

# Childers Wastewater Treatment Plant Recycled Water Scheme (SRN025)

**Annual Report**  
July 2021 to June 2022

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## 1.0 Introduction

The purpose of this annual report is to provide the Department of Regional Development, Manufacturing & Waters (the Regulator or DRDMW) with information on the overall performance of the single-entity Childers Recycled Water Scheme (the scheme) for the period 1 July 2021 to 30 June 2022.

### 1.1 Annual reporting compliance

It is a requirement under Section 273 of the *Water Supply (Safety & Reliability) Act 2008* (the Act) and condition 7.4 of the Information Notice issued by DRDMW on the 24<sup>th</sup> of January 2020, 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 (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 report is for the 2021-22 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 Annual reporting Guideline for recycled water schemes.
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)	5.1 Reviews – a regular review of the RWMP was conducted in the 2021-22 financial year
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)	5.2 Audits – an internal audit was undertaken in the 2021-22 financial year. A regular audit was not undertaken in this financial year.

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)	2.0 Recycled Water Compliance – no notices of noncompliance with Water Quality Criteria reported in 2021-22 financial year.  4.0 Prescribed Incidents – there were none recorded in the 2021-22 financial year.
s273(3)	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 time.
ss273(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.		Bundaberg Regional Council’s Drinking Water Quality Management Plan is submitted separately to this report.

## 1.2 Scheme Overview

The Childers Wastewater Treatment Plant (WWTP) receives raw sewage from the Childers sewerage network for treatment. Once treated, the 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 currently has an approved Recycled Water Agreement with this landholder for the supply of this recycled water and a subsequent approved Recycled Water Management Plan (RWMP).

## 2.0 Compliance with Water Quality Criteria

Council is currently required to produce recycled water to the quality standards which are stipulated in Section 7.5 and Section 7.6 of the Childers Recycled Water Scheme Information Notice – January 2020 (Table 2), for the irrigation of minimally processed food crops: avocados, custard apples, lychee, mangoes, and pumpkins.

*Table 2. Water Quality Criteria for Childers Recycled Water Scheme*

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

Water quality results between 1<sup>st</sup> July 2021 and 30<sup>th</sup> June 2022 are displayed in Appendix 1 with a summary of the results represented in Table 3.

*Table 3. Compliance with Water Quality Criteria for Childers Recycled Water Scheme 2021-22*

Number of Samples	Compliant Samples (Initial Value)	Non-compliant Samples	Percentage Compliance (Initial Value)	Compliant Samples (Annual Value 2020)	Non-compliant Samples (Annual Value)	Percentage Compliance (Annual Value)
52	52	0	100%	52	0	100%

## 2.1 Non-compliance Reported to DNRME

During the 2021-22 reporting year Council reported no exceedances of the *E. coli* initial value and *E. coli* annual value, achieving 100% compliance respectively. Monitoring results displayed in Appendix 1 show that the scheme has demonstrated a consistent effluent quality during this financial year. As shown in Table 4 the scheme returned to compliance for both the initial and annual values in January 2021 and full compliance in December 2021, due to exceedances reported in the 2019-20 and 2020-21 financial years, and Council is no longer required to provide monthly updates to the Regulator.

*Table 4. Annual Value Compliance Childers Recycled Water Scheme 2021-22*

Period		N° of Exceedances	% Compliance
Jul-20	Jun-21	1	98
Aug-20	Jul-21	1	98
Sep-20	Aug-21	1	98
Oct-20	Sep-21	1	98
Nov-20	Oct-21	1	98
Dec-20	Nov-21	1	98
Jan-21	Dec-21	0	100
Feb-21	Jan-22	0	100
Mar-21	Feb-22	0	100
Apr-21	Mar-22	0	100
May-21	Apr-22	0	100
Jun-21	May-22	0	100
Jul-21	Jun-22	0	100

### 3.0 Any Failures to Test and Missing Data Information for Annual Reports

Council has conducted all required analysis during the reporting period from 1<sup>st</sup> July 2021 to 30<sup>th</sup> June 2022 (Table 5).

Table 5. Frequency of testing required during the 2021-22 reporting period.

Parameter	Regulated standard (units)	Frequency of test	Required number of tests	Actual number of tests taken with scheduled frequency	Number of tests missed	Date/s notified to regulator	Comments
<i>E. coli</i>	cfu/100mL	Weekly	52	52	0	N/A	Scheduled number of test complete

### 4.0 Prescribed Incidents

There were no recorded prescribed incidents for the Childers Recycled Water Scheme during this reporting period.

### 5.0 Re-validation assessment

#### 5.1 Reviews

A voluntary management review of the Childers RWMP was conducted by Council on 31<sup>st</sup> January 2022. This review is Council’s initiative as a part of continuous improvement program to review current practices, identify any changes and keep the plan updated more frequently but this is not a legislative requirement.

Council was required to undertake a regular review of the Childers RWMP by the 14<sup>th</sup> of February 2022 in accordance with Section 258 of the *Water Supply Safety and Reliability Act 2011*. This review was conducted on 31<sup>st</sup> January 2022 to verify that the existing RWMP aligns with the current operations of the Childers WWTP. Notification of the regular review was submitted to the Regulator on 14<sup>th</sup> February 2022.

## 5.2 Audits

Council will engage an external Consultant to conduct an external regular audit of the Childers RWMP as per section 7.2 of the Information Notice. At this time, this audit will be finalized before 31<sup>st</sup> January 2025.

An internal audit of the scheme was conducted by Council's Integrated Management System Team on 6<sup>th</sup> December 2021 in accordance with Condition 7.1 of the Information Notice. With the report and associated information submitted to the Regulator on 2<sup>nd</sup> February 2022. The audit detailed high compliance with the conditions of the approval, with five (5) minor non-compliances / inconsistencies noted. Three (3) of these minor non-compliances noted related to updating the working draft of the Childers RWMP and submitting to the Regulator for approval. Council submitted an amendment application for the Childers RWMP to the Regulator on 11<sup>th</sup> May 2022.

Council conducted an annual Inspection of the Childers Recycled Water Scheme and Recycled Water User property on 6<sup>th</sup> December 2021. The site inspection found that activities on the property were in accordance with the Recycled Water Agreement and associated legislation, the next inspection will occur in late 2022.

Appendix 1 – *E. coli* Results confirmed at 45°C (cfu/100mL) - July 2021 to June 2022

Sample Date	Childers Effluent after Chlorine
6/07/2021	3
13/07/2021	1
22/07/2021	0
27/07/2021	2
2/08/2021	0
10/08/2021	1
18/08/2021	1
24/08/2021	4
31/08/2021	1
7/09/2021	1
16/09/2021	0
21/09/2021	0
28/09/2021	0
7/10/2021	1
14/10/2021	0
19/10/2021	0
26/10/2021	1
2/11/2021	1
11/11/2021	1
15/11/2021	1
23/11/2021	1
30/11/2021	1
9/12/2021	1
14/12/2021	0
21/12/2021	2
29/12/2021	4
6/01/2022	1
11/01/2022	0
18/01/2022	10
24/01/2022	0
3/02/2022	1
8/02/2022	0
15/02/2022	1
22/02/2022	0
3/03/2022	4
8/03/2022	0
15/03/2022	2
22/03/2022	0
31/03/2022	5
5/04/2022	1
12/04/2022	3
19/04/2022	1
29/04/2022	5
3/05/2022	1
10/05/2022	0
17/05/2022	0
24/05/2022	0
31/05/2022	4
7/06/2022	1
14/06/2022	1
23/06/2022	0
28/06/2022	1