# 2024 Water Security Program Annual Report

**APRIL 2025** 





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Seqwater

Seqwater acknowledges the Traditional Custodians of the land, catchments and waterways on which we live, work and play.

We pay our respects to Elders past, present and emerging; and acknowledge their continued connection to the land, water and culture of South East Queensland.

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### Introduction

Seqwater is responsible for long-term planning, including drought response, for a reliable and sustainable water supply in South East Queensland (SEQ). This planning is outlined in the 30-year Water Security Program, 'South East Queensland Water Security Program 2023' that was released in October 2023. This report can be found at: <a href="http://www.seqwater.com.au/water-security">www.seqwater.com.au/water-security</a>.

Seqwater is required to prepare and report on water security for SEQ annually. This 2024 annual report assesses changes in water security compared to the Water Security Program (WSP) 2023.

### Highlights

The highlights for 2024 include:



Continued supply of a safe, reliable and highquality bulk water supply.



Storages increased 18.3% between January and December in 2024, an increase that surpassed 2022 (17.8%) as the greatest increase in a calendar year in the past 10 years.



The "We think of every drop" education campaign, which focused on promoting water security challenges and strategies within SEQ, ran from November 2023 and to March 2024.



Sequater is continuing to develop an education campaign to encourage the SEQ community to be waterwise.



Progress on more detailed planning for regional long-term and drought contingency supply options, including the proposed Wyaralong Water Treatment Plant (WTP) and expansion of the Gold Coast Desalination Plant.



Regional Development, Manufacturing and Water, now Department of Local Government, Water and Volunteers (DLGWV), and our SEQ Retailer Customer partners (City of Gold Coast, Logan Water, Redland City Council, Unitywater and Urban Utilities) on drought preparedness activities.

Collaboration with the former Department of



Continued investigations for the use of the Western Corridor Recycled Water Scheme for non-potable industry use.



Supply of up to 2,170 ML of Purified Recycled Water (PRW) to industrial customers, including the successful negotiation of new Bulk Water Supply Agreements with Stanwell Corporation and CleanCo Queensland for a supply of PRW, offsetting water demand from Wivenhoe Dam.

## Water supply security situation

Seqwater continued to prepare for drought throughout 2024 by:

- engaging with the SEQ Retailer Customers to further develop our shared understanding of drought response needs
- developing public information to educate the community on water security challenges and the drought response plan
- managing the water grid to balance water security and cost efficiency drivers
- developing and progressing planning for drought contingency water supply options
- reviewing contingency planning for supplies to offgrid communities.

Seqwater continuously monitors and responds to the water security situation in SEQ. When the combined water grid storage level falls below 70%, Seqwater releases a monthly Water Security Status Report. Above 70%, the reports are produced every two months.

The final report for 2024 can be found here: <u>www.seqwater.com.au/sites/default/files/2025-01/</u> <u>J022095%20Seqwater%20Water%20Security%20</u> <u>Update%20DEC24\_02.pdf</u>.

### **SEQ Water Grid**

Seqwater continued to progress drought preparedness throughout 2024, including further collaboration with the SEQ Retailer Customers (<u>www.seqwater.com.au/water-security</u>).

In the later part of 2024, regular rain events contributed to an increase in most of the storages connected to the water grid. The water grid storage level was 88.5% as at 31 December 2024.

The full supply level of the SEQ Water Grid has been reduced while Seqwater undertakes its Dam Improvement Program. The program will deliver infrastructure upgrades at a number of Seqwater dams and ensure ongoing safety and security of bulk water supply well into the future. The Lake Macdonald Dam Improvement Project commenced early works in November 2024, with major construction works to commence in 2025. Ahead of the wet season, minor lowering of the lake levels commenced in October 2024. Seqwater aims to minimise the project's impact by constructing a cofferdam that will allow water to be stored up to approximately two metres below the full supply level of the current lake for the duration of the project which is around five years. This water level is higher than the previously proposed design and will improve water security for the Noosa community and maintain access to the lake during the construction period.

A detailed business case is currently being prepared for the Somerset Dam Improvement Project. While detailed planning is underway on the main dam upgrade, Seqwater has identified an opportunity to undertake Early and Enabling Works. The Early and Enabling Works are required to be completed irrespective of the final design configuration and will involve a range of preliminary activities that support the main dam upgrade. The majority of these works will be progressively rolled out from 2025.

Early planning is underway for the Wivenhoe Dam Improvement Project however, as Somerset and Wivenhoe Dams operate as one system, the outcomes of the Somerset Dam planning will inform final considerations for Wivenhoe Dam.

Planning is also underway to confirm the preferred upgrade options for North Pine Dam. While North Pine Dam continues to operate safely under normal conditions, Seqwater implemented additional precautionary measures this wet season by lowering Lake Samsonvale to better manage large spill events and catchment inflows. In December 2024, the decision was made that from late January 2025, Lake Samsonvale would be gradually lowered to 54% of its total capacity, which is approximately two metres lower than the current full supply level.

While detailed planning for the main dam upgrade continues, Seqwater has identified an opportunity to undertake early strengthening works to the dam wall. The Staged Strengthening project will involve installing post-tensioned anchors vertically through sections of the dam wall and into the rock foundation below the dam. Post tensioned anchoring is an industry-accepted strategy to enhance the structural stability of dams and will ensure the dam can withstand more extreme floods. Work on the staged strengthening is expected to commence in 2025.

While the program is underway, Wivenhoe, Somerset and North Pine Dams are operating at a reduced full supply level. This is an industry-accepted practice to manage dam safety.

The temporary changes mean Wivenhoe Dam storage will be maintained at 90% full supply level, Somerset Dam at 80% full supply level and North Pine will move to 54% full supply level, until upgrades are completed.

The temporary full supply levels mean the SEQ Water Grid at full supply is reduced from 100% to approximately 88%.

Seqwater closely monitor supplies and will implement the adaptive drought response plan, as detailed in the Water Security Program, as required. Seqwater collaborates with its SEQ Retailer Customers, State Government and other key stakeholders to effectively manage drought, including continuing with pre-planning activities whilst the storages are above drought trigger levels.

### **Off-Grid communities**

Seqwater supplies drinking water to around 53,000 people living in 16 locations not connected to the SEQ Water Grid, known as off-grid communities. The water for these communities is sourced and treated locally, then distributed to households and businesses.

Drought response plans were enacted only in Dayboro during 2024. Dayboro reached the drought pre-trigger and trigger 1 drought readiness twice in 2024. After some large storms in the area, it exited the drought response trigger levels on 20 November 2024 and remained above the trigger levels through December 2024. Relevant dates and trigger levels are provided in **Table 1** below.

Long term water security assessments for the offgrid communities are undertaken as part of the Water Security Program 2023.

Seqwater has considered the future demand forecast for Canungra and Dayboro with our retailer customers, Urban Utilities and Unitywater, and determined the level of sustainable supply, which indicates additional investment will be required.

Seqwater is currently working on strategic water supply options and timing for investment for both Dayboro and Canungra. The preferred option for Canungra is an off-stream storage, with investigations continuing and assessments to confirm the best option expected to be complete in 2025. Further planning and investigations are underway for Dayboro.

Off-Grid	Date	Trigger
	16 July 2024	Drought Pre-Trigger
	27 July 2024	Trigger 1 – Drought Readiness
Davbara	14 August 2024	Drought Exit
Dayboro	30 August 2024	Drought Pre-Trigger
	25 September 2024	Trigger 1 - Drought Readiness
	20 November 2024	Drought Exit

#### Table 1: Off-Grid drought response actions

# Changes to Water Security Program planning assumptions

There were no changes to the key planning assumptions that underpin the Water Security Program in 2024.

### Demand

Demand data in this report is for the 2023/24 financial year. Reporting based on financial year is consistent with all other demand related reporting, enabling ease of comparison.

### **SEQ Retailer Customers**

Water demand is influenced by many factors including weather conditions, population growth, consumption behaviour and system shocks (as seen between 2020 to 2022 during the COVID-19 pandemic). SEQ Retailer Customer observed water demand (urban demand) for 2023/24 increased by 3.6% compared to the 2022/23 demand. This increase indicates a return to pre-COVID growth patterns.

**Figure 1** shows a historical annual water consumption growth trend of around 3% per annum since 2010/11 (excluding 2020/21 to 2022/23). In 2023/24 water consumption grew by 3.6% and according to the published *Queensland Government Statistician's Office (QGSO) 2023 Edition Medium Series Population,* population was forecast to increase by around 2%. This resulted in a total per capita increase in consumption of 3.6% (**Table 2**).



Figure 1: SEQ historical water demand & Water Security Program 2023 Planning Demand

Region	2022/23	2023/24	% change
SEQ Water Supplied (ML/a)	319,552	331,061	3.60%
Total water consumption (residential and non-residential) (L/p/d)	242	251	3.60%

#### Table 2: Total water supplied to SEQ Retailer Customers in 2022/23 and 2023/24 (ML/a and L/p/d)

Table 3 below illustrates consumption (megalitres per annum (ML/a)) has increased across almost all Local Government Areas (LGA), in particular Ipswich and Lockyer Valley. Table 4 illustrates the same demand data in litres per person per day (L/p/d).

#### Table 3: Water supplied to SEQ Retailer Customers by LGA in 2022/23 and 2023/24 (ML/a)

Pagion	Demand supplied (ML/a)		° abanga
Region	2022/23	2023/24	% change
Brisbane	124,080	123,737	-0.28%
Gold Coast	63,601	66,000	3.77%
lpswich	19,992	22,960	14.84%
Lockyer Valley	2,453	2,853	16.29%
Logan	24,762	26,373	6.50%
Moreton Bay	33,228	35,582	7.08%
Noosa	6,065	5,836	-3.77%
Redlands	14,069	14,888	5.82%
Scenic Rim	1,920	2,032	5.84%
Somerset	2,315	2,429	4.90%
Sunshine Coast	27,064	28,372	4.83%

#### Table 4: Water supplied to SEQ Retailer Customers by LGA in 2022/23 and 2023/24 (L/p/d)

Pagion	Demand supplied (L/p/d)		<sup>9</sup> obanga
Region	2022/23	2023/24	
Brisbane	263	259	-1.55%
Gold Coast	269	273	1.37%
lpswich	227	252	11.24%
Lockyer Valley	233	265	13.73%
Logan	196	204	3.69%
Moreton Bay	187	195	4.27%
Noosa	353	337	-4.78%
Redlands	240	251	4.72%
Scenic Rim	258	263	2.28%
Somerset	466	478	2.73%
Sunshine Coast	228	233	1.98%

In the current financial year (2024/25), the year-to-date demand as of end of December 2024 is 4.2% lower than over the same period in 2023/24. The lower year-to-date demand from July to December 2024 is likely driven by the higher average rainfall experienced over this period in 2024 compared to the same period in 2023.

#### **Neighbouring communities**

Under the bulk water supply agreement with Toowoomba Regional Council, up to 10,000 ML/a can be transferred from Wivenhoe Dam to Cressbrook Dam to supplement drinking water supplies in the Toowoomba region.

Table 5 shows that Toowoomba Regional Council did not access this volume in 2023/24.

#### Table 5: Total water supplied to Toowoomba (Wivenhoe to Creesbrook transfer) in 2022/23 (ML/a)

Customer	2022/23	2023/24	% change
Toowoomba Regional Council (ML/a)	0	0	0%

#### **Power stations**

Under bulk water supply agreements with Stanwell and CleanCo, Tarong and Swanbank power stations could take up to a combined total of 29,500 ML/a in 2023/24. **Table 6** below shows the volume of water supplied (combined total of raw and purified recycled water) to power stations in 2023/24 compared with 2022/23

#### Table 6: Observed power station demands in 2022/23 and 2023/24 (ML/a)

Customer	2022/2023	2023/24	% change
Power stations (ML/a)	5,536	4,615	-16.6%

# Assessment of the projected regional average demand

A review of the demand forecast was completed in early 2025. The outcomes of this review were:

- The existing demand profile used for planning functions (WSP 2023 Planning Demand) has performed within an acceptable range. Observed annual demand for 2023/24 was 6.2% below forecast, within the established 10% target threshold.
- COVID-19 pandemic system shock resulted in a reduction in observed annual water demand growth in SEQ (as shown in Figure 2 below). Prior to the pandemic, the growth was at 2.5% per annum. However, from the 2019/20 to 2021/22 financial years, demand growth decreased to -4.0% per annum, an annual reduction instead of increase.
- Figure 2 shows a return to positive demand growth (4.9%) in 2022/23, and the actual demand for 2023/24 continues to support this growth expectation. If this rate of growth continues, the demand would reach the WSP 2023 Planning Demand by the 2025/26 financial year. This annual

growth rate is higher than the historical trend prior to COVID-19, though observed demand volume remains below the demand forecast. Monitoring of observed demand trends and performance against the forecast will continue. Where a sustained material change in growth trends is observed, a review will be undertaken to determine impacts to water security planning and if necessary, an update to the WSP Planning Demand (and therefore the Water Security Program) will be made.

- As at December 2024, no modifications are required to the projected water demand for water security planning purposes, given:
  - the acceptable performance of the existing demand forecast,
  - the anticipated water demand recovery commenced in 2022/23 and possible return to projected levels by 2025/26, and
  - the uncertainty in how demand growth will recover from COVID-19 system shock.

Seqwater continues to work with its SEQ Retailer Customers and DLGWV to understand longer-term demands.



Figure 2: Observed demand and WSP2023 Planning Demand growth trends

# Off-Grid community demand projection assessment

In most off-grid communities, the observed demands for the 2023/24 financial year were higher than in the 2022/23 financial year.

Weather conditions in 2023/24 were hot and dry in the first half of the year, with 11 off-grid communities recording above forecast consumption. Eight offgrid communities recorded consumption over 10% higher than forecast. Two of these communities had drought response plans activated in 2023 (Dayboro and Kenilworth). This variation in actual compared to forecast demand was likely driven by increased offnetwork customer demand as well as a response to drier conditions by the connected community. In the current financial year (2024/25), the year-to-date demand as of end of December 2024 for the majority of the off-grid communities is lower than over the same period in 2023/24. The lower year-to-date demand from July to December 2024 is likely driven by the higher average rainfall experienced over this period in 2024 compared to the same period in 2023.

Given the impact of drought conditions on demand in the first half of 2023/24, and the observed demand increase across the SEQ region with the recovery from COVID-19 system shock, existing demand projections remain current for these communities. Ongoing monitoring will be carried out to understand the persistence of the increased demand growth, along with collaboration with retailer customers to incorporate these learnings into the demand forecasts.

# Water Supply

Seqwater provided water as follows in 2023/24:

#### Table 7: Water supplied in 2023/24 (ML/a)

Sector	Total volume for 2023/24 (ML/a)
SEQ Region – total production of treated water to supply SEQ Retailer Customers	331,061
Subregions - total treated water supplied to each sub-region	
Northern (Moreton Bay, Sunshine Coast and Noosa council areas)	69,790
Central (Brisbane, Ipswich, Lockyer Valley, Scenic Rim & Somerset Council areas)	154,010
Southern (Gold Coast and Logan council areas)	92,373
Eastern (Redland City Council area)	14,888
Bulk water grid storages – Raw water extracted for water treatment	
(excludes environmental, flood releases and water for irrigators)	
Wivenhoe Dam & Brisbane River downstream of Wivenhoe (exclusive of pipelines)	187,479
Somerset Dam	1,507
North Pine Dam	29,313
Hinze Dam	63,130
Baroon Pocket Dam	19,372
Leslie Harrison Dam	3,240
Ewen Maddock Dam	4,494
Cooloolabin Dam and Wappa Dam	4,640
Sideling Creek Dam (Lake Kurwongbah)	0
Lake Macdonald	2,282
Little Nerang Dam	9,535

Sector	Total volume for 2023/24 (ML/a)
Climate-resilient water sources	
Gold Coast Desalination Plant Production	9,627
Western Corridor Recycled Water Scheme Production (PRW sent to power stations)	2,529
Other water sources	
North Stradbroke Island (Minjerribah) – water used for water treatment (Herring Lagoon and North Stradbroke Island Bore fields, 15 Bores)	6,247
Off-grid communities <sup>1</sup> - total water produced at the water treatment plant	
Amity Point	106
Beaudesert	906
Boonah-Kalbar	602
Canungra	126
Dayboro	216
Dunwich	191
Esk	272
Jimna	6
Kenilworth	74
Kilcoy	1318
Kooralbyn	211
Linville	9
Lowood	3646
Point Lookout	309
Rathdowney	27
Neighbouring communities – total water supplied	
Toowoomba Regional Council	0
Power Stations – total water supplied	
Total raw water intake	2,087
Total purified recycled water intake	2,529

1 Treated Water Volume

Note: Whilst the data used for this reporting is from the same base data source as the Resource Operations Licence/Water Licence reporting, because the focus of the reporting is different, the figures will not be consistent. For example, the Resource Operations Licence/Water Licence reporting is reported by off-take/water allocation, whilst the water security reporting is based on the dam source.

### Changes to the Bulk Water Supply System

Throughout 2024, Seqwater continued to deliver capital works to improve the capability of the SEQ Water Grid. Some of the more significant works include:

- Water security projects to support the northern subregion including the Woombye connection, which was commissioned in early 2024. The Woombye connection provides an alternative grid supply from the Northern Pipeline Inter-connector to the Maroochy area.
- Construction of the South West Pipeline, which connects Beaudesert to the SEQ Water Grid, is complete. Performance testing and operational planning is underway for supply to Beaudesert via the Logan Water Network. This pipeline is the most

significant addition to the SEQ Water Grid since 2012 and will ensure a reliable long-term water supply for the community, by moving up to 2.5 million litres of water into the region per day when needed.

In addition to the above, operational strategies for the SEQ Water Grid were updated to ensure continuity of water supply:

- whilst proactively using water released from Lake Macdonald Dam during the lowering of lake level; and
- when planned maintenance works are undertaken on assets.

### Climate-resilient water assets

Sequater has two climate-resilient water supplies – the Gold Coast Desalination Plant and the Western Corridor Recycled Water Scheme. These assets are operated based on the adaptive drought response strategy in the Water Security Program. The desalination plant is also able to support operational requirements.

### Desalination

The Gold Coast Desalination Plant is a key asset for the provision of water security in SEQ. The plant is used to provide supply resilience and to enable planned maintenance to other assets within the water grid. The plant is a critical drought water supply asset. It also plays an important role supplementing the SEQ Water Grid during flood events, as it did in early 2024 when raw water quality issues reduced production capability at some water treatment plants.

When not in production, the Gold Coast Desalination Plant is maintained in a 'hot standby' mode to maintain the condition of its membranes and can be operational at a rate of 33% capacity within 24 hours and up to the maximum production capacity of 133 ML/d within 72 hours (45,625 ML/a based on 125 ML/d operation capacity that includes maintenance and down time). Desalination plants are not dependent on rainfall into catchments for source water but can be impacted by source water limitations such as exceptionally high tides or seaweed blooms that can produce high turbidity source water.

### Purified recycled water

The Western Corridor Recycled Water Scheme is a scheme consisting of three advanced water treatment plants (AWTP) and over 220 km of connecting pipelines between the AWTPs, industrial customers (including the power stations) and Wivenhoe Dam. This scheme has an annual production capacity of 59,130 ML/a once recommissioned to full capacity.

The Western Corridor Recycled Water Scheme comprises three AWTPs, which are:

- Bundamba AWTP, average production capacity of 19,710 ML/a
- Gibson Island AWTP, average production capacity of 16,425 ML/a
- Luggage Point, average production capacity of 22,995 ML/a.

Three treatment units (or trains) at Luggage Point AWTP are currently operational to produce PRW. The peak capacity of the three treatment units is 70 ML/d, however this is limited by the current balance of plant capacity of 46 ML/d. This water is currently used to flush the pipeline and supply industrial customers.

# Operation of climate-resilient water assets

The Gold Coast Desalination Plant operated as required throughout 2024 to support system resilience and

maintenance at other areas of the water grid. Production was increased in November 2023 in response to reaching the 70% Pre-Drought trigger and this continued until the water grid storage level exceeded the predrought trigger on 4 January 2024. The production during this period averaged around 85 ML/d and was then gradually reduced.

The Western Corridor Recycled Water Scheme operated throughout 2024 (both outside of drought and when below the 70% Pre-Drought trigger) supplying a total volume of approximately 2,170 ML to industrial customers.

### Table 8: Operation of climate-resilient water sources due to drought response and to support grid operationsduring 2024

Date/s	Climate-resilient water operation
1 January 2024 – 3 January 2024 (drought operation)	Gold Coast Desalination Plant was operating for drought response due to low water levels in the grid-connected dams, up until 3 January 2024, supplementing water grid levels with approximately 260 ML of manufactured water.
4 January 2023 – 31 December 2024 (supporting grid operations outside of drought)	Gold Coast Desalination Plant operated throughout 2024 to support grid operations. Production volume between 4 January 2024 – 31 December 2024 was 4,567 ML.
1 January 2024 - 3 January 2024 (drought operation)	Over this period Luggage Point AWTP supplied purified recycled water of 3 ML to industrial customers, offsetting potable water demand from the Grid.
4 January 2024 - 31 December 2024 (outside of drought)	Luggage Point AWTP continued to supply purified recycled water, with approximately 2,167 ML supplied to industrial customers while outside of drought.

### Assessment of the regional water balance

Level of Service (LOS) yield modelling undertaken in the development of the Water Security Program 2023 determined the existing SEQ system has an LOS yield of 430,000 ML/a under historical climate conditions dropping to 325,000 ML/a by 2051 (under future climate conditions). This modelling indicates a water supply augmentation is required by about 2030/31, depending on what projected demands are considered and the assumed impact of future climate change. The WSP 2023 proposed the delivery of the Gold Coast Desalination Plant expansion and the Wyaralong WTP by 2030/31 to deliver the additional system yield, and a major new water source by 2035. The existing system case modelling scenario used in determining the LOS Yield represents current water supply infrastructure, operational strategies, and assumes all storages can be operated using their designed Full Supply Level.

### Drawdown scenarios

In 2024 Seqwater started working with DLGWV to investigate options for optimising grid assets, including a review of operating strategies. However, in 2024 there were no formal changes to LOS yield modelling.

DLGWV began the desired LOS Objectives review in 2024, with this work continuing in 2025. Once the review is complete and changes to the LOS Objectives have been implemented, Seqwater will review the Water Security Program. The next Water Security Annual Report will provide an update on this work and potential changes to Water Security Program planning assumptions.

As there have been no changes to the key planning assumptions (including WSP2023 Planning Demand and available climate change data for the region), the LOS yield modelling outcomes remain current.

The region's water grid storage level was at 88.5% at 31 December 2024, a material increase on its level of 70.2% at the beginning of 2024. Storages increased 18.3% in 2024, an increase that surpassed 2022 (17.8%) as the greatest increase in a calendar year in the past 10 years.

Figure 3 illustrates that although storages had a similar net increase in 2022 and 2024, 2022's increase was due to a high flow event at the beginning of March during the 2022 floods. In contrast, the increase in 2024 was more gradual and sustained by inflow events throughout the year.

Although 2024 had the greatest increase, it is worth noting that strategic releases were made from Wivenhoe

Dam ahead of the 2022/23 La Nina wet season to increase the temporary flood storage space in Wivenhoe Dam. If this release had not occurred, 2022 would have had a greater increase than 2024.

Wivenhoe Dam increased 28% over 2024, to a high of 91.4% on 18 December 2024. With Wivenhoe Dam representing more than half of the total water storage for the water grid, this makes a significant impact on the water grid storage level and the likelihood of triggering drought response measures. Seqwater provides access to the water grid storage levels and individual dam levels drawdown data at: <u>www.seqwater.com.au/historic-damlevels</u>.



Figure 3: 2024 observed storage levels compared with 2022 observed storage levels

When storages are restored to full capacity, tracking against modelled drought drawdowns restarts. There are two drawdown scenarios used to understand and plan for drought driven risks:

- Short term drought response planning: In 2019, grid storages saw a drawdown of 19.3% over the year, which is the longest continuous drawdown since the Millennium Drought. In short term drought response planning, the 2019 drawdown rate is applied to current levels to provide a simple forecast that assumes similar dry conditions and dam inflows to what was seen in 2019. This forecast then provides an approximation of when storage levels could reach drought response triggers for the next 12 months. Figure 4 over provides the December 2024 observed storage levels with the 2019 drawdown applied over 2025.
- Long term drought response planning: A Design Drought is used in Water Security Program modelling. The Design Drought is a modelling generated drought based on the worst droughts

in the stochastic dataset. The Design Drought was developed based on data from our stochastic record to define a potential drought worse than the Millennium Drought. All droughts start with declining inflows; it is the severity and duration of the drought that differs. Figure 5 shows Design and Millennium Drought inflow draw downs and recorded water grid storage levels from the most recent date in 2024 that system was at its full supply level (December 2024). The Design Drought drawdown (orange line) represents the storage level decline that could be seen if grid storages received extremely poor inflows which are worse than what has been seen in the past. Although these very poor inflows are highly unlikely (1 in 10,000) they are statistically possible and provide a "worst case" drought consideration. For comparison, the Millennium Drought draw down (green line) represents the storage level decline that could be seen if the region received the same inflows which were observed during the Millennium Drought which ran from 2000-2010



Figure 4: Recorded grid storage levels and projected storage decline assuming 2019 drawdown from December 2024



Figure 5: Design and Millennium Drought inflow draw downs and recorded water grid storage levels from December 2024

### Water security outcome statement status

All Water Security Program 2023 actions are underway. Updates on the planned actions for 2023-2024 are provided in **Table 9** below. Planned Actions for 2024-2035 remain as per the WSP 2023 Action Plan.

#### Table 9: Water Security Program 2023 action plan update

	Action	Progress
2023-2024	Review the depth and storage volumes of Seqwater's largest dams using the latest techniques to ensure dam capacity assumptions remain accurate as these are critical to LOS yield assessments.	Work is ongoing with updated storage information anticipated to be ready for review by Seqwater in 2025.
	Review ongoing developments in climate change science and data and update water supply modelling with new information about climate change impacts.	Review of climate change science and data is ongoing. It is anticipated that new information will become available in 2025.
	Proceed with business cases for the proposed Gold Coast Desalination Plant expansion and Wyaralong Water Treatment Plant.	Both projects received initial investment approval from the Queensland Government in September 2024, with Gold Coast Desalination Plant Augmentation progressing early and enabling works and Wyaralong Water Treatment Plant initiating its procurement process and progressing development approvals.
	Complete a new detailed business case by the end of 2024 for the next major enhancement.	Seqwater continues to work with its water supply partners and the Queensland Government to investigate a range of future source options for future SEQ supply.

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