

Work stream	Commitment	Commenced?	2025–2030	2030 onwards
Operational	<b>We will complete the Watercare reuse advanced water treatment pilot for both non-potable and potable reuse</b>	<p>Māngere non-potable recycled water plant supplied about 9 MLD of construction grade water to the Central Interceptor project. We will be continue to use the water on-site at the Māngere WWTP from mid-2025.</p> <p>Construction of the purified recycled water pilot plant is complete. Some minor works and further testing is needed before piloting can commence.</p>	The purified recycled water pilot plant will be fully operational in FY25. Piloting will be completed during 2025-2030.	Piloting will be completed by 2030. Data gathered during piloting will be used by Watercare to evaluate purified recycled water as a future water source option. Data gathered will also guide the planning and design of a future full scale purified recycled water treatment plant and scheme, if we proceed with this source option.
	<b>Water quality data collected, including data on contaminants of emerging concern (CECs)</b>	Some initial monitoring has been carried out (although this monitoring has been limited), while minor works and testing is being completed on the plant.	Comprehensive water quality testing and monitoring will be carried out during piloting. Data gathered will be used to demonstrate the reliability of the advanced treatment technology to consistently produce water that meets or exceeds drinking water standards. Data gathered will also be used by Watercare to evaluate the risk of CECs and the potential environmental effects of CECs in brine/by-product disposal.	Piloting will be completed by 2030.
	<b>Plant maintenance and operational costs understood</b>	Not started.	An understanding of plant maintenance and operational costs will be developed during piloting.	<p>Piloting will be completed by 2030.</p> <p>Watercare will continue to keep abreast of innovations in advanced water technologies.</p>
	<b>Lab testing ability and costs estimated</b>	Watercare has a reasonable understanding of current laboratory testing capability, but an understanding of testing capability in relation to future monitoring requirements for advanced water treatment needs to be futher developed.	<p>Piloting data will inform full scale operational monitoring and testing requirements to demonstrate process integrity and risk management.</p> <p>The cost of laboratory sampling will form part of the overall estimate of future operational costs.</p>	Watercare will work with the laboratory to broaden lab testing capability if required, based on future monitoring requirements/needs.
	<b>Environmental impacts of brine disposal understood and options assessed</b>	<p>Not started</p> <p>Watercare has a general understanding of the potential options for brine disposal.</p>	Data gathered during piloting will help develop our understanding of the potential environmental impacts of brine/by-product disposal.	If progressed as a future source, additional feasibility studies and assessments may be needed to identify potential/preferred options for brine/by-product disposal. The design of a future full scale scheme will need to mitigate environmental impacts. Resource consents will be required.

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Regulation	<b>Taumata Arowai - confirming drinking water quality standards and recognition of reuse as a drinking water source</b>	Initiated conversations with Taumata Arowai. This is in order to discuss amending the Water Services Act, to include wastewater and sea water as drinking water sources.	Watercare will progress discussions with Taumata Arowai on the development of a regulatory framework/ guidelines to enable/ support implementation of purified recycled water.	Watercare will need to work closely with Taumata Arowai during planning, implementation, and operation of a full scale purified recycled water treatment scheme.
	<b>Ministry of Health - to ensure health impacts are known, understood, and not negative</b>	We have had high level conversations with the Medical Officer of Health	Watercare will commence more targeted engagement on this topic with the Ministry of Health/ Medical Officer of Health during this period.	Watercare will continue to engage with the Ministry of Health/ Medical Officer of Health, who will lead the discussions around the health impacts of purified recycled water.
	<b>Ministry for the Environment - for the discharge of residuals</b>	Not started.	Watercare will engage with the Ministry for the Environment to discuss opportunities to streamline the approvals process for recycled water discharges.	
	<b>Auckland Council - for consenting</b>	Watercare and Auckland Council will continue to collaborate on delivery of the Auckland Water Strategy (which includes targets for recycled water use).	Engage with Auckland Council on the obstacles to more widespread implementation of recycled water projects/ purified recycled water.	Watercare will seek the necessary resource consents from Auckland Council for the future full scale purified recycled water scheme. This will include consents for recycled water discharges to the environment.

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Community engagement	<b>Pilot projects</b>	<p>Construction of the purified recycled water pilot plant is complete, and it is envisaged that piloting will commence within FY25. Tours of the pilot plant have been completed for some of our stakeholders.</p> <p>Watercare has investigated the feasibility of several non-potable recycled water pilot projects, to support community engagement on recycled water.</p>	<p>Community tours of the purified recycled water pilot plant will be available later in this period, once the bulk of the piloting activities have been completed.</p> <p>Other piloting projects may progress depending on feasibility and availability of funding.</p>	Ongoing engagement with pilot plant and any upcoming pilot projects
	<b>Education - on the safety and quality of recycled water</b>	Webpage dedicated to providing information about alternative water sources. Water literacy work is underway, understanding connection between knowledge and acceptance of alternative sources of water. Engagement on alternative water sources has been undertaken as part of our broader engagement on future water and wastewater servicing.	<p>Ongoing communications and engagement.</p> <p>Tours of pilot plant will be offered to help educate our communities on treatment technologies used to produce purified recycled water. Watercare will also explore and pursue other opportunities to educate and engage with our communities. More engagement will follow, once we better understand regulatory requirements and MoH standards to educate and gain wider acceptance.</p>	Ongoing communications and engagement. Tours of pilot plant will be offered to help educate our communities on treatment technologies used to produce purified recycled water. Watercare will also explore and pursue other opportunities to educate and engage with our communities.
	<b>Monitoring acceptance</b>	Started August 2023, ongoing. 65% acceptance (non-drinking), 42% acceptance (consume). (Australian acceptance of PRW in 2023 is 39% - consume).	Ongoing.	Ongoing.
	<b>Mana whenua - to support the citizens’ assembly recommendations ensuring that we embed tikanga in the process.</b>	Not started.	Starting as part of wider mana whenua engagement for Watercare’s metropolitan servicing strategy.	Ongoing partnership with mana whenua to support beneficial environmental outcomes.

<b>Auckland Water Strategy (AWS) Targets</b>	<b>Note: already ahead of 2030 target in recycled water use onsite.</b>	<b>By 2030, 20MLD non-dam rainwater and recycled water capacity for beneficial use (AWS).</b>	<b>By 2050, 100MLD non-dam rainwater and recycled water capacity for beneficial use (AWS).</b>
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