NORTH WEST TREATMENT HUB
GROWTH PROGRAM

Community Engagement Plan Summary 2025

Introduction

Acknowledgement of Country

North West Hub Alliance (NWHA), in partnership with **Sydney Water**, respectfully acknowledges the Traditional Custodians across the nations where we work, live and learn.

Their lore, traditions, customs and practices nurtured and continue to nurture the waters, both saltwater and freshwater, in our operating area, creating wellbeing for all.

We pay our deepest respect to Elders, past and present. We acknowledge their deep connections to the land and waterways on which we live, work and play. We are committed to reconciliation and partnering with Traditional Custodians, to ensure ongoing collaboration on "Caring for Country" now, and into the future, learning from traditional and contemporary approaches, while maintaining and respecting cultural and spiritual connections.

Our vision for reconciliation across our entire area of operations is to engage in deep listening and to learn from Aboriginal peoples as the first engineers of water and natural resources in this Country and to blend their traditional knowledge with modern science to manage our waterways and protect the environment.

Recognise Country

Whenever possible, the project team will engage with and listen to the Traditional Custodians, the Dharug/Darug people, as well as knowledge holders, to ensure that local Aboriginal perspectives, community voices, and needs are incorporated.

Project background

Sydney Water is delivering a transformative investment to ensure our water, wastewater and stormwater systems meet the needs of customers now and into the future. To support housing growth in the North West – including an additional 24,000 dwellings in the Metro Northwest Urban Renewal Corridor – we're delivering the North West Treatment Hub Program. The North West Treatment Hub includes three treatment facilities in the region – Castle Hill, Rouse Hill and Riverstone Water Resource Recovery Facilities (WRRFs). Sydney Water has partnered with John Holland, Stantec and KBR to form the North West Hub Alliance. The NWHA will upgrade some of these WRRFs so that the wastewater system in the north-west region can cater for housing growth while keeping waterways clean.

Project scope

Riverstone WRRF

At Riverstone, the work includes a new grit management system and a new biosolids treatment including carbonisation. Carbonisation is the process of converting organic wastewater sludge into a carbon-rich material (in this case, biochar) through heat treatment. The biochar can be used to improve soil condition for farming and in cement and concrete works.

This is the first time carbonisation will be used in NSW for biosolids treatment, and is an exciting step towards a greener, more sustainable future.

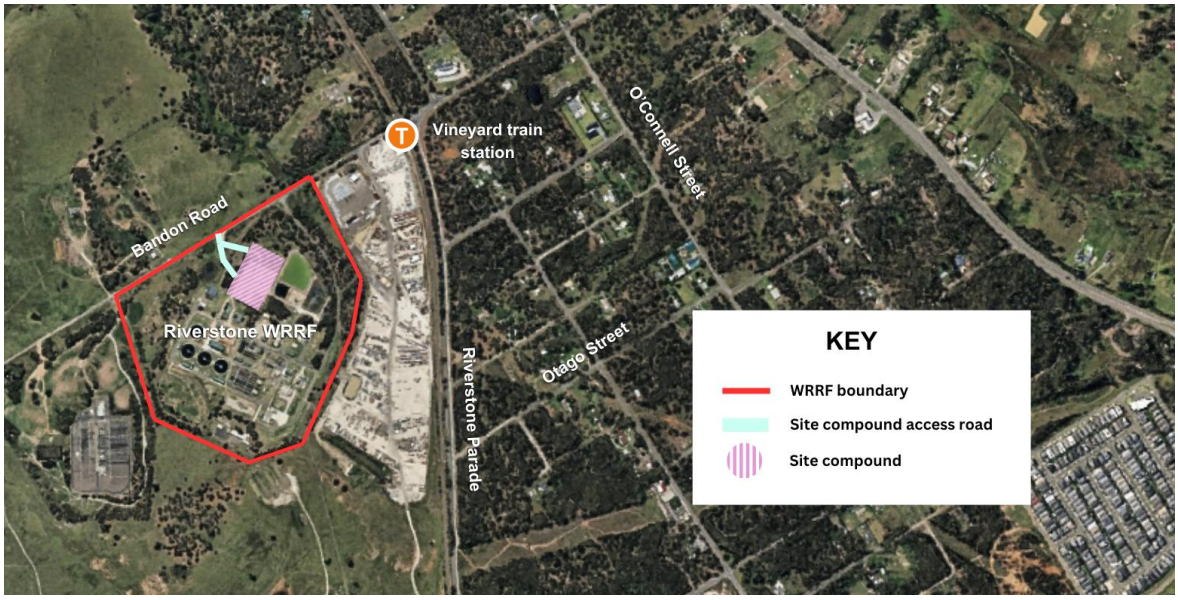


Figure 1 Riverstone WRRF

Carbonisation – and what it is

Carbonisation takes wastewater byproducts and transforms them into a product called biochar, which is a carbon-rich material that can be beneficially reused in various applications, such as agriculture, construction and manufacturing.

The carbonisation process involves drying the biosolids beyond the existing dewatering process and heating them to high temperatures in a controlled process to remove some contaminants and produce biochar. The heat is captured and reused in the drying phase.

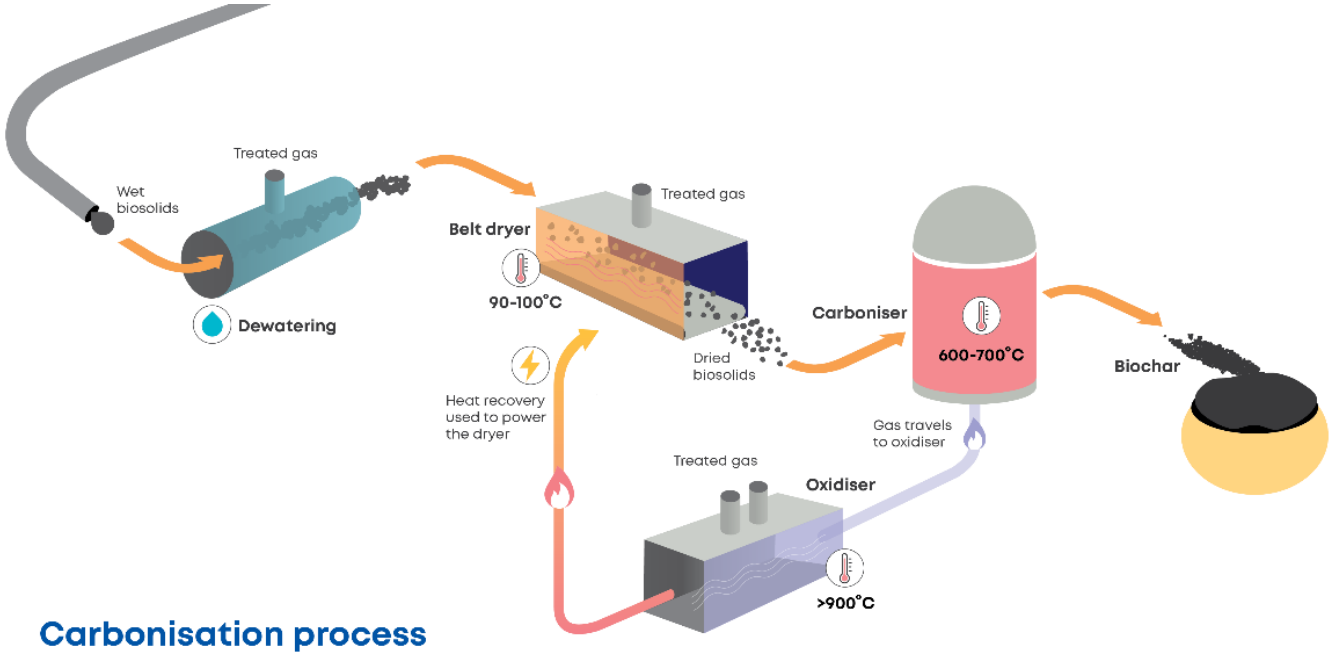
By heating biosolids to high temperatures, chemicals like organic pollutants and micro plastics are removed, while the gases produced are further treated through thermal oxidation and scrubbing to destroy pollutants and remove odour.

Much like the process of coal formation from biomass millions of years ago, the carbonisation process follows the same concept, only intensifying the conditions to speed up the process.

Carbonisation has been used in many countries around the world. In Australia, carbonisation has only been used in Queensland - until now.

Carbon sequestration

Carbon sequestration is the process of capturing and removing carbon dioxide from the earth's atmosphere. The carbonisation process locks the carbon dioxide away in the form of biochar, preventing the waste biomass from naturally decaying or being burned. The stable structure of biochar allows it to store the carbon, once captured, for a long period of time, helping us to reduce emissions.



Carbonisation process

Rouse Hill WRRF

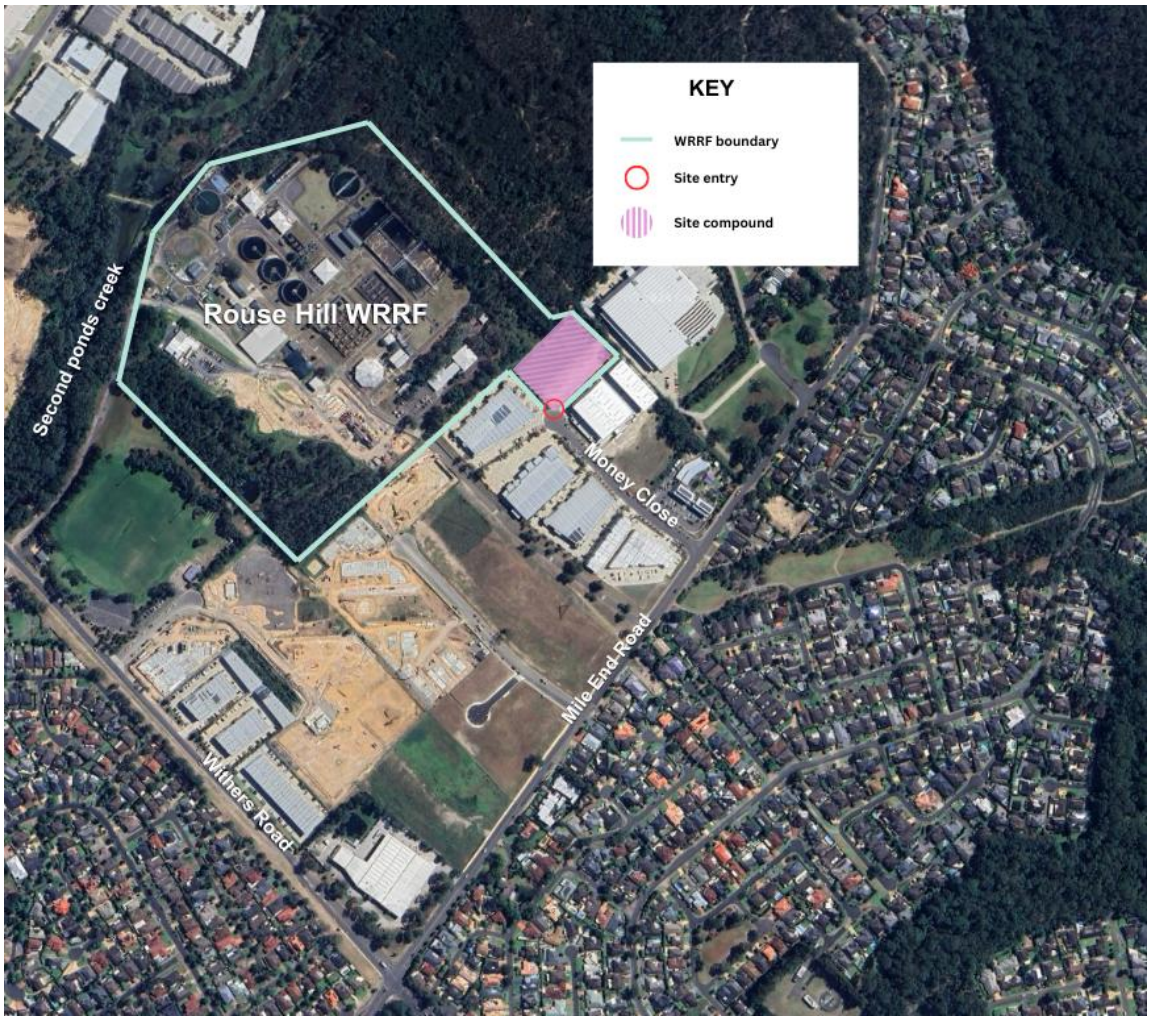
Our upgrade work at the Rouse Hill WRRF will increase the capacity of the wastewater system to 39ML/day average dry weather flow – this is an increase of 14 ML/day (more than a 50% increase from the existing capacity). The work includes converting the existing lagoons to bioreactors and upgrading the biosolids treatment and other services across the site to support the project.

Project objectives

To support future development across northwest Sydney	Service growth in Sydney's north west in line with the NSW Government's long-term housing and growth needs, as well as Sydney Water's operating licence obligations.
Deliver the best outcomes for the environment and the community	Provide sustainable wastewater treatment services for growing north west Sydney, that: • protects the health of the Hawkesbury Nepean and local waterways • is energy efficient and maximises resource recovery • continues reliable supply of recycled water to existing customers and allows expansion of recycled water supply to potential new schemes.

Figure 3 Carbonisation illustration

	Plan, construct, maintain and operate the infrastructure required to deliver the service with minimum disruption to stakeholders.
Providing safe and reliable wastewater services	Ensure the community have access to safe and reliable wastewater services by upgrading and enhancing waste treatment capacity.
Develop an adaptable solution	Allow for adaptation to changing future demand scenarios with flexibility to adopt technical innovation.
Value for money	Provide a 'least cost, value for money' wastewater treatment service for Sydney Water's customers that minimises bill impact.



Sustainability

Sydney Water's target is net zero carbon emissions across our business by 2030 and across our supply chain by 2040.

- The carbonisation process reuses biosolids more sustainably – it has a lower risk of odour and uses less energy compared to other thermochemical treatment processes.
- In the context of biochar production, carbonisation is considered climate-friendly because it can sequester and store carbon from the atmosphere.
- With the introduction of this new technology, the volume of biosolids at Sydney Water's Riverstone facility will be reduced by around 90%, resulting in fewer trucks on the road.

Infrastructure Sustainability (IS) Requirements

What is the IS rating scheme?

The Infrastructure Sustainability Council seeks to promote infrastructure sustainability through the development and operation of the Infrastructure Sustainability (IS) rating scheme. The IS rating scheme has been designed to help infrastructure deliver the best possible environmental, social, and economic outcomes.

The project team has prepared a Sustainability Strategy, which will be implemented to achieve a minimum Silver rating for 'Design' and 'As built' under the Infrastructure Sustainability Council infrastructure v2.1 rating tool. The benchmarks for stakeholder engagement are summarised in the tables below. The project team is targeting at least the Level 1 benchmarks but may have the opportunity to go beyond these and achieve a higher rating.

This project aims to achieve a Level 3 Infrastructure Sustainability rating through stakeholder engagement, aligned with the Infrastructure Sustainability Council's framework. Over 15 credits in the IS rating require stakeholder engagement, with varying levels of involvement based on the project's goals. Detailed information on these credits is provided in section 4.7. Our engagement strategy and impact management follow the tables below, and our reporting will track outcomes according to this framework.

IS Stakeholder Engagement Strategy

Level 1	Level 2	Level 3
DL1.1 Stakeholder engagement strategy has been developed (or reviewed and updated)	The requirements for Level 1 have been achieved.	The requirements for Level 2 have been achieved.
DL1.2 Strategy is informed by local context and stakeholder characteristics.	DL2.1 A plan for Indigenous People of the Land participation has been developed and implemented with them.	DL3.1 The draft strategy was reviewed with key external stakeholders and their input reflected in the final strategy.
DL1.2 Strategy is informed by local context and stakeholder characteristics.	DL2.2 Stakeholder engagement progress is reviewed and used to update the strategy	DL3.2 Stakeholder engagement activities, implementation schedule, and feedback and complaints processes have been made public.

IS Stakeholder Impacts Strategy

Level 1	Level 2	Level 3
DL1.1 High priority stakeholder issues have been identified and confirmed with project stakeholders	The requirements for Level 1 have been achieved.	The requirements for Level 2 have been achieved.
DL1.2 Stakeholder inputs have contributed to positive outcomes for one of their high priority issues.	DL2.1 Stakeholder inputs have contributed to positive outcomes for three or more of their high priority issues.	DL3.1 At least 75% of stakeholders are satisfied that their input has had a positive impact on the project.
	DL2.2 Lessons learnt have been collected and documented.	

Purpose of the Community Engagement Plan Summary

This Community Engagement Plan Summary (CEPS) identifies a planned approach by the NWHA in engaging with the community and stakeholders for the North West Treatment Hub (NWTH)'s growth projects.

The purpose of the CEPS is to **identify the customised communications channels** suited for the project's objectives, stakeholder segments and timeframes, as well as identify work specific mitigation measures for stakeholders which may be impacted by the NWHA growth project.

We will **inform the community and stakeholders of project activities and facilitate communication between the project and the community** (including Council, government authorities, adjoining affected landowners and businesses and other stakeholders directly impacted by the project).

This CEPS includes information about:

- The project's stakeholders
- communication channels and methods
- how communities can contact the project and/or learn about the project

Our project stakeholders

As most of the work at Rouse Hill and Riverstone will be contained within existing WRRF boundaries, and sites previously established at locations away from built up or residential areas, the community impacts and risks are expected to be low.

At Rouse Hill, stakeholders immediately adjacent to the work site will be doorknocked for any work activities deemed moderate-high impact. Other activities including some trenching for high voltage electrical cable work will require door knocking to affected community members and businesses on Mile End Road.

At Riverstone, trenching work is needed for high-voltage electrical cable work, and some occupants in the area may be impacted by up to six months. Based on noise assessments

done to date, most noise impacts for the duration of the project are expected to be low-moderate with the closest residential receiver at over 500 metres away.

Engaging with different stakeholders

There are seven main stakeholder groups identified for this project:

- Government – local and state.
- Government departments and agencies.
- Utility companies.
- Residents and landowners.
- First Nation groups.
- Businesses.
- Community groups including environment, interest groups.

Traditional owners, traditional custodians and legal entities such as Local Aboriginal Land Councils and Aboriginal community controlled organisations are key stakeholder groups that are core to successful and delivery of the program. Given engagement occurs across multiple functional areas, it's important to ensure genuine, appropriate and ongoing engagement with First Nations stakeholder groups for the NWTH Program.

Therefore, First Nation stakeholders need a nuanced approach that is culturally sensitive and appropriate. This engagement approach is undertaken by Ngurra Advisory.

Other than the First Nation groups (as per Sta-1 requirements), no other high influence or affected minority groups were identified on the project.

Potential community concerns

Potential issues or risks	Mitigation
• Rock hammering noise or other high noise/impact activities near commercial occupants. • Odour management from dewatering activities • Some trenching on local roads. • Truck movements along haulage and delivery routes. • Worker behaviours travelling to/from site. • Perceived damage to local streets/ roads. • Traffic impacts due to increased truck and vehicle movements around the site.	• Notification of work activities and construction program. • Community pop ups and information stalls. • Doorknock and direct engagement with nearby stakeholders. • Noise mitigation and management outlined in the Environmental Management Plan and available on the Sydney Water Talk website. • Noise monitoring per the Construction Noise and Vibration Guidelines. • Traffic management plans. • Timely response to any enquiry or complaint. • Project site inductions and toolbox talks educate workers about 'customer at the heart' values in the communities we work in. This includes being polite and respectful to the communities in which we work in and specific parking protocols. • Complaints process developed and referenced in all staff inductions.

Engagement approach

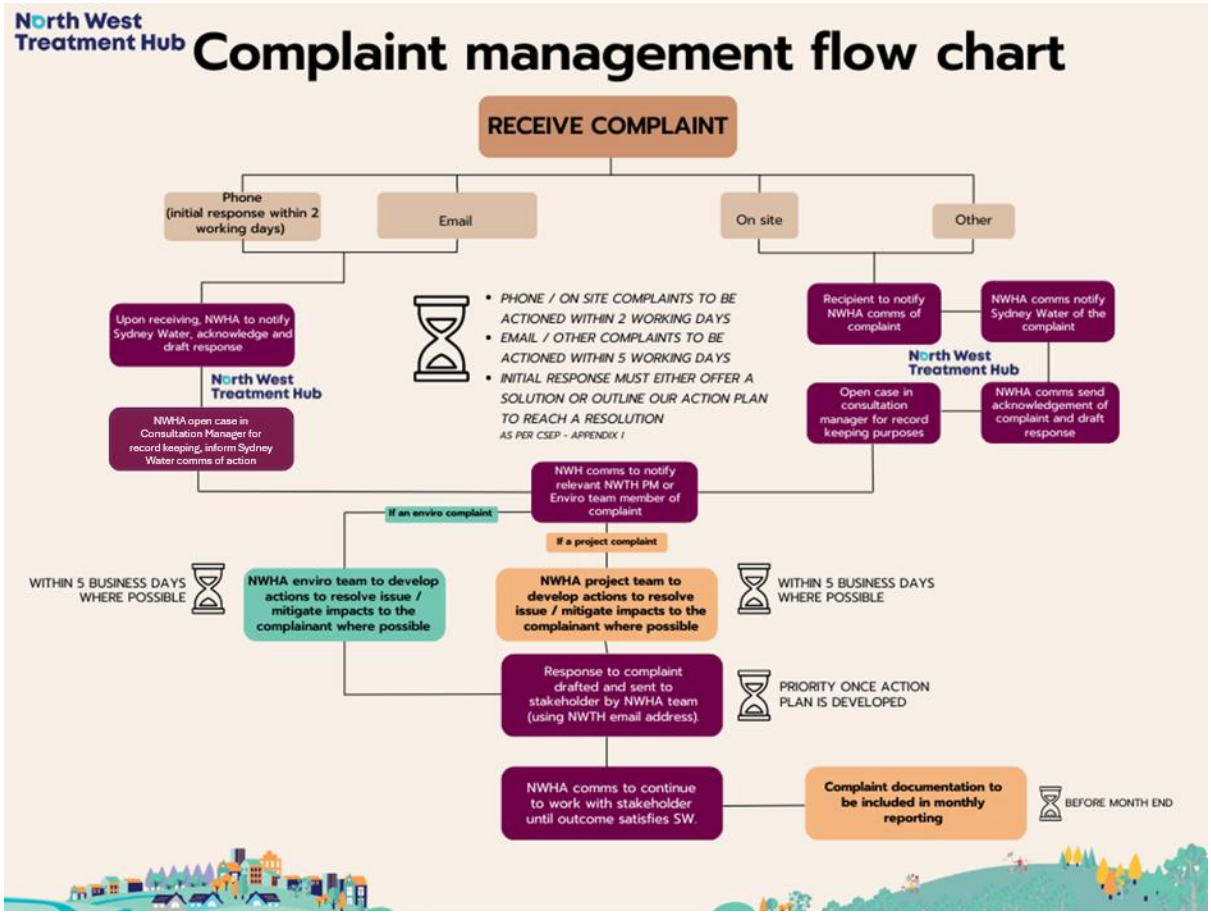
Type	Purpose	Who	When
Door knocks	Door knock directly affected property owners and commercial occupants near construction sites where they will be impacted by activities. Opportunity for direct contact to discuss project, raise concerns or provide feedback.	Directly affected residents and businesses	As needed
Construction notifications	Provides an update on upcoming work and impacts to residents and businesses. Delivered 7 days before work starts. These are provided on paper and can also be emailed.	Directly affected residents and businesses	As needed
Periodic community updates	Project newsletters printed and distributed periodically for letterboxes in Riverstone and Rouse Hill. Outlines project progress, upcoming work and feedback opportunities.	All	Once a year.
Information sessions or pop-ups	To promote and raise project awareness, gather feedback from the community.	All	At project discretion
Community information line and project email	Provides a free and accessible point of contact for enquiries related to the project. Contact details included on project communication material. All calls and email received will be recorded in the community contacts database.	All	As needed
Sydney Water Talk – public webpage	Accessible by anyone at any time. Project information available online 24/7.	All	As needed
Community / Stakeholder meetings	One-on-one or group meetings with property owners, landholders or interested stakeholders either requested by the stakeholder or the NWHA. Can discuss current or upcoming work, issues, and overall construction program.	Stakeholders, property owners, residents, businesses, government departments, MPs, local government.	As requested

Media (including social media)	Use available social media platforms including Sydney Water LinkedIn and Facebook page to broadcast construction milestones, project achievements and other noteworthy activities/events. Communicate construction activities that might affect wider communities.	All	As needed

Complaints procedure

Complaints can be made to the Sydney Water hotline: 1800 060 584.

All complaints and comments received will be documented in our stakeholder management systems by the NWHA Community Team. Sydney Water Engagement Team will liaise with the NWHA Community Team and act where necessary to resolve any issues that may arise during the project.



Review of the Community Engagement Plan Summary

This plan will be reviewed in line with the management plan audits (Community and Stakeholder Engagement Plan) to consider changes in stakeholders, issues and opportunities, construction progress and overall program.

How can I find out more?

If you have any questions about this work or the North West Treatment Hub, you can scan the QR code or phone **1800 060 584**

If you need an interpreter, call the number listed below:

Interpreter service **13 14 50**

Arabic | Chinese (Traditional) | Chinese (Simplified) | Greek | Korean | Vietnamese

اتصل بالرقم أعلاه إذا كنت بحاجة إلى مترجم

如果您需要口譯員，請撥打上面列出的電話號碼

如果您需要口译员，请拨打上面列出的电话号码

Εάν χρειάζεστε διερμηνέα, καλέστε τον αριθμό που αναφέρεται παραπάνω

통역이 필요한 경우 위에 나열된 번호로 전화하십시오.

Nếu bạn cần thông dịch viên, hãy gọi số điện thoại được liệt kê ở trên