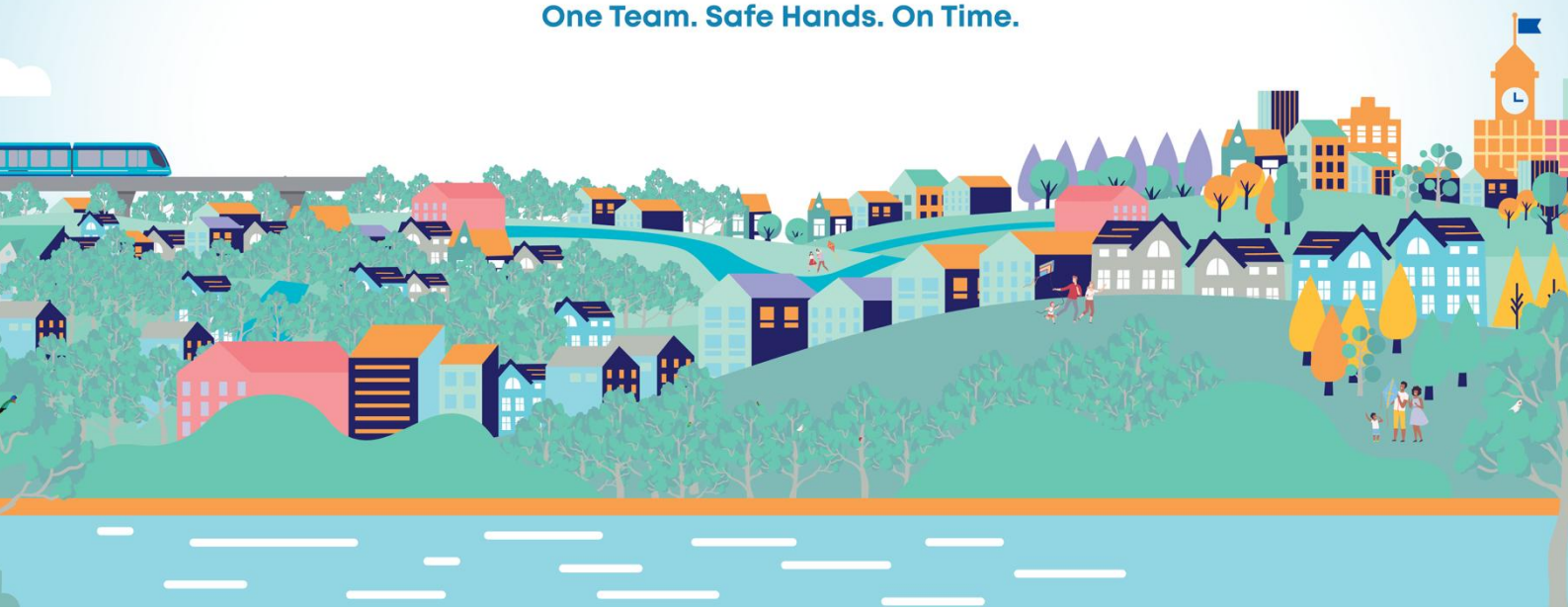
Project Update 2026

Environment, Sustainability & Community

NORTH WEST HUB ALLIANCE

One Team. Safe Hands. On Time.



1. Introduction

The North West Treatment Hub Growth Project is providing this update to share information on environmental impacts (water quality, noise and air quality), sustainability, and community initiatives associated with our works. This includes the mitigation measures, as well as the monitoring and modelling processes in place to manage these impacts. The North West Hub Alliance (NWHA) has been delivering Growth Project upgrades at both the Riverstone and Rouse Hill Water Resource Recovery Facilities (WRRFs) since August 2024.

Potential impacts associated with construction and operation of the project have been assessed in the applicable project approvals and include mitigation measures to manage each environmental aspect. Overarching environmental approval documents include:

- Sydney Water Review of Environmental Factors, North West Treatment Hub Plant Upgrades and Sludge Transfer System (Growth Package), July 2022 (Growth REF)
- Sydney Water Review of Environmental Factors Addendum, North West Treatment Hub Upgrades (Growth Package) – Biosolids Processing and Construction Compound, June 2024
- Sydney Water Review of Environmental Factors Addendum, Chlorine Contact Tanks Pipeline and Minor Updates (Growth Package), August 2025
- Sydney Water Review of Environmental Factors Addendum, North West Treatment Hub (Growth Package) – Riverstone WRRF Liquid Amplification Works, March 2026

We are seeking feedback from stakeholders on these matters to help inform the ongoing management of environmental impacts. Feedback received will be reviewed and, where appropriate, considered in project environmental management.

2. Water Quality

Riverstone WRRF is located within the Eastern Creek catchment. The WRRF is situated approximately 800 meters from Eastern Creek, see Figure 1. The Eastern Creek catchment covers approximately 120km^2 of urban and rural land.

Figure 1 Riverstone WRRF in proximity to nearby waterways

Rouse Hill WRRF is located within the Second Ponds Creek sub-catchment, see Figure 2. The sub-catchment area is approximately 11km^2 and forms part of the larger Cattai Creek catchment which is dominated by urban and peri-urban land uses as well as industrial and high-density commercial uses. Second Ponds Creek is located to the north of the Rouse Hill WRRF.

Figure 2 Rouse Hill WRRF in proximity to Second Ponds Creek

2.1. Potential Impacts

Potential impacts to receiving waterways include:

- Sediment runoff from construction activities
- Contaminants entering stormwater and waterways if not controlled
- Water generated from excavation and dewatering activities

2.2. Mitigation Measures

The following mitigation measures are being implemented across both project sites:

- No discharge of construction water to waterways
- Construction water treated onsite in line with project controls
- Reuse of water onsite where possible (e.g. dust suppression)
- Offsite disposal by licensed contractors of excess construction water where required
- Erosion and sediment controls installed and maintained throughout construction
- Minimise ground disturbance through construction staging and progressively stabilise disturbed areas

2.3. Monitoring and Modelling

Regular monitoring and maintenance of site controls is undertaken to manage construction water and erosion and sediment runoff. Modelling undertaken as part of the project approvals process was updated as part of the 2025 and 2026 REFA, and the impacts and mitigation measures outlined above reflect these approved assessments. Further details can be found in the relevant Review of Environmental Factors documents listed in Section 1.

The following measures are implemented across both sites:

- Construction water is tested prior to reuse onsite or discharge
- Regular inspections of erosion and sediment controls
- Additional monitoring before, during and after high rainfall events
- Construction water is managed in accordance with the Dewatering Management Plan, see Figure 3

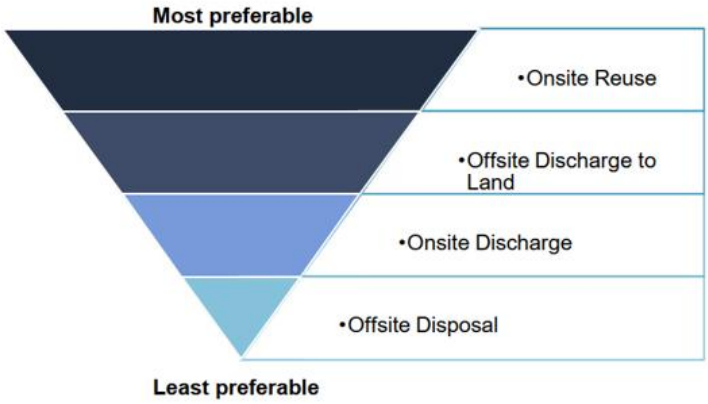


Figure 3 Hierarchy of dewatering management preference

Water used for activities such as hydrostatic testing is reused onsite wherever feasible. As part of the construction of the new Membrane Bioreactor at the Rouse Hill WRRF, a total of 6.3 ML of water was required for hydrostatic testing. To minimise overall project water consumption, hydrostatic test water was reused by transferring it between different sections of the structure, resulting in a total saving of 3.8ML. One example occurred in May 2026, when 1.8 ML of water was transferred from the northern anoxic tanks to the southern anoxic tanks, see Figure 4.

Figure 4 Anoxic tanks north empty after hydrostatic test water has been transferred to anoxic tanks south

3. Noise

Noise impacts at Riverstone and Rouse Hill WRRF have been assessed as part project approvals and noise catchment areas (NCAs) have been determined for each project site, see Figure 5. The sensitive receivers surrounding Riverstone WRRF include rural residential and commercial receivers. Surrounding Rouse Hill WRRF, there are multiple industrial and commercial as well as residential receivers.

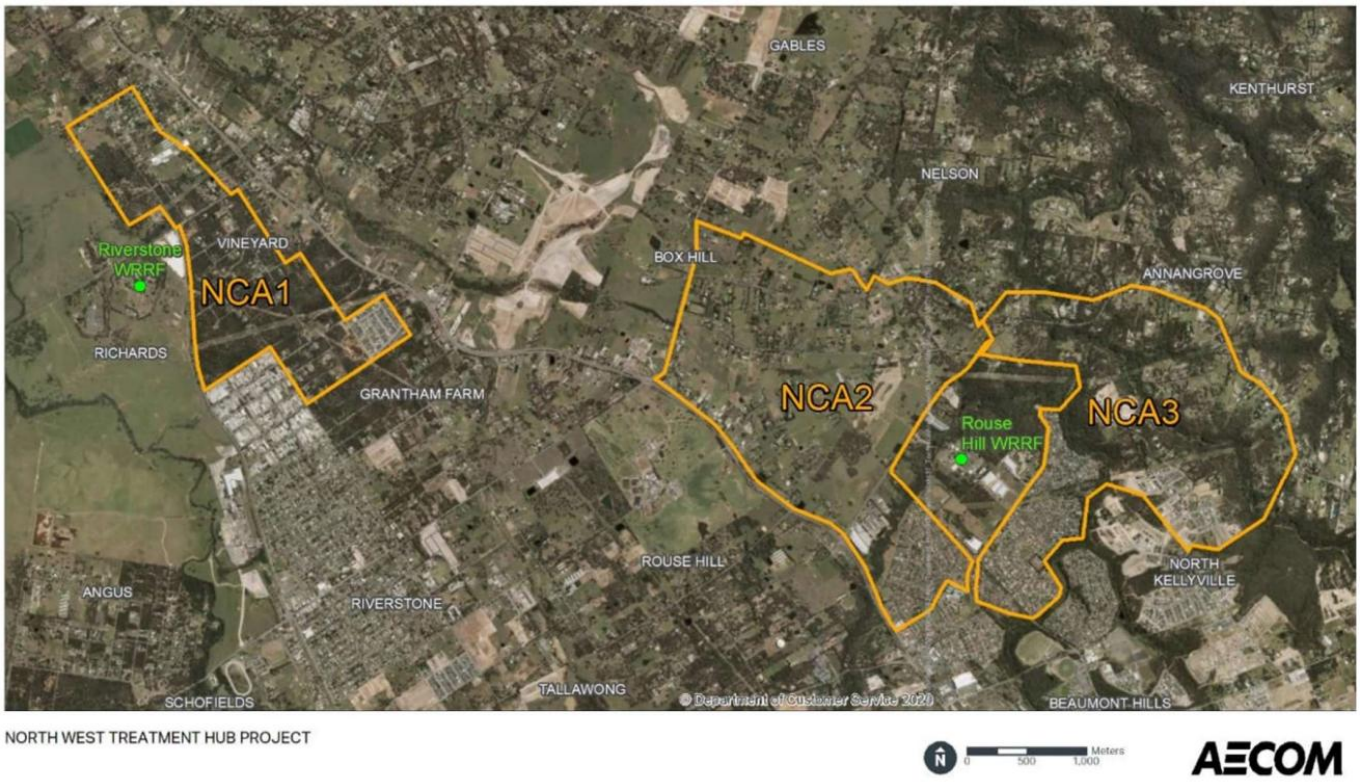


Figure 5 Noise catchment areas for Riverstone WRRF and Rouse Hill WRRF

3.1. Potential Impacts

Potential noise impacts from construction include:

- Noise from construction activities such as machinery, earthworks and vehicle movements
- Temporary increases in noise at nearby residential and sensitive receivers
- Minor increases in traffic-related noise on surrounding roads

3.2. Mitigation Measures

The following mitigation measures are required to be implemented as per the project approvals:

- Works undertaken during standard daytime hours (07:00 to 18:00) where possible
- Stakeholder notification process in place for works undertaken outside of standard daytime hours (18:01 to 06:59)
- Use of quieter and well-maintained plant to minimise noise
- Locating and directing activities away from nearby receivers where practicable
- Use of temporary noise barriers or shielding where required
- Complaints management processes in place

3.3. Monitoring and Modelling

Ongoing management of noise and monitoring is undertaken throughout construction to review work practices and verify compliance with project approvals. Modelling undertaken as part of the project approvals has been updated through the latest REF and A-REF, and the impacts and mitigation measures outlined above reflect these approved assessments. Further details can be found in the relevant Review of Environmental Factors documents listed in Section 1.

The following measures are implemented across both sites:

- Noise impacts have been modelled as part of environmental assessments and for works out of standard construction hours
- Targeted noise monitoring has been undertaken to confirm predicted levels
- Monitoring undertaken for high-noise activities, work undertaken outside of standard daytime hours or complaints
- Where required, additional mitigation measures or work practices are implemented
- Operational noise monitoring to be undertaken during commissioning

To date, 25 noise monitoring sessions have been completed to validate construction noise levels at Rouse Hill WRRF for both high noise works and work outside of standard daytime hours. Nine (9) noise monitoring sessions have been completed to validate construction noise levels at Riverstone WRRF.

4. Air Quality

Riverstone WRRF is within a rural residential area and nearby residential properties are located approximately 320 meters (m) east of the WRRF boundary. Rouse Hill WRRF is directly surrounded by commercial and industrial land use. Residential receivers around Rouse Hill WRRF are located over 400 meters to the southeast and southwest of the WRRF.

Both residential and commercial properties are considered sensitive receivers for air quality impacts from dust and odour.

4.1. Potential Impacts

Impacts to air quality throughout construction and operation are described below:

- Dust generated from construction activities and vehicle movements
- Minor emissions from plant and equipment
- Localised odour impacts associated with construction works and operation of the WRRFs

4.2. Mitigation Measures

The following mitigation measures are implemented across both project sites:

- Use of dust suppression measures (e.g. watering and covering exposed areas)
- Maintaining equipment and minimising unnecessary emissions
- Managing works in response to weather conditions where required
- General controls to limit offsite dust and odour impacts

4.3. Monitoring and Modelling

Air quality and odour are managed in accordance with project approvals. Modelling undertaken as part of the project approvals has been updated through the latest REF and REFA, and the impacts and mitigation measures outlined above reflect these approved assessments. Further details can be found in the relevant Review of Environmental Factors documents listed in Section 1.

The following measures are implemented across both sites:

- Air quality impacts have been assessed as part of environmental studies
- Visual monitoring and regular inspections undertaken during construction to manage dust and emissions
- Scheduling construction activities in accordance with weather conditions

- Where required, additional controls or work procedures may be implemented

5. Sustainability and Innovation Highlights

The project is also delivering a range of sustainability initiatives and innovations to reduce environmental impacts and improve resource efficiency.

5.1. Project Sustainability Rating

Sustainability is a priority for Sydney Water and the NWTH Growth Program. The Alliance is committed to achieving net zero and sustainability through Infrastructure Sustainability Council (ISC) rating with consideration to our people, the community, our clients, our supply chain, and the environment when making decisions.

5.2. Waste and Resource Recovery

A simplified waste system has been implemented across the project, using a two-stream (wet and dry) approach to improve recycling and reduce contamination. Organic waste is fully recovered and processed into renewable energy and soil products rather than being sent to landfill.

Additional recycling initiatives support materials that are harder to recover, including but not limited to:

- PPE recycling
- E-waste and battery recycling
- Printer cartridge recycling

Performance highlights (from construction commencement to April 2026):

- ~96% spoil diverted from landfill (target: 85%, stretch: 95%)
- ~85% office waste diverted from landfill (target: 60%, stretch target: 70%)
- ~94% construction waste diverted from landfill (target: 70%, stretch target: 80%)
- 136.5 kilograms of PPE recycled

5.3. Low Carbon Materials and fuels

The project is adopting lower-emission materials and fuel alternatives to reduce construction impacts.

Key initiatives include:

- Use of high-strength reinforcing steel (SENSE600), an innovative material that allows the same structural performance with less material, supporting roughly 40% lower embodied emissions.
- Use of alternative fuels (such as biofuels) to reduce emissions from construction plant

5.4. Sustainable Water Use

Water efficiency and reuse are prioritised across both project sites. This includes:

- Reuse of construction water onsite where feasible (e.g. reusing onsite water to hydrostatic test new water retaining structures)
- Use of recycled water and rainwater for site operations (e.g. ablutions flushing and dust suppression)
- Use of recycled effluent water for operations and irrigation

Key water use metrics (from construction commencement to April 2026):

- 547 kilolitres of recycled water used
- 252 kilolitres of rainwater used

5.5. Innovation

The project is implementing innovative approaches to improve environmental performance and support long-term sustainability.

This includes but is not limited to:

- Implementation of a carbonisation process (first in NSW of its scale) at Riverstone WRRF to support resource recovery and long-term sustainability outcomes.
- Use of alternative materials such as Sense600 and biofuels and technologies to reduce environmental impact
- Exploration of new approaches such as low-carbon materials (e.g. concrete alternatives) to support long-term carbon reduction

6. Community Engagement

The Alliance's community engagement approach is guided by the Community Engagement Plan Summary (CEPS).

The 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 Plan is available on Sydney Water's website, which you can access below.

Community Engagement Plan Summary 2025

6.1. First Nations Engagement

Engagement with Dharug community representatives has been undertaken to support culturally informed decision-making and meaningful participation.

Key outcomes include:

- Strengthened relationships through ongoing engagement
- Increased cultural understanding across the project team
- Opportunities for knowledge sharing and collaboration

Figure 6 Artwork created during two-way knowledge sharing workshop with Dharug Traditional Custodians

6.2. Reporting from 1 January to 17 June 2026

The total population for both projects as listed on Sydney Water Delivery Portal is 5818 affected receivers.

6.2.1. Engagement

Thirteen (13) doorknocking engagement activities have occurred within the community and more than 120 households and businesses have been visited at Rouse Hill and 54 households and businesses visited in Riverstone.

Since June 2024 we distributed 34 separate notifications in Rouse Hill to 4098 residents/business, and

18 separate notifications in Riverstone to 2288 residents/businesses.

Other community engagement activities include:

- Two community pop-ups/events
- Public display of our REFA

The project has also engaged with multiple external stakeholders including but not limited to:

- Blacktown City Council on 12 occasions
- Hawkesbury Council on 11 occasions
- Transport NSW on 10 occasions
- Department of Education on five (5) occasions
- UDIA NSW Annual State Conference on one (1) occasion
- Fire and Rescue NSW Riverstone Fire Station on multiple occasions

6.2.2. Initiatives

To keep the community up to date on the work we are doing a project specific map has been developed on the Google MyMaps platform. The map displays key work occurring across project sites that has the potential to impact community. All community notifications have a QR code to the project map and it has received 1144 views since launching in February 2026.

6.2.3. Compliments and Complaints

To date, the NWHA has received 11 compliments associated with works undertaken. In total 72 celebrated actions have been logged and recorded as positive and proactive engagement with the community.

To date, the project has received only one (1) avoidable complaint (received in February 2025). Complaints and community feedback are responded to by the project and where practical the project team have modified works or engaged further with the community member to mitigate repeat or long term impacts.

Thirteen positive social media stories have been published on Facebook, LinkedIn, and Sydney Water and NWHA SharePoint sites

6.2.4. Stakeholder Priority Areas

Based on stakeholder feedback gathered through the REF and A-REF in 2024, the Alliance has identified several high-priority focus areas. In response, the Alliance has developed key management measures to address each of these areas.

We are now seeking community and stakeholder feedback on the Alliance's responses to the identified priority areas detailed in Table1. We also welcome suggestions on any additional priority areas the Alliance should consider, as well as further opportunities to strengthen its responses.

Table 1 NWHA Stakeholder Construction Priority Areas

Identified Priority Area	Alliance Response
Potential impacts to community and business, such as noise and vibration, dust and traffic because of construction	• Minimise night work wherever possible. • Engage directly with sensitive stakeholders, including local residents and businesses, to address concerns. • Implement and monitor vehicle management plans to reduce construction traffic impacts on local roads.
Changes to native flora and fauna because of construction	• The project is committed to sustainability and environmental restoration, such as replanting native species and minimising environmental impacts. • A Construction Environment Management Plan (CEMP) and sub-plans have been developed to manage environmental impacts, including flora and fauna. • Environmental plans are approved by Sydney Water to ensure compliance to their Planning Approval Documents (Growth REF and REF-A). • Native vegetation removal will be offset in accordance with the Sydney Water Biodiversity Offsetting Guideline, and native species will be replanted.

Identified Priority Area	Alliance Response
Changes to the local environment including but not limited to; erosion, health of waterways, heritage sites due to construction	• Environmental plans are approved by Sydney Water to ensure compliance to their Planning Approval Documents (Growth REF and REF-A). • The Growth project has confirmed that no cultural heritage sites will be impacted. • Discharge of treated effluent to Eastern and Second Ponds Creek comply with Sydney Water discharge requirements and Environmental Protection Agency regulations to protect water quality, public health, and the environment. • The Alliance acknowledges the cultural and environmental significance of waterways and is committed to ongoing monitoring and management.
Dharug community's interest in the carboniser technology and associated environmental outcomes.	• Project delivered informative presentation and Q&A regarding carbonisation technology. Traditional Custodians and other Dharug stakeholders were invited to the project site to attend. The session was recorded and shared afterwards.

7. Have your Say

7.1. Provide your feedback

We invite stakeholders to provide feedback on project environmental management, as well as the sustainability initiatives and community engagement activities associated with the project.

Your feedback will help inform the ongoing management of environmental and broader project outcomes.

Email: NorthWestTreatmentHub@sydneywater.com.au

Phone: 1800 060 584

Feedback is requested from Monday 6 July 2026 to 31 July 2026. All feedback received will be reviewed and, where appropriate, considered by the project team. If you would like to discuss any of these matters further, you are welcome to contact the project team to arrange a meeting.