

Childers Wastewater Treatment Plant Recycled Water Scheme (SRN025)

Annual Report
July 2022 to June 2023

CONTENTS

1. Introduction	3
1.1 Scheme Overview	3
1.2 Annual Reporting Compliance	3
2. Recycled Water Quality Criteria Compliance	5
2.1 Non-compliance reported to DRDMW	5
2.2 Any failures to test and/or Missing data information for Annual Reports.....	6
3. Prescribed Incidents and Events	6
4. Scheme Assessments	6
4.1 Regular Reviews	6
4.2 Audits	6
4.3 Annual site inspection	7

TABLES

Table 1: Annual RWMP Report Requirements	4
Table 2: Water Quality Criteria Class B – Childers Recycled Water Scheme	5
Table 3: Monthly Annual Value compliance summary – Childers Recycled Water Scheme.....	5
Table 4: Frequency of testing required – 2022-2023 reporting period	6
Table 5: Recycled Water User Site Inspection outcomes.....	7

APPENDICES

Appendix 1: Childers WWTP <i>E.coli</i> monitoring data – July 2022 to June 2023	8
Appendix 2: Childers RWS reported Exceedance breakdown July 2022 to June 2023.....	9

1. Introduction

The purpose of this annual report is to provide the Department of Regional Development, Manufacturing and Water (the Regulator or DRDMW) with information on the overall performance of the single-entity Childers Recycled Water Scheme SRN025 (the Scheme) for the annual reporting period 1st July 2022 to 30th June 2023.

Council submitted a revised amendment application for the Childers Recycled Water Scheme on 30/03/2023, as per Condition 8.2 of the current Recycled Water Information Notice.

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 8.7 of the Scheme Information Notice identifies the supply of recycled water has been approved for the irrigation of minimally processed food crops: avocados, custard apples, lychee, and mangoes. Condition 8.8 of the Scheme Information Notice identifies the supply of recycled water has been approved for the irrigation of minimally processed food crops: pumpkins.

1.2 Annual Reporting Compliance

It is a requirement under Section 273 of the *Water Supply (Safety & Reliability) Act 2008* (the Act) and Condition 8.6 of the Childers Recycled Water Scheme Information Notice issued by DRDMW on the 12th May 2023, 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 this 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	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 2022-2023 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 in 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 conducted in 2022-2023
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 2022-2023. -An external regular audit of the RWMP was not undertaken in 2022-2023.
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: -One notice of non-compliance with water quality criteria was reported in 2022-2023. Section 3 Prescribed Incidents and Events: -There were no recorded incidents / events during 2022-2023.
S273(3)(3) Condition 8.6 Notice 12/05/2023	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 section 141.	NA	Bundaberg Regional Council's Drinking Water Quality Management Plan is submitted separately to this report.
Condition 8.2 Notice 12/05/2023	Review and update your RWMP by 31/03/2023	NA	The Childers RWMP was reviewed and updated and submitted to the Regulator on 30/03/2023.
Condition 8.6 Notice 12/05/2023	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 no recorded incidents / events during 2022-2023.
Condition 8.10 Notice 12/05/2023	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 Condition 8.7 and Condition 8.8 of the Scheme Information Notice as outlined in Table 2 below. The verification monitoring point identified in both these Conditions is located at the outfall of the chlorine contact tank 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>	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 DRDMW

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 2022-2023 reporting year Council reported one exceedance of the *E. coli* initial value on 22/12/2022 incident RWI-SRN025-22-10088, details outlined in Appendix 2. There were no exceedances of the *E. coli* annual value and no instances of a recorded test result of 'no result' or 'laboratory error' reported within this financial year. The fifty-two (52) weekly monitoring results displayed in Appendix 1 show that the scheme has demonstrated a consistent effluent quality during this financial year. As shown in Table 3, the annual value compliance for the scheme achieved greater than 95% compliance each month across the reporting year.

Table 3: Monthly Annual Value compliance summary – Childers Recycled Water Scheme 2022-2023

Period		Number of Exceedances	Compliance Percentage
Start	Reporting Month		
Aug-21	Jul-22	0	100
Sep-21	Aug-22	0	100
Oct-21	Sep-22	0	100
Nov-21	Oct-22	0	100
Dec-21	Nov-22	0	100
Jan-22	Dec-22	1	98
Feb-22	Jan-23	1	98
Mar-22	Feb-23	1	98
Apr-22	Mar-23	1	98
May-22	Apr-23	1	98
Jun-22	May-23	1	98
Jul-22	Jun-23	1	98

2.2 Any Failures to Test and Missing Data Information

Council has conducted all the required *E.coli* analysis during the reporting period 1st July 2022 to 30th June 2023 to complete the annual report, as shown in Table 4 below.

Table 4: Frequency of testing required – 2022-2023 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 complete

3. Prescribed Incidents and Events

A **prescribed incident** means an incident prescribed under a regulation. There are no incidents prescribed currently 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 no prescribed incidents or events recorded for the Childers Recycled Water Scheme during this reporting period.

4. Scheme Assessments

4.1 Regular Review

Council is required to undertake a regular review of the Childers RWMP by 14th October 2025 in accordance with Section 258 of the *Water Supply Safety and Reliability) Act 2008* and Condition 8.5 of the Childers Recycled Water Scheme Information Notice – May 2023. As such no regular review was undertaken during the 2022-2023 financial year.

4.2 Audits

In accordance with the Scheme Information Notice Conditions 8.3 and 8.4, Council is required to undertake an internal audit of the Childers RWMP by 14th October 2026 and an external regular audit by 14th October 2024. As such no internal audit was undertaken during the 2022-2023 financial year.

The internal audit of the Scheme will be conducted by Council's audit team 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.

Council will engage an external consultant to conduct the external regular audit of the approved RWMP.

4.3 Annual Site Inspection

Council conducted an annual inspection of the Childers Recycled Water Scheme and the Recycled Water User property on 12/01/2023. The site inspection found the activities conducted 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 2024.

Table 5. Recycled Water User Site Inspection outcomes

Site Inspection Component	Details	Recycled Water Third Party Agreement section	Compliance
Site Inspection Date: 12/01/2023			
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, farm workers induction paperwork sighted, contractor (repairs) induction paperwork sighted.
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 informed and escorted.
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.
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 approved crops grown on site, no addition of new crops.
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.

Appendix 1: Childers WWTP *E.coli* monitoring data – July 2022 to June 2023

Sample Date	outfall of Chlorine Contact Tank (Monitoring Point A)
5/07/2022	1
14/07/2022	3
20/07/2022	24
26/07/2022	44
2/08/2022	16
9/08/2022	2
18/08/2022	1
25/08/2022	1
30/08/2022	5
6/09/2022	0
15/09/2022	0
20/09/2022	1
26/09/2022	0
4/10/2022	0
13/10/2022	6
18/10/2022	1
25/10/2022	0
1/11/2022	0
9/11/2022	0
15/11/2022	0
22/11/2022	0
29/11/2022	1
7/12/2022	1
13/12/2022	1
20/12/2022	121
28/12/2022	0
4/01/2023	0
10/01/2023	0
17/01/2023	1
24/01/2023	0
1/02/2023	0
7/02/2023	0
13/03/2023	0
21/02/2023	1
2/03/2023	24
7/03/2023	0
15/03/2023	0
21/03/2023	0
29/03/2023	2
4/04/2023	0
12/04/2023	2
17/04/2023	0
27/04/2023	2
2/05/2023	0
9/05/2023	10
17/05/2023	3
24/05/2023	1
30/05/2023	0
6/06/2023	1
13/06/2023	1
21/06/2023	1
27/06/2023	6

Appendix 2: Childers Recycled Water Scheme reported Exceedance breakdown July 2022 – June 2023

Incident date	Incident description	Exceedance description	Reported to Regulator	Incident circumstance	Comment
20/12/2022	<i>E.coli</i> exceedance 121 cfu/100mL	Initial value	22/12/2022	No obvious issues identified with plant processes.	RWI-SRN025-22-10088