



photo courtesy: sydneydesal.com.au



Desalination for Greater Sydney

Sydney Water has been providing world-class water services to Greater Sydney, the Blue Mountains and the Illawarra for 135 years. With increasingly unprecedented weather events and growing demand for our services, we need to think about water differently.

Sydney currently relies on rainfall for over 85% of its water supply. We need to ensure we have a sustainable, rainfall independent and safe water supply. This requires good water planning and looking at a range of water supply options to improve the long-term resilience and reliability of our most precious resource. The Sydney Desalination Plant at Kurnell is currently the only rainfall independent source of drinking water for Greater Sydney. It provides resilience for our water supply system during extreme weather events including floods and droughts. The

plant first started operating in 2010 and can supply up to 250 million litres of drinking water a day. That's the equivalent of water held in more than 100 Olympic swimming pools or about 15% of Greater Sydney's drinking water needs.

The Sydney Desalination Plant was originally designed with expansion in mind and the expectation that in the future it could produce up to 500 million litres of high-quality drinking water a day – double its current capacity. Desalination has the potential to provide up to 70% of our water needs by 2056.

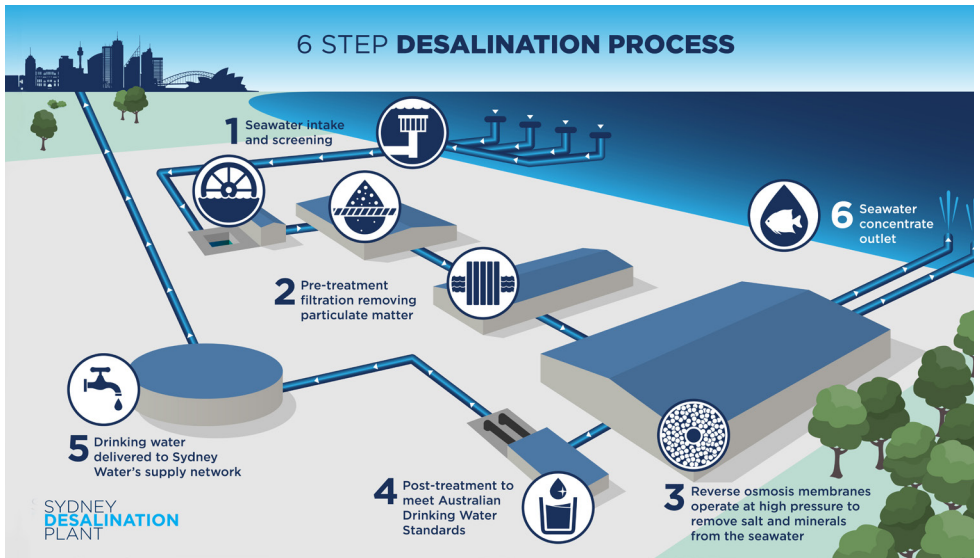


The desalination process draws water from the ocean and transforms it into high-quality drinking water. Unlike rivers and dams, the amount of seawater in oceans is not affected by changing rainfall. For decades, countries around the world next to oceans have been using desalination to treat seawater.

Powered 100% by renewable energy, the plant uses a reverse osmosis membrane process to remove salt and other minerals to turn seawater into drinking water. The salty water left behind is carefully returned to the ocean.

The Sydney Desalination Plant plays an important role in supporting our water supply, reducing pressure on our water filtration plants. The plant has been running continuously since 2019 to help address water quality issues arising from bushfires, flooding and significant maintenance work in Sydney Water's supply network.

Sydney Water is exploring options for additional rainfall-independent water supply sources to ensure we have a sustainable, reliable and safe water supply that can safeguard the city even in times of prolonged drought and increasing demand on our services.



Graphic courtesy: sydneydesal.com.au

