Quakers Hill Water Resource Recovery Facility Advanced Treatment Upgrade

Review of Environmental Factors (REF) Overview

Purpose of this brochure

This document looks at the possible environmental impacts of the proposed upgrade to the Quakers Hill Water Resource Recovery Facility. It summarises the project's Review of Environmental Factors (REF) which is required by law before work can begin.

What is an REF?

An **REF**, or **Review of Environmental Factors**, is a document that explains how a proposed project might affect the environment and what will be done to reduce or manage those impacts.

What does this mean for you?

When a project is happening near your area, the REF helps you understand:

- What's being planned, why and where.
- What the potential environmental impacts are (e.g. noise, water quality, habitat loss)
- How those impacts will be avoided, reduced, or managed.
- What steps are being taken to protect the environment and your wellbeing, including consultation with the community or other stakeholders.

Project overview

Quakers Hill Water Resource Recovery Facility (WRRF) Advanced Treatment Upgrade Project

To support future population and economic growth, Sydney Water is upgrading a key wastewater facility in Sydney's North-West. The Quakers Hill Water Resource Recovery Facility (WRRF) is expected to reach capacity by 2028, and this expansion will increase its ability to serve a growing community and ensure it meets updated environmental standards and regulations.

What we are planning

- Preparing the Quakers Hill WRRF site before the main upgrade begins — like removing old equipment and reshaping the ground to lay a strong foundation for the new facility.
- Upgrades to the Quakers Hill WRRF will increase its capacity to better support the growing community and ensure its operations meet revised environmental standards and regulations.
- Building a new wastewater facility (Advanced Water Treatment Plant) that will include advanced technologies — ultrafiltration and reverse osmosis – which uses super-fine filters and special membranes to treat wastewater to a very high standard.
- Construction of a new brine pipeline that will connect to an existing wastewater system called the Northern Suburbs Ocean Outfall Sewer (NSOOS) in Seven Hills. This pipeline will transport brine (salty water) to deep ocean outfalls where it can be diluted naturally and safely.

Here's how we'll minimise construction impacts for the community and the environment

The REF report identifies environmental impacts, their significance and how we will minimise them. Most impacts will be short term and related to construction. We are committed to working with communities and stakeholders throughout detailed design and construction and encourage everyone to provide feedback on how we can minimise the impacts of this project on them.

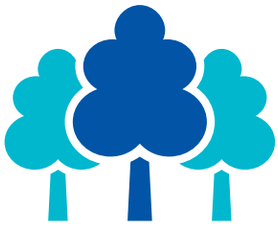
Sydney Water explored environmental impacts during the planning stage of this project. The design of the project was changed to help avoid or reduce any negative impacts on the environment. These changes included:

Building new infrastructure on land that's already been developed helps protect the environment by using areas that have already been disturbed.

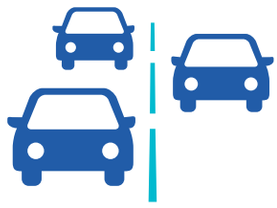
Using leftover materials already on site to fill holes, level the ground and build up areas during construction—this minimises the need to bring in new materials and helps cut truck traffic and pollution.

The pipeline route through Harvey Park has been carefully planned to avoid important vegetation near the shared path south of the park.

Using the existing discharge location – which releases the highly treated water into Breakfast Creek - means we don't need to build new infrastructure within the waterway. This helps protect the environment by avoiding the removal and damage to plants and natural habitats.



Installing the pipeline along one side of the road means we don't have to close the whole road. This helps keep traffic moving and reduces disruptions during construction along Dunstable Street, Mort Street, Sackville Street, Sarsfield Street, Cardiff Street, Boyd Street and Winifred Crescent in the Blacktown area.



When we need to temporarily lay out the pipe to pull it through the underground tunnel (a process called 'pipe stringing') we'll do this under Breakfast Road and Venn Avenue. This reduces traffic disruptions and keeps roads open.

Engagement to date

We have already undertaken a range of community and stakeholder activities since early 2024. The feedback gathered through these conversations has informed and shaped our concept design.

Quakers Hill Water Resource Recovery Facility – Advanced Treatment Upgrade community and stakeholder engagement activities

July 2024 → **August 2025**

* Information below is part of broader project engagement of the resilient and reliable water supply project.

43 local community members attended a Community Open Day at the PRW Discovery Centre in Quakers Hill in January 2025 to showcase plans for building a more resilient and reliable network.

24 properties surrounding Billy Goat Hill Reserve in Blacktown were doorknocked in March 2025 to gather feedback on the proposed barometric loop's construction and location. Many residents expressed support for incorporating an artwork into the structure.

259 properties around Lynwood Park (July 2025) and Marayong (August 2025) were approached for feedback on the proposed HDD (Horizontal Directional Drilling) launch pit and pipe stringing. We spoke directly with 73 residents about the potential construction impacts.

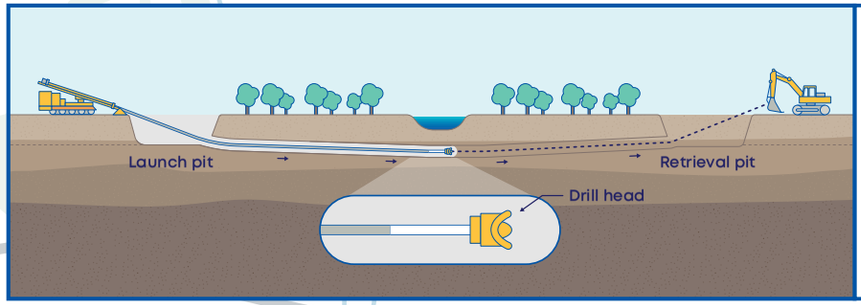
27 project feedback sessions and project briefings with key government agencies and stakeholders.

217 enquiries received via email, phone and SMS.

3,600 visits to the Sydney Water project page.

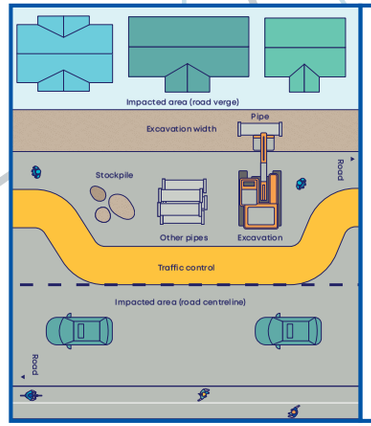
36,700 households and businesses near the project area in October 2024 and 42,350 in March 2025 received newsletters that provided project updates and contact details for the project.

197 conversations were had at a range of community pop-up events in the Blacktown LGA - including at NAIDOC week celebrations and the Flavours of Blacktown event - where we spoke with community members who asked insightful questions and shared valuable feedback about the project.



Trenchless construction

We will use a method called horizontal directional drilling (HDD) to install the pipeline underground between Marayong Park and Lynwood Park area. This avoids disturbing busy areas like the railway, nearby businesses, roads, and private properties. The pipeline will be at least 9 metres underground which helps reduce noise and vibration during construction.



Open trench construction

Open trench construction moves quickly by comparison to underground drilling. We can also work on separate sections at different times.

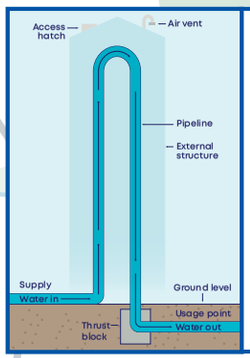
Provided good conditions, work can move between 12 and 24 metres a day.

Open trench construction will take place mostly during daylight hours. More detail on construction timing will be available once delivery contractor is appointed.

Dean Park
Quakers Hill WRRF
Quakers Hill
M7 Motorway
Acacia Gardens
Quakers Road
Breakfast Creek
Kings Park
Vardys Road
Glendenning
Marayong
Kings Langley
Davis Road
Woodcroft
Doonside
Lyton Street
Richmond Road
Sunnyholt Road
Lalor Park
Seven Hills Road
Lucas Road
Connection to NSOOS
Blacktown
Blacktown Road
Bungarribee Road
Seven Hills

Legend

- Quakers Hill Water Resource Recovery Facility (WRRF)
- Proposed Brine pipeline
- NSOOS pipeline
- Parks and open space
- Site compounds
- Open trenching
- Trenchless construction



Barometric Loop

Billy Goat Hill Reserve was selected as the location for the barometric loop. A barometric loop is a tall, U-shaped pipe that helps keep the pipeline working properly. It stops liquid from flowing the wrong way and helps manage pressure without needing extra pumps or valves. As it needs to be above ground due to its height and size, we explored different pipeline routes to find the best option that meets technical needs while also considering the environment and the local community.

Project benefits

This project will deliver sustainable wastewater treatment and high-quality recycled water with a wide range of benefits for the entire community including:

Protect and enhance the health of our local waterways by improving the quality of water released into the environment.

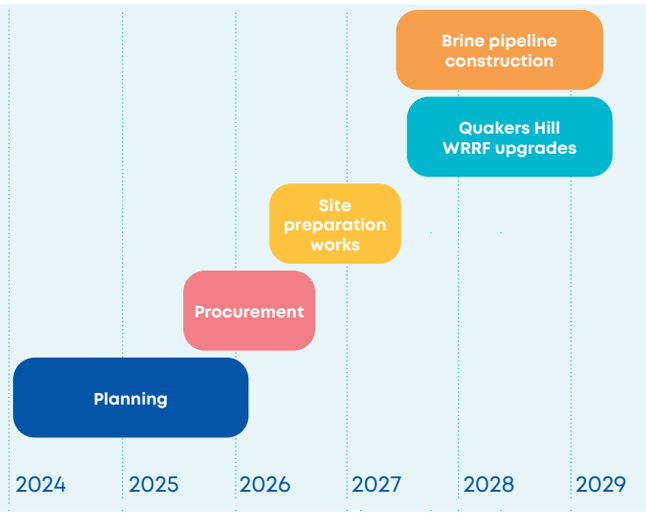
Upgrading this water treatment process would give us more flexibility and capacity to manage water in different ways in the future. This could include re-using recycled water for important purposes — like helping to supply drinking water or supporting industry. Taking this approach would make our water system stronger and more adaptable, helping Sydney grow sustainably and stay prepared for challenges like climate change and a growing population.

Recycled water produced onsite has the potential to enhance liveability and sustainability. Local stakeholders could make use of this highly treated water for urban greening and cooling, as well as supply data centres which require large amounts of water to operate.

By building a local facility and network that can adapt to changing demand as our community grows, we reduce the need to transport water across Sydney. This makes wastewater services and water reuse more efficient and cost-effective – benefiting both the environment and the city's long term resilience.

This investment supports recycling and reuse and aligns with government and customers' expectations for managing water in the future, as well as service the job and housing growth of the area.

Timeline



Timeline is subject to change.

Construction impacts

We plan our projects carefully and consider a range of factors like technical needs and social and environmental impacts. We do this to ensure we can deliver the project in a safe and cost-effective way for our customers while minimising impacts on the community and the environment.

As the project progresses, Sydney Water will continue engaging the community and discuss options to further minimise impacts.

- Drilling and trenching for pipelines
- Additional vehicle movements
- Noise, dust and light from construction
- Temporary loss of access to walking paths and parks
- Temporary compounds in your local area
- Minor vegetation clearance with offset opportunities

Next steps and how you can get involved

Sydney Water is hosting information sessions during the 15-day REF exhibition period to provide communities and stakeholders with an opportunity to meet the project team, find out more and ask questions.

Your feedback will help shape the future of this project, and the REF will be available for public comment from **Tuesday 7 October to Tuesday 21 October.** During the display period, you are invited to make a written submission by email at **quakershillwrrfupgrade@sydneywater.com.au**. For more information on the project, please visit the project page at **www.sydneywater.com.au/qhatu**

Contact us

If you have any further questions or feedback, our team is happy to help.

1800 172 263
quakershillwrrfupgrade@sydneywater.com.au
www.sydneywater.com.au/qhatu

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.