Western Corridor Recycled Water Scheme Recycled Water Management Plan Annual Report 2020-21

Scheme Reference Number SRN013



Revision 01 | December 2021







Distribution list

Name	Title
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1 Executive summary

The Queensland Bulk Water Supply Authority trading as Seqwater (**Seqwater**) is the Scheme Manager of the multiple-entity Western Corridor Recycled Water Scheme (**WCRWS** or **the Scheme**). On 28 May 2018, under the Notice for the Decision, Water Supply Regulation (**WSR** or **Regulator**) approved Seqwater's application to resume the supply of purified recycled water (**PRW or recycled water**) under the WCRWS Recycled Water Management Plan (**RWMP**). The Notice for the Decision states the Scheme is approved to supply recycled water for electricity generation and explicitly excludes approval to augment a drinking water supply with recycled water.

The purpose of this annual report is to provide the Regulator with information on the overall performance of the Scheme for the period 1 July 2020 to 30 June 2021 (**reporting period**). This annual report has been produced in accordance with section 273 *Water Supply (Safety & Reliability) Act 2008* (**the Act**) and the Department of Regional Development, Manufacturing and Water's (**DRDMW**) *Annual Reporting Guidelines for Recycled Water Schemes (2010)*. This report also provides an accountability mechanism to recycled water customers and the South East Queensland community.

During the reporting period, the Scheme supplied recycled water to meet demand from CleanCo's Swanbank Power Station and Stanwell Corporation's Tarong Power Station. The Luggage Point Advanced Water Treatment Plant (**AWTP**) was the sole operable plant in the Scheme and provided a cumulative volume of 2533 ML of recycled water.

The PRW produced complied with Class A+ water quality criteria for energy generation and also met the water quality criteria for augmentation of drinking water supply as per *Public Health Regulation 2018* (**Public Health Regulation**).

Operational monitoring includes online monitoring with process instrumentation and operator testing designed to assess the performance of preventive measures and requirement for corrective actions. The verification monitoring involves a sampling and analytical testing program which is undertaken by an external NATA-accredited laboratory. Verification monitoring undertaken for the reporting period included 34,263 source water tests and 22,258 PRW tests at the Points of Supply as per PLN-00447 WCRWS Monitoring Plan. This included the commencement of monitoring at Lake Wivenhoe Point of Supply in June 2021.

During the reporting period, a failure to test (missed sample) in accordance with the approved plan occurred during maintenance on one of the PRW pumps that supply Swanbank Power Station. The pumps were operated as part of a part of a maintenance activity resulting in 0.123ML of PRW being supplied to Swanbank Power Station. No samples were collected during this brief period of operation which represents a failure to test based on the approved RWMP weekly test frequency if any water is supplied. Online analysers indicated that water supplied during this period was of typical quality.

On 26 November 2020, Seqwater, as Scheme Manager, completed a review of the RWMP. An amended RWMP was submitted to the Regulator for approval on 23 December 2020. On 23 April 2021, the Regulator issued an Information Requirement Notice (**IRN**), to obtain further information on the amended RWMP. Seqwater submitted a response to the IRN on 2 June 2021 including a further amended RWMP. On 6 July 2021 the Regulator issued an Information Notice for the Decision to approve the RWMP.

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2 Introduction

The 2020-2021 annual report for the WCRWS SRN013 outlines the operation of the WCRWS under the approved RWMP to supply purified recycled water for energy generation. The report also includes details about proactive identification and minimisation of public health and continuity of supply related risks associated with the production and supply of purified recycled water, as well as:

- Outcomes of any reviews or amendments of the RWMP
- Details of any internal or regular (external) audits performed and the actions taken to address any nonconformances
- Summary of the quality of purified recycled water and details of any notifications to the Regulator.

This report is submitted to the Regulator to fulfil the legislative requirement of the Act, and is made available to the public through the Seqwater website or for inspection upon request at Seqwater's Head Office during office hours on business days.

2.1 Purpose

This annual report has been prepared in accordance with section 273 of the Act and the Regulator's *Annual Reporting Guideline for Recycled Water Schemes* (Table 1). The purpose of this annual report is to provide the Regulator with information on the overall performance of the Scheme for the period 1 July 2020 to 30 June 2021 and provide an accountability mechanism to recycled water customers and the general public.

Annual report requirements	Act section	Annual Reporting Guideline	Seqwater compliance		
The relevant entity for a recycled water scheme must prepare an annual report for each financial year after a recycled water management plan for the Scheme has been approved.	s273(1) of the Act	Section 2.3	This report is for the 2020-21 financial year.		
 The annual report must— a. be prepared in accordance with the guidelines, if any, made by the regulator about the preparation of annual reports. 	s273(2)(a) of the Act	Section 1 to section 2.12 (inclusive)	This report is aligned with the Annual Reporting Guidelines for Recycled Water Schemes.		
b. state the outcome of any review of the recycled water management plan in the financial year to which the annual report relates, and how the matters raised in the review have been addressed.	s273(2)(b) of the Act	Section 2.4	Section 5 Reviews – a review of the RWMP was completed in the reporting period.		

Table 1: Annual Report Requirements



Anr	nual report requirements	Act section	Annual Reporting Guideline	Seqwater compliance
C.	contain details of the findings of, and any recommendations stated in, an internal audit report under section 260 or a regular audit report under section 261 given to the regulator in the financial year.	s273(2)(c) of the Act	Section 2.4	Section 6 Audits – no internal or regular (external) audits were undertaken in the reporting period.
d.	contain details of the information given to the regulator under section 270 or 271 in the financial year.	s273(2)(d) of the Act	Section 2.4	Section 3 Recycled water compliance. Section 7 Prescribed incidents.
The relevant entity must give a copy of the annual report to the regulator within 120 business days after the end of the financial year.		s273(3) of the Act	Section 2.3	This report has been submitted to the regulator within the specified time period.
If a wate recy ann with und	relevant entity is a recycled er provider for a single entity ycled water scheme, the ual report may be combined a report given to the regulator er section 141.	s273(4) of the Act		The WCRWS is a multiple-entity scheme. This requirement does not apply.

2.2 Plan overview

The Scheme's RWMP was developed under the Act and consists of a Scheme Manager Plan, Seqwater Scheme Provider Plan and Urban Utilities Scheme Provider Plan. Seqwater and Urban Utilities must comply with the Scheme's RWMP approved by the Regulator. The RWMP has been developed to be consistent with DRDMW's *Recycled Water Management Plan and Validation Guidelines (2008)*.

2.3 Scheme overview

2.3.1 Western Corridor Recycled Water Scheme

The Scheme is one of the largest water recycling schemes in Australia, increasing and diversifying South East Queensland's water sources.

The Scheme has three Advanced Water Treatment Plants (**AWTPs**), owned by Seqwater and operated under contract by Veolia, located at Bundamba, Gibson Island and Luggage Point. Combined, these plants can treat water supplied from six of Urban Utilities' Sewage Treatment Plants (**STP**) located at Bundamba, Gibson Island, Goodna, Luggage Point, Oxley Creek and Wacol to produce PRW.

More than 200 kilometres of large diameter pipelines connect the STPs, AWTPs, Lake Wivenhoe and power stations.

The WCRWS has the commissioned capacity to deliver up to 180 million litres (ML) of water a day.

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2.3.2 Current status

Seqwater decided in 2013 to place the WCRWS into a state of 'care and maintenance' to improve the cost efficiency of the plants and increase the return on the assets over their life. The 'care and maintenance' state was based, for the purposes of planning, on a 15-year shutdown period, with an ability to return to full operation within two years of a decision to restart the Scheme.

Sequater's Water Security Program *Water for Life: South East Queensland's Water Security Program 2016-2046* outlines when the Key Bulk Water Storages fall to a combined level of 60 percent, the decision to restart the WCRWS should be considered, with a two-year window to return to full operation.

In 2018, a single process train at Luggage Point AWTP was restarted and provided the ability to supply recycled water for electricity generation. This also enabled supply for industrial uses to be explored, water quality monitoring of PRW to be resumed and identify any potential issues that may arise during a full restart. Seqwater applied to resume supply of recycled water for electricity generation on 23 February 2018 and the WSR approved the RWMP for this use only on 28 May 2018.

On 26 November 2020, Seqwater, as Scheme Manager, completed a review of the RWMP. An amended RWMP was submitted to the Regulator for approval on 23 December 2020. On 23 April 2021, the Regulator issued an IRN, to obtain further information on the amended RWMP. Seqwater submitted a response to the IRN on the 2 June 2021, including a further amended RWMP. On 6 July 2021 the Regulator issued an Information Notice for the Decision to approve the RWMP. During the reporting period, the Scheme was available to supply recycled water to meet demand from the CleanCo's Swanbank Power Station and Stanwell Corporation's Tarong Power Station.

2.4 Membrane units placed into preservation

No membrane filtration and reverse osmosis membranes were preserved during the reporting period. No membranes are installed at the Gibson Island or Bundamba AWTPs.

3 Recycled water compliance

3.1 Bundamba AWTP supply

The Bundamba AWTP was non-operational and did not produce or supply recycled water at any time during the reporting period. As such, no monitoring from the Bundamba AWTP Point of Supply was required.

3.2 Gibson Island AWTP Point of Supply

The Gibson Island AWTP was non-operational and did not produce or supply recycled water at any time during the reporting period. As such, no monitoring from the Gibson Island AWTP Point of Supply was required.

3.3 Luggage Point AWTP Point of Supply

The Luggage Point AWTP was available to supply PRW to power stations throughout the reporting period.

There were zero critical limit exceedances. The chlorine disinfection Critical Control Point (**CCP**) control monitoring analyser and associated alarm at Luggage Point was disabled due to the demand pattern on the AWTP. This alarm was causing operational disruption on start-up due to the extended periods of shutdown, leading to chlorine decay. The pathogen log reduction required for Class A+ for energy generation could still be achieved without this CCP, as shown in Table 2: Claimed Microbiological Removal Log Reduction as per WCRWS Validation Program. Actual performance of chlorine disinfection during continuous operation achieved

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the validated log reductions (4 log reduction) and met the required log reduction for augmentation of drinking water supply.

Table 2: Claimed Microbiological Removal Log Reduction as per WCRWS Validation Program

Critical Treatment Process	Microbial Log Reduction					
	Viruses	Bacteria	Protozoa	Helminths		
Total Validated Log Reduction	10.5	14.5	10	8		
Current ¹ Validated LP AWTP Log Reduction	6.5	10.5	10	8		
Required Log Reduction (augmenting drinking water supplies)	9.5	8	8	8		
Required Log Reduction for Class A+ (other uses, including electricity generation)	6.5	5	5	5		

Note¹ Current based on chlorine disinfection CCP alarm disabled in reporting period.

3.3.1 Class A+ compliance

Microbial indicator monitoring was scheduled weekly during the reporting period at the Luggage Point AWTP Point of Supply. Sample collection occurred during periods of supply, with a total of 36 samples collected during the reporting period. All samples returned non-detect (**ND**) results for all required microbial indicators.

The monitoring compliance against the Class A+ recycled water criteria is shown below in Table 3: Luggage Point AWTP Point of Supply Class A+ Compliance.

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Parameter	Testing frequency required	Water Quality A+ Criteria	LOR	Maximum	Annual Value	Number of tests performed	Required number of tests	Number of tests missed
F-specific RNA Coliphage	Weekly	<1 PFU/100 mL in 95% of samples	1	ND	ND	48	48	0
Escherichi a coli	Weekly	<1 CFU/100 mL in 95% of samples	1	ND	ND	48	48	0
Somatic Coliphages	Weekly	<1 PFU/100 mL in 95% of samples	1	ND	ND	48	48	0
Clostridium perfringens	Weekly	<1 CFU/100 mL in 95% of samples	1	ND	ND	48	48	0

3.3.2 Assessment against augmentation of a drinking water supply water quality criteria

The RWMP identifies the criteria for augmenting drinking water supply applies only at the Lake Wivenhoe Point of Supply, when PRW is being used to augment drinking water supply. During the reporting period, monitoring was undertaken at Luggage Point AWTP and all PRW produced complied with the water quality criteria for the augmentation of drinking water supply. Refer Enclosure 2a Luggage Point AWTP Point of Supply assessment against water quality criteria for augmentation of a drinking water supply.

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3.4 Lake Wivenhoe Point of Supply (augmentation of drinking water storage)

The current RWMP approval permits the supply of recycled water for electricity generation, but not the supply of PRW to Lake Wivenhoe for the augmentation of a drinking water supply. Recycled water was not supplied to Lake Wivenhoe, however, Seqwater decided to commence sampling from the Lake Wivenhoe Point of Supply in June 2021 while PRW is supplied to Stanwell Corporation's Tarong Power Station. All results complied with the water quality criteria for the augmentation of drinking water supply. Refer Enclosure 2b Lake Wivenhoe Point of Supply assessment against water quality criteria for augmentation of a drinking water supply.

3.4.1 Public health risk assessment

There were no exceedances against the water quality criteria for the augmentation of drinking water supply in the reporting period, therefore no public health risk assessments were undertaken.

3.5 Swanbank Power Station Point of Supply

CleanCo's Swanbank Power Station was supplied 1040 ML of PRW via the Swanbank Power Station Point of Supply. A peak supply of recycled water to Swanbank Power Station of 10.2 ML/day was recorded during the reporting period.

Microbial indicator monitoring to verify compliance with the water quality criteria for energy generation (Class A+), was scheduled weekly during the reporting period at the Swanbank Power Station Point of Supply, located at Swanbank Pump Station at the Bundamba AWTP. Sample collection occurred during periods of supply and a total of 36 samples were collected. All samples returned non-detect (ND) results for all required microbial indicators.

A single F-specific RNA coliphage result was detected during the 2019 – 2020 financial year, resulting in noncompliance with the rolling annual performance target (95% of samples 'not detected') up to the end of the first quarter of the reporting period. The detection was investigated and found to be most likely a 'false positive'. An updated incident investigation report was submitted to WSR on 9 October 2020, once sufficient compliant samples had been collected to ensure the single detection would not trigger a future non-compliance in the event that supply to Swanbank Power station ceased and no further weekly samples could be collected.

The monitoring compliance against the Class A+ recycled water criteria is shown below in Table 4 Swanbank Point of Supply Class A+ Compliance.

During the reporting period, a failure to test (missed sample) in accordance with the approved plan occurred during a three-week planned shutdown. A PRW pump was run for 10 minutes on 10 November 2020 as part of commissioning following a planned maintenance activity resulting in 0.123ML of PRW being supplied to Swanbank Power Station. Due to this being part of a planned shutdown and the operation of the pump being part of a maintenance activity, and therefore no intent to supply PRW, verification samples were not collected for the event. Sampling resumed on 24 November 2020 at the end of the planned shutdown when supply resumed.

There was no intent to supply PRW during the shutdown and therefore samples were not scheduled to be collected. This flow volume was identified as part of preparation of a monthly water quality report to CleanCo and reported to the Regulator on 21 December 2020. Online analysers indicated that for the duration of this period, recycled water of typical quality was supplied. A notice of non-compliance with water quality criteria was issued to the Regulator, including outcomes of the investigation and identification of measures to prevent a similar non-compliance in the future such changes to the control system to detect flow events.

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Parameter	Testing frequency required	Water Quality A+ Criteria	LOR	Maximum	Annual Value	Number of tests performed	Required number of tests	Number of tests missed
F-specific RNA Coliphage	Weekly	<1 PFU/100 mL in 95% of samples	1	ND	ND	36	37	1
Escherichia coli	Weekly	<1 CFU/100 mL in 95% of samples	1	ND	ND	36	37	1
Somatic Coliphages	Weekly	<1 PFU/100 mL in 95% of samples	1	ND	ND	36	37	1
Clostridium perfringens	Weekly	<1 CFU/100 mL in 95% of samples	1	ND	ND	36	37	1

Table 4: Swanbank Point of Supply Class A+ Compliance

3.6 Tarong Power Station Point of Supply at Caboonbah

The supply of PRW produced at Luggage Point AWTP to Stanwell Corporation's Tarong Power Station commenced on 14 September 2020. During the reporting period the Tarong Power Station was supplied with 1,493 ML of recycled water. A peak supply of PRW to Tarong Power Station of 30.3 ML/day was recorded.

Microbial indicator monitoring was scheduled weekly at the Tarong Power Station Point of Supply, located at Caboonbah. Sample collection occurred during periods of supply and a total of 28 samples were collected during the reporting period.

All samples returned non-detect (ND) results for all required microbial indicators.

The monitoring compliance against the Class A+ recycled water criteria is shown below in Table 5.

Parameter	Testing frequency required	Water Quality A+ Criteria	LOR	Maximum	Annual Value	Number of tests performed	Required number of tests	Number of tests missed
F-specific RNA Coliphage	Weekly	<1 PFU/100 mL in 95% of samples	1	ND	ND	28	28	0
Escherichia coli	Weekly	<1 CFU/100 mL in 95% of samples	1	ND	ND	28	28	0
Somatic Coliphages	Weekly	<1 PFU/100 mL in 95% of samples	1	ND	ND	28	28	0
Clostridium perfringens	Weekly	<1 CFU/100 mL in 95% of samples	1	ND	ND	28	28	0

Table 5: Tarong Point of Supply Class A+ Compliance

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4 Re-validation assessment

No changes were identified that required a revalidation assessment to be completed in this reporting period.

5 Reviews

The Revised Information Notice of the Decision dated 17 December 2013, required the Scheme Manager (Seqwater) to undertake a regular review of the RWMP to reflect current operations, water quality criteria and best practice by 20 December 2020. Seqwater completed its Regular Review of the RWMP on 26 November 2020. Seqwater subsequently submitted a RWMP amendment application to the Regulator on 23 December 2020. On 23 April 2021, the Regulator issued an IRN, to obtain further information on the amended RWMP. Seqwater submitted a response to the IRN on the 2 June 2021 including a further amended RWMP. On 6 July 2021 the Regulator issued an Information Notice for the Decision to approve the RWMP submitted on 2 June 2021.

The regular review of the RWMP identified that updates to the RWMP and appendices were required due to:

- The age of the approved RWMP (revision dates ranging from October 2010 to April 2012).
- Regulation changes introduced with the *Public Health Regulation 2018*.
- Changes associated with the updated Validation Program approved in 2019.
- Developing a consistent risk methodology across the Scheme in line with the Regulator's *Recycled Water* Management Plan and Validation Guidelines (November 2008). This ensures consistency in risk scoring and risk transfer between entities (i.e. between Urban Utilities as a Scheme Provider, Seqwater as Scheme Manager and a Scheme Provider and Seqwater as the owner and operator of the receiving water for augmentation of drinking water supply (Lake Wivenhoe).
- Additional treated wastewater data obtained since the last WCRWS water quality risk assessment review.
- Additional ongoing PRW verification monitoring, commissioning verification and commissioning validation data obtained since resumption of supply in July 2018 to Swanbank Power Station from the single process train at Luggage Point AWTP.
- Operational experience and operational monitoring data obtained at Luggage Point AWTP since the resumption of supply.
- Address the June 2020 RWMP internal audit non-conformances.

The above review outcomes were addressed in the amendments to the RWMP submitted in the reporting period.

A summary of the required changes to the RWMP are detailed in Enclosure 3 Memorandum - Regular Review of WCRWS Recycled Water Management Plan (RWMP).

6 Audits

The RWMP and associated conditions were scheduled for a regular (external) audit during the reporting period. However due to the RWMP amendment submission and IRN timing, the Regulator agreed to reschedule the audit, which is now due to be completed 31 August 2022.

There were no internal audits scheduled in the reporting period. The next internal audit is scheduled to be performed by 31 August 2024.

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In June 2020 (within the previous reporting period), an internal audit of the WCRWS RWMP was undertaken by Seqwater, as Scheme Manager, in accordance with Seqwater's regulatory obligations. The purpose of the internal audit was to assess compliance with the approved RWMP and Regulator-applied conditions.

As documented in the WCRWS RWMP Annual Report 2019-20, the overall audit finding was that all parties were complying with the overall intent on the RWMP and the risks associated with the Scheme are appropriately managed.

The non-conformances identified were mostly due to systems and processes changing significantly since the plans were developed and approved and these changes not being reflected in the approved RWMP.

Enclosure 3 Memorandum - Regular Review of WCRWS Recycled Water Management Plan (RWMP) outlines how the review of Seqwater's Scheme Manager Plan (SMP), Seqwater's Scheme Provider Plan (SPP) and Urban Utilities Scheme Provider Plan (SPP) addressed these non-conformances. Stage 2 of the planned actions to address the Laboratory Quality Assurance minor non-conformance 5 (mNCR) will be addressed in the 2021-22 reporting period.

7 Prescribed incidents

There were no recorded prescribed incidents at the WCRWS in the reporting period.

8 Conclusion

A summary of the activities undertaken in the reporting period are listed below:

- The Luggage Point AWTP provided a cumulative volume of 2,533 ML of PRW to Swanbank and Tarong Power Stations.
- The recycled water produced by Luggage Point AWTP met the microbial log reduction requirements for Class A+ and, in addition, there were no critical limit exceedances.
- The recycled water supplied through the Swanbank Power Station Point of Supply and Tarong Power Station Point of Supply complied with the water quality standard for Class A+ recycled water.
- The recycled water produced by the Luggage Point AWTP met the water quality criteria for the augmentation of drinking water supply at the Lake Wivenhoe Point of Supply. This water was being supplied to Power Stations and augmentation of drinking water supply was not undertaken.
- The Scheme was not approved for supply of purified recycled water for augmentation of drinking water supply and did not undertake this activity. However, the PRW was monitored and found to comply with the water quality criteria for this use.
- A failure to test (missed sample) in accordance with the approved plan occurred during maintenance on one of the PRW pumps that supply Swanbank Power Station. The pumps were operated as part of maintenance activity resulting in 0.123ML of PRW being supplied to Swanbank Power Station. No samples were collected during this brief period of operation which represents a failure to test (missed sample) in accordance with the approved plan. Online analysers indicated that water supplied during this period was of typical quality.
- An updated incident investigation report of the Class A+ rolling annual value non-compliance with for Fspecific RNA coliphage detection, which occurred in the 2019-2020 financial year, was submitted to the WSR in October 2020.
- Seqwater, as Scheme Manger, completed a review of the RWMP on 26 November 2020. An amended RWMP, reflecting the review outcomes, was submitted to the Regulator on 23 December 2020. To obtain further information on the amended RWMP, the Regulator issued an IRN on 23 April 2021. Seqwater

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submitted a response to the IRN on 2 June 2021 including a further amended RWMP. On 6 July 2021 the Regulator issued an Information Notice for the Decision to approve the RWMP submitted 2 June 2021.

 No revalidation assessments, internal or regular (external) audits or prescribed incidents occurred during the reporting period.

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9 Glossary

AWTPAdvanced Water Treatment Plant. A plant that contains the specific technology and requirements to produce water for augmentation of drinking water suppletCCPCritical Control Point. An essential step in the water treatment process for purified Recycled WaterCCPCritical Control Point. An essential step in the water treatment process for purified recycledCFUColony Forming Unit. A measure used in analysis of bacteria. One (1) colony is considered to represent a single viable bacteria from the sample.Class A+Class A+ recycled water as described in section 58 of the Public Health Regulation 2018 (Qld)DRDMWDepartment of Regional Development, Manufacturing and Water. The Queensland Government department responsible for the management of water supply.IRNInformation Requirement NoticeMLMega Litres (1 Million Litres)mLMillilitre (1000 th of a litre). 1 cubic centimetreNDNon-detectPFUPlaque Forming Unit. A measure used in analysis of viruses. One (1) plaque is considered to represent a single viable viral particle from the sample.PRWPurified Recycled Water. Produced by taking treated wastewater and purifying it to the standards for augmentation of drinking water supply set out in section 53 of the Public Health Regulation 2018.Reporting1 July 2020 to 30 June 2021periodQueensland Bulk Water Supply AuthoritySMPScheme Manager PlanSPPScheme Provider PlanSPPScheme Provider PlanSPPScheme Provider Plan	Term	Definition
CCPCritical Control Point. An essential step in the water treatment process for purified recycled water to prevent, reduce or eliminate a hazard.CFUColony Forming Unit. A measure used in analysis of bacteria. One (1) colony is considered to represent a single viable bacteria from the sample.Class A+Class A+ recycled water as described in section 58 of the <i>Public Health Regulation 2018</i> (Qld)DRDMWDepartment of Regional Development, Manufacturing and Water. The Queensland Government department responsible for the management of water supply.IRNInformation Requirement NoticeMLMega Litres (1 Million Litres)mLMillilitre (1000 th of a litre). 1 cubic centimetremNCRMinor non-conformanceNDNon-detectPFUPlaque Forming Unit. A measure used in analysis of viruses. One (1) plaque is considered to represent a single viable viral particle from the sample.PRWPurified Recycled Water. Produced by taking treated wastewater and purifying it to the standards for augmentation of drinking water supply set out in section 53 of the <i>Public Health</i> <i>Regulation 2018</i> .Reporting1 July 2020 to 30 June 2021RWMPRecycled Water Management PlanSeqwaterQueensland Bulk Water Supply AuthoritySMPScheme Manager PlanSPPScheme Provider PlanSPPScheme Provider PlanSPPScheme Provider Plan	AWTP	Advanced Water Treatment Plant. A plant that contains the specific technology and requirements to produce water for augmentation of drinking water supply from treated wastewater. Also, sometimes called a Purified Recycled Water Treatment Plant in public information by Seqwater as a measure to increase understanding of Purified Recycled Water.
CFUColony Forming Unit. A measure used in analysis of bacteria. One (1) colony is considered to represent a single viable bacteria from the sample.Class A+Class A+ recycled water as described in section 58 of the Public Health Regulation 2018 (Qld)DRDMWDepartment of Regional Development, Manufacturing and Water. The Queensland Government department responsible for the management of water supply.IRNInformation Requirement NoticeMLMega Litres (1 Million Litres)mLMillilitre (1000 th of a litre). 1 cubic centimetremNCRMinor non-conformanceNDNon-detectPFUPlaque Forming Unit. A measure used in analysis of viruses. One (1) plaque is considered to represent a single viral particle from the sample.PRWPurified Recycled Water. Produced by taking treated wastewater and purifying it to the standards for augmentation of drinking water supply set out in section 53 of the Public Health Regulation 2018.Reporting1 July 2020 to 30 June 2021RWMPRecycled Water Supply AuthoritySMPScheme Manager PlanSIPScheme Provider PlanSIPScheme Provider PlanSIPScheme Provider Plan	CCP	Critical Control Point. An essential step in the water treatment process for purified recycled water to prevent, reduce or eliminate a hazard.
Class A+Class A+ recycled water as described in section 58 of the Public Health Regulation 2018 (Qld)DRDMWDepartment of Regional Development, Manufacturing and Water. The Queensland Government department responsible for the management of water supply.IRNInformation Requirement NoticeMLMega Litres (1 Million Litres)mLMillilitre (1000 th of a litre). 1 cubic centimetremNCRMinor non-conformanceNDNon-detectPFUPlaque Forming Unit. A measure used in analysis of viruses. One (1) plaque is considered to represent a single viable viral particle from the sample.PRWPurified Recycled Water. Produced by taking treated wastewater and purifying it to the standards for augmentation of drinking water supply set out in section 53 of the Public Health Regulation 2018.Reporting period1 July 2020 to 30 June 2021RWMPRecycled Water Supply AuthoritySMPScheme Manager PlanSEPScheme Provider PlanSTPSewage Treatment Plant	CFU	Colony Forming Unit. A measure used in analysis of bacteria. One (1) colony is considered to represent a single viable bacteria from the sample.
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Reporting period1 July 2020 to 30 June 2021RWMPRecycled Water Management PlanSeqwaterQueensland Bulk Water Supply AuthoritySMPScheme Manager PlanSPPScheme Provider PlanSTPSewage Treatment Plant	PRW	Purified Recycled Water. Produced by taking treated wastewater and purifying it to the standards for augmentation of drinking water supply set out in section 53 of the <i>Public Health Regulation 2018</i> .
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SeqwaterQueensland Bulk Water Supply AuthoritySMPScheme Manager PlanSPPScheme Provider PlanSTPSewage Treatment Plant	RWMP	Recycled Water Management Plan
SMP Scheme Manager Plan SPP Scheme Provider Plan STP Sewage Treatment Plant	Seqwater	Queensland Bulk Water Supply Authority
SPP Scheme Provider Plan STP Sewage Treatment Plant	SMP	Scheme Manager Plan
STP Sewage Treatment Plant	SPP	Scheme Provider Plan
	STP	Sewage Treatment Plant
The Act Water Supply (Safety and Reliability) Act 2008 (Qld)	The Act	Water Supply (Safety and Reliability) Act 2008 (Qld)





Term	Definition
The Regulator	Water Supply Regulation. Part of the Department of Regional Development, Manufacturing and Water, the water supply regulator (i.e. the Director-General of DRDMW) is responsible for regulating water service provider performance, drinking water quality and provision of recycled water.
The Scheme	Western Corridor Recycled Water Scheme – see WCRWS
Urban Utilities	Central SEQ Distributor-Retailer Authority
WCRWS	Western Corridor Recycled Water Scheme. A system of sewage treatment plants, advanced water treatment plants, and pipelines that can produce and deliver purified recycled water to replenish Lake Wivenhoe and/or power stations at Swanbank and Tarong.
WSR	Water Supply Regulation – see The Regulator

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10 Enclosures

Enclosure	Name
1	Luggage Point AWTP Source Water data 2020-2021 water quality data report (REX ID: D21/204214)
2a	Luggage Point AWTP Point of Supply assessment against augmentation of a drinking water supply water quality criteria (REX ID: D21/204216)
2b	Lake Wivenhoe Point of Supply assessment against augmentation of a drinking water supply water quality criteria (REX ID: D21/204218)
3	Memorandum - Regular Review of WCRWS Recycled Water Management Plan (RWMP) (REX ID: D20/215710)