



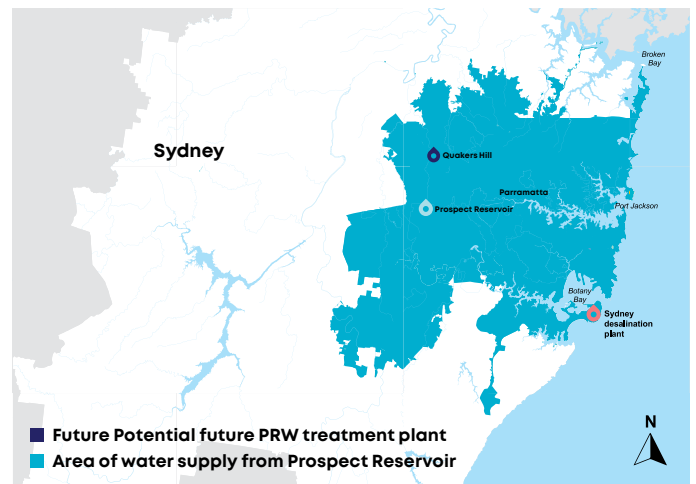
Securing our water supply

Quakers Hill to Prospect

Greater Sydney relies heavily on rainfall for its water supply, with approximately 85 per cent sourced from rainfall and the remaining 15 per cent from desalination. To strengthen resilience against drought and the impacts of climate change, it is important to diversify water sources and reduce reliance on rainfall. Expanding rainfall-independent options will help support population growth, housing development, and ensure a secure water future. Combined with our existing assets, purified recycled water (PRW) could offer a sustainable solution to help safeguard Sydney's water needs for generations to come.

What is purified recycled water?

PRW is water recycled from industry and homes (including from kitchens, showers and toilets) that has been purified to meet strict Australian Guidelines for Water Recycling to supplement drinking water sources (such as rivers and dams). While this would be a new initiative for Greater Sydney, it is not new technology – over 35 cities worldwide already incorporate PRW into their drinking water supply.



Project overview

Sydney Water is exploring the possibility of introducing a PRW scheme at the Quakers Hill Water Resource Recovery Facility. The scheme will allow us to use water that would otherwise be sent out to the ocean. Instead of wasting this water, we can treat it to the highest standards using ultrafiltration, reverse osmosis, ultraviolet light disinfection with advanced oxidation and finally chlorine contact disinfection. Water leaving the PRW Treatment Plant would mix with water from Warragamba Dam and other Sydney dams at Prospect Reservoir before being treated again at the Prospect Water Filtration Plant. This triple treated water would provide high quality drinking water to meet growing demand for the future.

The project involves:

- a new Purified Recycled Water Treatment Plant
- a new pipeline to transfer PRW from Quakers Hill to Prospect Reservoir
- infrastructure to mix PRW with raw water at Prospect Reservoir.

Project benefits



- 1 A cost-effective, climate resilient water source



- 2 Reduced reliance on ocean outfalls



- 3 Produces high quality water using proven technology which is already implemented around the world in over 35 cities



- 4 Reduced likelihood of severe water restrictions

PRW treatment process

This triple-treated approach ensures the water will be safe and clean for drinking.



Homes, business and industry

Water is used in kitchens, showers, toilets and washing.



Water Resource Recovery Facility

Wastewater collected from homes and businesses is treated to a high standard before it is reused for non-drinking purposes – like watering parks or industrial use.



Purification

At the Purified Recycled Water Plant, the water is treated:

- Ultrafiltration – removes microorganisms and large particles
- Reverse Osmosis – removes viruses and most chemicals
- UV+ Advanced Oxidation – eliminates remaining chemicals
- Chlorination – ensures both the water and pipes remain free from any microorganisms
- The water is purified to meet strict Australian Guidelines for Water Recycling.



Blending the water sources

PRW is blended with raw water in dams and reservoirs.



Water Filtration

At a Water Filtration Plant, the water is:

- Filtered and chlorinated
- Required to meet strict Australian Drinking Water Guidelines.

Distribution

The water is now ready for us to enjoy! Throughout the process, sensors and systems monitor water quality from plant to pipe to your tap.



Who will receive PRW?

Subject to necessary approvals, PRW could be added to Prospect Reservoir where it would blend with raw dam water. This blended water would be treated again at the Prospect Water Filtration Plant, which supplies drinking water to 80 per cent of Greater Sydney.

Have your say

There are a range of ways you can get involved, using the QR Code below.

- Tour at our PRW Discovery Centre
- Request a presentation or briefing
- Join us at events in person, or online
- Subscribe for e-updates
- Contact the project team via phone or email

We're hosting a series of pop-up events across Sydney and continuing to engage with local communities and stakeholders. We're committed to keeping you informed and will regularly share updates and community feedback through our project page.



Planning approvals

Any decision to include PRW in our water supply involves government approvals, community consultation as well as ongoing compliance with water supply regulations. All water in our network must meet the Australian Drinking Water Guidelines and is continuously monitored.

Contact us

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Interpreter Service 13 14 50

Arabic • Chinese • Greek • Italian • Korean • Vietnamese

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如果您需要傳譯員的協助，請致電以上的號碼。

Αν χρειάζεστε διερμηνέα, τηλεφωνήστε στον παραπάνω αριθμό.

Se vi serve un interprete, telefonate al numero indicato sopra.

통역사가 필요하시면 위의 번호로 전화하십시오.

Nếu quý vị cần thông dịch viên, hãy gọi đến số trên đây.