

4.1 Broad community benefits from water-related services – To stimulate beneficial outcomes for the public beyond those attained through water-related essential services.

Rating Scale	Guiding questions	Suggested data collection sources
<p>1. No, or virtually no, benefits for the community are delivered through water-related services (beyond benefits associated with essential services).</p> <p>2. Few benefits for the community are delivered through water-related services (beyond benefits associated with essential services), those identified remain difficult to quantify and are generally not included as part of a business case.</p> <p>3. Minor benefits for the community are delivered through water-related services (beyond benefits associated with essential services) and most identified are described but remain difficult to quantify and incorporate into business cases. There is active planning and intent to deliver these benefits.</p> <p>4. Some benefits for the community are delivered through water-related services (beyond benefits associated with essential services) and some can be quantified and are considered in a business case. There is active planning and intent to deliver these benefits.</p> <p>5. Many benefits for the community are delivered through water-related services (beyond benefits associated with essential services) and are readily quantified and are consistently incorporated into a business case. There is active planning and intent to deliver these benefits and the practices are mainstreamed.</p>	<p>What other sectors (e.g. Health, Transport, Energy, etc.) benefits from water related activities (beyond essential services which include supply, sanitation and drainage)?</p> <p>What efforts have been made at quantification?</p> <p>Do business cases for water system investments include quantification of benefits to other sectors such as health or energy?</p> <p>What examples are there of novel water infrastructure that have saved money with respect to augmenting conventional infrastructure?</p>	<p>Water authorities and Government reports, strategic plans</p> <p>Business cases that take into account externalities</p>

4.2 Low GHG emission in water sector – To reduce the levels of GHG emissions and maximise the use of alternatives to high carbon emitting energy sources to supply water infrastructure.

Rating Scale	Guiding questions	Suggested data collection sources
<p>1. High levels of GHG emissions (high energy usage from high carbon emitting sources) in the water sector relative to international and national standards, targets or averages (e.g. > 300 net tonnes of CO₂ equivalents per 1,000 connected properties). Alternative energy sources are not considered.</p> <p>2. Fairly high levels of GHG emissions (high energy usage from high carbon emitting sources) in the water sector relative to international and national standards, targets or averages (e.g. 200-300 net tonnes of CO₂ equivalents per 1,000 connected properties). Alternative energy sources are considered but rarely used.</p> <p>3. Fair levels of GHG emissions (using alternatives to high carbon emitting energy sources) in the water sector relative to international and national standards, targets or averages (e.g. 100-200 net tonnes of CO₂ equivalents per 1,000 connected properties). Alternative energy sources typically supply some new infrastructure.</p> <p>4. Low levels of GHG emissions (using alternatives to high carbon emitting energy sources) in the water sector relative to international and national standards, targets or averages (e.g. < 100 net tonnes of CO₂ equivalents per 1,000 connected properties). Alternative energy sources typically supply new infrastructure and demonstration projects used to provide proof-of-concept for novel ideas and innovation in technology.</p> <p>5. Very low levels of GHG emissions (using alternatives to high carbon emitting energy sources) in the water sector relative to international and national standards, targets or averages (e.g. Zero net tonnes of CO₂ equivalents per 1,000 connected properties). Alternative energy sources are common across all new infrastructure, and progressive upgrade of existing infrastructure occurs.</p>	<p>Water system design</p> <p>What is the source of energy used to supply major infrastructure within the water sector?</p> <p>What are the levels of emissions compared to the international and national standards, targets and averages?</p>	<p>Reporting by water authorities on GHG emissions</p> <p>Council energy targets and KPI reporting on energy use (from a water perspective)</p>

4.3 Low end-user potable water demand – To support the valuing of water as a scarce resource.

Rating Scale	Guiding questions	Suggested data collection sources
<p>1. High end-user potable water demand relative to the local scarcity or abundance of water. No consideration given to water efficient practices across residential, industrial and commercial sectors. Demands (total residential, industrial and commercial) on drinking water supplies are greater than 350 litres/person/day.</p> <p>2. Fairly high end-user potable water demand relative to the local scarcity or abundance of water. Little consideration given to water efficient practices across residential, industrial and commercial sectors. Demands (total residential, industrial and commercial) on drinking water supplies are between 300 litres/person/day and 350 litres/person/day.</p> <p>3. Fair end-user potable water demand relative to the local scarcity or abundance of water. Some water efficient practices (water efficient fittings, fixtures and appliances) across residential, industrial and commercial sectors. Demands (total residential, industrial and commercial) on drinking water supplies are between 250 litres/person/day and 300 litres/person/day.</p> <p>4. Low end-user potable water demand relative to the local scarcity or abundance of water. Reasonably consistent water efficient practices (water efficient fittings, fixtures and appliances) across residential, industrial and commercial sectors. Water efficiency programs targeting households and business are widespread and effective. Demands (total residential, industrial and commercial) on drinking water supplies are between 200 litres/person/day and 250 litres/person/day.</p> <p>5. Very low end-user potable water demand relative to the local scarcity or abundance of water. Very consistent water efficient practices (water efficient fittings, fixtures and appliances) across residential, industrial and commercial sectors. Water efficiency programs targeting households and business are widespread and effective. Water efficient behaviours are embedded in community and business. Demands (total residential, industrial and commercial) on drinking water supplies are less than 200 litres/person/day.</p>	<p>Water system planning What is the potable water demand?</p> <p>What is the population?</p> <p>What regulation and/or policy exist for water efficient practices?</p> <p>What regulation and/or policies exist for alternate water supplies for non-potable demands?</p> <p>What research data exists about the attitudes and behaviours related to water use?</p> <p>Is water considered a valuable and scarce resource?</p> <p>Do people build water efficient houses and gardens?</p>	<p>Total annual potable water supply for, and population of the, geographic region being benchmarked.</p>

4.4 Water-related economic and commercial opportunities – To stimulate investment in new business opportunities through innovation in the water sector.

Rating Scale	Guiding questions	Suggested data collection sources
<p>1. Water management creates no, or virtually no business opportunities.</p> <p>2. Some business opportunity is created by water system services but is largely incidental to business as usual.</p> <p>3. A noticeable amount of business opportunity is created by water system services. While it is mostly driven by the need to improve efficiency and service standards for business as usual activities, there is some exploration of ways to enhance commercial opportunities for water businesses and their commercial partners.</p> <p>4. A noticeable amount of business opportunity is created by water system services and there is significant investment and collaboration between government and business to enhance commercial opportunities.</p> <p>5. A significant amount of business opportunity is created by water system services and the city is recognized as a leading source of innovation and advanced service provision to other cities.</p>	<p>Revenue, funding & investment What sort of business opportunities are there? E.g. opportunities for green infrastructure entrepreneurs, technology providers, peri-urban agriculture, employment or profits from resource recovery.</p> <p>What businesses have been established to provide water related green infrastructure, technologies and services? E.g. consulting, tech providers, maintenance, contractors, professionals</p> <p>What is the scale and number of these businesses, the size of the workforce and the money made?</p>	<p>Expenditure on opportunities for green infrastructure entrepreneurs, technology providers, peri-urban agriculture, employment or profits from resource recovery</p> <p>Business directories, Chamber of Commerce, etc. for listed companies, business type and their financial reporting</p>

4.5 Maximised resource recovery – To maximise resource recovery through innovative water system design.

Rating Scale	Guiding questions	Suggested data collection sources
<p>1. No resource recovery occurs. All recoverable resources are wasted.</p> <p>2. Low levels of resource recovery. Resource recovery is considered but remains incidental and limited to specific recoverable resources, such as recycled water.</p> <p>3. Fair levels of recovery of one or two recoverable resources, usually wastewater recycling or biogas, occurs.</p> <p>4. Fairly high levels of resource recovery of a number of recoverable resources occurs. New infrastructure and demonstration projects used to provide proof-of-concept for novel ideas and innovation in technology.</p> <p>5. High levels of resource recovery across most recoverable resources. Practices are common across all new infrastructure, and progressive upgrade of existing infrastructure occurs.</p>	<p>Water system design</p> <p>What resources can (potentially) be recovered?</p> <p>How much is recovered and at which facilities?</p>	<p>Websites of water authorities, statutory bodies</p> <p>Water authorities annual reports</p> <p>Operational documentation to know what and how much is being recovered</p>