



WATER SERVICES
ASSOCIATION OF AUSTRALIA



HAVE YOUR SAY

DRAFT ACTION PLAN: Transitioning the water industry with the circular economy

December 2020



Have your say

Draft Action Plan: Transitioning the water industry with the circular economy

The Water Services Association of Australia (WSAA) is seeking feedback from our members and stakeholders on our *Draft Action Plan: Transitioning the water industry with the circular economy*.

Following workshops with WSAA members that participated in our *Transitioning the water industry with the circular economy* project, the Institute of Sustainable Futures recommended four strategic directions with specific actions for WSAA. The four strategic directions and actions address current challenges and opportunities for transitioning the Australian and New Zealand water industry to a circular economy:

-  1. **Building circular economy knowledge**
-  2. **Establishing new business models**
-  3. **Measurement of the circular economy**
-  4. **Institutional transitioning.**

We are particularly keen to receive feedback on the four strategic directions and the list of actions. We encourage you to also consider our paper [Transitioning the water industry with the circular economy](#) to inform your response to the Draft Action Plan. The questions outlined below are intended to assist you in responding to the Draft Action Plan:

- Are the four strategic directions appropriate? Are there other ways of grouping the actions or framing our strategic direction that we should consider?
- Are the actions we have identified appropriate? Are there other actions that we should consider?
- What actions would have the biggest impact in transitioning the water industry to a circular economy? What are the 1-2 priority actions that we should focus within each strategic direction?
- What actions should WSAA control and lead, and actions should we play a partner or influencing role?

- What opportunities are there for partnership with other organisations and industries to implement the Action Plan?
- For water utilities: Are you undertaking work that can contribute to the actions identified? Would you be willing to share your work to date?
- For water utilities: Would you be willing to participate and contribute (either funding or in-kind support) to implementing the action plan.

Feedback on the Draft Action Plan: Transitioning the water industry with the circular economy can be emailed to info@wsaa.asn.au by **Monday 15 February 2021**.

We expect to consider the feedback provided and finalise our 2021 Action Plan: Transitioning the water industry with the circular economy in March 2021.

Draft Action Plan:

Following workshops with WSAA members that participated in our *Transitioning the water industry with the circular economy* project, the Institute of Sustainable Futures recommended four strategic directions with specific actions for WSAA. The four strategic directions and actions address current challenges and opportunities for transitioning the Australian and New Zealand water industry to a circular economy:

1. Building circular economy knowledge
2. Establishing new business models
3. Measurement of the circular economy
4. Institutional transitioning.

The first strategic direction is about **building circular economy knowledge** and sharing it across sectors, different levels of governance and with the communities. Associated actions include advocacy of the benefits of new circular economy products spreading from local solutions to regional and to cross sectoral, and the development of the policies enabling the transition. Workshop participants were seeking assistance from WSAA to map and define circular economy for water, align the definition with SDGs and with other industry and for the community. Participants identified that WSAA could educate the industry by compiling case studies that demonstrate best practice, successes and failures, established partnerships and share the findings through webinars and development of a knowledge database (reference) for water utilities. In addition, WSAA was identified as being well placed to take a facilitator role through collaborative workshops on strategies, new technologies and planning, and providing a collaboration platform for industries, local governments and multi-utility projects.

The second strategic direction is about **establishing new business models** that merge industries for water, energy, waste and agriculture, and are location specific. The focus should also be on other potential new products and the utilisation of the by-products, addressing contaminants, identifying new markets and sharing assets. WSAA's role has been identified in assisting with the development of templates or guidance for the new business models, quality control analysis and branding for the new products as well as assisting in the establishing new markets, including establishing shadow carbon market. The industry would also benefit from gaining knowledge of the possible end markets and associated risk assessments.

The third strategic direction is about the **measurement of the circular economy** and the collection of the supporting data. These include developing a framework to measure circular economy that can be consistently applied across the industry and tools to measure circular economy, review of the existing tools and to develop or adopt them for the water sector. WSAA could also take a role in the collection and sharing of the relevant data and develop circular economy benchmarking and standards.

The fourth identified strategic direction focuses on **institutional transitioning**, such as circular economy governance, pricing structure including circular economy principles, available funding, regulations and policy, and research and innovation. Actions that WSAA can take are in advocating for the modification of policies and regulations to enable circular economy, and to be an information point about the changing policy and regulation for the circular economy. Workshop participants identified that WSAA could assist water utilities in the understanding and development of investment strategies, as well as to identify available grants for circular economy projects and map them with the proposed research and innovation projects – and even possibly conduct/co-ordinate feasibility studies.

WSAA has already initiated some actions in line with those identified in the workshops, especially with building a knowledge database by collating a range of case studies (successes and failures) and publishing the document on the transition process to circular economy for the water utilities. This can be further developed to a data and knowledge sharing platform, coupled with providing topic focused webinars.

The proposed actions were prioritised by the workshop participants based on their relative importance, but they have not been prioritised based on their likely timing for implementation. While many of them are medium term, priority actions will be nominated by the WSAA members as this draft Action Plan is further refined by WSAA. For example, WSAA members might decide that having a uniform definition and mapping of circular economy for water is a fundamental starting point. Alternatively, development of frameworks for the circular economy, together with measurement frameworks and tools that are uniform across industry, might be considered by members as a useful place to start. Actions such as establishing collaboration in research and innovation, planning and the development of partnerships and networks might be chosen as initial steps that actions, such as education and advocacy could be built on.

Strategic direction 1: Knowledge building



Identify the circular economy opportunities and enable knowledge sharing of the circular economy approach for water utility staff, between sectors, different levels of governance and with the communities.

- Define circular economy for water and align it with SDGs, align terminology across the sector, and redefine waste as a resource;
- Prepare an illustrative map (diagram) of circular economy for water (e.g. recycled water, organics, etc.), also provide typical end markets;
- Organise webinars and compile case studies showcasing best practice, success, failure and partnerships;
- Facilitate workshops for water industry to develop strategies for each state and for uptake of new technologies;
- Develop a knowledge database (reference) for water utilities, with illustrative case studies for new and existing assets;
- Advocate for all options on the table, such as the benefits of recycled water and biosolids, for regional and cross industry planning, and for policy development for use of diverse water sources;
- Support collaboration and explore a collaborative platform for industries along the whole supply chain, collaboration with local governments for local solutions and multi-utility projects.



Strategic direction 2: New business models



Transition to new business models merging industries for water, energy, waste and agriculture, identify local solutions, new products from by-products and contaminants and markets, and new business models for sharing assets between industries.

- Develop a template (guidance) for circular economy for water utilities based on existing circular economy models;
- Provide potential end market opportunity information;
- Demonstrate that new markets are safe through illustrative case studies and examples of end markets and their associated risks;
- Position and support the water industry as a resource recovery sector (enterprises) through rebranding and marketing;
- Support the establishment of markets and branding for new products and opportunities, such as biogas to grid or recycling of recovered glass;
- Support quality analysis and quality control for the new products;
- Explore the mechanisms to drive viable energy efficiency initiatives and green energy generation.



Strategic direction 3: Measurement of circular economy



Collection and accessibility to data and development of circular economy measurement metrics that can be applied across the whole sector.

- Develop a framework to measure circular economy at various scales that can be consistently applied across the industry;
- Review existing tools to measure circular economy and develop or adopt tools to measure circular economy in water industry;
- Develop transparent and open data sources to support circular economy decisions;
- Co-develop circular economy benchmarking and targets for the water industry;
- Review, collate and co-develop standards for circular economy transition (e.g. recycled material, resources, technology) and to collaborate with other industries;



Strategic direction 4: Institutional transitioning



Transition to circular economy governance, with a funding and pricing structure fit for circular economy, supported with collaborative research and innovation and adaptation of regulations and policy for circular economy.

- Identify policies and regulations that are not fit for circular economy, and advocate to amend specifications and regulations to use by-products, manufacturer responsibility for contaminants, adapting for circular economy approach;
- Inform the water sector on changes to relevant circular economy related regulations and policy;
- Assist with the understanding and development of investment strategies – who pays for what when?
- Collate available grants and map grants against proposed research and innovation projects;

