

THE SEQ WATER GRID STORY

The SEQ Water Grid is an industry leader in delivering safe, secure and sustainable water for South East Queensland – a sound investment for now and the future.

The \$7 billion SEQ Water Grid is an integrated system that secures and efficiently manages South East Queensland’s water supplies. The SEQ Water Grid comprises of an infrastructure network of treatment facilities and two-way pipes that move water from new and existing sources across the region.

It provides South East Queensland with more water sources, both climate dependent (dams and rainfall) and climate resilient (desalination and purified recycled water), managed more efficiently with a strong conservation focus.

The SEQ Water Grid is a Queensland Government initiative designed to provide a guaranteed level of security for the region’s water supply, regardless of the demands of population growth and climate change. It is the first system in the world to source, treat, manufacture, store and transport drinking water on this scale.

The SEQ Water Grid was developed and delivered in the grip of the worst drought on record, when the combined water storage in the region’s three largest dams, Wivenhoe, Somerset and North Pine, dropped to less than 17 per cent. It is the largest urban water security response in Australia and is unique in terms of the diverse range of projects implemented, the time in which they were delivered, and the new management arrangements established.

The new management arrangements included the amalgamation of 16 separate entities that previously owned and operated the bulk water treatment, storage and transport infrastructure into four bulk water State Government owned Statutory Authorities – Seqwater, LinkWater, WaterSecure and the SEQ Water Grid Manager – and three retail-distribution entities – Unitywater, Queensland Urban Utilities and Allconnex Water.

The SEQ Water Grid includes:

- ◆ 12 connected dams
- ◆ 10 connected drinking water treatment plants
- ◆ 3 advanced water treatment plants producing purified recycled water
- ◆ 1 desalination plant
- ◆ 28 water reservoirs
- ◆ 22 bulk water pump stations
- ◆ 535 kilometres of potable bulk water mains



The SEQ Water Grid is Australia’s largest water infrastructure project since the construction of the Snowy Mountain Hydro Electric Scheme.

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SEQ Water Grid Statutory Bodies

The SEQ Water Grid Manager is a Government-owned statutory body, responsible for the strategic operation of the SEQ Water Grid. It was established in May 2008.

It owns the urban water entitlements and purchases the services to store, treat, produce and transport bulk water from other State-owned water statutory bodies to sell to Grid Customers in South East Queensland.

It sells raw water, drinking water and purified recycled water to the three SEQ Distributor-Retailers, power stations and other industrial and rural businesses.

The SEQ Water Grid Manager makes strategic operating decisions based on coordinating the production and transport of water to where it's needed most, at the lowest possible cost. It operates as a not-for-profit entity, adopting commercial principles where practicable, with an independent Board.

The SEQ Water Grid Manager's core business delivers water security to South East Queensland ensuring quality and cost effectiveness. In managing water security for the region, it balances the needs of the community and the environment.

The system works like this – Seqwater produces bulk drinking water from dams and weirs, which is treated and transported through LinkWater's pipe network to distribution networks.

WaterSecure's water recycling plants supply customers directly, while its desalination water is pumped into the SEQ Water Grid via LinkWater's pipes.

The SEQ Water Grid Manager owns the water entitlements and buys water services under contract from these entities and then sells water products to the SEQ Distributor-Retailers. It also sells water for power generation and for other industrial users.

The SEQ Water Grid Manager makes strategic decisions about how water should be moved around the region on a month-to-month basis to ensure supply security and efficient operation.

The SEQ Water Grid Manager supplies the three SEQ Distributor-Retailers who manage the supply of water, provision of wastewater services and associated billing to consumers. These council-owned Distributor-Retailers include:

- Unitywater, who provides services to Moreton Bay and the Sunshine Coast council areas
- Queensland Urban Utilities, who provides services to Brisbane, Ipswich, Lockyer Valley, Scenic Rim and Somerset council areas
- Allconnex Water, who provides services to the Gold Coast, Logan and Redland council areas.

Thanks to the flexible and cohesive system now in place, more than 90 per cent of South East Queensland's drinking water customers have added security of being supplied from multiple water sources.

The ability to move water to where it's needed most ensures continuous water supply for the region.

This is a rapid turn-around on the situation just four years ago, when South East Queensland was 95 per cent reliant on rainfall to provide its water supply needs. Now that dependence has been reduced to 75 per cent.

Because of the SEQ Water Grid's combination of climate dependent and climate resilient water sources, South East Queensland can be guaranteed of:

- water supplies during periods of drought
- agreed standards and quality of the water supply, regardless of weather conditions
- less severe water restrictions, less often.

Seqwater owns, manages and operates:

- 25 dams across South East Queensland
- 46 operational water treatment plant facilities and 14 groundwater bore fields and aquifers.

Seqwater also provides irrigation services to around 1,000 rural customers in five water supply schemes.

Seqwater is responsible for a range of new water infrastructure projects and initiatives, including an advanced water treatment plant on Ewen Maddock Dam on the Sunshine Coast, a water treatment plant at Wyaralong near Beaudesert, raising the dam wall to increase the capacity of Hinze Dam on the Gold Coast; and the fluoridation of the region's drinking water supply.

By integrating bulk water supply and catchment management in one organisation, Seqwater harnesses the skills, expertise and knowledge in whole-of-catchment management – supported by the latest science, research and community awareness – to achieve the strategic goals of water supply quality and security, and catchment sustainability.

LinkWater is the Queensland Government statutory body responsible for the management, operation and maintenance of drinking bulk water pipelines and related infrastructure throughout South East Queensland.

LinkWater has established operation capability for 535km of pipeline infrastructure that forms the backbone of the SEQ Water Grid. In addition to bulk water pipelines, related infrastructure under LinkWater's control comprises 28 reservoirs / balance tanks, 22 pump stations and six water quality facilities.

South East Queensland now leads Australia in water security. A report released by Infrastructure Australia found the supply capacity in South East Queensland was 50 per cent more than the current annual water demands. This provides a water security buffer of 160,000 megalitres per annum - the strongest water security buffer in all of Australia's capital cities.

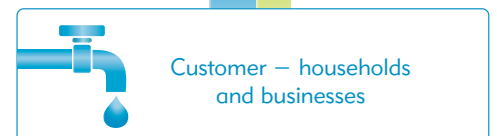
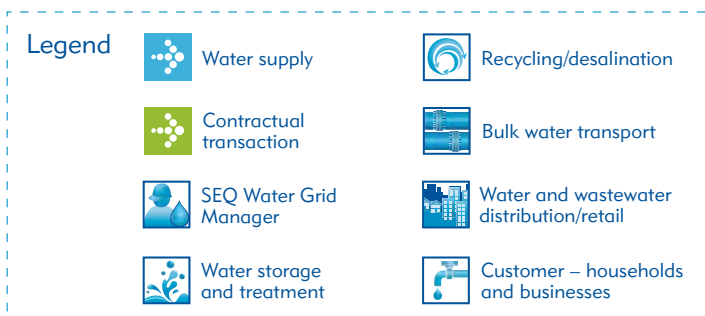
From its centralised control room, LinkWater is moving an average of 600 megalitres of water per day across the SEQ Water Grid, to where it's needed most.

LinkWater's expertise also extends to planning and improving the potable bulk water transport network in South East Queensland. This includes the ongoing refurbishment of acquired infrastructure now under one, comprehensive asset management system.

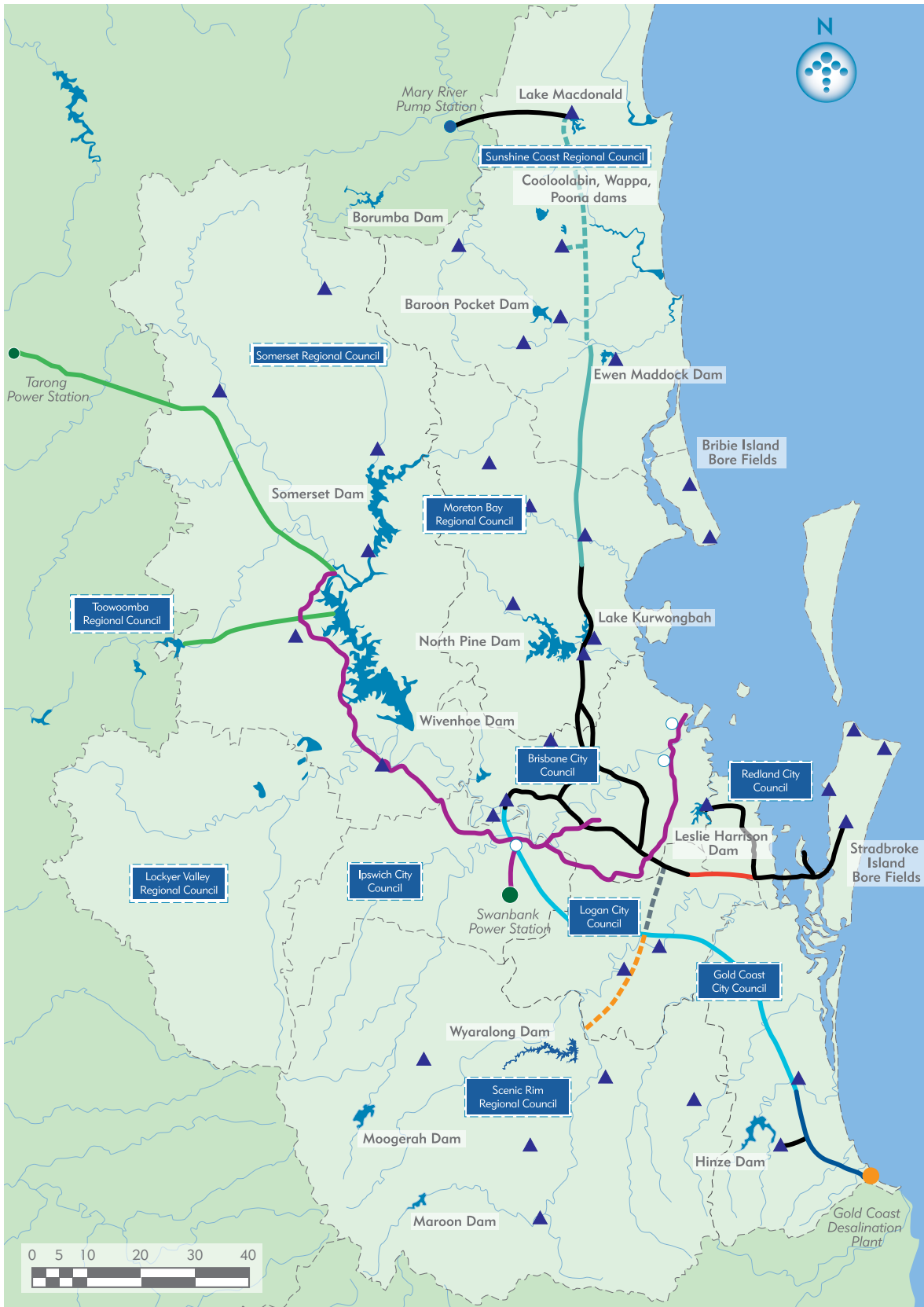
WaterSecure is supplying a new source of water to South East Queensland. Through its assets – the Gold Coast Desalination Plant and the Western Corridor Recycled Water Scheme – WaterSecure provides safe and secure climate resilient water sources.

It is responsible for delivering desalinated water to the SEQ Water Grid. Purified recycled water is supplied to Swanbank and Tarong power stations with the potential to supply to industrial and agricultural customers in the future as well as supplement drinking supplies in Winvenhoe Dam should dam levels drop below 40 per cent.

The Western Corridor Recycled Water Scheme is the largest purified recycled water project in Australia and the third largest in the world. The Gold Coast Desalination Plant is the largest on Australia's eastern seaboard. The two facilities have won numerous national and international awards including 2009 International Membrane Desalination Plant of the Year and 2009 Water Reuse Project of the year.



SEQ Water Grid



Legend

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| Northern Pipeline Interconnector – Stage 1 | Cedar Grove Connector (in planning stages) | Local government boundary |
| Northern Pipeline Interconnector – Stage 2 (under construction) | Karawatha Interconnector (in planning stages) | Conventional water treatment plant |
| Western Corridor Recycled Water Scheme | Network Integration Pipeline | Advanced water treatment plant |
| Southern Regional Water Pipeline | Other bulk water pipelines connecting the SEQ Water Grid | Desalination Plant |
| Eastern Pipeline Interconnector | | Pipelines connecting key customers to the SEQ Water Grid |

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