West Camden Water Recycling Plant Upgrade

New technology to improve our great city

Sydney Water is upgrading the West Camden Water Recycling Plant (WRP) to increase its treatment capacity.

Part of the upgrade includes constructing four Membrane Bioreactors (MBRs) to treat the wastewater to a very high quality. This new technology requires less space, so all the upgrades can happen within the existing site. Refer to page 2 for more information. We started construction a year ago and, like so many of you, were impacted by Covid-19 and the unprecedented rain and floods in 2022.

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Our team worked hard to adapt to the challenges and we thank you for your patience and support during this time. The project is 40% complete and we aim to have the new plant in operation by the end of 2023.

Sydney

WAT~R

West Camden WRP upgrade in numbers: MBR Construction



8,000 tonnes

of unsuitable material removed from site to be recycled







separate pours



1,400 tonnes of Steel reinforcement (reo) bar 6,000 metres² of footprint - equivalent to 12 basketball courts



16,000 tonnes of fill material imported for the

MBR embankments

6 metre high walls

Construction of MBRs

One of the new assets being constructed on site is a Membrane Bio-Reactor or 'MBR'. The MBRs will provide high quality effluent and ensure reliable wastewater services in the West Camden region to both better serve the current community and allow for planned future growth in the area while improving the environmental discharge quality from the water recycling plant.

The four new MBRs will treat the incoming wastewater through aeration and filtration. They will also provide biological treatment, which is the conventional approach, as well as a very high level of filtration to remove practically all of the contaminants from the wastewater. This allows for clean discharge of treated wastewater to our environment.

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We are using innovative technology and streamlining the wastewater treatment process into one single process, at the heart of which are the Membrane Bio-Reactors (MBR).

> Hussein Ismail BMD Water Operations Manager





MBR tanks 1&2 (shown on the left) and 3&4 (shown on the right)

Planned Construction Timeline

November 2022–September 2023





HV Works

In March 2022, we started upgrading the high voltage electricity cables which run from the Cawdor Zone Substation on Cawdor Road to the West Camden WRP on Sheathers Lane. The six-month project involved installing 2.6km of cables underground to provide upgraded power to service the new treatment plant infrastructure.

We used trenchless technology, called Horizontal Directional Drilling (HDD). This allowed the cable conduits to be installed without the need to have open trenches along the road, with a minimal requirement to excavate small launch and retrieval pits in the road verge. This process reduced the impact on the existing vegetation along Sheathers Lane.

We also made use of existing conduits wherever possible along Cawdor Road to further reduce trenching and thereby lower the environmental impact of the works.

Where trenching was required, the disturbed areas of grass verge were restored using turf to promote earlier recovery to pre existing conditions.

This work was finished in line with the time and cost estimates with minimal impacts to the community.

Planting of Cumberland Plain Woodland

To commemorate Environment Week in June, the West Camden WRP team joined forces with our project delivery partner Downer BMD to establish an area of Cumberland Plain Woodland (CPW) to supplement the surrounding communities.

Cumberland Plain Woodland is a critically endangered ecological community that was formerly widespread across Western Sydney. Urban development, infestation of weeds and inappropriate land management has reduced this previously expansive community to small fragments of less than 5 hectares. Less than 10% now remains and it continues to be threatened.

Protecting and establishing new areas of Cumberland Plain Woodland will provide vital support for native biodiversity and ecosystem services in the region, such as managing water tables and flows, soil nutrient cycling, reducing erosion and salinity, storing carbon, regulating local temperature and regulating insect pests.

In total the team planted 200 locally sourced CPW species at the previously disturbed area with remnant mature eucalypti trees.

The planting also ties into Camden Council's Master Plan to enhance the area surrounding the West Camden WRP.



The West Camden WRP team effort planting native trees this June

A footpath and cycleway has been constructed by Council and the establishment of the Cumberland Plain Woodland will provide a visual screen for the community using the Council's facilities and provide the opportunity to view native flora and fauna once the area is established.

With spring in full swing, the plants are thriving and already proving a great addition to the existing Cumberland Plain.

Western Sydney Uni Site Tour

In September we welcomed a group of undergraduate Engineering students from Western Sydney University for a tour of our West Camden WRP. The students were able to interact with our on-the-ground team and learn about the upgrade of the plant, which will service growth in the catchment and create a better life for local residents through world-class water services.

It was a fantastic opportunity to allow university students to experience active construction projects happening in their own backyard and hear first-hand about the benefits of becoming an undergraduate engineer in the construction sector. The initiative was supported by The Women in STEM Education (WiSE) Program, which supports the career development of women studying in the areas of science, technology, engineering and mathematics (STEM) at Western Sydney University.



Western Sydney University students touring the West Camden WRP

Changes to our work hours

From Monday **5 December 2022** until **Friday 30 June 2023**, we will extend our work hours to allow extra time for concrete pours and reduce risk of heat stress to our workers in hot weather.

Our extended work hours will be from **5am** to **6pm Monday** to **Friday**. There will be no change to the Saturday work hours, which are 7am to 5pm. We will not work on Sundays or Public Holidays.

Christmas Shutdown 23rd December to 3rd January

Our construction team will be taking a well earned break over the Christmas and New Year period with no works being carried out from **Friday 23 December 2022** until **Tuesday 3 January 2023**. The existing treatment plant will operate as usual during this period.

From the Sydney Water and Downer BMD team, we wish you a joyous and happy holiday season, as well as the very best wishes for Christmas and new year!



Staying updated – on time, every time



Web: sydneywatertalk.com.au/west-camden



Email us: WestCamdenWRP@sydneywater.com.au



To find out more about the project please visit our SydneyWater Talk Page

Need to contact us on another matter? Call our Contact Centre on 13 20 92

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