

# Aura and Harmony Program Construction Update



May 2024



## Construction on track for Harmony Water Project

How many trucks of concrete does it take to pour the base of a 12 megalitre water reservoir?

To paint a picture, one megalitre is the size of an Olympic-sized swimming pool and recently it took 38 trucks six hours to deliver 280 cubic meters of concrete for the foundation of the new Tanawha Reservoir.

### Project details:

- The Harmony Water Project includes construction of a new water reservoir at Tanawha and installation of 2.6kms of new water pipeline from the reservoir to Harmony in Palmview.
- Construction commenced in mid 2023 and is expected to be completed by late 2026, weather and construction conditions permitting.
- Together with our construction partner McConnell Dowell, we are working closely with the local community to keep them informed about the project and reduce any disruption.

### Program overview:

Work commenced on the Aura and Harmony Program in April 2023 and is due for completion in early 2026, weather and site conditions permitting.

With a projected population of 50,000 residents in Aura by 2050 and 21,000 residents in Harmony by 2036, this program is vital to meet the future demands of the communities.

We will continue to provide the community with updates as works progress on the three major projects:

- ✓ Aura Water
- ✓ Aura Wastewater
- ✓ Harmony Water



### For construction enquiries:

Call: 0492 481 235

Email: [A&Hcommunity@mcdgroup.com](mailto:A&Hcommunity@mcdgroup.com)

Find out more at: [unitywater.com/aura-harmony](http://unitywater.com/aura-harmony)



HDD pipe pullback Bellflower Rd

## Horizontal Directional Drilling

Horizontal Directional Drilling (HDD) is a trenchless drilling technique which can be used where underground pipe needs to be installed horizontally beneath existing infrastructure and environmentally sensitive areas.

In total, we are installing over 27km of underground pipeline for the Aura and Harmony Program:

- 12km between the Ewen Maddock Water Treatment Plant and Aura,
- 2.6km between the new Tanawha reservoir and Harmony, and
- 12.5km between Aura and the Kawana Wastewater Treatment Plant.

Twenty per cent of this pipeline will be delivered by HDD to protect culturally and environmentally sensitive sections of the pipeline alignment such as adjacent to the Mooloolah National Park and through a section of the Kawana Forest Bushland Reserve.

We avoided major traffic disruption by drilling under Caloundra Road, near the intersection with Racecourse Road.



Enveloper casing at Kawana Wastewater Treatment Plant to prevent uncontrolled fluid release

The HDD process involves the following steps:

1. Above ground, the pipe is strung out and drilling rigs are in place.
2. Entry and exit pits are dug and a small diameter pilot hole is drilled through the bore path.
3. Drilling fluid is pumped through the drill pipe to the drill bit where high-pressure jets and the bit cut through the soil. The fluid carries the cutting material back to the entrance pit.
4. The pilot hole is enlarged to the required size, which may take several passes of increasingly larger reamers.
5. The pullback of the pipe within the pre-reamed hole.

Unitywater is committed to utilising technologies like HDD that deliver better outcomes for our community and help to protect our environment.



Unitywater recently took part in the **Aura Youth Fest** as part of Queensland Youth Week.

We shared information about the Aura Water and Wastewater Projects and chatted about job opportunities in the water and wastewater industry.

Find out more on our website [unitywater.com/career-pathways](https://unitywater.com/career-pathways) or email [careers@unitywater.com](mailto:careers@unitywater.com)

Unitywater offers career pathways to young people through apprenticeships, scholarships and work experience for graduates and undergraduates.



Flooded pipeline alignment in Kawana Forest Bushland Reserve

## That's not a river... it's a pipeline!

Short of developing webbed feet and deploying a fleet of tin boats, the team at the Aura and Harmony Program have had to get creative in how to deal with Queensland's 'very wet' season of 2024.

The team has had to employ temporary safety in design initiatives like utilising raised rock platforms under pipe string rollers to allow flood waters to pass underneath our pipeline without impact.

This initiative allowed flood waters to flow freely whilst also protecting the pipe during construction from flood damage.



The foundations at the Aura Reservoir construction site resembled a moat after a heavy downpour.

Total monthly rainfall peaked in January at 814mm at our Tanawha Reservoir site, 565mm at our Aura Pump Station and 700mm at our Meridan Plains site office.



The sheer amount of rain at all our worksites has certainly been a challenge. The wastewater pipeline has required time in the Sunny Coast sun to dry out.

✓ **Good news is that work has now returned to full steam ahead in all areas.**



Compass trainees at the launch of the Compass Garden

## Compass Garden Launch Day

McConnell Dowell has partnered with the Compass Institute to create the 'Compass Garden' at the main construction site office in Meridan Plains.

Launched in March 2023, the Compass Garden has become a space for Compass trainees to make their own, providing a welcoming and enriching environment for both Compass and the construction crews.

From the very beginning, Compass were identified as an organisation we wanted to get involved with as part of the Aura and Harmony Program. McConnell Dowell reached out to their subcontractors and were delighted that so many local businesses put their hands up to sponsor and donate items that every successful garden needs – including a chicken coop to house the four resident chickens!

The Compass Garden is beginning to grow with fruits, veggies, herbs and plants starting to sprout. And the partnership does not stop there. Some of the Compass crew will soon be helping with various tasks – from site and vehicle maintenance to administration – the opportunities are endless. Compass will help us to become a more inclusive workplace and will provide their trainees with valuable work skills and experience.

The Compass crew are an extension of the Aura and Harmony Program team and we look forward to providing further updates as the Compass Garden and work experience programs progress.

Discover more about Compass and their incredible work at [compassinc.org.au](https://compassinc.org.au).



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