

# Childers Wastewater Treatment Plant Recycled Water Scheme (SRN025)

Annual Report  
July 2024 to June 2025

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## 1. Introduction

The purpose of this annual report is to provide the Department of Local Government, Water and Volunteers (DLGWV) (previously Department of Regional Development, Manufacturing and Water or DRDMW) (the Regulator) with information on the overall performance of the single-entity Childers Recycled Water Scheme SRN025 (the Scheme) for the annual reporting period from 1<sup>st</sup> July 2024 to 30<sup>th</sup> June 2025.

The current Childers Recycled Water Scheme Information Notice was issued by the Regulator on 13<sup>th</sup> March 2024.

### 1.1 Scheme Overview

The Childers Wastewater Treatment Plant (WWTP) receives raw sewage via the Childers sewerage network for treatment. Once treated, the final effluent produced meets the quality requirements of Class B recycled water under the *Public Health Regulation 2018*. The recycled water is distributed to a storage dam located on a neighboring private property for agricultural use. Bundaberg Regional Council has an approved Recycled Water Third Party Agreement with the landholder for the supply of recycled water and a subsequent approved Recycled Water Management Plan (RWMP).

Condition 5.1 of the Scheme Information Notice March 2024 identifies the supply of recycled water has been approved for the irrigation of minimally processed food crops: avocado, custard apple, lychee, mango and pumpkin.

### 1.2 Annual Reporting Compliance

It is a requirement under Section 273 of the *Water Supply (Safety & Reliability) Act 2008* (the Act) and Condition 8.5 of the Scheme Information Notice that an annual report is prepared and submitted to the Regulator within 120 Business days of the end of each financial year. Table 1 outlines the Annual Report's compliance against Section 273 of the Act and the *Annual Reporting Guideline for Recycled Water Schemes – September 2010*.

**Table 1: Annual RWMP Report Requirements**

Act Section	Details	Annual reporting guideline section	Annual Report Compliance
s273(1)	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	Section 2.3	This completed report is for the 2024-2025 financial year.
S273(2)(a)	The annual report must— be prepared in accordance with the guidelines, if any, made by the regulator about the preparation of annual reports; and	Entire document	The content of this report aligns with the <i>Annual Reporting Guideline for Recycled Water Schemes – September 2010</i> .
S273(2)(b)	State the outcome of any review of the recycled water management plan, under sections 258 and 259, within the financial year to which the annual report relates, and how the matters raised in the review have been addressed; and	Section 2.4(a)	Section 4.1 Reviews: - A regular review of the RWMP was not undertaken in 2024-2025.
S273(2)(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; and	Section 2.4(b)	Section 4.2 Audits: -An internal audit of the RWMP was not undertaken in 2024-2025.  -An external regular audit of the RWMP was conducted in 2024-2025.
S273(2)(d)	Contain details of the information given to the regulator under section 270 or 271 in the financial year.	Section 2.4(c)	Section 2 Recycled Water Compliance: -There were no notices of non-compliance with water quality criteria reported in 2024-2025.  Section 3 Prescribed Incidents and Events: -There were three recorded incidents / events reported during 2024-2025.
S273(3)(3) Condition 8.5 Information Notice 13/03/2024	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.	Section 2.3	This report has been submitted to the Regulator within the specified timeframe.
S273(3)(4)	If a relevant entity is a recycled water provider for a single entity recycled water scheme, the annual report may be combined with a report given to the regulator under sections 141 and 142.	NA	Bundaberg Regional Council's Drinking Water Service Annual Report 2024-2025 is submitted separately to this report.
Condition 8.5 Information Notice 13/03/2024	The annual report must also contain details of the incidents / events notified to the Regulator and any other information required under conditions of approval for the plan, as stated in this notice.	NA	Section 3 Prescribed Incidents and Events: -There were three recorded incidents / events reported during 2024-2025.
Condition 8.9 Information Notice 13/03/2024	A month-by-month compliance summary must be included in the annual report if the annual value was not achieved in at least one month during the financial year.	NA	The monthly annual value compliance summary for the financial year is provided in Table 3 of this report.

## 2. Recycled Water Quality Criteria Compliance

Council is required to produce recycled water for the irrigation of minimally processed food crops to the quality standards specified in Conditions 8.6 and 8.7 of the current Scheme Information Notice as outlined in Table 2 below. The verification monitoring point is located at the outfall of the chlorine contact tank (Monitoring Point A) as described in the Childers RWMP Section 3.3 and Figure 3.

**Table 2: Water Quality Criteria Class B – Childers Recycled Water Scheme**

Parameter	Sampling Frequency	Initial Sample Value criteria	Annual Value criteria
<i>Escherichia coli</i> ( <i>E.coli</i> )	Weekly	Must be less than 100 cfu/100mL or 100 MPN/100mL	At least 95% of the samples taken for a 12-month period must contain less than 100 cfu/100mL or 100 MPN/100mL

Water quality is sampled and analysed weekly in accordance with the verification monitoring requirements under the *Public Health Regulation 2018* for Class B recycled water and the Scheme Information Notice. The annual value is calculated at the end of each calendar month utilising the water quality results for the previous fifty-two (52) weekly samples.

### 2.1 Non-compliance reported to the Regulator

An **incident** is described as a non-compliance with the relevant water quality criteria stated in this notice, including the frequency, initial value or annual value.

During the 2024-2025 reporting year there were no exceedances of the *E. coli* initial value, the *E. coli* annual value and no instances of a recorded test result of 'no result' or 'laboratory error' reported to the Regulator.

The fifty-two (52) weekly monitoring results displayed in Appendix 1 show that the scheme has demonstrated consistent effluent quality during 2024-2025 financial year. As shown in Table 3, the annual value compliance for the Childers Recycled Water Scheme achieved greater than 95% compliance each month across the reporting year.

**Table 3: Monthly Annual Value compliance summary – Childers Recycled Water Scheme 2024-2025**

Period		Number of Exceedances	Compliance Percentage
Start	Reporting Month		
Aug-23	Jul-24	1	98%
Sep-23	Aug-24	1	98%
Oct-23	Sep-24	1	98%
Nov-23	Oct-24	1	98%
Dec-23	Nov-24	1	98%
Jan-24	Dec-24	1	98%
Feb-24	Jan-25	1	98%
Mar-24	Feb-25	1	98%
Apr-24	Mar-25	1	98%
May-24	Apr-25	0	100%
Jun-24	May-25	0	100%
Jul-24	Jun-25	0	100%

## 2.2 Any Failures to Test and Missing Data Information

Council has undertaken the recycled water *E.coli* analysis at the required weekly verification monitoring frequency during the reporting period 1<sup>st</sup> July 2024 to 30<sup>th</sup> June 2025, as shown in Table 4 below. There was 'no failure to test' or 'missing data' verification monitoring events recorded within this reporting period.

**Table 4: Frequency of verification monitoring testing required – 2024-2025 reporting period**

Parameter	Regulated standard (units)	Frequency of test	Required number of tests	Number of tests undertaken	Number of tests missed	Date/s notified to Regulator	Comments
<i>E.coli</i>	cfu/100mL	weekly	52	52	0	NA	Scheduled number of tests completed

A missed operational monitoring sample frequency event was reported to the Regulator. Incident details are provided in Section 3 and Appendix 2.

### 3. Prescribed Incidents and Events

A **prescribed incident** means an incident prescribed under a regulation. There are currently no prescribed incidents under the *Water Supply (Safety and Reliability) Regulation 2021*.

An **event** is described as anything that has happened or is likely to happen in relation to the scheme, which may adversely impact public health.

There were three (3) events recorded for the Childers Recycled Water Scheme during this reporting period, details outlined in Appendix 2:

1. Low free chlorine <0.2 mg/L (operational monitoring) reported on 29/07/2024, incident RWI-SRN025-24-11129.
2. Low free chlorine <0.2 mg/L (verification monitoring) reported on 01/08/2024, incident RWI-SRN025-24-11140.
3. Missed sample frequency (operational monitoring) as per Childers RWMP reported on 13/11/2024, incident RWI-SRN025-24-11480.

## 4. Scheme Assessments

On 4<sup>th</sup> January 2023 Bundaberg Regional Council received notification from the Regulator accepting the agreed regulatory date frequencies for undertaking audits and regular review of the Childers RWMP. In accordance with Sections 258 to 261 of the *Water Supply (Safety and Reliability) Act 2008* and the Scheme Information Notice Conditions 7 and 8, internal audits and external regular audits are to be undertaken every four (4) years, and regular reviews are to be undertaken every two (2) years.

### 4.1 Regular Review

There was no **regular review** undertaken during the 2024-2025 reporting year. The next regular review of the Childers RWMP is to be completed by 14<sup>th</sup> October 2025.

The regular review of the Childers RWMP was completed, and an amendment application was submitted to the Regulator on 17/10/2025. The review outcomes will be provided in the 2025-2026 annual report.

### 4.2 Audits

Auditing of the Childers RWMP will be conducted both internally and externally by a contracted organisation. The intention of the plan audits is to bring a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and operational procedural processes.

No **internal audit** was undertaken during the 2024-2025 financial year. The next internal audit of the Childers RWMP is to be completed by 14<sup>th</sup> October 2026. The internal audit of the Scheme will be conducted by Council's Audit Services to ensure compliance of the approved Recycled Water Management Plan, with the completed report and associated documents being submitted to the Regulator within the specified timeframes.

An **external regular audit** of the approved Childers RWMP was undertaken by Viridis Consultants during the 2024-2025 reporting year. The completed audit report was submitted to the Regulator on 18/09/2024, with an amended audit report submitted on 09/01/2025 following the correction of an identified administrative error within the background section on page 1 of the report.

The Recommended (REC) Actions and the Opportunity for Improvement (OFI) Actions identified during the external regular audit of the Childers RWMP have been captured in Council's Wastewater Improvement Plan, maintained in monday.com. Appendix 3 provides a summary of the Childers RWS Improvement Plan actions undertaken during the 2024-2025 financial year. The findings of the external audit and adopted improvement plan actions will be discussed as part of the RWMP regular review due by 14/10/2025, and necessary changes will be made to the plan.

A non-compliance (case: CPL-SRN025-25-11668) was issued to Council against the audit improvement item REC. 1: Implement the Trade Waste Policy (CP-3-041), further details are provided in Appendix 3.

### 4.3 Annual Site Inspection

Council completed the annual site inspection of the Childers Recycled Water User property on 10/01/2025. The site inspection determined the activities undertaken on the property were in accordance with the Recycled Water Third Party Agreement and associated legislation. The next inspection is scheduled to occur in January 2026.

The site inspection outcomes are outlined in Table 5.



Table 5. Recycled Water User Site Inspection outcomes

Site Inspection Date: 10/01/2024			
Site Inspection Component	Details	Recycled Water Third Party Agreement section	Compliance
Customer documentation	The customer shall ensure that all persons exposed to the recycled water are instructed in personal hygiene measures and appropriate health and safety procedures associated with using recycled water.	Section 3.4 (a)	Compliant, the induction records for two (2) new farm workers were provided.
Customer documentation	The customer shall inform visitors to the site that recycled water is being used on the site and to observe the signage and minimise contact with the recycled water.	Section 3.7 (b)	Compliant, visitors are informed and their contact with recycled water is minimised. The contractor engaged for repair work is familiar with irrigation practices at the property.
Signage and colour coding	The customer shall install and maintain warning signs on their property. The warning signs are to meet compliance standards stated in AS 1319 Safety Signs for the Occupational Environment.	Section 3.2	Compliant, signage installed across property, signs in good condition.
Recycled water use	The Recycled Water Third Party Agreement and Recycled Water Management Plan specify the types of crops which are approved to be grown.	Section 1.9 RWMP Section 1.1 Irrigation Management Plan Section 4	Compliant for the approved crops grown on site, no addition of new crops grown on property.
Irrigation practices	Irrigation practices for recycled water are specified in the <i>Public Health Regulation 2018</i> and the Queensland Health 'Guideline for Low-exposure Recycled Water Schemes'. The Recycled Water Third Party Agreement and Recycled Water Management Plan specify the irrigation practices to be utilised at the property.	Section 1.9 RWMP Section 3.5 Irrigation Management Plan Section 4	Compliant, under tree spray irrigation.

# Appendices

**Appendix 1: Childers WWTP *E.coli* monitoring data – July 2024 to June 2025**

Sample Date	outfall of Chlorine Contact Tank (Monitoring Point A) ( <i>E.coli</i> cfu/100mL)
02/07/2024	10
09/07/2024	2
18/07/2024	<1
23/07/2024	<1
30/07/2024	<1
06/08/2024	<1
15/08/2024	<1
20/08/2024	4
27/08/2024	1
03/09/2024	1
12/09/2024	<1
17/09/2024	<1
24/09/2024	<1
01/10/2024	<1
08/10/2024	<1
15/10/2024	1
22/10/2024	<1
29/10/2024	1
05/11/2024	<1
14/11/2024	<1
19/11/2024	<1
27/11/2024	<1
04/12/2024	4
10/12/2024	<1
17/12/2024	<1
23/12/2024	8
30/12/2024	<1
09/01/2025	<1
14/01/2025	<1
21/01/2025	10
30/01/2025	<1
04/02/2025	<1
11/02/2025	<1
19/02/2025	1
25/02/2025	<1
04/03/2025	<1
11/03/2025	<1
20/03/2025	1
25/03/2025	<1
02/04/2025	7
08/04/2025	<1
16/04/2025	1
23/04/2025	1
29/04/2025	<1
06/05/2025	<1
14/05/2025	<1
22/05/2025	<1
27/05/2025	<1
04/06/2025	<1
11/06/2025	1
19/06/2025	<1
25/06/2025	7

## Appendix 2: Childers Recycled Water Scheme reported Exceedances breakdown - July 2024 – June 2025

Incident date	Incident description	Exceedance description	Reported to Regulator	Incident circumstance	Comment
05/07/2024	Free Chlorine 0.16 mg/L (onsite operator monitoring)	Low chlorine	01/08/2024	This exceedance was overlooked at the time and not reported. The exceedance was identified during the review of operator onsite analysis of plant process parameters and weekly verification laboratory analysis for period 17/06/2024 to 30/07/2024.	RWI-SRN025-24-11140 Investigation report submitted to Regulator on 07/08/2024, close out notification received 03/09/2024
17/07/2024	Free Chlorine 0.17 mg/L (verification monitoring, Laboratory report 24/0546)	Low chlorine	29/07/2024	Operators had been decanting digester supernatant weekly which returned ammonia of >200mg/L back to the inlet works. Lab report (24/0546) results indicated higher than usual ammonia of 2.35mg/L, usually <0.35mg/L. This also indicated the potential to oxidize ammonia with chlorine, which would consume available free chlorine given the plant and dosing system was in normal operations.	RWI-SRN025-24-11129 Investigation report submitted to Regulator on 07/08/2024, close out notification received 03/09/2024  Warning letter received 20/12/2024
21/10/2024	missed sample frequency as per RWMP (onsite operator monitoring)	daily operational monitoring parameters (Childers RWMP Table 12)	13/11/2024	Operator failed to attend site due to time constraints and work commitments at another treatment plant. Information was not communicated with team leader at time so alternate arrangements could be made.	RWI-SRN025-24-11480 <i>E.coli</i> monitoring results provided to Regulator on 15/11/2024 Investigation report submitted to Regulator on 28/11/2024, close out notification received 16/01/2025

### Appendix 3: Childers Recycled Water Scheme Improvement Plan

Audit	Reference ID	Identified	Improvement Item	Target Completion	Action notes	Status and Revised target date	Responsibility
24-01	REC 1	Viridis – RWMP external audit 2024	Implement the Trade Waste Policy (CP-3-041), including review of the Trade Waste Environmental Management Plan (MP-4-051) and compliance inspections of approval conditions (work is underway to improve this, however it is resource constraint).	2025/2026	Information to address non-compliance CPL-SRN025-25-11668 provided to QWSR 23/01/2025. TWP and TWEMP already implemented, documents current and reviewed in 2024. Trade waste devices are managed in accordance with the Plumbing Code AS3500. Additional supporting documentation provided to QWSR 29/01/2025, 30/01/2025, 03/02/2025. Closure advice received from QWSR on 28/04/2025.	Completed	Plumbing & Source Control Officer
24-02	REC 2	Viridis – RWMP external audit 2024	Review and train relevant staff on the implementation of the CCP procedure, including immediate reporting of critical limit breach to the Governance team and on verification of C.t. value as required.	2024/2025	Ongoing improvement of CCP monitoring / recording / breach notifications in FOCUS. CCPs discussed at daily / monthly toolbox meetings.	Completed	Treatment team
24-03	REC 3	Viridis – RWMP external audit 2024	Establish a low-level alarm via SCADA for the online DO monitoring.	2024/2025	Dissolved Oxygen alarms in SCADA have been reviewed with low-low, low, high and high-high limits established.	Completed	Treatment team and SCADA Officer
24-04	OFI 1	Viridis – RWMP external audit 2024	Develop an SOP for the operational lime dosing.	NA	<b>This OFI will not be actioned.</b> Lime dosing practice is no longer undertaken at Childers WWTP. Operational changes have been made at the plant to improve pH correction.	Not Actioned	Treatment team
24-05	OFI 2	Viridis – RWMP external audit 2024	Rectify the deteriorated wooden baffles in the chlorine dosing chamber (with potentially more suitable material eg steel/aluminium).	NA	<b>This OFI will not be actioned.</b> The current baffles are sufficient for the WWTP life expectancy. Options are being reviewed for future WWTP plan – expansion, upgrade, relocation of plant.	Not Actioned	Treatment team
24-06	OFI 3	Viridis – RWMP external audit 2024	Establish the task/record for operator calibration and maintenance of online DO probe in FOCUS.	2024/2025	Probe calibration / maintenance task included in the plant FOCUS walk around action assigned for the operators.	Completed	Treatment team
24-07	OFI 4	Viridis – RWMP external audit 2024	Review implementation (and record keeping) of the maintenance and calibration program undertaken by the Maintenance and Electrical team in relation to the Childers DO probe (and other related assets).	2025/2026	Recurring automatic maintenance and calibration schedules have been established in the FOCUS Works Management System.	Completed	Mechanical & Electrical team
24-08	OFI 5	Viridis – RWMP external audit 2024	Install online chlorine monitoring with trim dosing and SCADA alarm.	2024/2025	Warning letter received from QWSR 20/12/2024 – CPL-SRN025-24-11201 Chlorine analyser was installed on 14/05/2025, Operators are currently working on a dosing protocol with an external contractor.	In progress	Treatment team
24-09	OFI 6	Viridis – RWMP external audit 2024	Clarify in Section 7.1.3 Verification Monitoring in the RWMP that DO is tested onsite by the operators (not at external laboratory).	14/10/2025	Statement clarifying insitu testing undertaken at time of sampling by operators added in Section 7.1.3 Verification Monitoring. Changes to the RWMP to be captured as part of the Regular Review with the completed RWMP amendment to be submitted to QWSR by 14/10/2025.	Completed	Governance team
24-10	OFI 7	Viridis – RWMP external audit 2024	Test for chlorine onsite/in situ. The field result can be recorded on the sampling bottle for ease to appear on the lab report. Add testing of turbidity to the weekly samples (daily onsite will be ideal) to help verify C.t. value.	NA	<b>This OFI will not be actioned.</b> Test results for onsite/in situ chlorine testing by the operator are already recorded on the sample bottle at the time of sampling. Sample bottle label includes provision to record Chlorine and pH readings. The inclusion of turbidity testing to the weekly sampling program is not being considered at this time.	Not Actioned	Treatment team and Governance team
24-11	OFI 8	Viridis – RWMP external audit 2024	Establish a task in FOCUS for the operator to collect and send the weekly required samples to the lab (every Tuesday).	NA	<b>This OFI will not be actioned.</b> BRC Laboratory team provide the Treatment team with the schedule for yearly sampling requirements. No further requirement to create a FOCUS action for the operators.	Not Actioned	Treatment team
24-12	OFI 9	Viridis – RWMP external audit 2024	Investigate arrangements with the external testing laboratory to notify of a breach of <i>E.coli</i> ASAP, prior to the interim and final reports being issued. This will speed up risk management and implementation of investigative/corrective actions.	2025/2026	There is currently no arrangement in place with ALS for immediate notification to BRC of a breach of <i>E.coli</i> . ALS does offer quick turnaround time (for an additional fee). Current turnaround time from date of sampling to reporting is approximately 1 week. BRC Central Laboratory is working towards microbiological NATA accreditation. This will greatly improve the turnaround time and the subsequent investigation of non-conformances in a more timely manner.	In progress	Governance team and BRC Laboratory team
24-13	OFI 10	Viridis – RWMP external audit 2024	Investigate routine influent testing (eg monthly).	NA	<b>This OFI will not be actioned.</b> Influent testing is currently undertaken as required (project/event-based); routine testing (eg monthly) is not being considered at this time. Influent testing was undertaken for 12-week period commencing 22/08/2024 as part of the plant options being reviewed for future WWTP plan – expansion / upgrade / relocation.	Not Actioned	Treatment team and BRC Laboratory team