of urban or regional do have an increased protozoa and turbidity risk during and after rainfall events.

Benchmarking for fewer than 10,000 connections

Urban Utilities has two regions with connections under 10,000. These are the Scenic Rim with approx. 7,000 connections and Somerset with just over 5,000 connections. The collection of data for these regions is supported by a larger reporting function and mature analytic technology. In these regions, as in all service areas, Urban Utilities considers all laboratory drinking water quality data, operational metrics and drinking water quality complaints. Data specific to these areas may be useful in determining benchmarks for smaller providers.

Partnering with indigenous communities

Urban Utilities would welcome the opportunity to partner with indigenous communities to provide support and guidance for water related matters in their local regions. Following the development of our first Reconciliation Action Plan last year we believe the use of capability and capacity of our business coupled with our innovation program could advance the quality of water and supply in indigenous communities.

Water Quality - a discussion point:

One treatment measure for water age is the flushing of the water mains to bring in fresh water, with the displaced water being distributed into the environment. This can be a source of frustration for the community when they are asked to reduce their consumption particularly during drought.

Therefore, in regional and rural areas where water supply is often under stress during periods of dry weather or drought, how does a drinking water provider cater for demand vs protecting the quality of water supplied to communities?

Information request 11 - Integrated Water Cycle Management

The Commission identified that an integrated approach to the planning and management of urban water services enables the water sector to meet challenges, more efficiently and effectively. However, there are barriers to this approach. Is further guidance on implementing an integrated water cycle management approach for delivering water supply, wastewater and stormwater management services required?

Wastewater treatment assets

There is a growing global trend around leveraging of wastewater treatment assets to play a broader role in circular economy objectives. This includes water recycling, energy recovery from wastewater processing, nutrient recovery from sewage treatment residuals and management of contaminants of emerging concern.

The important role of wastewater treatment facilities is contemplated in the evolving policies of resource recovery, renewable energy and circular economy and are integrated across a region. Integrated water cycle management is therefore broadening to include the associated aspects of wastewater treatment and resource recovery.

From a water utility perspective, leveraging core wastewater treatment functions to build a broader resource recovery capability is challenging. Investments to develop greater resource recovery capabilities at wastewater treatment facilities may result in social and environmental benefits and reduce the cost to provide services, however it may not be the lowest model to provide wastewater services in the traditional sense. There may be benefit from more clearly establishing the roles and expectations of water utilities in circular economy initiatives which will then inform pricing policy and investment decisions.

Water services and land use planning

The Commission has asked to understand how jurisdictional urban water service planning interfaces with urban land-use planning at different scales, and whether the roles and responsibilities are clearly set out?

Water services and land use planning are heavily regulated in Queensland. Even with a rigorous legislative and policy framework, professional partnerships are critical. However, these informal relationships are in some cases the only means to facilitate integrated land use and water cycle management outcomes at present. When those relationships are problematic, as a result of legislative ambiguity, gaps and contradictions, effective community and economic outcomes are at risk.

In Queensland there is a 'two state' approach, those where water management has remained with local governments and those where water utilities have been created to manage water and wastewater but not stormwater. Both models have pros and cons. However, there is an opportunity to consider the role of water utilities in the drafting of relevant policy, legislation and legislative amendments.

Examples of the above include:

- Build over asset requests where applicants are not obligated to lodge plans with requests because it is assumed that development plans are already known by the assessing entity previously a local government but now, in many cases, a water utility.
- Ministerial Infrastructure Designations require notification to land use stakeholders such as local governments and landowners but not the water utilities, despite water utilities being responsible for deciding water connections, disconnections and alterations and providing water supply.
- Local Governments are consulted on land use planning changes to legislation but often not the water utilities providing the essential services because these are determined as land use outcomes rather than integrated planning outcomes.
- Essential water utilities planning is lawfully aligned to local government infrastructure plans but fails to identify the high growth areas that are outside local government jurisdiction but dependent on water utility services and infrastructure. These include Economic Development Areas, ports, airports, university sites etc which the water utility may not be the planning or assessment authority, can recover no costs but water utilities, and their customers are expected to subsidise development in these areas where the quality of the connecting infrastructure cannot be guaranteed, and where land use planning is being undertaken in isolation of essential infrastructure servicing considerations.

<u>The role of water in delivering liveability</u>

The role of water in liveability outcomes is reasonably well understood from the perspective of inherent outcomes of delivering core water and wastewater services. These include public health, environmental protection and sustainable development. It becomes less clear when new liveability outcomes are being targeted and these require additional levels of investment or cross-agency investment.

Customer insights show strong support for greater involvement of water utilities in liveability outcomes, yet invariably demonstrate an unwillingness for customers to see this reflected in an increased price for water and wastewater services. This translates as water services providers being required to reconcile what is most cost efficient to deliver core services with investments that may actually be better for the liveability of the community as a whole but carry an incremental cost. The level of amenity, the roles of other agencies, quantification of value (beyond financial) and the most appropriate investment criteria remain a challenge for water utilities.

Integrated Water Cycle Management: discussion points:

- The merging of the traditionally disparate water, energy and waste industries is driven by a combination of social and environmental drivers, yet the water industry remains steadfastly linked to the traditional principles of lowest cost to serve within the narrow context of water and sewage treatment. Moreover, financial incentives to stimulate industry crossovers, such as grants, remain off-limits to water utilities, preventing the financial barriers being bridged.

    - What reforms to the water sector would help water utilities maintain core water and wastewater services, whilst allowing greater long term social and environmental value to be realised?

- A legislative review of integrated land use and water cycle management outcomes is overdue in Queensland, particularly in identifying and addressing gaps and contradictions, in relation to governance responsibilities and implementation.
- Water Utilities across Australia are quite collegiate and often share information but in our own jurisdictions can be a lone voice when it comes to integrated land use and infrastructure outcomes. However, water utilities are operating often in the same development environment with similar customers, constraints and opportunities as other utilities, for example telecommunications, digital, electricity and gas companies.

    - Urban Utilities would be interested to explore how a more strategic cross utility approach can be taken to strengthen the interests of the utilities sector and add value earlier in the development and planning process since the sector is essential to communities and economies and development cannot proceed without us.