

Wentworth Health Service Redevelopment

The project design is guided by the Design Guide for Health and Health Infrastructure's Environmentally Sustainable Development (ESD) principles. Maximising the facility's connection to Country and environmental sustainability are key features of the design.

Sustainability snapshot



Decarbonising infrastructure

The project will achieve full electrification with 90 kWh of solar panels, with no fossil fuels used on site.[^]

[^]Apart from backup generator



Waste management

More than 90% of all construction waste is being diverted from landfill via recycling initiatives.



Climate risk and resilience

40 trees have been planted to reduce urban heat impacts along with 59 trees that were retained.

A 100% backup power generator will be provided to ensure power supply security for regional health facilities.

The hospital site was raised to the level of the levee bank to mitigate climate risk.



Energy and water management

56 MWh of energy was saved from installation of energy efficiency lighting, HVAC* systems, and high-quality passive design construction.

100,000L of rainwater will be collected from onsite water tanks annually.

*HVAC - Heating, ventilation, air conditioning

Project phase: In delivery



Artist impression: The new Wentworth Health Service

The \$30 million Wentworth Health Service Redevelopment will provide a purpose-built facility with a comprehensive 19 bed inpatient unit and urgent care outpatient services for the residents of Wentworth and neighbouring communities in Far West NSW.

Environmental approach

The project integrates innovative environmental initiatives across the entire project lifecycle from: design, construction, and ongoing hospital operations, resulting in substantial environmental benefits.

Decarbonising infrastructure

In line with the Far West Local Health District's (FWLHD) operational decarbonisation strategy, the campus will be 100% electrified with fossil fuels used by the hospital or ancillary buildings phased out completely.

This commitment will be supported by the installation of 90 solar panels, enabling the generation of 146.4 MW, supplying approximately 40% percent of the hospital's total energy requirement. Estimated carbon emissions saved from the solar panels is equivalent to the removal of 26 cars from the road each year.

Waste management

To avoid carbon emissions from the transport of new materials and site setup, some ancillary buildings scheduled for demolition have been repurposed into the main contractors site offices and storage.



An obsolete water tank will be used by the civil subcontractor at another site reducing waste to landfill

Drink bottles used on site are collected and donated to the local Wentworth Primary School to assist their Return and Earn scheme participation. Approximately 100 bottles are donated each week, saving 431kg of carbon emissions annually.

Climate risk and resilience

A further 40 new trees have been planted to reduce urban heat impacts along with 59 trees that were retained.

The region is exposed to growing climate risks, primarily extreme heat and flooding. Site selection for the facility was informed by the Probable Maximum Flood (PMF) level applying to the area.

The project's design includes improved mechanical systems and a full backup generator to manage the impacts of extreme heat on the electrical system. Onsite water storage mitigates against drought and fire risks.

Energy and water management

Health Infrastructure uses passive design to reduce energy consumption. The project design features large windows to maximise natural light penetration, facilitate airflow and connection to nature.

Energy consumption is reduced by incorporating the following measures:

- energy efficient HVAC system, steam boilers and domestic hot water services.
- automated building management system, LED lighting and energy efficient mechanical system.

Water conservation is a pivotal consideration of the design and is being implemented through the following initiatives:

- 15,000 L storage tank to harvest rainwater for landscaping and reduce reliance on potable water.
- installation of water efficient (WELS) rated water fixtures and fittings will further reduce the hospital's potable water consumption.
- water sensitive urban design features, such as onsite water detention tank, bio swales and site surface treatments to maximise passive irrigation.



Artist impression: The new Wentworth Health Service facilities

Indigenous knowledge

Walk on Country with local Aboriginal people guided the siting of scar trees (red river gums from which canoes are carved) around the river behind the hospital. The scar tree will be replicated in the main entrance column.

The project's Aboriginal Advisory Group have supported the inclusion of a sensory garden for palliative care and an adjacent yarning circle.

Planting around the new hospital and in the gardens will include cultural, medicinal and bush tucker plants.

The Wentworth Health Service Redevelopment Aboriginal Advisory Group, Barkandji PBC, Coomealla Health Aboriginal Corporation and other organisations continue to be involved in decision-making with Health Infrastructure and FWLHD throughout the construction process.



The site of the new facility is significant to the local Aboriginal community with connection to Country a key input to the design.

For more information

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