



an initiative of  
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Attention: State Infrastructure Plan  
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### **State Infrastructure Plan draft submission**

The Queensland Water Directorate (*qldwater*) is the central advisory and advocacy body within Queensland's urban water industry. Its members currently include all local government or local government-owned water and sewerage businesses state-wide including all South-East Queensland utilities, the Gladstone Area Water Board along with affiliate and specific program members.

*qldwater* was formed in 2003 by the Institute of Public Works Engineering Australasia (Qld Division Inc.) along with the Local Government Association of Queensland, Australian Water Association and Local Government Managers Australia. We work closely with LGAQ in particular, delivering technical advice and support for its broader policy objectives.

This submission reflects a brief review of the draft State Infrastructure Plan Parts A and B and we fully support the State's attempts to develop a holistic approach to infrastructure investment. Given *qldwater's* technical background however, many of the comments focus on attempting to clarify the intention of the Plan which does not give a particularly balanced representation of water and sewerage. It would be ambitious to deal with these identified issues comprehensively in the SIP and the change of government has made the future of existing sector planning documents (for example "WaterQ" managed by DEWS, and other water priorities managed by DEHP and DNRM) unclear. However, significant work from government and industry went into the development of these materials, and the complete lack of linkage or recognition of the infrastructure issues identified through this work is a significant oversight.

The review period for the SIP did not allow time for *qldwater* to consult with its members in developing these comments. Greater consultation is needed to underpin the broad industry view presented in this response.

### **Scope**

The scope of infrastructure captured by the plan is unclear. Water resources clearly focus on dams, ignoring groundwater. The Great Artesian Basin, an extremely important factor in managing growth in the state, does not rate a mention.

There is an emphasis on large infrastructure projects presumably under the assumption that the small ones will then 'look after themselves.' However, in a dispersed and decentralised state the size of Queensland, water and sewerage infrastructure investment will be spread over numerous small and medium sized projects. For this essential service, the broad-brush approach for the SIP may miss the key costs and potential community opportunities.

If the intention is to focus on high-value infrastructure, sewerage services are poorly reflected in the document. Sewerage infrastructure is one of the most expensive investments for a community, and those costs are largely driven by state regulation. Sewage collection and treatment also attracts one of the highest operating costs for local government.

Up until 2009, defined funding programs existed to support capital costs. Since then, such investment has been supported by ad hoc state and federal programs and the monies local governments used to be able to levy from infrastructure charges has been eroded. It is our understanding that advice has been sought from the environmental regulator (DEHP) in the case of each grant application in recent history, however it is clear that there is not a systematic approach to identifying priority areas for improvement (existing treatment standards) and marrying that with projected growth in a state-wide context. The balance of communities paying for the services they receive vs contributing to future regional growth and thus state economic growth is not managed well and differs significantly depending on location.

While environmental protection is strongly supported, there is an ongoing tension between the environmental regulator and the industry around the most cost-effective way to invest, given that the majority of negative environmental impacts are created by diffuse pollution sources, not sewage treatment plants. DEHP's "market-based mechanism for nutrient trading" is a good attempt to improve this dialogue, however it has a long way to go and greater involvement through DILGP working with industry and DEHP would potentially help drive improvements.

The following specific comments on each document are offered for consideration:

<b>Document</b>	<b>Reference</b>	<b>Comments</b>
Part A P15	<i>For example, water consumption per person is substantially lower in the south east than in Far North Queensland</i>	Consumption in parts of the Far North is only marginally higher in many cases but this is not the real issue. The section talks about "new and different ways to service this demand, which may not always be new infrastructure." It is safe to say that there are many opportunities to reduce demand. This is captured in the "responses" section on P44, but inconspicuously.
Part A P17	<i>Indicative future service demand (graphics)</i>	The estimate for future water demand equivalent to 1.3 large water treatment plants is misleading for regional Queensland. In fact even with improved demand management there will be a need for multiple new treatment plants. The same is true for sewage treatment plants. Queensland has the largest, distributed regional population in Australia meaning that multiple infrastructure investments are needed and all will lack economies of scale. At the very least, this statement could be changed to "10 small treatment plants" to reflect the growth areas presented in Figure 3 and avoid underestimating the infrastructure needs for the regional Qld.
Part A P21	<i>Decentralisation challenges</i>	Building and maintaining infrastructure is only part of the problem of servicing a dispersed population. Governance and regional collaboration needs addressing (e.g. through the Queensland Water Regional Alliance Program – QWRAP) to ensure the right investment decisions are made. Development projects need regional and technical expertise and the pathway for these to the "Building Queensland pipeline" is unclear.
Part A P24	<i>Productivity and Workforce Participation</i>	Regional growth creates challenges for essential services like water and sewerage, which struggle to compete for skills with other industries. There is a debate within the urban water sector and government around increased private investment. The private sector is responsible for most major infrastructure construction already – the key question is whether it should have a greater role in

Document	Reference	Comments
		operating those assets and other services traditionally delivered by local government. The answer is complex – whether supposed private sector efficiencies can offset the long term risks to essential services being provided by a non-government entity and most international examples of full privatisation (with the exception of England, Wales and Chile) have failed. Arguably, the challenges facing regional Queensland in particular are more significant. DEWS is fully engaged in these discussions.
Part A P26	<i>Climate change</i>	There is a significant issue with legacy infrastructure and similar work (to transport) needed to identify risks and future works to improve resilience. Betterment works have been largely in response to natural events in the past, rather than proactive.
Part A P27	<i>Case study – digital disruption</i>	There is a real example of automated metering to improve public services, leak detection in Mackay which could be reflected. A 50% reduction in water consumption from any technology is a grandiose claim. There are plenty of demand management studies which will show that such things are possible in areas of high use – it is not viable in South-East Queensland for example, and there are other demand initiatives which need to be explored in concert. This is not to downplay the opportunities which may exist for technologies which can monitor across a number of different utilities (particularly in new development areas), but the impediments, which include governance barriers, must also be clearly understood.
Part A P31	<i>Finding the right solutions</i>	In the urban water industry too little emphasis has been placed on finding the right solutions for the long-term based on realistic assessment of whole of life capital and operational costs. Even if accurate population projections are used, water infrastructure must be carefully staged to avoid under-utilised assets – a massive (yet unrecorded) cost for the industry each year. More emphasis could be placed on this process and how the pressure to build big and build fast can be overcome in a constantly shifting policy arena.
Part A P32	<i>General</i>	There are a number of needs recorded here, some of which the urban water industry would identify with. To focus on one in particular – “better use of existing assets” – shortages of capital funding have been driving our sector towards this end for some time but it is crucial to also deliver “fit for purpose” solutions. The industry is littered with examples of “gold plating” or infrastructure built for growth that didn’t eventuate. There is a strong case for carefully staged projects and strategic/ regional oversight, e.g. capital advisory boards, and of course the “better preservation” theme captured on P42.
Part A P33	<i>Seeks whole-of-government solutions</i>	This aim is strongly supported and should be appropriately resourced given the difficulty of achieving a whole of government approach. The draft plan misses some key initiatives of Departments dealing with urban water suggesting that it has not been created through a whole-of-government approach.
Part A P35	<i>Queensland Government responsibilities for water</i>	The important role of the State in funding a large proportion of urban water and sewerage infrastructure has been overlooked.
Part A P35	<i>Line of sight between service</i>	Councils are not solely responsible for providing water and sewerage services to households or businesses (the QUU and Unitywater service areas cover ~half of the state’s population and they are not

Document	Reference	Comments
	<i>need and planning/ funding</i>	councils). It would be more appropriate to say local government or local government-owned businesses. The examples are limited – the focus on dams is a particularly narrow view of water security solutions. In addition, this could reference the work DEWS has done to introduce mandatory key performance indicators. Performance of service providers should have a bearing on how any (limited) support funding is treated. What is “catalytic water infrastructure?”
Part A P36	<i>Primary responsibilities for infrastructure provision</i>	The figure is attractive but does not add much value. If it is retained, local government needs to be included in the first category (regional water supply, source, treatment transport). Councils are dam owners (although clearly not the largest), manage groundwater sources for urban consumption, and manage the largest number of water treatment facilities of any government sector (over 300 schemes).
Part A P38	<i>Prioritising Infrastructure</i>	This process is well described at a high level. When detailed analysis is needed it is strongly recommended that the regional water industry is included in identification of infrastructure needs and the prioritisation process as this infrastructure differs significantly from other state assets and is long-lived meaning planning mistakes and impulse-investment are costly for decades.
Part A P38	<i>Solutions which are not capital intensive and draw on as little taxpayer funding as possible</i>	This is extremely important and reinforces our “fit for purpose” message. However, e.g. minimum standards for safe drinking water can not be compromised, and the state must ensure that environmental standards it imposes are not compromised where communities struggle to meet the costs of those standards.
Part A P40	<i>Priorities</i>	Water supply and sanitation underpin all of the stated priorities but are not overtly mentioned. Without appropriate planning for these services, the success of the priority infrastructure will be compromised in some areas.
Part A P43	<i>Project Assessment Framework</i>	A process which supports the assessment of smaller value projects at a regional scale is equally important. LGAQ has successfully managed roads alliances for some time. QWRAP collaborations have formed largely on the back of these groups. A way of incentivising regional scale infrastructure planning, linked to Building Queensland broader scale work, would be very valuable.
Part A P44	<i>Water Responses</i>	<ol style="list-style-type: none"> <li>1. Working with customers and providers should also include demand management and digital disruption.</li> <li>2. It is difficult to imagine many alternative water sources that will not require significant infrastructure investment.</li> </ol>
Part A P46	<i>Measuring our performance</i>	Metrics must also include externalities. For water and sewerage, environmental and community externalities are significant but are difficult to value financially.
Part B P39	<i>Introduction, water section</i>	The purpose of the diagram is unclear. If it is to provide clarity to the public of “Queensland’s Water Supply Network” it is completely ineffective. If it is to include all state responsibilities, it is ineffective, as it ignores groundwater which DNRM regulates and is a major source for the biggest users in agriculture, forestry and fishing. If it is to identify the biggest service providers, it ignores e.g. Queensland Urban Utilities with a \$5B+ asset base and many other

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		<p>entities which dwarf GAWB and MIWB. The total value of water and sewerage assets owned by local governments exceeds \$35Billion. Isolating the 86 drinking water service providers to the bottom left ignores that they can also be dam owners and groundwater users. The diagram notes that they provide drinking water, but there is no mention of sewerage services (which they also provide). In short, "Queensland's Water Supply Network" is very difficult to represent effectively in a page, but in trying to handle part of it, the diagram is confusing and misleading.</p>
Part B P42	<i>Selected projects and map</i>	<p>What are the criteria for listing these projects? Is it that they have received some level of state funding or is it to illustrate scale? If the latter, there are other significant projects underway in these target regions; e.g. Rubyanna Sewage Treatment Plant (Bundaberg) - ~\$90 - \$100M.</p>
Part B P43	<i>Opportunities</i>	<p>Opportunity 2 – In many cases of water scarcity across Queensland the water simply does not exist and cannot be "identified and made available." This opportunity should include a component of planning for water use in areas where supplies are available and dealing with those cases where infrastructure is needed (e.g. mining) but there are no ready sources.</p> <p>Opportunity 4 – could include an element of demand management through automatic metering and other digital disruption technologies.</p> <p>Opportunity 5 – should be an immediate aim. It is difficult to see how community and cultural change project will fall under the scope proposed by the SIP. Perhaps some examples could be provided.</p> <p>Opportunity 6 – Most of the examples listed currently require greater spending on infrastructure (and often OPEX) than existing supplies. Perhaps this opportunity should be about innovation or water conservation rather than optimisation.</p> <p>Opportunity 8 – this is a specific case of Opportunity 6 and is an insignificant source unless water from mining is being envisaged?</p>
Part B P44	Case study	<p>Many other water utilities have participated in and led end use trials. We do not wish to denigrate Seqwater's efforts, but the work is significantly more broad than represented here and Griffith University has partnered with many local government utilities in end use trials. The most comprehensive (multi-million dollar) utility-led automated metering program has been developed and delivered by Mackay Regional Council and it is significantly more advanced than the SEQ trial.</p>

Thank you for the opportunity to provide input into the draft SIP.

Yours sincerely



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