

NOTICE OF MEETING

Dear Committee Members

You are requested to attend the following meeting of Council.

WATER AND WASTE STANDING COMMITTEE MEETING OF ISAAC REGIONAL COUNCIL

TO BE HELD ON
WEDNESDAY, 22 MAY 2024
COMMENCING AT 1.00PM
COUNCIL CHAMBERS - MORANBAH

KEN GOULDTHORP

Chief Executive Officer

SCOTT CASEY

Committee Officer
Director Water and Waste

Committee Members:

Cr Simon West (Chair)
Mayor Kelly Ve'a Ve'a
Cr Vern Russell
Cr Rachel Anderson
Cr Viv Coleman

LOCAL GOVERNMENT ACT 2009

Local Government Regulation 2012

Chapter 8, Part 2 Local Government Meetings and Committees

Division 1A, Requirements for Local Government Meetings Generally

Section 254J Closed meetings

- (1) A local government may resolve that all or part of a meeting of the local government be closed to the public.
- (2) A committee of a local government may resolve that all or part of a meeting of the committee be closed to the public.
- (3) However, a local government or a committee of a local government may make a resolution about a local government meeting under subsection (1) or (2) only if its councillors or members consider it necessary to close the meeting to discuss one or more of the following matters—
 - (a) the appointment, discipline or dismissal of the chief executive officer;
 - (b) industrial matters affecting employees;
 - (c) the local government's budget;
 - (d) rating concessions;
 - (e) legal advice obtained by the local government or legal proceedings involving the local government including, for example, legal proceedings that may be taken by or against the local government;
 - (f) matters that may directly affect the health and safety of an individual or a group of individuals;
 - (g) negotiations relating to a commercial matter involving the local government for which a public discussion would be likely to prejudice the interests of the local government;
 - (h) negotiations relating to the taking of land by the local government under the [Acquisition of Land Act 1967](#);
 - (i) a matter the local government is required to keep confidential under a law of, or formal arrangement with, the Commonwealth or a State.
- (4) However, a local government or a committee of a local government must not resolve that a part of a local government meeting at which a decision mentioned in [section 150ER\(2\)](#), [150ES\(3\)](#) or [150EU\(2\)](#) of the [Act](#) will be considered, discussed, voted on or made be closed.
- (5) A resolution that a local government meeting be closed must—
 - (a) state the matter mentioned in subsection (3) that is to be discussed; and
 - (b) include an overview of what is to be discussed while the meeting is closed.
- (6) A local government or a committee of a local government must not make a resolution (other than a procedural resolution) in a local government meeting, or a part of a local government meeting, that is closed.

Conflict of Interest Obligations

Reference is made to Section 150EL of the Local Government Act 2009. Specifically, the obligation of Councillors when they first become aware they have a conflict of interest to make the Chief Executive Officer aware in writing or if in a meeting, ensure they declare immediately.

**WATER AND WASTE
STANDING COMMITTEE MEETING
OF ISAAC REGIONAL COUNCIL
TO BE HELD ON
WEDNESDAY 22 MAY 2024
COUNCIL CHAMBERS, MORANBAH**

1. OPENING OF THE MEETING
2. APOLOGIES
3. DECLARATION OF CONFLICTS OF INTEREST
4. CONFIRMATION OF MINUTES
5. OFFICER REPORTS
6. INFORMATION BULLETIN REPORT
7. GENERAL BUSINESS
8. CONCLUSION

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1. OPENING OF MEETING

2. APOLOGIES

3. DECLARATION OF CONFLICTS OF INTEREST

4. CONFIRMATION OF MINUTES

Water and Waste Standing Committee Meeting of Isaac Regional Council held in the Council Chambers, Moranbah, that commenced at 1pm on Wednesday, 21 February 2024.

5. OFFICER REPORTS

5.1 WATER AND WASTE 2023-2024 CAPITAL PROJECTS PROGRESS REPORT

EXECUTIVE SUMMARY

This report aims to update the Water and Waste Standing Committee and Council on the advancements in the Water and Waste 2023/24 Capital Works Program.

5.2 WATER QUALITY INVESTIGATION ACTION PLAN UPDATE

EXECUTIVE SUMMARY

The purpose of this report is to present to Council the Water Quality Reliability Investigation Action Plan Deliverables following the 2021/22 Christmas Period water quality incidents.

5.3 REVISED GLENDEN LANDFILL CLOSURE PLAN

EXECUTIVE SUMMARY

This report seeks approval of the final Glenden Landfill Closure Plan following review by Department of Environment, Science and Innovation (DESI) of the previously approved Plan.

5.4 EXCEPTION BASED CONTRACTUAL ARRANGEMENT – ADEPT CONTRACTORS

EXECUTIVE SUMMARY

The purpose of this report is to seek retrospective endorsement for the arrangement of continuing the watering of the hydro mulched banks at the Moranbah 400ML dam site through Adept Contractors Pty Ltd,

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following the completion of the construction project by Vassallo Constructions Pty Ltd (Contract IRCT-MBH3-1021-259 Moranbah 400ML Raw Water Dam Remediation Works), under the exception provisions for entering into medium or large-sized contractual arrangements within s235 (b) of the Local Government Regulations (2012).

5.5 WATER AND WASTE SERVICE COMPLAINTS POLICY

EXECUTIVE SUMMARY

The purpose of this report is to present the Water and Waste Service Complaints Policy for review and adoption.

5.6 WATER AND SEWERAGE CONNECTIONS AND DISCONNECTIONS POLICY

EXECUTIVE SUMMARY

The purpose of this report is to present the Isaac Regional Council (Council) Water and Sewerage Connections and Disconnections Policy for review and adoption.

6. INFORMATION BULLETIN

6.1 WATER AND WASTE INFORMATION BULLETIN – MAY 2024

EXECUTIVE SUMMARY

The Water and Waste Directorate Information Bulletin for May 2024 is provided for Committee review.

7. GENERAL BUSINESS

8. CONCLUSION

UNCONFIRMED MINUTES

WATER AND WASTE STANDING COMMITTEE MEETING OF
ISAAC REGIONAL COUNCIL

HELD ON
WEDNESDAY, 21 FEBRUARY 2024
COMMENCING AT 1.00PM

ISAAC REGIONAL COUNCIL
UNCONFIRMED MINUTES OF THE
WATER AND WASTE
STANDING COMMITTEE MEETING
HELD IN COUNCIL CHAMBERS, MORANBAH
ON WEDNESDAY 21 FEBRUARY 2024

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ISAAC REGIONAL COUNCIL

UNCONFIRMED MINUTES OF THE

WATER AND WASTE

STANDING COMMITTEE MEETING

HELD IN COUNCIL CHAMBERS, MORANBAH

ON WEDNESDAY 21 FEBRUARY 2024 COMMENCING AT 1.00PM

ATTENDANCE

Cr Simon West, Division Four (*Chair*)
Cr Kelly Vevea, Division Five
Cr Carolyn Franzmann, Division Six
Cr Sandy Moffat, Division Two (*Alternate Member*)
Cr Jane Pickels, Division Seven (*Observer*)
Cr Viv Coleman, Division Eight (*Observer*)

OFFICERS PRESENT

Mr Scott Casey, Director Water and Waste
Mr Robert Perna, Director Engineering and Infrastructure
Mrs Tricia Hughes, Coordinator Executive Support, Office of the Mayor and Chief Executive Officer
Mrs Kristi Thomsen, Executive Assistant, Water and Waste

1. OPENING

The Chair declared the meeting open at 1.56pm and acknowledged the traditional custodians of the land on which we meet today and paid his respects to their Elders past, present and emerging.

2. APOLOGIES AND LEAVE OF ABSENCES

Apologies have been received from Mayor Anne Baker and Cr Greg Austen.

Resolution No.: W&W0481

Moved: Cr Kelly Vea Vea

Seconded: Cr Carolyn Franzmann

That the Water and Waste Standing Committee accepts the apologies received from Mayor Anne Baker and Cr Greg Austen.

Carried

Resolution No.: W&W0482

Moved: Cr Kelly Vea Vea

Seconded: Cr Carolyn Franzmann

That the Water and Waste Standing Committee accepts Cr Sandy Moffat as an alternate member for the February 2024 Water and Waste Standing Committee Meeting.

Carried

3. DECLARATION OF CONFLICTS OF INTEREST

No conflict of interests declared this meeting.

NOTE:

Council acknowledges that Chapter 5B Councillors' Conflicts of Interest of the Local Government Act 2009 does not apply to a Councillor if the matter to be resolved relates to a corporation or association that arises solely because of a nomination or appointment of the councillor by the local government to be a member of the board of the corporation or association.

4. CONFIRMATION OF MINUTES

Confirmation of minutes from Water and Waste Standing Committee Meeting of Isaac Regional Council held at Council Chambers, Moranbah on Wednesday 8 November 2023.

Resolution No.: W&W0483

Moved: Cr Carolyn Franzmann Seconded: Cr Sandy Moffat

That the minutes from the Water and Waste Standing Committee meeting held in Council Chambers, Moranbah on Wednesday 8 November 2023 are confirmed.

Carried

5. OFFICERS REPORTS

5.1 Water and Waste Directorate 2023/2024 Capital Projects Progress Report

EXECUTIVE SUMMARY

This report is to provide an update to the Water and Waste Standing Committee and Council on the progress of the delivery of the Water and Waste Directorate 2023/2024 Capital Works Program.

OFFICER'S RECOMMENDATION

That the Committee recommends that Council:

- 1. Receives and notes the monthly Water and Waste 2023/2024 Capital Projects Progress Summary Report.*

Resolution No.: W&W0484

Moved: Cr Sandy Moffat Seconded: Cr Kelly Vevea

That the Committee recommends that Council:

-
1. **Receives and notes the monthly Water and Waste 2023/2024 Capital Projects Progress Summary Report.**

Carried

5.2 Water Quality Investigation Action Plan Update

EXECUTIVE SUMMARY

The purpose of this report is to present to Council the Water Quality Reliability Investigation Action Plan Deliverables following the 2021/2022 Christmas Period water quality incidents.

OFFICER'S RECOMMENDATION

That the Committee recommends that Council:

1. *Receives and notes the Report for the Water Quality Investigation Action Plan Deliverables.*

Resolution No.: W&W0485

Moved: Cr Sandy Moffat

Seconded: Cr Kelly Vevea

That the Committee recommends that Council:

1. **Receives and notes the Report for the Water Quality Investigation Action Plan Deliverables.**

Carried

6. INFORMATION BULLETIN REPORTS

6.1 Water and Waste Information Bulletin – February 2024

EXECUTIVE SUMMARY

The Water and Waste Directorate Information Bulletin for February 2024 is provided for Committee review.

OFFICER'S RECOMMENDATION

That the Committee recommends that Council:

1. *Notes the Water and Waste Directorate Information Bulletin for February 2024.*

Resolution No.: W&W0486

Moved: Cr Kelly Ve a Ve a

Seconded: Cr Carolyn Franzmann

That the Committee:

1. Notes the Water and Waste Directorate Information Bulletin for February 2024.

Carried

7. GENERAL BUSINESS

No general business this meeting.

8. CONCLUSION

There being no further business, the Chair declared the meeting closed at 2.13pm.

These minutes will be confirmed by the Committee at the Water and Waste Standing Committee Meeting to be held in May 2024 in Moranbah.

.....
CHAIR

..... / /
DATE

MEETING DETAILS	Water and Waste Standing Committee Meeting Wednesday 22 May 2024
AUTHOR	Amal Meegahawattage
AUTHOR POSITION	Manager Planning and Projects

5.1 WATER AND WASTE 2023-24 CAPITAL PROJECTS PROGRESS REPORT

EXECUTIVE SUMMARY

This report aims to update the Water and Waste Standing Committee and Council on the advancements in the Water and Waste 2023/24 Capital Works Program.

OFFICER'S RECOMMENDATION

That the Committee recommends that Council:

- 1. Receives and notes the monthly Water and Waste 2023/24 Capital Projects Progress Summary Report.**

BACKGROUND

Regular updates on the financial and physical status of projects within the 2023/24 Water and Waste Capital Works program are crucial to keep Council informed about the program's progress and associated risks.

IMPLICATIONS

The attached Water and Waste 2023/24 Capital Projects Progress Summary provides an overview of the financial and physical status of all projects, with red indicating a projected cost overrun of over 10% or completion after June 2024, yellow indicating a cost overrun of 0-10%, and green indicating no issues. Brief commentary is provided to explain the status of each project.

Compliance

Compliance with the Water and Waste 2023/24 Capital Works Program is essential to meet the identified timeframes of the 2023/24 financial year.

Key Capital Projects

1. CW222974 – CORP Sewer Relining

Initiated in September 2023, construction works were successfully completed in April. The project will be completed upon finalisation of as-constructed drawings.

2. CW233156 – Clermont Waste Management Facility Weighbridge Installation

This project involves designing and constructing a weighbridge, gatehouse, and access road, integrating a waste data recording system at the Clermont landfill. The Design & Construct contract was awarded in January

2024. Following the delivery of the weighbridge in February, Weighbridge and new gatehouse installation were completed in April. Construction of new roads and installation of new IT equipment are currently in progress.

3. CW222983 – Moranbah Water Treatment Plant Roof Replacement

Construction of a new roof for the 5.7ML water reservoir at Moranbah Water Treatment Plant commenced in March. Roof structure installation works on-site commenced in March. Application of epoxy coating on the internal wall is in progress before the installation of columns, aiming for completion in June 2024.

4. CW233141 – Nebo Water Network Augmentation

This project involves the construction of a new water main in Nebo. The Design and Construct (D&C) contractor continued works on-site through March, with the installation of fire hydrants and valve fixtures completed. The contractor will commence works across the road to the depot, planned for early May.

5. CW233151 – St Lawrence Raw Water Storage & Raw Water Main

The new raw water main construction was completed and commissioned in November 2023. The tender for the water storage component closed in December 2023, yielding only one response that significantly exceeded the budget. Following negotiations with the only bidder for the Water Storage component of this project, a contract within the available budget and meeting the project objectives was awarded to the successful bidder in late April. Construction is planned to commence soon; however, it will span into the first few months of the next financial year.

6. CW233150 – Clermont Water Treatment Plant Filter Media Replacement and Plant Modernisation

Involving the installation of Turbidity Analysers, Switchgear Upgrade Design and Construct, and Chemical Dosing Upgrade Design, the tender for Turbidity Analysers was awarded in late March. The Design and Construct contract for Switchgear Upgrade tender is planned to be awarded in early May. Tender evaluation of the Design of the Chemical Dosing Upgrade contract is in progress. With the responses received for the construction components, it is anticipated that there will be a shortfall of approximately \$50,000, which is proposed to be sourced from the savings from other projects, as indicated in Q3 proposals.

7. CW223019 – Moranbah 400ML Raw Water Dam – Remediation

Following the termination of the original contractor, the replacement contractor has completed the scope of works. Additionally, a watering contractor has been engaged to ensure satisfactory growth of grass during dry weather conditions. The project is now to be finalized following completion of the watering contract and some minor works by other contractors.

8. CW243205 – Moranbah Rectification of Landfill Cell

A \$4.2 million budget allocation was made for this project in the 2023/24 financial year. Briefing report and project timeline were presented in December 2023. The contract for geotechnical specialist engagement was awarded in late April, with the planned kick-off meeting in early May, aiming to complete options analysis for rectification works and methodology.

9. CW243204 – Glenden Landfill to Transfer Station

This project involves constructing a ramp, retaining walls, and handrails. The contract was awarded in late March, and the contractor completed design review. Procurement of materials is in progress, and construction is expected to start within May.

10. CW243239 / CW243240 – Carmila & Greenhill Landfill Capping

These Design Only projects focus on landfill capping for regulatory compliance in Carmila and Greenhill. The design consultant completed the geotechnical investigation of capping material and incorporated the results into erosion and sediment control, drainage, and capping works proposal. Landfill Rehabilitation and Landfill Aftercare plans are in progress.

Benefits

Council can see a monthly progress report detailing the progress of projects in the Water and Waste 2023/24 Capital Program. This report communicates risks, failures and delays that have been identified within the Water and Waste 2023/24 Capital Works program.

CONSULTATION

- Director Water and Waste
- Manager Operations and Maintenance
- Manager Waste Services
- Planning & Project Department Project Managers

BASIS FOR RECOMMENDATION

To improve business within the Water and Waste Directorate by providing more appropriate and relevant reporting, transparency, and a clear monitoring tool for Council. This report will help identify and communicate any project delays or possible project failures.

ACTION ACCOUNTABILITY

The Managers and the Director of Water and Waste oversee the scoping, procurement, and completion of the projects identified within the 2023/24 Capital Projects Progress Summary spreadsheet. Furthermore, the appropriate Managers and the Director Water and Waste are held accountable for the delivery of the project stages which are completed within the identified timeframes.

KEY MESSAGES

That Council has open communication, oversight, and transparency of the Water and Waste 2023/24 Capital Works Program, to ensure Isaac will have effective and sustainable water and waste infrastructure that supports the needs of the region's communities and economic sectors.

Report prepared by:

AMAL MEEGAHAWATTAGE
Manager Planning and Projects

Date: 07 May 2024

Report authorised by:

SCOTT CASEY
Director Water and Waste

Date: 9 May 2024

ATTACHMENTS

- CONFIDENTIAL Attachment 1 – Water and Waste Capital Projects Progress Summary Spreadsheet April 24

REFERENCE DOCUMENT

- Nil.

PAGES 18 - 19 HAVE INTENTIONALLY BEEN REMOVED DUE TO CONFIDENTIAL REASONS

MEETING DETAILS	Water and Waste Standing Committee Meeting
	Wednesday 22 May 2024
AUTHOR	Scott Casey
AUTHOR POSITION	Director Water and Waste

5.2

WATER QUALITY INVESTIGATION ACTION PLAN UPDATE

EXECUTIVE SUMMARY

The purpose of this report is to present to Council the Water Quality Reliability Investigation Action Plan Deliverables following the 2021/22 Christmas Period water quality incidents.

OFFICER'S RECOMMENDATION

That the Committee recommends that Council:

- 1. Receives and notes the Report for the Water Quality Investigation Action Plan Deliverables.**

BACKGROUND

Over the Christmas/New Year period 2021/2022 there were water quality incidents in four (4) townships across the Isaac Region, which caused disruption and impacted the water supply service levels experienced by those communities. The Chief Executive Officer (CEO) of Isaac Regional Council (IRC) committed to a thorough investigation into the incidents. The terms of reference (TOR) for the investigation were approved by Council and an internal investigation was conducted which was peer reviewed by an independent third-party consultant.

Arising from the investigation an action plan was prepared and presented to Council. At the November 2022 Ordinary Meeting (refer resolution number 8126) Council received and acknowledged the Water Quality Investigation Report received and endorsed the Water Quality Investigation Report Action Plan and requested that a regular report be presented to Council on the progress against the action plan deliverables.

IMPLICATIONS

The risk of a reoccurrence of the water quality incidents remained after the events had been resolved, and it was clear from the subsequent investigation that there was no single solution which would entirely remove the risk of such water supply failures. The investigation report gave rise to an action plan which set out a suite of actions which will address the root causes of the water quality events.

The action plan contains both short term interventions and actions that form part of a longer-term strategy. Some of the short-term interventions such as the replacement of failed equipment will have an immediate impact on the likelihood of a reoccurrence but will not eliminate it entirely. Expected delivery dates have been identified in the action plan so that progress may be tracked and effectively managed. It should be noted that implementation of the recommended actions has taken a significant commitment from the Water and Waste management team and Isaac Regional Council.

In the period from January 2024 to April 2024 continued progress has been made on delivery of the water quality action plan. Progress to date is shown in detail in Attachment 1 - Water Quality Investigations Action Plan - Update – April 2024 but can be summarised as follows:

Status	March 2023	June 2023	October 2023	January 2024	April 2024
Action Complete	5	5	12*	16*	20*
Action On - Track	28	28	23**	16**	17**
Action Needs Improvement	2	3	1	2	0
Action Yet to Commence	1	0	0	0	0
Ongoing	1	1	1	3	0

* Where actions have become embedded as business-as-usual activities they have been considered as complete.

** Some of the identified actions are scheduled to be delivered over several years.

CONSULTATION

- Director of Water and Waste
- Manager Operations and Maintenance
- Program Leader Compliance and IMS
- Water and Waste Process Engineer

BASIS FOR RECOMMENDATION

The Action Plan in Attachment A forms the basis of a future risk mitigation measures, and its implementation significantly reduces likelihood of similar water quality incidents occurring in the future. This report shows that progress has been made against all actions; 20 actions are now complete and 17 are on track for successful delivery. This continuing implementation of this action plan will further reduce the risk of future water quality events occurring.

The scope and nature of many of the actions in the plan are multi-year initiatives which will embed a culture of continuous improvement in the Water and Waste directorate. These continuous improvement actions are incorporated into the Water and Waste Integrated Management System where appropriate, to secure the improvements in future operations. Funding relating to some of the actions has been included in the budget submissions for the 2023/24 and 2024/25 Financial Years.

The action plan is one mechanism being used to improve water quality in response to specific water quality events. It is complimented by broader activities such as the Water and Waste Integrated Management System (IMS) and review of the Drinking Water Quality Management Plan (DWQMP) which was completed in December 2023.

The review of the DWQMP included a targeted improvement plan (Risk Management Improvement Plan - RMIP) which will inform the 2024/25 Financial Year investment strategy for the Water and Waste Directorate.

Although the continued delivery of the action plan in attachment 1 will result in a more robust and sustainable water service it represents the actions identified at a point in time and will be complemented by further initiatives which have commenced subsequently.

ACTION ACCOUNTABILITY

The Director of Water and Waste will continue to lead the improvement in reliability of the water supply schemes across the Region.

KEY MESSAGES

The management team of Water and Waste are committed to improving performance and implementing change to minimise the risk of water quality failures in the future, both in a focused way in response to specifically identified risks and also more systemically through continuous process improvement mechanisms.

Since the water quality events in December 2021/22 that triggered this investigation and action plan, the improvements made to date have enhanced the resilience of the water treatment process. Subsequent events have been identified and resolved before they have compromised water quality or the continuity of water supply to the community. These practical examples demonstrate that the initiatives captured in this action plan along with increased asset maintenance and additional staff training have led to more sustainable services.

There are several inter-related initiatives encompassed by this action plan and also in complimentary business improvement frameworks. The ultimate success in preventing future water quality events will be dependent upon delivering them all, so that they complement each other.

Report prepared by:	Report authorised by:
LISA TONKIN	SCOTT CASEY
Manager Business Services	Director Water and Waste
Date: 9 May 2024	Date: 9 May 2024

ATTACHMENTS

- Attachment 1 - Water Quality Investigations Action Plan - Update – April 2024

REFERENCE DOCUMENT

- Nil

WATER QUALITY INVESTIGATIONS – ACTION PLAN

Q4 UPDATE – APRIL 2024

Key

Lead – Is the resource identified to lead and co-ordinate the implementation of an action.

Support – Is a resource that will be required to contribute to the delivery of an action but will support the Lead.

Input - Is a resource that will be required to contribute to achieve the successful delivery of an action but will only contribute as required.

BAU – Business as Usual

CAPEX – Capital Expenditure

DWQMP – Drinking Water Quality Management Plan

IMS – Integrated Management System

OPEX – Operational Expenditure

RMIP - Risk Management Improvement Program

SWIMS – Statewide Information Management System

WWILT – Water and Waste Influencers and Leadership Team

WTP – Water Treatment Plant

WWTP – Wastewater Treatment Plant

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
1.	System Documentation / Knowledge Management	Review existing operational documentation to identify gaps.	4 months per site (across all 8 water treatment plants) Start Jan 2023 End Dec 2024	OPEX (Process Engineer) Operations checklist has been developed for use at all WTPs. Clermont WTP document search is nearing conclusion. In addition to the document search gaps in work instructions are identified through IMS audits. ON TRACK	There are significant gaps in engineering documentation across both WTP and WWTP. The majority of engineering documentation are saved in Capital Projects folders in I: drive rather than O&M folders. Strategic decisions are required to address existing gaps and prevent future gaps. Recommend a Technical Standard for documentation is produced, that is released with all capital project tenders. ON TRACK	A strategy using IMS procedures and capital projects to manage and resolve engineering documentation gaps and inaccuracies has been recommended. There is a cost to this approach so needs to be well defined and endorsed. ON TRACK	Ongoing with no significant change in the preceding period. ON TRACK	Technical Standard for documentation partially completed. This shall be presented to the Capital Projects team to obtain feedback and improve. Investigate utilising the IMS document Management protocols to ensure Engineering documentation is relevant and remains current. Integration of operational documentation into the IMS is ongoing and will eventually form a complete operating system. ON TRACK
1A	System Documentation / Knowledge Management	Develop specific SOPs for lab testing procedures (specific to the instrumentation)	2 months per site (across all 8 water treatment plants following on from action 1A)	OPEX (Process Engineer) Fifteen work instructions have been identified	Four work instructions have been submitted for safety consultation. Six work instructions are in-	Existing work instructions (WI) pending endorsement and publishing on Iris.	Ongoing with no significant change in the preceding period. ON TRACK	Waiting for draft work instructions to be finalised in IMS. ON TRACK

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
		that is at the sites).	Start Jan 2023 End April 2024	across eight water treatment plants. Standardisation of benchtop test equipment is underway. ON TRACK	draft waiting for submission to safety consultation. Progress continues to be affected by access to I and U drive, which are currently unavailable. ON TRACK	Second phase WIs identified and awaiting commencement. ON TRACK		
1B	System Documentation / Knowledge Management	Document procedure for how to respond to changing raw water quality etc.	5 months (across all 8 water treatment plants following on from action 1B) May need to prioritise in high-risk sites. Start Jan 2023 End December 2026	OPEX (Process Engineer) A draft document has been produced for Clermont. ON TRACK	Progress continues to be affected by access to I and U drive, which are currently unavailable. ON TRACK	A procedure has been generated as part of the St Lawrence turbidity event. This procedure has been circulated. Development of the procedure has continued for raw water changes due to seasonal impacts. This will be circulated to the Supervisor North and IMS Officer once complete. ON TRACK	Ongoing with no significant change in the preceding period. ON TRACK	Ongoing with no significant change in the preceding period. Document will be within the IMS. ON TRACK
1C	Process Robustness (previously action 19)	Review processes, identify gaps or processes that	5 months (across all 8 water treatment plants)	OPEX (Process Engineer) Improvements have been identified	OPEX Project bid submitted for the review of the DWQMP and report	DWQMP review has been conducted by external consultant which will inform	The DWQMP review and process audits have identified areas for improvement, and	DWQMP and RMIP COMPLETE

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
		would provide more robust response to variability in raw water quality (e.g. the use of a coated media processes rather than potassium permanganate). Consider what additional monitoring (including on-line) to provide early warning or automated process changes. For example, pH and DO monitoring to provide early warning that coated media manganese removal might be compromised. Also, raw water turbidity monitoring with automated step change to the coagulant dose rate. Consider	following on from action 1B) May need to prioritise in high-risk sites. Start Jan 2023 End December 2026	through investigation of drinking water incidents. Process reviews have not commenced for other water treatment plants due to resource constraints. Separable portions will be included in the RFQ for the 'DWQMP 2023 Review' to conduct risk assessments to identify gaps and to include site-based assessments. See attachment B for details. ON TRACK	preparation within the FY2324 budget. ON TRACK	and refresh the RMIP (Risk Management Improvement Program). These audits identify gaps and improvements prioritised on a risk basis including changes in raw water quality. Additional process audits conducted by the process engineer for all sites which will feed into the investment decision process. Project scoping underway for process improvement opportunities for Carmila WTP. Some of the RMIP actions are to investigate options for improvement and this work will be assessed in the investment decision making process.	these have been input into the FY2425 budget preparation process for future investment. ON TRACK	Next step to produce a WTP Process Standard against which each treatment plant is audited to identify improvements. ON TRACK

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
		using on-line manages analyser results with alarms and also feed forward change to the potassium permanganate dose rate. The changes to dose rates would be based on information gathered from previous events and jar testing.				ON TRACK		
2.	System Documentation / Knowledge Management	Ensure one updated operation and maintenance manual exists for each plant with the manuals all being consistent in format to enable operators from other plants to easily find information.	3 year project (average 4 months per site) Start 1 July 2023 End June 2026	OPEX Project requiring Process Engineer skillset Collation of information town by town plant by plant from ECM is underway to assist with this project. Budget submission 23-24, 24-25 & 25-26 to have these manuals written. See Lucidity action 6978 for comment.	Funding for this action has been submitted as a PAG bid for the FY2324 financial year. ON TRACK	Data acquisition for water treatment sites has commenced to update the Operations and Maintenance Manuals. ON TRACK	Lucidity action 6978. Contractor has been engaged to complete the manuals. MMT and DYS water treatment plants and wastewater treatment plants will be completed this year. ON TRACK	Contractor has been engaged to complete the manuals. ON TRACK

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
				ON TRACK				
3.	System Documentation / Knowledge Management	Ensure manuals are electronic enabling search mechanisms to quickly find relevant information.	No timeframe – as documents are created	Business as Usual This is an ongoing task which is managed through the IMS. IMS system reviews are conducted quarterly. See Lucidity action 6978 for comment. ON TRACK	IMS recertification was undertaken in May 23. Documents will be integrated into the IMS system as they are completed. ON TRACK	IMS surveillance audit completed in June 2023. Separate report to Council submitted to November Council meeting. ON TRACK	Capture of new documentation in IMS is routine part of the document and process control. Now considered BAU. COMPLETE - ACTION CLOSED	Capture of new documentation in IMS is a routine part of the document and process control. Now considered BAU. COMPLETE - ACTION CLOSED Remove from future reports.
4.	SCADA	The reviewers understand that a SCADA strategy is currently being prepared. It is important that this strategy addresses the lack of a centralised system, ensures all sites have similar screen layouts to facilitate operators moving from	Start Jan 2023 End June 24	Endorsed by Council Resolution COMPLETE - ACTION CLOSED	SCADA projects for Glenden and Nebo have been out to tender and together without the general refresh of the SCADA platform are ready for award subject to approved by the W&W Standing Committee. COMPLETE	COMPLETE - ACTION CLOSED	The award of the SCADA implementation project failed to conclude due to issue with the preferred contractor. Project has been reviewed, the scope adjusted and has been re-issued to the market. UPDATE	The SCADA strategy is complete. COMPLETE - ACTION CLOSED Remove from future reports.

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
		one plant to another.						
5.	SCADA	Consider having a "Head Office" SCADA that receives alarms for all important operation sites (raw water sources pump stations, key water treatment processes and monitoring results etc). These alarms should be monitored/auto matically escalated to key personnel via SMS and/or voice dialling system (eg SCADA phone) to message or call people. If no answer, call goes to the next person until acknowledged.	Start Jan 2023 End June 24 Deadline extended in line with SCADA Strategy. End Dec 2025	Consideration has been given to this action and it is being considered as a pathway to improve the overall Service Delivery Model. There are long term budgetary and operational factors and impacts to be taken into account. New Scada upgrades will have oversight on the alarm and escalation of alarms. Discussion and collaborations at a regional level continue as part of the WIM Alliance. See Lucidity action 6981 for comment. ON TRACK	This item will be encompassed as one element of the Service Delivery Model Review. ON TRACK	The development of the new service delivery model is likely to take longer to implement than June 2024. However the SCADA development projects will continue despite this. Discussions are underway through the WIM Alliance on the feasibility of regional control room options. ON TRACK	No significant development on the subject of a regional SCADA control centre in the last quarter. ONGOING	No significant development on the subject of a regional SCADA control centre in the last quarter. This opportunity has been considered and is not viable at this time. It will be reconsidered at the end of the SCADA implementation currently underway. COMPLETE ACTION CLOSED Remove from future reports.
6.	SCADA	Ensure the SCADA system can be remotely accessed by authorised	Completed for sites that have SCADA installed.	Complete COMPLETE - ACTION CLOSED	As more sites are SCADA enabled the visibility and	COMPLETE - ACTION CLOSED	COMPLETE – ACTION CLOSED	COMPLETE – ACTION CLOSED

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
		personnel. Those authorised personnel should only be authorised to change set points or operate remotely within their area of expertise.	Start Jan 2023 End March 23		access will be expanded. COMPLETE			Remove from future reports.
		Review who our authorised personnel will be	12 months (guideline?) Annual review to be undertaken each year	Business as Usual This is an ongoing task. Reviews will be done annually or when staff changes occur. See Lucidity action 6983 for comment. ON TRACK	ON TRACK	This is embedded in BAU processes. COMPLETE - ACTION CLOSED	COMPLETE – ACTION CLOSED	COMPLETE – ACTION CLOSED Remove from future reports.
		For sites that do not have SCADA – how do we get those sites accessible	2.5 years Start Jan 2023 End July 25	CAPEX - (Project already identified in capital program) Identify and prioritise the treatment plant sites and SPS to have upgrades of SCADA so that remote visibility and	SCADA projects for Glenden and Nebo have been out to tender and together without the general refresh of the SCADA platform are ready for award subject to approved by the W&W	SCADA project was offered to preferred supplier but not accepted. Price escalation prompted a redefinition of the project scope and a	The first element of the revised SCADA project has been to the market and is in the evaluation stage. Award to technical advisor expected February 2024.	SCADA Technical Advisor contract has been awarded and initial meetings have been held at Glenden and Nebo. ON TRACK

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
				<p>alarming can be achieved.</p> <p>Ongoing project – 2 sites underway FY2223.</p> <p>Additional site roll out planned for subsequent FY.</p> <p>See Lucidity action 6984 for comment.</p> <p>ON TRACK</p>	<p>Standing Committee.</p> <p>ON TRACK</p>	<p>return to the market for re-tender.</p> <p>ON TRACK</p>	<p>NEEDS IMPROVEMENT</p>	
7.	SCADA	Ensure the SCADA system has the capability to put logic to alert discrepancies when variance between actual and recorded information is detected. (eg if X filters on-line then expected flow is Y ML, have a discrepancy alarm)	<p>3.5 years</p> <p>Start July 2022</p> <p>End Dec 25</p>	<p>CAPEX - (Project already identified in capital program)</p> <p>Functionality included in the scope of works for SCADA upgrades in line with the SCADA strategy endorsed by Council.</p> <p>See Lucidity action 6985 for comment.</p> <p>ON TRACK</p>	<p>Capital projects continue to be delivered in line with the SCADA Strategy</p> <p>ON TRACK</p>	<p>Delays experienced in tender process for SCADA projects due to disruption to the preferred supplier however the project has been re-scoped and will return to market.</p> <p>ON TRACK</p>	<p>The first element of the revised SCADA project has been to the market and is in the evaluation stage. Award to technical advisor expected February 2024.</p> <p>NEEDS IMPROVEMENT</p>	<p>SCADA Technical Advisor contract has been awarded and initial meetings have been held at Glenden and Nebo.</p> <p>ON TRACK</p>
8.	SCADA	As part of the strategy development review systems	<p>3.5 years</p> <p>Start</p>	<p>OPEX will lead into a CAPEX project.</p>	<p>PAG submission for upgrades to Carmilla WTP has</p>	<p>DWQMP review has been completed, report is being written.</p>	<p>Risk assessments completed for 8x WTPs.</p>	<p>DWQMP Review and RMIP complete.</p>

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
		and processes to identify gaps in monitoring and control. Ensure there is sufficient on-line instrumentation for monitoring key water quality parameters including Critical Control Points (CCPs). Related to this, there is a need to ensure there is sufficient control of the plant, such as plant shutdowns on breaches of CCP limits.	July 2022 End Dec 25	Monitoring and control gaps will be identified as part of the process reviews. Equipment lists for online analysers at water treatment plants have been produced. Within the RFQ for 'DWQMP 2023 Review', there will be a separable portion to assess the current online analysers. Additional functionality included in the scope of works for SCADA upgrades in line with the SCADA strategy endorsed by Council. See attachment B for details. See Lucidity action 6986 for comment. ON TRACK	been submitted for FY2324. ON TRACK	Process audits have been undertaken; results are being collated. CCP's have been reviewed. From these activities monitoring and control requirement will be identified. ON TRACK	2023 Risk management improvement program (RMIP) produced as an output of the DWQMP review. ON TRACK	Next step to produce a WTP Process Standard against which each treatment plant is audited to identify improvements. ON TRACK

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
9.	SCADA	The strategy should consider installing instrumentation to monitor raw and treated water quality, production and delivery with trends being monitored to alert operators in advance of the need to start adjusting their plant operation.	3.5 years Start July 2022 End Dec 25	CAPEX - (Project already identified in capital program) CAPEX SCADA Project identified to complete this action. See Lucidity action 6987 for comment. ON TRACK	Capital projects continue to be delivered in line with the SCADA Strategy ON TRACK	DWQMP review and process audits have assessed requirements for additional online instrumentation to monitor water quality. ON TRACK	Risk assessments completed for 8x WTPs. 2023 Risk management improvement program (RMIP) produced as an output of the DWQMP review. ON TRACK	DWQMP Review and RMIP complete. Next step to produce a WTP Process Standard against which each treatment plant is audited to identify improvements. ON TRACK
10.	Escalation Processes are not Working to Raise all the Critical Issues	Ensure staff receive CCP response refresher training (Apply the risk management principles of the water industry standards, guidelines and legislation) as a refresher which covers the 12 elements of the Australian Drinking Water Guidelines as well as critical	Ongoing program Start Oct 2022 End Ongoing	Business as Usual This is an ongoing task. CCP review completed. CCP signage printed for each site and training carried out at Dec 2022 Treatment Plant Operators Meeting. Future reviews and process improvement will result in CCP	Operator training completed on CCP and the need to escalate issues to supervisory staff. ON TRACK	The review of the DWQMP has reduced the number of CCPs (critical control points), (no longer includes treated water turbidity or treated water pH). The CCP online analysers are within the capital plan. Department of Resource Development Manufacturing and	2023 Review of DWQMP complete and submitted to RDMW – awaiting approval. CCPs now on traffic light charts with actions and reporting. Operator awareness training of CCPs once DWQMP has been approved. ON TRACK	RDMW requested clarification and amendments on four points within DWQMP. Training of CCP charts during June 2024 Operators meeting. ON TRACK

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
		control points, critical limits and response plans.		revisions as needed. See Lucidity action 6988 for comment. ON TRACK		Water (DRDMW) presented to operators team meeting on events and incident reporting. The importance of escalation reinforced along with advice to contact - RDMW in an event for timely reporting. ON TRACK		
		Consider undertaking the Water Industry Training Package Unit of Competency NWPGEN017	Stephen to confirm the training package is equivalent to Cert 3 – review the qualification. Start March 2023 End Dec 2023	Investigating if this module has been completed by operators with cert 3 and if trainees have this module in training plan. Kielly Glanville assisting this info. See Lucidity action 6989 for comment. ON GOING	ON GOING	ON GOING	ON GOING	This is covered in the Water Industry Worker Cert III COMPLETE – ACTION CLOSED Remove from future reports.
11.	Escalation Processes are not Working to Raise all the	Display the CCP limits and response plans in each plant in poster form so	Reviewed yearly. New CPP will be installed at plants	Business as Usual This is an ongoing task.	Initial CCP review and visibility complete.	COMPLETE - ACTION CLOSED	COMPLETE – ACTION CLOSED	COMPLETE – ACTION CLOSED

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
	Critical Issues	levels are clearly understood by any operator working in the plant. Council should review these CCP responses and limits to ensure they are in line with ADWG guidelines	by end January 2023 Start Oct 2022 End Jan 23	All were provided at the January Ops Meeting to be displayed on the walls of each plant. This has been reinforced through additional meetings and via email. All staff are fully aware of their limits. See Lucidity action 6990 for comment. ON TRACK	COMPLETE Further updates to CCP will be completed as part of annual reviews.			Remove from future reports.
	Ineffective Alarms to Identify Problems and then Escalation (H2O action item 15)	Implement Critical Operating Point (COP) limits in the water supply network, covering low and high limits for free chlorine.	3.5 years – phased implementation based on risk Start July 2022 End Dec 25	OPEX Project & CAPEX (Project already identified in capital program) Review has been carried out and released to operations team. See Lucidity action 6991 for comment. ON TRACK	Capital project for MMT Cleanwater Reservoir included in PAG submissions for FY2324. ON TRACK	MMT Cleanwater Reservoir project sent to market and prices returned were many times over budget. Operational control measures remain in place whilst alternatives options are considered for the project. NEEDS IMPROVEMENT	Evaluation of drinking water quality at MMT as part of the DWQMP review highlighted elevated risk around Chlorine contact time. This is being managed operationally but has prompted the re-submission of the capital project for the MMT reservoir main for FY2425 budget consideration. ON TRACK	PAG submission has been included for the MMT reservoir main for FY2425 budget consideration. ON TRACK

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
12.	Escalation Processes are not Working to Raise all the Critical Issues	Review emergency response/escalation procedures. Review existing procedures and identify gaps (eg Business Continuity Plans, Raw Water Quality Changes due to rain/drought/fire s/etc).	<p>4 months across all 8 water treatment plants to complete the review (aligns with 1A)</p> <p>5 months across all 8 water treatment plants to write the documents (aligns with 1C)</p> <p>Start Jan 2023</p> <p>End Dec 25</p>	<p>OPEX (Process Engineer)</p> <p>The DWQMP 2021 is currently conditional on updating the incident management system. This is in the process of being drafted by IRC. A peer review will be included as a separable portion in the RFQ for the DWQMP 2023 Review.</p> <p>A work instruction has been drafted that outlines responsibility and response during drinking water quality incidents.</p> <p>A flow chart has been produced to guide operators in requirements related to critical control points; response to a breach in target limits or critical limits.</p>	<p>OPEX Project bid submitted for the review of the DWQMP and report preparation within the FY2324 budget.</p> <p>Progress continues to be affected by access to I and U drive, which are currently unavailable.</p> <p>ON TRACK</p>	<p>Raw water quality changes due to rain/drought/fires is covered in action 1B.</p> <p>DWQMP review has been completed, and the final report is being prepared by external consultant.</p> <p>ON TRACK</p>	<p>Incident and emergency management section updated in the DWQMP and is currently awaiting review by RDMW.</p> <p>COMPLETE – ACTION CLOSED</p>	<p>RDMW requested clarification and amendments on four points within DWQMP.</p> <p>COMPLETE – ACTION CLOSED</p> <p>Remove from future reports.</p>

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
				See attachment B for details. See Lucidity action 6992 for comment. ON TRACK				
		Conduct mock incident response to these incidents, including significant incidents that require escalation and potentially need the formation of an incident response team such as boil water alert or involvement of emergency services, etc as a means of training staff.	Already have a mock trial schedule Start July 2022 End On going	Business as Usual Mock trials were carried out at Monthly Operator meetings in November and December 2022 to prepare for incidents relating to water quality. See attachment B for details. See Lucidity action 6993 for comment. ON TRACK	An actual boil water notice was implemented in Moranbah and involved standing up the Emergency Management Committee. Additional mock trials will be conducted during the year to prepare for future events. ON TRACK	IMS surveillance audits are scheduled at multiple sites each year. ON TRACK	Preparatory meetings were held in the lead up to the Christmas period to prepare staff for possible incidents building on previous mock trials and incident debriefs. IMS surveillance audits are schedule for May 2024 at 6 sites including Glenden and Moranbah water treatment plants. These activities are now considered part of BAU. COMPLETE – ACTION CLOSED	COMPLETE – ACTION CLOSED Remove from future reports.

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
13.	Ineffective Alarms to Identify Problems and then Escalation	Ideally results from on-line instruments, on-site tests and external NATA lab need to be consolidated into one database with results alarmed if discrepancies are identified. The results should be regularly and promptly reviewed and acted on where necessary.	3.5 years - SWIMS Project NOTE - SWIMS will become the daily data log. NOTE – links to SCADA implementation. Start July 2022 End Dec 25	BAU & OPEX Project Supported by CAPEX SCADA program. QLD Water SWIMS report program will allow for this action to be completed. One treatment plant has been moved to this platform as a trial with others transferred on a progressive program. QLD Water Directorate is in negotiations with Mackay Lab to have their Lab results able to be uploaded directly into SWIMS report. See Lucidity action 6994 for comment. ON TRACK	Service Delivery Model Review will consider the best resource to complete the SWIMS data capture and submission. Discussions with Mackay Laboratory and QWD continue regarding the automatic upload of lab results. ON TRACK	Discussions with Mackay Laboratory and QWD continue regarding the automatic upload of lab results. Consideration of the best resource to complete the SWIMS data capture and submission is ongoing as part of organisational changes. ON TRACK	Operational monitoring updated within the 2023 DWQMP. Log sheets to be updated to align with 2023 DWQMP. ON TRACK	Operational monitoring accepted by RDMW. Operators and Supervisors checking that testing aligns with new Operational Monitoring program. COMPLETE – ACTION CLOSED Remove from future reports.
14.	Ineffective Alarms to Identify Problems	Trends should also be automatically calculated to	3.5 years - SWIMS Project	OPEX Project & CAPEX	SCADA projects for Glenden and Nebo have been out to tender and together	Delays experienced in tender process for SCADA projects due to disruption to	The award of the SCADA project failed to conclude due to issue with	SCADA Technical Advisor contract has been awarded and initial meetings

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
	and then Escalation	alert before critical levels are reached.	NOTE - SWIMS will become the daily data log NOTE – links to SCADA implementation. Start July 2022 End Dec 25	Capex Scada Project already identified to address this action. See Lucidity action 6995 for comment. ON TRACK	without the general refresh of the SCADA platform are ready for award subject to approved by the W&W Standing Committee. ON TRACK	the preferred supplier. ON TRACK	the preferred contractor. Project has been reviewed, the scope adjusted and has been re-issued to the market. The first element of he revised SCADA project has been to the market and is in the evaluation stage. Award to technical advisor expected February 2024. ON TRACK	have been held at Glenden and Nebo. ON TRACK
15.	Ineffective Alarms to Identify Problems and then Escalation	Consider the inclusion of regular reservoir inspections to check integrity. (e.g. roof intact and prevents rainwater entering, suitable bird proofing, no vandalism breaches, etc) ACTION - Development of the program – inspection/cleani ng	12 months Start Jan 2023 End Dec 23	Business as Usual This is an ongoing task. Reservoir cleaning and inspection program has been included in the preventive maintenance program. This tender has not been released yet. See Lucidity action 6996 for comment.	Preventative Maintenance Program is being rolled out with initial tenders being released. OPEX project included in FY2324 budget submission. Speed of roll out is dependent upon levels of funding. ON TRACK	Additional Preventative Maintenance contracts have been let in line with the FY23/24 program. ON TRACK	Reservoir cleaning program is now released as a preventative maintenance program and is considered part of BAU. COMPLETE – ACTION CLOSED	COMPLETE – ACTION CLOSED Remove from future reports.

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
				ON TRACK				
16.	Loss of Long-Term Historical Knowledge – Staff Turnover	Review existing operator worksheets to ensure all relevant tasks are included. Also review the frequencies of those tasks to ensure that changes are identified (e.g. algal levels) to ensure responses to changes are actioned before they become a problem.	Copy details from 1A & 1C Start Jan 2023 End BAU	OPEX (Process Engineer) Review of daily, weekly and monthly task has begun. Supervisors are leading this action. See Lucidity action 6997 for comment. ON TRACK	Daily log sheets have been improved for CLM WTP and STL WTP. Water quality testing at MMT WTP has increased due to the transition to potassium permanganate. The current focus is on improvements in testing and monitoring at MMT WWTP due to 4 consecutive months of breaches. ON TRACK	Aeration of raw water dams is contained in Capital Plan. Operational monitoring revised within the DWQMP Review. WTP checklists being improved by Integrated Management System (IMS). Transition to the Statewide Water Information Management System (SWIMS) in 6 to 8 weeks (so no requirement for updating log sheets) BGA Management Plan scheduled to be updated in 2024-25. ON TRACK	Log sheets to be updated to align with 2023 DWQMP. Transition to SWIMS is ongoing. ON TRACK	Resource allocated in organisational structure to facilitate move to Statewide Information Management System (SWIMS). Recruitment has commenced. ON TRACK

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
		Ensure there is sufficient information available for staff who are not fully conversant with the plant to be able to effectively complete the tasks on the worksheets.	Ongoing action Start Jan 2023 End BAU	Some work in this space has started to update tasks. Training of operators when they arrive on site with continued follow up training. See Lucidity action 6998 for comment. ON TRACK	Additional work needs to be undertaken in conjunction with P&C Training on on-boarding and on-site training. NEEDS IMPROVEMENT	Training of staff in the capture and recording of water data is ongoing. Discussions about improving onboarding of new staff continues with P&C. Recruitment and retention activities continue along with discussions with P&C on how this might be improved. ON TRACK	All activities commenced in the previous quarter are ongoing an yet to reach a conclusion. ON TRACK	Workshop between W&W and P&C occurred to investigate options for recruitment and retention. Operations and Maintenance team have developed an onboarding pack for new staff. This has been shared across the directorate. ON TRACK
		Competency review/audit – to ensure the employee understands the process	Ongoing action Start Jan 2023 End BAU	Business as Usual This work is captured as part of the regular IMS audits. See Lucidity action 6999 for comment. ON TRACK	Regular IMS audits are being delivered and validated with a quarterly management reviews and annual external audits. ON TRACK	Operator training continues in operator team meetings along with quarterly IMS audits checking competency. Recent annual IMS surveillance audit and DWQMP audits have also interviewed operational staff to check there	This activity will continue as BAU. Regular training as part of operational meeting, site support for operators and routine IMS audits all support operators understanding of the treatment processes.	COMPLETE – ACTION CLOSED Remove from future reports.

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
						understanding of operational processes. COMPLETE	COMPLETE – ACTION CLOSED	
17.	Loss of Long-Term Historical Knowledge – Staff Turnover	Ensure one updated operation and maintenance manual exists for each plant with the manuals all being consistent in format to enable operators from other plants to easily find information.	3 year project (average 4 months per site) Start Jan 2023 End June 24	OPEX Project requiring Process Engineer skillset. This is an ongoing action that is being considered as inclusion as an operational project. See Lucidity action 7000 for comment. YET TO COMMENCE	Funding for an OPEX Project been submitted for the FY2324 financial year. ON TRACK	Recruitment of Process Engineer will be presented to Council in Q4. ON TRACK	The presentation of the Process Engineer to Council was suspended prior to Christmas but will be reinitiated. An operational project to prepare operation and maintenance manuals is underway. ON TRACK	An operational project to prepare operation and maintenance manuals is underway. ON TRACK
18.	Loss of Long-Term Historical Knowledge – Staff Turnover	Ensure manuals are electronic enabling search mechanisms to quickly find relevant information.	No20 timeframe – as documents are created Start Jan 2023 End BAU	Business as Usual This is an ongoing task which is managed through the IMS and general business processes to ensure that documents are stored and easily accessed. Missing documents identified from	Documents will be integrated into the IMS system as they are completed. ON TRACK	Operating procedures continue to be integrated into the IMS. Discussions with Governance team are seeking to streamline the document control process.	COMPLETE – ACTION CLOSED	COMPLETE – ACTION CLOSED Remove from future reports.

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
				<p>earlier actions will also be captured and made visible as they are prepared.</p> <p>See Lucidity action 7001 for comment.</p> <p>ON TRACK</p>		COMPLETE		
19.	Process Robustness (renumbered to action 1d)	Review processes, identify gaps or processes that would provide more robust response to variability in raw water quality (eg the use of a coated media processes rather than potassium permanganate). Consider what additional monitoring (including on-line) to provide early warning or automated process changes. For example, pH and DO monitoring to provide early		<p>Renumbered as Action 1C.</p> <p>COMPLETE</p>	COMPLETE	COMPLETE	COMPLETE – ACTION CLOSED	<p>COMPLETE – ACTION CLOSED</p> <p>Remove from future reports.</p>

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
		warning that coated media manganese removal might be compromised. Also, raw water turbidity monitoring with automated step change to the coagulant dose rate. Consider using on-line manages analyser results with alarms and also feed forward change to the potassium permanganate dose rate. The changes to dose rates would be based on information gathered from previous events and jar testing.						
20.	Review Plant Bench Monitoring Equipment	Need better bench-scale lab equipment for operators to overcome the issue of operators using Palin test kits	Completed Start Jan 2023 End July 24	Delivered under CAPEX See Lucidity action 7002 for comment.	Lab equipment purchases have commenced and additional funding has been included into the FY2324 budget.	COMPLETE	COMPLETE – ACTION CLOSED	COMPLETE – ACTION CLOSED Remove from future reports.

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
		with the incorrect range.		COMPLETE	COMPLETE			
21.	Asset Management	An asset management system needs to be implemented to identify asset condition and replacement schedules.	2 years Start July 2023? End July 25?	CAPEX for asset replacement OPEX – W&W Asset Management resource – currently no resource. Draft asset management plan complete. Asset revaluation scheduled for FY2324. Revaluation will include asset condition. Needs resource to implement. See Lucidity action 7009 for comment. NEEDS IMPROVEMENT	Revaluation scope does not include asset condition assessment. No resource currently available to develop asset management plans and integrate with preventative maintenance program. This constraint will be considered as part of the Service Delivery Model Review. NEEDS IMPROVEMENT	Asset revaluation is complete. Asset management plan currently being updated. Resources reallocated to work on asset management and long-term capital investment programs. IRC Assets team invited to work with W&W in development of investment programs. ON TRACK	The draft asset management plan has been reviewed. Work on the water and waste investment strategy has commenced. Preparation of the 10 year capital programs has been done. All sources of recommended investment have been collated into a comprehensive list of identified need. ON TRACK	A position description has been prepared for a new asset management position within W&W. Recruitment for this position will be progressed. Work continues with the asset management team to consolidate and rationalise the asset registers. ON TRACK
	Asset Management	Amend the draft AMPs with focus on the	12 months from engagement of resource	OPEX – W&W Asset Management	Will be considered as part of the Service Delivery Model Review.	Asset management plan currently being updated.	The review of the asset management plan is complete	10 year investment programs are now complete in draft for water

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
		improvement plan	Start June 23 End June 24	resource – currently no resource. Needs resource to implement. First step to develop implementation plan. See Lucidity action 7010 for comment. NEEDS IMPROVEMENT	NEEDS IMPROVEMENT	Resource allocation reviewed and existing resources reallocated to work on asset management and long-term capital investment programs. ON TRACK	and is just awaiting approval. Dedicated asset management resources have been identified and are will be implemented over the coming periods if approved. In the meantime existing resources are focusing on the continued development of the asset register and 10 year investment programs. ON TRACK	wastewater and waste functions ON TRACK
	Asset Management	To ensure preventative maintenance is carried out on a scheduled basis. Develop a system to enable breakdowns to be recorded and actioned appropriately to ensure critical equipment and instrumentation is working	Initial development of program – 12 months Ongoing program Start Jan 23 End BAU	BAU/OPEX Process implemented for reporting of failed equipment, data base developed to capture failed equipment reports and failed equipment reports are sent to relevant person to action with finalisation	Preventative maintenance program is being delivered. Additional funding has been requested in the FY2324 budget. Asset failure and repair data capture and work request management will likely be included	Funding of \$750k budget for FY23/24. Tech 1 roll out for maintenance management not scheduled for a couple of years. Preventative maintenance program continue to be rolled out in	This activity will continue as BAU. Additional preventative maintenance funding will be requested in the FY2425 budget to consolidate and complete the roll out of the preventative maintenance program.	This activity will continue as BAU. Additional preventative maintenance funding will be requested in the FY2425 budget to consolidate and complete the roll out of the preventative maintenance program.

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
		correctly with minimal downtime.		<p>report entered to data base to close out action.</p> <p>28 preventative maintenance items have been identified and prioritised. 10 underway with 5 near completion for contracts to be issued.</p> <p>See Lucidity action 7003 for comment.</p> <p>ON TRACK</p>	<p>as a module in the Tech1 rollout.</p> <p>Initial program development complete.</p> <p>ON TRACK</p>	<p>line with the delivery schedule.</p> <p>ON TRACK</p>	<p>Tech 1 Maintenance Management Module is part of the Digital Transformation Strategy.</p> <p>COMPLETE – ACTION CLOSED</p>	<p>Tech 1 Maintenance Management Module is part of the Digital Transformation Strategy.</p> <p>COMPLETE – ACTION CLOSED</p> <p>Remove from future reports.</p>
22.	Workplace Culture	Continue the workplace cultural reforms that have currently been initiated.	<p>Ongoing</p> <p>Start July 22</p> <p>End BAU</p>	<p>Business as Usual</p> <p>This is a continuous long-term initiative to improve the working environment and team effectiveness.</p> <p>It involves engagement of the OLT in culture regeneration and business improvement initiatives.</p>	<p>Continuation of BAU activities and development of a Directorate staff survey.</p> <p>IRC Cultural Guidelines circulated to staff and discuss with OLT members.</p> <p>ON TRACK</p>	<p>Reward and recognition initiative has been implemented and reinforces IRC values and outstanding performance within the Directorate.</p> <p>Cultural development is discussed monthly at the WWILT meetings and future initiatives are proposed.</p>	<p>This activity will continue as BAU.</p> <p>COMPLETE – ACTION CLOSED</p>	<p>This activity will continue as BAU.</p> <p>COMPLETE – ACTION CLOSED</p> <p>Remove from future reports.</p>

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
				<p>Culture leadership is also translated into operational team meetings.</p> <p>See Lucidity action 7004 for comment.</p> <p>ON TRACK</p>		<p>Team development activities are delivered through WWILT in collaboration with P&C.</p> <p>Cultural development and improvement is embedded in BAU across the Directorate.</p> <p>COMPLETE</p>		
23.	Workplace Culture	Emphasise the approach/philosophy of continuous improvement.	<p>Ongoing</p> <p>Start July 22</p> <p>End BAU</p>	<p>Business as Usual</p> <p>This is an ongoing initiative and prosecuted through Leadership team and WWILT meetings as well as regular team meetings specifically targeting the continuous improvement register.</p>	<p>The WWILT group continues to meet and thrive and has identified multiple projects to provide business improvements to the W&W directorate.</p> <p>These activities are complimented by the structured approach of the IMS and external audits and certification.</p> <p>ON TRACK</p>	<p>The WWILT group continues to meet and thrive and has identified multiple projects to provide business improvements to the W&W directorate.</p> <p>These activities are complimented by the structured approach of the IMS and external audits and certification.</p>	<p>This activity will continue as BAU.</p> <p>COMPLETE – ACTION CLOSED</p>	<p>This activity will continue as BAU.</p> <p>COMPLETE – ACTION CLOSED</p> <p>Remove from future reports.</p>

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
				See Lucidity action 7005 for comment. ON TRACK		This is complimented by ongoing training and information session at Operational team meetings. These activities are now embedded in BAU. COMPLETE		
24.	Drinking Water Quality Management Plan	Review and audit of existing DWQMP	November 2022 Start July 22 End BAU	OPEX Project DWQMP audit completed October 2022. Final report complete November 2022. See Lucidity ID 384. COMPLETE	Budget included for DWQMP review in FY2324. COMPLETE and ONGOING	DWQMP audit is complete and final report is being prepared. COMPLETE	This activity will continue as BAU. The DWQMP will be reviewed on a 3 year cycle. COMPLETE – ACTION CLOSED	The DWQMP will be reviewed on a 2 year cycle as per Regulator requirements. COMPLETE – ACTION CLOSED Remove from future reports.
	Drinking Water Quality Management Plan	Risk assessment of water supply schemes	6 years (one identified plant per year) Start	OPEX Project	This will be a long-term cycling process where we review process at one plant each year	Risk assessment of plant through the DWQMP review have been	This activity will continue as BAU.	The DWQMP will be reviewed on a 2 year cycle as per Regulatory requirements.

NO	FACTORS	ACTION	TIMELINE	PROGRESS MARCH 2023	PROGRESS JUNE 2023	PROGRESS OCTOBER 2023	PROGRESS JANUARY 2024	PROGRESS APRIL 2024
			July 22 End June 28	DWQMP audit completed October 2022. Final report complete November 2022. IMS processes will also reinforce the management of risk in the water treatment processes. See Lucidity ID 384. ON TRACK	and integrate this with reviews of the DWQMP and the continuation of the IMS. ON TRACK	completed for FY23/24. COMPLETE	The DWQMP will be reviewed on a 2 year cycle. COMPLETE – ACTION CLOSED	COMPLETE – ACTION CLOSED Remove from future reports.

MEETING DETAILS

Water and Waste Standing Committee Meeting

Wednesday 22 May 2024

AUTHOR

Karl Murdoch

AUTHOR POSITION

Manager Waste Services

5.3

REVISED GLENDEN LANDFILL CLOSURE PLAN

EXECUTIVE SUMMARY

This report seeks approval of the final Glenden Landfill Closure Plan following review by Department of Environment, Science and Innovation (DESI) of the previously approved Plan.

OFFICER'S RECOMMENDATION

That the Committee recommends that Council:

- 1. Approves the revised Glenden Landfill Closure Plan.***

BACKGROUND

Council at its Ordinary Meeting of 28 June 2023 resolved: 1) to approve the transition from landfilling operations at Glenden to a new transfer station for the ongoing management of the waste services for the Glenden Community, and 2) to endorse the Glenden Waste Management Facility Closure and Post-Closure Plan (Resolution 8399).

The Environmental Authority (EA) for the site, EPPR00791913 (former NM0105) states in Condition 9-G29 that the holder of the EA must develop and implement a landfill rehabilitation plan and lodge it with the administering authority at least 12 months before the anticipated final receipt of wastes in the landfill unit for its review and comment.

A previous Glenden Resource Recovery Centre Closure and Post Closure Plan had been prepared in 2016 but this plan required major revisions since it was compiled in conjunction with plans which incorporated various developments to the site in the future. These developments had been planned before the 2019 reintroduction of the *Waste Levy Legislation* (Clause 57(1)(c) in particular), and before Council had factored-in environmental risks into its Waste Management Strategy from 2020. Council's strategy has for some time been to close Glenden Landfill no later than June 2024.

Officers engaged Consultants to review the previous 2016 Glenden Resource Recovery Centre Closure and Post Closure Plan (Plan) and take these changes into account and update it. Officers presented this Plan for Council approval in June 2023 and forwarded the Plan to DESI for review as per Condition 9-G29 of the EA.

Officers within DESI reviewed the Plan and responded to Isaac Regional Council (IRC) on 5 September 2023 raising a number of observations and concerns. Officers responded to DESI on 29 September 2023 addressing each of these matters and proposing additions and changes to the document. DESI responded on 22 November 2023 requesting that IRC make the suggested revisions and re-submit by 29 November 2023. The required changes were made, and the revised document was re-submitted on that date.

In the June 2023 report seeking approval of the Plan, officers noted the following:

“A factor which may affect the integrity of any cell capping is settlement of buried waste layers as decomposition occurs. A landfill site can settle over a period of several years, and for this reason IRC officers have incorporated a statement into the Closure Plan to the effect that initial activities (which need to commence after 28 days of the last receipt of waste to the site under condition 9-G30) are confined to applying interim capping to allow for settlement to occur prior to the commencement of final capping construction, with capping not occurring until at least 2028.”

DESI challenged this, stating: *The holder of this environmental authority must begin closure activities of any landfill unit no later than 28 days after the date on which landfill unit receives the final recorded receipt of wastes. However, within the Closure Plan (p. 9), it states that closure activities should commence no later than 28 days after the date on which the known final receipt of wastes is accepted at the site, with a more detailed explanation provided on p. 16. This approach does not comply with condition 9-G30. Can you please clarify for the department how IRC determined why there may be a need for more than 28 days to begin closure activities (advice from a 3rd party consultant, internal advice, etc.)*

In response, the IRC Waste Manager clarified as follows: “The plan does not state that there will be no post-closure activity but says that post-closure activity comprises allowing settlement and interim capping only for the initial period of three (3) years. I would be happy to add a statement to the effect that this would also include inspections aimed at determining that settlement has no adverse effect on erosion of interim capping or opening up of sink holes etc, in addition to the surveys as mentioned on page 16 of the plan. The plan outlines the reasoning behind this and does so on the advice of the consultants who assisted with the compilation of the plan with our agreement. I have first-hand experience of observing a filled landfill cell in Queensland which settled more than 1m vertically over a period of 2 – 3 years. Glenden landfill has seen sinkholes opening up in recent times which have required investigation and filling. I am confident that a cap placed within 28 days of closure will be compromised by settlement which will necessitate remediation and significant additional cost and will leave the site vulnerable to landfill gas and leachate problems until the remediation is carried out. I believe that overall, a better environmental outcome will be achieved by delaying the final capping until a period of time has elapsed during which the risk of settlement / breaches of the cap will have diminished. I propose that we take the same approach with Dysart Landfill closure plan – on current projections it looks like it will have to close in early to mid-2025.”

DESI have now accepted the plan, however they have raised a number of Matters of Concern, summarised in a letter dated 20 February 2024 (Attachment 2). These includes the absence of a leachate management system (the site is an old unlined site) and inadequacy of groundwater monitoring (a need for a review of the groundwater monitoring system is identified in the plan). DESI did not require the plan to be amended again, nor for a response to the concerns however they recommended certain actions by IRC to address the concerns when implementing the plan.

IRC will ensure that such matters of concern are addressed in the future Dysart Waste Management Facility Closure Plan.

IMPLICATIONS

Financial

There are no immediate financial implications although in the longer term the site will require remediation as part of the closure plan, which will necessitate capital funding in Financial Year 2027-28. This is outlined in

the draft Waste Services Asset Management Plan. A review of current groundwater bores will also be required following DESI's review of the closure Plan, which will require expenditure in the 2024-25 financial year.

Operational Expenditure will also be required over a thirty-year period for maintenance and regulatory groundwater monitoring, which is currently carried out within existing OPEX budgets.

Risk

The closure of Glenden Landfill will provide a significant step forward in mitigating a risk already identified in Council's Enterprise Risk Register: *WW0006: DES takes enforcement action against IRC for breaches to EA conditions.*

The process of reducing the number of active sites (i.e. Glenden and Dysart) over the longer term is identified in the Risk Register as a current Control Measure for this risk.

Environmental

Condition 9-G25 of the EA requires that a final cover consisting of 500mm depth of compacted clean earth be placed over the completed area of the landfill. The condition does not specify types of soil or performance criteria. The Closure Plan however makes recommendations regarding a low permeability compacted clay liner at least 500mm thick. Final design specification will be determined on a risk-based approach aimed at not only complying with the conditions of the EA but also with consideration to Council's General Environmental Duty as defined in s. 319 of the Environmental Protection Act 1994.

CONSULTATION

Director Water and Waste

Department for Environment, Science & Innovation (DESI)

BASIS FOR RECOMMENDATION

Council revised the closure plan for the Glenden landfill site and submitted it to DESI twelve months prior to the closure site closure. This report seeks Council approval of the final report which is now complete following further clarification with DESI.

ACTION ACCOUNTABILITY

Manager Waste Services is responsible for carrying out the recommended actions within the closure plan.

KEY MESSAGES

Council has reviewed its closure plan for Glenden Landfill, which will be converted to a transfer station to continue serving the local community.

Report prepared by:

KARL MURDOCH
Manager Waste Services

Date: 3 May 2024

Report authorised by:

SCOTT CASEY
Director Water and Waste

Date: 9 May 2024

ATTACHMENTS

- Attachment 1 - Glenden Landfill Closure Plan
- Attachment 2 – DESI Matters of Concern

REFERENCE DOCUMENT

- Isaac Regional Waste Management Strategy 2020-2025
- IRC Enterprise Risk Register



GLENDEN WASTE MANAGEMENT FACILITY - CLOSURE AND POST CLOSURE PLAN

SITE OFFICE

NOTICE
ALL VISITORS
MUST REPORT
TO SITE OFFICE

WARNING
This property is under security surveillance.

Isaac Regional Council Levy Ready Projects
The Isaac Regional Council Levy Ready Projects is a joint initiative of Isaac Regional Council and the Queensland Government.
ISAAC REGIONAL COUNCIL
Queensland Government

Current as at 28/11/2023
Presented by Manager Waste Services

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INTRODUCTION

Isaac Regional Council (IRC) owns and operates the Glenden Waste Management Facility (WMF), located on the outskirts of the town of Glenden (Figure 1). The facility comprises an operational landfill, as well as a transfer station and recycling and resource recovery facilities.

This Closure and Post Closure Plan for the Glenden WMF outlines the proposed final landfill footprint and site management measures for key site infrastructure as part of the site closure and post closure management.

The site operates under Environmental Authority (EA) EPPR00791913, regulated by the Department of Environment and Science (DES), and in conjunction with a Site Based Management Plan.

SITE DESCRIPTION AND FACILITY DETAILS

LOCATION AND LAND USE

The site is located at the southern end of Ewan Drive approximately 800 m to the south of the town of Glenden. The landfill facility accepts approximately 4,000 tonnes per annum of waste and operates under EA EPPR00791913, regulated by the Department of Environment and Science (DES). The site is licensed in respect of carrying out the following environmentally relevant activity:

- Waste disposal – operating a facility for disposing of only general waste or limited regulated waste, if the facility is designed to receive waste at the rate of 2,000 t or more, but less than 5,000 t per year.

LOCALITY	Approximately 1km south of Glenden
OWNER	Isaac Regional Council
ADDRESS	412 Ewan Drive, Glenden, QLD
LOCAL GOVERNMENT	Isaac Regional Council
LOT AND PLAN	Lot 10 on HLN205
SIZE OF LAND PARCEL	60 ha
SIZE OF LANDFILL AREA	Approximately 7.5 ha

The land use surrounding the site is as follows:

- Bushland
- Motocross track
- Residential properties

CLIMATE

The site is located in Central Queensland. The Moranbah Airport weather station is the closest station with full climate statistics. A summary of the rainfall data obtained from the Bureau of Meteorology website is provided below.

WEATHER STATION DATA	MORANBAH AIRPORT (STATION 034035)
Operating Years	Commenced 2012
RAINFALL DATA	
Mean rainfall	562.8mm
highest annual	833mm
10th percentile rainfall	362.1mm
90th percentile rainfall	779.2mm
lowest annual	324.8mm
TEMPERATURE DATA	
Mean maximum temperature	30.5°C
Mean minimum temperature	15.7°C

TOPOGRAPHY AND HYDROLOGY

The site generally slopes in a north-easterly direction at a grade of approximately 2% towards a non-perennial tributary of the Suttor Creek. The topography of the north-western portion of the site has been altered by landfilling activities and rises to up to 5 m. Site levels range from approximately RL 370 m at the south-western fence line to RL 360 m at the north-eastern fence line.

GEOLOGY AND HYDROGEOLOGICAL SETTING

Regional geology is described by Department of Natural Resource and Mines (DNRM) as Triassic aged Rewan Formation including sandstone, pebbly sandstone and mudstone.

GHD previously reported that site specific geology comprised waste material was approximately one to two metres deep and was underlain by clay and clayey sands.

Regional groundwater flow was assumed to be in a north-easterly direction towards a tributary of Suttor Creek, and ultimately discharges into Suttor Creek.

Three groundwater monitoring bores were installed across the Site in September 2015, comprising one monitoring bore up-gradient of the landfill site to the south (MB01) and two monitoring bores towards the east of the site (MB02 and MB03).

OPERATIONAL HISTORY

The Glenden WMF was initially established as an informal landfill and was utilised by the residents of Glenden and surrounding mines. IRC formally took over the operation of the site as a landfill facility in approximately 2012. IRC engages a contractor to operate the facility including deposition and covering of waste.

The site does not have engineered liners or formal leachate collection systems. This site was developed with waste deposited direct to ground without any significant engineering or containment. Consequently, leachate generated within the waste in most of the landfill may have permeated into the underlying soils and into the groundwater.

The initial landfilling method is understood to utilise the trench and fill method, followed now by area and mound method.

SUMMARY OF LANDFILL CONDITION

Profile

The site is currently active and final profile is yet to be achieved.

The surface plateau area of the site is generally flat, and batters are up to 1V:3H, but inconsistent in profile. A minimum grade of 5% for a final landfill profile is suggested for achieving effective surface water runoff. There are low points around the toe of the landfill which inhibits surface water runoff.

Capping

Engineered capping has not been constructed on completed or active landform. Waste disposal is currently undertaken and intermediate cover material, approximately 300mm in thickness, have been used on areas of the landfill where tipping operations have ceased.

Leachate

Leachate is produced when water percolates through deposited waste. As it passes through the waste, the water becomes contaminated as it 'leaches' compounds from the waste. Leachate composition varies with

the age of the waste from which it is generated; it also varies depending on the nature of the waste and the volume of water.

Water may enter the waste from several sources:

- rainfall
- liquid as a result of breakdown of the landfill waste
- surface water inflow (as run-off)
- groundwater inflow.

Liquid wastes may also have been present in the waste when deposited.

The site does not have engineered liners or formal leachate collection systems. This site was developed with waste deposited direct to ground without any significant engineering or containment. The impact of the landfill on the surrounding environment is yet to be determined. The environmental monitoring data, trigger levels and leachate generation data will need to be reviewed in detail to ascertain the impact of the leachate on the surrounding environment and the detailed design of alternations and additions to existing systems, if required.

Gas

Landfill gas is generated during the decomposition of biodegradable waste. The decomposition process of the waste occurs in a number of stages following deposition. Putrescible wastes have been accepted for disposal at the site since commencement.

Landfill gas generated by the waste at the site has been passively vented through the temporary cover materials direct to atmosphere. No gas collection system for the site has been installed.

Landfill gas monitoring and risk assessment will be undertaken at the site as part of the closure.

Stormwater

Surface water runoff from the site is currently conveyed via overland flow, following the existing ground contours, to the east and northern boundaries of the site where a sediment basin is located. Surface water runoff from the sediment basin discharge to a tributary which ultimately enters the Suttor Creek.

The landfill batters are currently grassed for erosion and sediment control management.

LANDFILL CLOSURE OBJECTIVES

The operating and closure objectives of the site will be:

- Operating the facility in compliance with the facility EA and in an environmentally sound manner.
- Consistency with IRC Environmental Policy
- Implementation of environmental management procedures and installation of necessary infrastructure
- Environmental responsibilities of site personnel
- Site development activities and achievements.

FUTURE LAND USE

The western part of the site will continue to be used for waste management and resource recovery purposes, primarily waste transfer, recovery and recycling.

The remainder of the land will be restricted access with no planned use beyond vacant land.

ENVIRONMENTAL VALUES

For the existing operations of the site, IRC objectives of the site comprise:

- Operating the facility in compliance with the facility licence and in an environmentally sound manner.
- Consistency with IRC Environmental Policy
- Implementation of environmental management procedures and installation of necessary infrastructure
- Environmental responsibilities of site personnel
- Site development activities and achievements.

A site-specific environmental value is associated with the water course and associated riparian region, as well as a portion of vegetation in the south-western part of the site, are characterised in the Regulated Vegetation Management Map under the Vegetation Management Act 1999 as Category B.

LANDFILL CLOSURE REGULATION AND PERFORMANCE CRITERIA

Performance criteria are required for each element of the landfill, including final landform, capping, landfill gas, surface water controls, and leachate collection to specify a closure design.

Council, in collaboration with Environmental Consultants has prepared performance criteria considered suitable for the site based on a broad range of established regulatory licences, guidelines and policies. The application of available technical standards and IRC's previous experience with landfill management were also used in the development of the performance criteria.

ENVIRONMENTAL AUTHORITY

The site EA EPPR00791913 condition 9-G28 states that the post closure program must include measures to:

- maintain the structural integrity and effectiveness of the final cover system
- maintain and operate the leachate collection system
- maintain the groundwater monitoring system.

The EA condition G-30 requires that closure activities should commence no later than 28 days after the date on which the known final receipt of wastes is accepted at the site.

PERFORMANCE CRITERIA

The performance criteria developed for the site is provided below.

ENVIRONMENT	PERFORMANCE CRITERIA
Land	<p>The final landfill surface should prevent or minimise infiltration of water into the landfill unit, minimise the likelihood of erosion and instability and minimise the uncontrolled release of landfill gas. The final cover system should be graded to minimise ponding of water on the final cover system.</p> <p>For future maintenance and constructability it is preferable that capped slopes are not be steeper than 20% (i.e. 1(V):5(H)). Caps steeper than this may require engineering controls for stability management. Minimum capped slopes of 1(V):20(H) are recommended to prevent future ponding as waste materials settle over time.</p> <p>The final landfill surface should be terraced and/or graded to a gradual slope and revegetated as soon as practicable.</p>
Water	<p>Off-site surface water and groundwater discharges should comply with water quality criteria established for the site.</p> <p>Waste must be capped with a low permeability layer to minimise the infiltration of stormwater. Typically, a 500mm layer of low permeability clay compacted to a coefficient of less than permeability of $1 \times 10^{-8} \text{m/s}$. Where low permeability clay is not available, geosynthetics may also be used.</p> <p>The barrier layer should be protected from the wetting and drying cycle with a minimum 300mm soil layer, and a further upper layer of earthen material to support native plant growth should be a minimum of 200mm.</p> <p>Leachate collection to minimise impact on groundwater and surface water.</p> <p>Leachate disposal options include evaporation, discharge to sewer and treatment.</p> <p>Sediment contamination of stormwater should be minimised by revegetation and other stabilisation techniques.</p> <p>The Licence for the site does not stipulate the post closure monitoring requirements; however, the Licence does detail the environmental monitoring requirements for the operational phase of the site. It is considered that the</p>

monitoring requirements of the Licence will be an appropriate guide for the post closure monitoring requirements.

Air Landfill gas can be managed through passive venting to the atmosphere, flared prior to release to the atmosphere, or reused.

CLOSURE PLAN

FINAL CAPACITY AND OPERATIONAL LIFE OF FACILITY

The final capacity of the site is estimated as 4,000m³ at June 2023. Waste disposal at Glenden WMF is anticipated to be complete by 30 June 2024, a decision having been made to close it rather than invest in a weighbridge as required by s. 57(1)(c) of the Waste Reduction & Recycling Act 2011.

FINAL CONTOURS AND PROFILE OF FACILITY

The profile of the site will be graded to promote surface water runoff and stability. It is proposed that the batters of the landfill will be 1(V):4(H). Engineering controls (geogrids, benches, and subsurface drainage) will be considered during the detailed design if required. The surface of the landfill will be constructed with a minimum slope of 5% (1(V):20(H)).

A conceptual layout of the proposed final landform is provided in Figure 2.

LANDFILL CAPPING

The EA stipulates in Condition 9-G25 that a final cover of at least 500mm of clean earth must be placed over the final area.

The final capping system to the landfill unit will effectively minimise:

- infiltration into the waste and therefore minimise the generation of leachate
- fugitive landfill gas emissions

The final capping system will include at least:

- a layer of material of sufficiently low permeability to minimise infiltration
- an upper layer of earthen material that is capable of sustaining native plant growth.

The following arrangement is proposed (from bottom up):

- earthen cover over the waste (200mm to 300mm thick)
- low permeability compacted clay liner at least 500mm thick
- soil sub-base at least 300mm thick
- topsoil of at least 200mm thick.

The materials comprising the final capping system will need to consider, amongst other things, material availability, environmental risk management, and the proposed end use of the facility. Variations to the above will need to be considered for activities that include trafficable roads, structures, stockpiles, etc.

Following a detailed analysis of potential earthen construction materials available on site or near the landfill, an assessment of the risk posed to the environment by the landfill and the proposed end use of the facility, the final capping system will be designed.

Earthen Cover

The earthen cover is a foundation of compacted soil that will provide a platform for support of low permeability capping materials.

Low Permeability Clay Cap Liner

A compacted clay cap with a coefficient of permeability less than 1x10⁻⁸m/sec is a standard performance outcome. The moisture content of a compacted clay liner must be maintained to reduce the risk of

desiccation cracking. Trees and shrubs should be carefully selected to minimise the risk of roots penetrating the clay liner leading to loss of liner integrity, egress for vermin, increased infiltration of surface water. Desiccation of the clay liner material can lead to increased permeability of the material and creating preferential flow paths for rainfall runoff to seep into the waste.

Construction of the low permeability compacted clay layer should be accompanied by appropriate geotechnical inspection and testing.

If the existing cover soils are to be considered for incorporation into the cap, then a detailed assessment of the soils would be required to be undertaken to evaluate if they could meet the required parameters. Segregation of clay rich soils suitable for clay lining from more permeable soils may be required. More permeable soils may be suitable for re-use as cover soils over the clay liner.

Soil Sub-Base

The soil sub-base provides protection of the low permeability clay from traffic and desiccation. The layer also provides a moisture source to support vegetation during dry periods. Depending on the materials used in the sub-base layer, the layer can also provide lateral seepage drainage for water that may accumulate on top of the compacted clay liner. The subsoil thickness should be assessed at the detailed design phase.

Topsoil

The topsoil layer is principally for supporting vegetation at the Site. The suggested minimum thickness of 200mm should be assessed in terms of the proposed vegetation on the cap, and the thickness of topsoil in the surrounding areas. The thickness of this layer should be considered in conjunction with the sub-base layer to manage the risk of root effects and desiccation on the compacted clay liner. Where small trees and shrubs are proposed, the protection layer over the compacted clay liner will need to be thicker. Localised zones of thicker protection layer can be constructed to establish more ecologically diversified vegetation.

The materials used for the topsoil layer should be erosion resistant, to limit the risk of reducing the thickness of the layer due to erosion. The selection of surface vegetation is related to the local weather conditions and the objective to achieve an erosion resistant system in conjunction with the topsoil material. Vegetation is also likely to require a program of maintenance and replenishment.

SURFACE WATER

Shaping of the landfill to promote surface water runoff will need to be undertaken. As indicated earlier a minimum slope of 5% (1(V):20(H)) to provide a sufficient gradient to promote surface water runoff and prevent ponding on the cap.

Dish drains will be used around the crest of the landfill to convey surface water runoff to drop structures. The drop structures will be used to convey the surface water runoff from the crest to the toes of the landfill.

A sediment pond is located to the east of the landfill mound on re proposed to be located as indicated on Figure 2. Surface water runoff from the site will be directed to this pond.

Subsurface drainage for stability management (geosynthetic and natural materials) will also be considered during the detailed design stage.

Sediment and erosion control measures will need to be implemented during the initial period after construction of the final cap until the vegetation is established on the landfill.

A conceptual layout of the surface water management system is provided in Figure 2.

LEACHATE

Leachate is the liquid generated from solid waste decomposition in the landfill. Leachate is derived from precipitation, liquids disposed of in the waste mass and the decomposition of organic material in the waste itself.

As leachate forms and passes through the waste, organic and inorganic compounds become dissolved and suspended in the leachate. The dissolved and suspended constituents of leachate have the potential to cause groundwater and surface water contamination.

The site does not have a formal leachate collection and management system. The site was an informal landfill with waste deposited direct to ground with no engineering or containment. Consequently, leachate management involves mitigation measures which can be implemented to limit the potential for uncontrolled leachate discharges from the waste. The following measures can be considered during closure:

- Use of a low permeability capping layer above the waste
- Installation of monitoring points within the waste mass can be used to pump leachate (by means of a submersible pump).
- Incorporation of a leachate collection layer beneath the cap, linked to collector drains beneath the cap
- Perimeter leachate interception trench
- Discharge of the collected leachate into a tank or pond.

LANDFILL GAS

Landfill gas is generated during the decomposition of biodegradable waste. The decomposition process of the waste occurs in a number of stages following deposition.

The ambient air pressure will affect the rate of emission. Low air pressure often results in higher emissions (as gas is driven from the waste body, where pressure has not equilibrated).

Higher gas pressures may develop where low permeability layers of soil or waste confine the gas. In such circumstances, the gas will move to lower pressure areas, and often this may result in lateral movement. If this occurs near the margins of the waste, it can result migration through surrounding soils.

It is not expected that there are enough landfill gas quantities and concentrations for an active gas extraction system to be feasible. IRC will undertake this assessment prior to closure.

Residual gas management is still required to be incorporated into the final cover system. This system will manage the pressure build up beneath the capping system and will typically comprise a series of gravel filled trenches with passive vents located underneath the landfill cap. This system will be designed during detailed design.

REHABILITATION PLAN

Rehabilitation of the site will be progressive as areas reach final levels. An intermediate cap will be installed a reasonable period of time after the initial settlement of the waste has occurred. This will mitigate excessive strain being induced in the capping layers as a result of settlement.

POST CLOSURE PLAN

The aftercare period of the site following final closure may require attendance and maintenance for more than 30 years as the waste stabilises and risk of pollution decreases. The post closure plan provides a framework for monitoring the effectiveness of the remedial measures implemented during the closure of the site.

INSPECTION MONITORING AND REVIEW

Capping systems consolidate and erode. Inspection of the capping and drainage systems associated with the final cover systems in an ongoing necessity.

Walk over inspections and reporting of the site condition and surrounding boundaries will need to be undertaken to check for:

- leachate breakouts
- landfill gas leaks and odours
- subsidence, fissures, cracking and erosion
- damage to gas collection and groundwater/leachate monitoring infrastructure
- illegally dumped waste
- vandalism
- vegetation
- stormwater drainage system.

Leachate

Leachate monitoring and management will be required at the landfill for many years following site closure. Undertaking leachate collection and disposal, if implemented, will continue following landfill closure until the landfill is stabilised.

Any leachate breaches should be investigated to evaluate their cause and subsequently rectified.

The generation of leachate within the landfill will reduce with time after capping, falling to a relatively constant volume (to reflect some leakage through the cap).

Surface Water

Erosion and sediment control measures implemented at the site (drop structures and sediment basins) will be maintained during the aftercare period to ensure that the landfill does not impact on the surrounding surface water drainage. As the site is progressively capped and vegetation becomes established, the potential surface water impacts will reduce. The erosion and sediment control measures implemented at the site for management of surface water impacts from the site will be reviewed and amended accordingly to reflect the reduced risks.

Biannual inspections for erosion and surface water impacts will be completed in conjunction with the groundwater monitoring program. Any remedial actions arising from these inspections will be carried out accordingly.

Landfill Gas

Landfill gas collection and control will continue into the aftercare period, until methane production has fallen to acceptable levels (i.e. the landfill is stabilised).

The generation of landfill gas and its quality will vary with time as waste degradation proceeds. If an extraction system is installed at the site, this operation will need to be monitored and adjustments made to the system to provide a consistent gas supply (volume and quality).

Site Security

The security fencing will be maintained during the aftercare period. As landscape planting becomes more established, these may act as a barrier to unauthorised or accidental entry. The signage will be maintained at the site and identify the relevant contact person and contact telephone numbers.

Landscape and Plant Maintenance

An appropriate long-term management programme will be prepared for the site to ensure the successful establishment of the proposed site vegetation. The emphasis will be placed upon preventing the landscaped planting from being choked by the encroachment of competitive weed species. Periodic applications of herbicide will be necessary for the management of weeds. Any large-scale planting or seeding failure will be replanted or re-sown.

Monitoring and reporting requirements

Post-closure monitoring will continue until the waste has stabilised but may be at reducing frequency and locations with time. Initially post closure monitoring will be in accordance with the existing environmental monitoring program. The monitoring program will be reviewed during the aftercare period to account for changes in conditions in the landfill.

It is proposed that all monitoring results will be reported annually to Queensland (QLD) DES.

SURFACE WATER

Surface water monitoring will continue at the site as part of the routine monitoring programme. This will extend throughout the aftercare period until the waste is stabilised.

GROUNDWATER

Groundwater monitoring is to continue throughout the aftercare period in accordance with the existing environmental monitoring program. Coordinates for the current groundwater monitoring wells are shown in Table 1 with the suitability of the current wells to be reviewed prior to closure and replacement bores or additional bores installed where required. The groundwater analytes currently being monitored biannually are shown in Table 2 with quality monitoring to be reduced in agreement with QLD DES, as time passes, and the need for analysis of particular parameters will be considered based on the analytical results of the groundwater and leachate.

Table 1. Horizontal coordinates for current groundwater monitoring wells

Sample Site	Coordinates (GDA 94 Zone 55)		Description
	Easting	Northing	
GLN-MB01	615,673	7,635,863	Groundwater Monitoring Well
GLN-MB02	616,248	7,636,361	Groundwater Monitoring Well
GLN-MB03	616,215	7,635,927	Groundwater Monitoring Well
GLN-SP1	616,287	7,636,263	Stormwater/Sediment Pond – Non-Engineered
GLN-L1	616,107	7,636,258	Leachate – Non-Engineered

Table 2. Groundwater analytes monitored biannually

Ammonia (as N)	Manganese (dissolved)	Sulphate
Bicarbonate (HCO ₃)	Nitrate (as N)	Specific conductance
Calcium	pH (field measured)	Total Organic Carbon (TOC)
Chloride	Potassium	Zinc
Iron (total)	Sodium	

LEACHATE

Leachate sampling and monitoring will continue throughout the aftercare period and will provide an indication of the rate of stabilisation of the waste.

The composition of the leachate will vary with time and depends on a number of factors including:

- age of the landfill
- composition of the waste
- the rate of decomposition within the landfill
- the amount of rainwater infiltration
- temperature

The parameters to be analysed in Table 2 reflect these influences.

LANDFILL GAS

Landfill gas monitoring will continue at the site until either:

- the maximum concentration of methane from the landfill remains less than 1.25% by volume (25% LEL) measured at all monitoring points within the landfill over a 24-month period, taken on at least four separate occasions, including two occasions when atmospheric pressure was falling and was below 1 000 mb or
- an examination of the waste using an appropriate sampling method provides a 95% level of confidence that the biodegradation process has ceased.

SURFACE LEVELS AND SETTLEMENT

Settlement within landfills is due primarily to compaction and volume changes during the waste decomposition process and a reduction in void spaces due to the placement of the waste. The amount of settlement is difficult to predict and will depend on a number of site-specific factors such as moisture content, waste composition and waste density.

Settlement values of up to 25% can be expected for municipal waste landfills with most settlement occurring over the first five (5) years. The settlement process may cause damage to the cap, components of the leachate collection system constructed within the waste body and gas collection and drainage systems. For this reason, it is recommended that commencement of final capping is delayed until July 2028 at the earliest.

For the purposes of compliance with EA condition 9-G30, the initial closure activities shall comprise allowing settlement and intermediate capping only. Inspections will be completed to determine that settlement has no adverse effect on erosion of the intermediate capping or opening up of any sink holes.

In addition to the above inspections, an annual survey will be undertaken at the site during the remaining operational life and the aftercare period to monitor and assess the rate and degree of stabilisation of the landfill.

EMERGENCY RESPONSE

A protocol will need to be established for triggering emergency response. Triggers may include:

- exceedance of agreed discharge water quality targets
- structure failure of capping
- surface discharge of leachate from leachate springs
- landfill gas migration from the site.

COMPLETION OF POST CLOSURE OBLIGATIONS

The EA states that that post closure care must be undertaken for a period of thirty (30) years or until it can be demonstrated that the site is geotechnically stable and will not release contaminants to the environment. Undertaking the post closure obligations listed above will assist with demonstrating that stabilisation of the site has occurred.

LEGISLATIONS AND RELATED GUIDELINES

- Department of Environment and Science, Landfill siting, design, operation and rehabilitation Guideline (Version 5, Updated 12 August 2021)
- *Environmental Protection Regulation 2019*
- Environmentally Relevant Activity (ERA) 60
- *Environmental Protection Act 1994*
- Environmental Authority EPPR00791913
- *Waste Reduction and Recycling Act 2011*

REFERENCES

ID	NAME
CORP-POL-002	Environmental Policy

Figure 1. Glenden Waste Management Facility

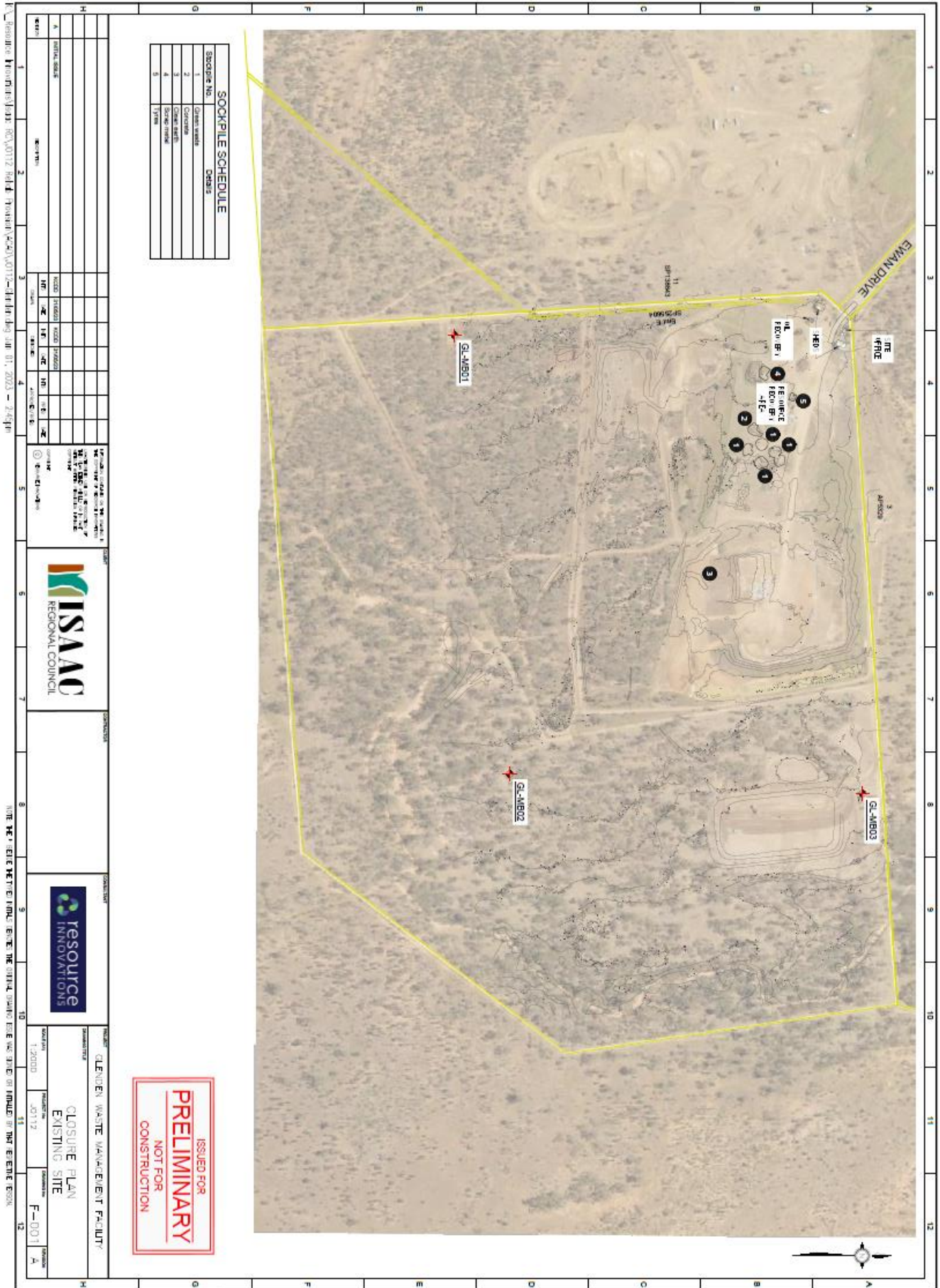
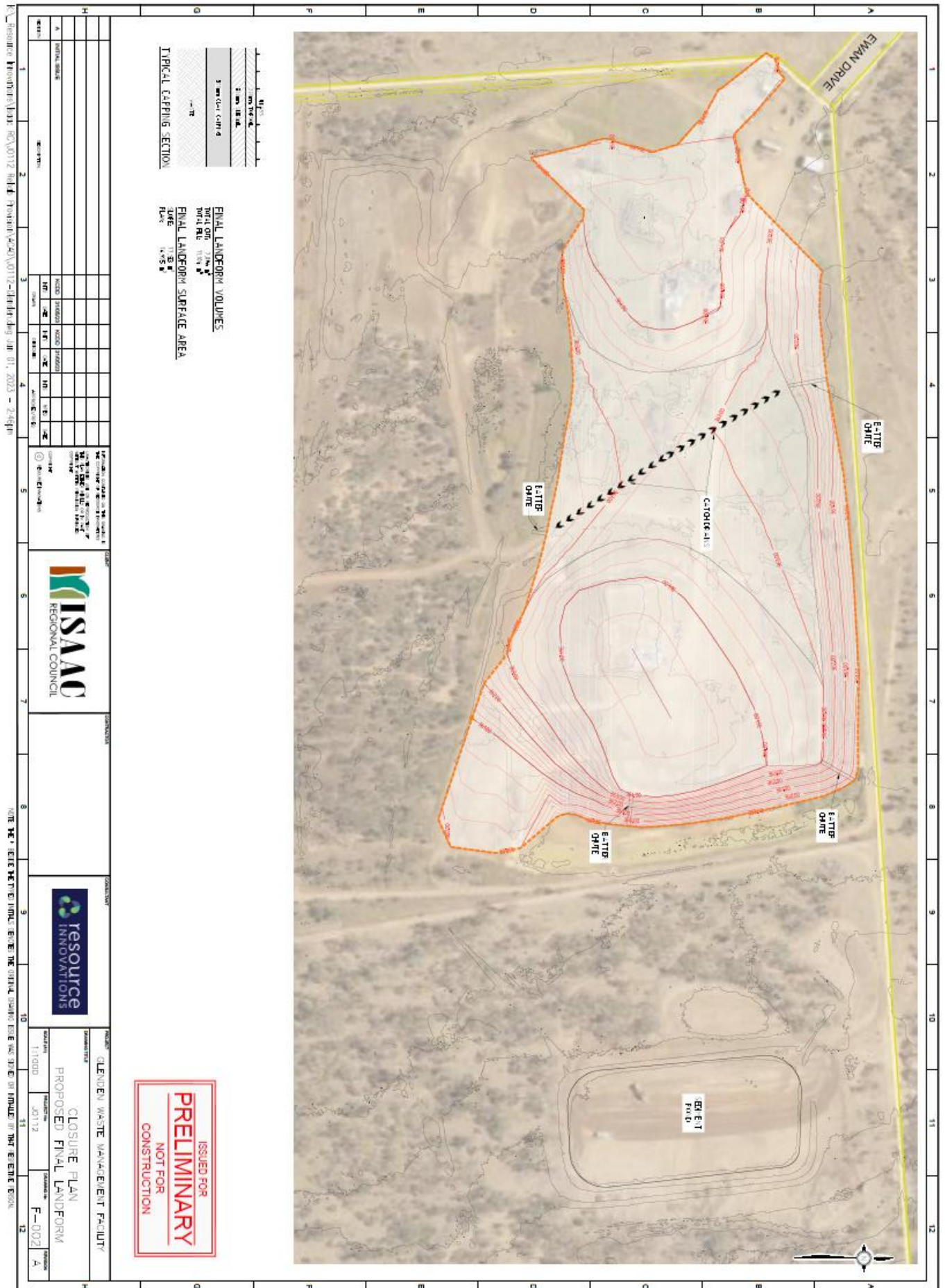


Figure 2. Conceptual layout of proposed final landform and surface water management system





Department of
**Environment, Science
and Innovation**

Ref C-CPLPO-100460476; 101/0003335

20 February 2024

Chief Executive Officer
Isaac Regional Council (ABN 39 274 142 600)
1 Batchelor Parade
Moranbah QLD 4744

Dear Mr Gouldthorp

**Landfill Closure and Post Closure Plan – Glenden Waste Management Facility,
Isaac Regional Council, EPPR00791913**

The Department of Environment, Science and Innovation (the department) refers to the submission titled *Glenden Waste Management Facility Closure and Post Closure Plan* (the Plan) by Isaac Regional Council on 29 June 2023 (departmental reference C-CPLPO-100460476). The plan was submitted in accordance with condition 9-G29 of environmental authority (EA) EPPR00791913.

The department has finalised its review of the plan and has identified a number of matters of concern.

Matters of concern

Following a review of the information provided, the department has identified a number of matters of concern that are summarised in **Table 1 - Matters of concern** for your attention. It is recommended that council take action to address these matters of concern to ensure continued compliance with the EA and the *Environmental Protection Act 1994* (the Act).

Obligations

Council is reminded of its obligations pursuant to section 319 of the Act, which sets out the general environmental duty, and requires anyone who carries out an activity that causes or is likely to cause environmental harm to take all reasonable and practicable measures to prevent or minimise the harm.

In that regard, Council is encouraged to actively identify all environmental risk factors with the activities conducted on the site on an ongoing basis, and to implement strategies and processes to effectively manage them.

Should you have any further enquiries, please contact Philip Orestes, Senior Environmental Officer of the department on telephone (07) 4999 6883 or via email CWES_Mackay@des.qld.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Melissa Harris', with a stylized flourish at the end.

Melissa Harris
A/Team Leader - Mackay
Department of Environment and Science
Environmental Protection Act 1994

Table 1 – Matters of concern

Issue	Condition/section of legislation	Summary
Post closure care	<p>Condition 9-G28 of EA EPPR00791913</p> <p>Closure and Post Closure Care The holder of the environmental authority must conduct post closure care of any landfill unit for 30 years or until it can be demonstrated to the administering authority that the site is geotechnically stable and will not release contaminants to the environment. Such care would comprise:</p> <ul style="list-style-type: none"> (i) maintaining the integrity and effectiveness of any final cover; (ii) maintaining and operating the leachate collection system; (iii) monitoring the groundwater water quality. <p>Section 319 of the Act – The general environmental duty A person must not carry out any activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practicable measures to prevent or minimise the harm (the general environmental duty).</p>	<p>The plan acknowledges that the Glenden Landfill does not have engineered liners or formal leachate collection systems. The department would like to highlight the following concerns:</p> <ul style="list-style-type: none"> (i) Without a formal liner and leachate collection system, there is an increased risk of downward percolation of landfill leachate and contamination of local groundwater aquifers; (ii) The proposed management of leachate during the closure and post closure periods is not clearly addressed; and (iii) The plan states that offsite surface water and groundwater discharges should comply with water quality criteria established for the site. However, the plan lacks detail regarding groundwater monitoring requirements including, but not exclusive to groundwater quality characteristic guideline limits and monitoring frequency. <p>The department recommends Council undertakes the following to ensure continued compliance with the EA and the Act:</p> <ol style="list-style-type: none"> 1. Ensures the landfill capping meets the minimum current standards for capping design (including permeability and thickness). 2. Provide a clear management strategy for leachate during closure and post closure care periods. 3. Contact the department’s Utilities and Government Organisations (UGO) Assessment Team regarding the implementation of appropriate groundwater monitoring

		requirements for the closure and post closure periods at the Glenden Landfill.
Groundwater monitoring	<p>Condition 9-G31 of EA EPPR00791913</p> <p>Groundwater Monitoring</p> <p>A groundwater monitoring system must be installed for any landfill unit. The system must include a sufficient number of wells installed at locations and depths which yield representative groundwater samples from the uppermost aquifer that establish:</p> <ul style="list-style-type: none"> (i) background groundwater quality in hydraulically up-gradient or background well(s) that have not been affected by any potential leakage of contaminants to groundwater; (ii) quality of groundwater down-gradient of any potential leakage of contaminants to groundwater. <p>Condition 9-G33 of EA EPPR00791913</p> <p>The point(s) of compliance referred to in condition (9-G31) for the groundwater monitoring system(s) must be situated not more than 150 metres from any landfill unit or the boundary of the landfill facility whichever is closest.</p> <p>Condition 9-G34 of EA EPPR00791913</p> <p>The holder of the environmental authority must monitor quality of groundwater at least every 6 months to detect any possible release(s) of</p>	<p>The plan states the following:</p> <ol style="list-style-type: none"> 1. Regional groundwater flow was assumed to be in a north-easterly direction towards a tributary of Suttor Creek and ultimately discharges into Suttor Creek. 2. The Glenden Landfill currently has three (3) groundwater monitoring bores; One (1) upgradient to the south (MB01); and two (2) toward the east (MB02 and MB03). 3. Waste is deposited directly to the ground without engineered liners or formal leachate collection systems for containment. As such, leachate generated within the waste may have permeated into the underlying soils and into the groundwater. 4. The impact of the landfill on the surrounding environment is yet to be determined. <p>On 29 September 2023, Council stated that monitoring bores MB01 and MB02 are located within 150m of the boundary of the Glenden landfill; however, MB03 is located approximately 210m from the south-easternmost point of where waste will be deposited before the landfill closes. Council further stated that the plan will be revised to include a review of the current monitoring points and installation of replacement bore(s).</p> <p>The department is concerned that the status of the groundwater beneath the Glenden landfill is not sufficiently understood to determine the adequacy of the proposed post-closure care. The department recommends Council review the current groundwater</p>

	<p>contaminants for at least the following water quality characteristics:</p> <ol style="list-style-type: none"> 1. Ammonia (as N) 2. Bicarbonate (HCO₃) 3. Calcium 4. Chloride 5. Iron (total) 6. Manganese (dissolved) 7. Nitrate (as N) 8. pH (field measured) 9. Potassium 10. Sodium 11. Sulphate 12. Specific conductance 13. Total Organic Carbon (TOC) 14. Zinc <p>Section 319 of the Act – The general environmental duty A person must not carry out any activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practicable measures to prevent or minimise the harm (the general environmental duty).</p>	<p>monitoring system to ensure continued compliance with the EA and the Act.</p>
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MEETING DETAILS	Water and Waste Standing Committee Meeting Wednesday 22 May 2024
AUTHOR	Amal Meegahawattage
AUTHOR POSITION	Manager Planning and Projects

5.4 EXCEPTION BASED CONTRACTUAL ARRANGEMENTS – ADEPT CONTRACTORS

EXECUTIVE SUMMARY

The purpose of this report is to seek retrospective endorsement for the arrangement of continuing the watering of the hydro mulched banks at the Moranbah 400ML dam site through Adept Contractors Pty Ltd, following the completion of the construction project by Vassallo Constructions Pty Ltd (Contract IRCT-MBH3-1021-259 Moranbah 400ML Raw Water Dam Remediation Works), under the exception provisions for entering into medium or large-sized contractual arrangements within s235 (b) of the *Local Government Regulations (2012)*.

OFFICER’S RECOMMENDATION

That the Committee recommends that Council:

- 1. Notes that due to the importance and urgency of the watering of Moranbah 400ML hydro-mulched water reservoir banks, following the construction completion, it would have been impractical or disadvantageous for the local government to invite quotes from other suppliers;***
- 2. Retrospectively endorses the enclosed exception to enter into a medium or large-sized contractual arrangement as per s235 of the Local Government Regulations (2012) for watering the hydro-mulched Moranbah 400ML water reservoir banks as per Quotation 7562 dated 11 April 2024, conducted by Adept Contractors Pty Ltd.***

BACKGROUND

The Contract IRCT-MBH3-1021-259 for the Moranbah 400ML Raw Water Dam Remediation Works was initially awarded to Lohman Contracting Pty Ltd. However, due to non-compliance issues, the contract was terminated. A recommencement contract was then awarded under the same contract number on 7 August 2023, to Vassallo Constructions Pty Ltd. Vassallo Constructions successfully completed the construction works, including watering of the Hydro Mulched reservoir banks for four weeks until 14 April 2024. However, it was evident that further watering, for another two to three weeks, was necessary to help grass seeds germinate and grow, especially considering frequent very hot and dry weather conditions around mid-April. The main contractor, upon completion of civil works, had started their demobilisation process and were unable to extend the watering of the dam banks. Therefore, it was considered both urgent and important to source a suitable contractor to continue watering for the hydro mulched dam embankments for the additional duration to ensure that the vegetation was fully established.

Discussion

Under the Contract IRCT-MBH3-1021-259 Moranbah 400ML Raw Water Dam Remediation Works, Vassallo Constructions Pty Ltd was liable to water the hydro-mulched banks of the reservoir until 14 April 2024. Vassallo engaged a subcontractor, Adept Contracting Pty Ltd, to undertake watering for this purpose. Upon completion of civil works, they continued watering through their subcontractor while commencing and continuing the demobilisation process from the subject site.

Meanwhile, due to hot and dry weather conditions, the Principal's Representative observed that the germination of the seeds and growth of grass was slower than expected. Therefore, discussions were engaged with Manager Planning and Projects and Director Water and Waste to consider continuing watering for another few weeks, utilising some of the savings made through the main contract. It was also discussed the financial benefit to IRC by directly engaging the existing watering sub-contractor from the main contract.

Subsequently, Adept Contractors Pty Ltd, who had served as the subcontractor for Vassallo for the same purpose, was approached for a quote. Given the urgent nature of the works, the contract was awarded under an Exception, recognising that it would be impractical or disadvantageous for IRC to invite quotes or tenders. Furthermore, obtaining a Council Resolution prior to awarding the contract was deemed impractical and disadvantageous due to the urgency and importance of the works.

Seeking alternative quotes was not undertaken on the basis of the following provision:

Under section 235 of *Local Government Regulations 2012*, a local government may enter into a medium-sized contractual arrangement or large-sized contractual arrangement without first inviting written quotes or tenders if;

- (b) the local government resolves it is satisfied that, because of the nature of the specialised or confidential services that are sought, it would be impractical or disadvantageous for the local government to invite quotes or tenders.

Therefore, a retrospective endorsement on the scope of work as per Quotation 7562 dated 11 April 2024, in the amount of \$33,600 excluding GST is requested.

IMPLICATIONS

Contract IRCT-MBH3-1021-259 Moranbah 400ML Raw Water Dam Remediation Works has significant savings under the main contract with Vassallo Constructions Pty Ltd; therefore, there will not be an adverse impact on the project's budget. By engaging the subject supplier directly, Council achieves better value for money for this task that needed to be undertaken after the Main Contractor demobilised from the site. Approval via Council Resolution will ensure compliance with legislation.

CONSULTATION

Director Water and Waste

Project Manager

Principal's Representative

BASIS FOR RECOMMENDATION

Compliance with s235 of the *Local Government Regulations (2012)*.

ACTION ACCOUNTABILITY

Manager – Contracts and Procurement; is accountable for compliance with s235 of the *Local Government Regulations (2012)*, and the Procurement Policy.

KEY MESSAGES

The exceptions to the *Local Government Regulations 2012* under s235 (b) require Council resolution to ensure compliance.

Report prepared by:	Report authorised by:
AMAL MEEGAHAWATTAGE	SCOTT CASEY
Manager Planning and Projects	Director Water and Waste
Date: 3 May 2024	Date: 9 May 2024

ATTACHMENTS

- CONFIDENTIAL Attachment 1 – Procurement exception form.
- CONFIDENTIAL Attachment 2 – Adept Contractors Pty Ltd Quotation 7562 dated 11 April 2024.

REFERENCE DOCUMENT

- *Local Government Regulations 2012*
- IRC Procurement Policy
- IRC Local Preference Policy

PAGES 83 - 34 HAVE INTENTIONALLY BEEN REMOVED DUE TO CONFIDENTIAL REASONS

MEETING DETAILS

Water and Waste Standing Committee Meeting
Wednesday 22 May 2024

AUTHOR

Lisa Tonkin

AUTHOR POSITION

Manager Business Services

5.5**WATER AND WASTE SERVICE COMPLAINTS POLICY**

EXECUTIVE SUMMARY

The purpose of this report is to present the Water and Waste Service Complaints Policy for review and adoption.

OFFICER'S RECOMMENDATION

That the Committee recommends that Council:

- 1. Adopts the updated Water and Waste Service Complaints Policy (WW-POL-108).*

BACKGROUND

The Water and Waste Service Complaints Policy was adopted by Council in November 2020 to define how the Water and Waste Directorate will manage enquiries, complaints and disputes related to their water, wastewater and waste services.

As per the Isaac Regional Council (Council) Document Control Procedure, it is recommended that all policies be reviewed at two (2) yearly intervals, as a minimum. This Policy has surpassed this timeframe and was due for review.

The recommended changes are considered insignificant and do not alter the overall position or intent of the Policy. The changes include formatting, minor rephrasing and reordering of the Guiding Principles to emphasise higher priority principles.

IMPLICATIONS

As per the Water and Waste Annual Management Review, this Policy was identified as needing review to ensure it remained applicable to current practices.

The changes proposed are minimal to the overall management of the complaints handling process for the Water and Waste Directorate. Upon endorsement, the updated Policy will be made available to employees and residents via Council's intranet and public website.

CONSULTATION

Business Services Team

Governance and Corporate Services

Director Water and Waste

BASIS FOR RECOMMENDATION

The Water and Waste Service Complaints Policy has been updated to ensure it conforms to Council's current practices, legislation and related documents.

ACTION ACCOUNTABILITY

Manager Business Services to ensure approved Policy is registered through Governance and made available on Council's public website. Manager Waste Services to ensure Policy changes and inclusions are understood by the Waste Services team.

KEY MESSAGES

The Water and Waste Service Complaints Policy has been updated to ensure it is up to date, relevant and follows best practice.

<p>Report prepared by: LISA TONKIN Manager Business Services Date: 11 April 2024</p>	<p>Report authorised by: Scott Casey Director Water and Waste Date: 9 May 2024</p>
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ATTACHMENTS

- Attachment 1 – Water and Waste Service Complaints Policy WW-POL-108 Draft

REFERENCE DOCUMENT

- Nil.

WATER & WASTE SERVICE COMPLAINTS

APPROVALS

POLICY NUMBER	WW-POL-108	DOC.ID	3536163
CATEGORY	Community		
POLICY OWNER	Water and Waste		
APPROVAL DATE	RESOLUTION NUMBER		

DRAFT

OBJECTIVE

To respond to all complaints in a prompt, efficient and fair manner and make all reasonable efforts to resolve the complaint to the satisfaction of the customer, in an effort to:

- Enhance customer experience.
- Improve Council's products and services.
- Ensure compliance with the customer service standards under the *Water Supply (Safety and Reliability) Act 2008*.

SCOPE

This policy applies to all complaints that are received from customers related to the water, wastewater and waste services provided by the Water and Waste Directorate of Council.

DEFINITIONS

TERM / ACRONYM

MEANING

ADWG

Australian Drinking Water Guidelines

Complainant

Affected person or organisation making a complaint.

Complaint

This following definition is derived from ISO 10002:2018 Quality management – Customer satisfaction – Guidelines for complaints handling in organisations:

A complaint is an expression of dissatisfaction made to Council or its contractors about its products or the complaint handling process itself, where a response or resolution is explicitly or implicitly expected.

- A complaint may be lodged by a customer, consumer, their representative or a member of the public.
- A contact requesting information is not a complaint.
- A contact reporting a service difficulty or fault is not a complaint and these contacts are recorded separately.

- A contact expressing dissatisfaction with repeat service difficulties and faults is a complaint.
- A contact where a credit adjustment on the account has been made due to a meter misread is a complaint.
- A contact that results in a water quality issue is a complaint (i.e. due to particles, discolouration, smell, taste, or a health issue).
- A contact that results from an internal wastewater overflow is a complaint.
- Any civil actions taken through a court for loss or damage arising from Council's performance is a complaint.
- More than one complaint from the same customer arising from the same cause are reported separately.
- A contact regarding a matter that is not the responsibility of Council is not recorded as a complaint.

This policy only applies to complaints other than those defined as per the following:

- Section 48, Competitive neutrality complaints of the *Local Government Act 2009*.
- Section 268, Process for administrative action complaints of the *Local Government Act 2009*.
- Council's Complaints Management Process Policy. Council's Administrative Action Complaints Policy.

Council	Isaac Regional Council.
Customer	A customer is any consumer of Council's water, wastewater and waste products or services.
Products and Services	Products and services provided by Council include, but are not limited to:

- Provision of water to ADWG:
 - Installation of new service connections.
 - Repairs to service connections.
 - Water meter testing.
 - Removal of service connections.
 - Replacement of stolen water meters.
 - Relocation of service connection point.
- Provision of reticulated wastewater services including wastewater treatment and by-product disposal.
- Provision of treated effluent (recycled water) and biosolids for reuse purposes.
- Provision of information:
 - Water and Waste location plans.
 - Water meter readings at request.
 - Physical location of water mains.
 - Physical location of sewer mains.
 - Inspection of sewers before and after construction of structures.
 - Inspection of wastewater infrastructure sub divisional works.
- Collection of kerbside waste and recycling collections.
- Actioning of requests for new or additional waste collection services.
- Collection of Council-provided commercial waste and recycling collection services.
- Acceptance of domestic household or commercial waste for disposal or recycling at Council Waste Management Facilities.

POLICY STATEMENT

Council's Position on Matter

The Water and Waste Service Complaints Policy has been developed to ensure that every complaint is dealt with fairly, promptly, professionally, in confidence (subject to any legal requirements), and in a manner respectful to the complainant in accordance with Council's Customer Charter and the Water and Waste Customer Service Standards.

Guiding Principles

Council is committed to effectively and efficiently receiving and managing enquiries, complaints and disputes to ensure effective customer service.

We will achieve this through:

- Adequately resourcing the complaints handling system to provide an effective framework to resolve complaints.
- Training employees to deal with complaints in a consistent and appropriate manner and empowering them with sufficient levels of delegation to resolve complaints effectively. Where possible, complaints should be resolved at the first point of contact.
- Providing an efficient, fair and accessible mechanism for the resolution of complaints and disputes in accordance with the principles of the ISO 10002:2018 Quality management – Customer satisfaction – Guidelines for complaints handling in organisations.
- Increasing the level of customer satisfaction by dealing with all enquiries and complaints in an expedient and effective manner.
- Providing, where requested, written responses to enquiries and complaints, dealing with the substance of the enquiry or complaint, within seven (7) business days. Where the enquiry or complaint is complex a reply will be provided within seven (7) business days informing the customer when they will receive a reply that addresses the nature of the enquiry or complaint.
- Investigating the causes of complaints and disputes to enable rectification and to improve policies and practices to prevent re-occurrence, when appropriate.
- Accurately and systematically recording all complaints in Council's customer relationship management system.
- Ensuring the information provided by customers during the course of lodging their complaint is treated in accordance with Council's privacy requirements.
- Recognising, promoting and protecting customers' rights including the right to complain and providing reasonable assistance to a customer who wishes to initiate a complaint.
- Providing customers with clear information about how to lodge a complaint and Council's complaint handling procedures.
- Providing customers with the opportunity to have their enquiry or complaint referred for an independent review if the matter cannot be satisfactorily resolved. If the matter cannot be resolved, the customer will be informed of the opportunity to have the matter referred to the Energy and Water Ombudsman Queensland.
-

- Handling disputes and complaints in an effective and efficient manner to minimise risk to corporate reputation.

Council will learn from complaints and disputes, maintain a consistent resolution process and embrace a philosophy of continuous improvement.

Senior management will communicate the content of this policy to employees, customers and stakeholders and the policy will be publicly available.

LEGISLATIONS AND RELATED GUIDELINES

- *Water Supply (Safety and Reliability) Act 2008* (Part 4 Division 3)
- *Local Government Act 2009* (Chapter 7, part 2, section 48)
- *Local Government Act 2009* (Chapter 7, part 6, section 268)
- ISO 10002:2018 Quality management – Customer satisfaction – Guidelines for complaints handling in organisations

REFERENCES

ID	NAME
N/A	Isaac Regional Council Customer Service Charter
N/A	Isaac Regional Council Water and Waste Customer Service Standards
WW-POL-046	Concealed Leak Remission Policy
WWW-POL-012	Recycled Water Policy
STAT-POL-033	Water Restrictions Policy
CORP-POL-085	Water and Sewerage Connections and Disconnections Policy
WW-POL-084	Water Meter Reading and Billing Policy
WW-POL-014	Building Over or Near Local Government Service (Water, Wastewater, Recycled Water and Stormwater) Infrastructure Policy

MEETING DETAILS

Water and Waste Standing Committee Meeting
Wednesday 22 May 2024

AUTHOR

Lisa Tonkin

AUTHOR POSITION

Manager Business Services

5.6

**WATER AND SEWERAGE CONNECTIONS AND
DISCONNECTIONS POLICY**

EXECUTIVE SUMMARY

The purpose of this report is to present the Isaac Regional Council (Council) Water and Sewerage Connections and Disconnections Policy for review and adoption.

OFFICER'S RECOMMENDATION

That the Committee recommends that Council:

- 1. Adopts the updated Water and Sewerage Connections and Disconnections Policy (CORP-POL-085).**

BACKGROUND

The Water and Sewerage Connections and Disconnections Policy was adopted by Council in September 2020 to advise residents of Council and their obligations when connecting to or disconnecting from Council's water and sewerage networks.

As per Council's Document Control Procedure, it is recommended that all policies be reviewed at two (2) yearly intervals, as a minimum. This Policy has surpassed this timeframe and was due for review.

The recommended changes are considered insignificant and do not alter the overall position or intent of the Policy. The changes include spelling, formatting, and some minor rephrasing.

IMPLICATIONS

The changes proposed are minimal to the overall water and sewerage connection and disconnection application and approval process. The team will ensure the updated Policy is published and made available to all residents on the Council website, following endorsement.

CONSULTATION

Business Services Team

Governance and Corporate Services

Director Water and Waste

BASIS FOR RECOMMENDATION

The Water and Sewerage Connections and Disconnections Policy has been updated to ensure it conforms to Council's current practices, relevant legislation and related documents.

ACTION ACCOUNTABILITY

Manager Business Services to ensure approved policy is registered through Governance and made available on Council's public website.

KEY MESSAGES

The Water and Sewerage Connections and Disconnections Policy has been updated to ensure it is up to date, relevant and follows best practice.

Report prepared by:	Report authorised by:
LISA TONKIN	SCOTT CASEY
Manager Business Services	Director Water and Waste
Date: 11 April 2024	Date: 9 May 2024

ATTACHMENTS

- Attachment 1 – Water and Sewerage Connections and Disconnections Policy CORP-POL-085 Draft

REFERENCE DOCUMENT

- Nil.

WATER AND SEWERAGE CONNECTIONS AND DISCONNECTIONS

APPROVALS

POLICY NUMBER	CORP-POL-085	DOC.ID	3536127
CATEGORY	Community		
POLICY OWNER	Water and Waste		
APPROVAL DATE		RESOLUTION NUMBER	

DRAFT

OBJECTIVE

This Policy aims to:

- Protect the health and safety of the community by ensuring appropriate water and sewerage connection standards and practices;
- Ensure water and sewerage services support regional growth; and
- Inform customers of Council's commitments and customers' responsibilities for connecting to Council's water and sewerage networks.

SCOPE

This Policy applies to any business or individual who intends to connect to, or disconnect from, Council's water and sewerage infrastructure.

DEFINITIONS

TERM / ACRONYM

MEANING

Australian Drinking Water Guidelines / ADWG	The Australian Drinking Water Guidelines set out the health and aesthetic standards that the drinking water we supply is required to comply to in order to ensure that it is safe to drink.
Council	Isaac Regional Council.
Customer	A customer is any consumer of Council's water and sewerage products and/or services.
Flow Test	A Flow Test is undertaken to ensure sufficient supply and pressure to a proposed connection. The test involves physically flowing water through a flow meter equipped with a pressure gauge to measure the available water flow and pressure.
Fire service	A fire service is a dedicated standpipe water connection for a property for the sole purpose of firefighting.
Network analysis	A Network Analysis is carried out using a hydraulic model to ensure sufficient supply and pressure to a proposed connection. The pressures and flows provided by the analysis are indicative only and are derived by theoretical network analysis for normal summer operating conditions.
Products & Services	Products and services provided by Council include, but are not limited to:

- Provision of water to ADWG:
 - Installation of new service connections.
 - Repairs to service line connections.
 - Water meter testing.
 - Removal of service connections.
 - Replacement of stolen water meters.
 - Relocation of service connection points.
- Provision of reticulated wastewater services including wastewater treatment and by-product disposal.
- Provision of treated effluent (recycled water) and biosolids for reuse purposes.
- Provision of information.
- Water and Wastewater location plans:
 - Water meter readings at request.
 - Physical location of water mains.
 - Physical location of sewer mains.
 - Inspection of sewers before and after construction of structures.
- Inspection of wastewater infrastructure sub-divisional works.

Property owner

The owner or owners of the subject property. The organisation or person/s registered to be the owner of the connected premises. An owner is the registered proprietor of land under the provisions of the Land Title Act 1994; the lessee or licensee of the land under the Land Act 1994; a person who has lawful control of the land; or a person who is entitled to receive rents and profits from the land. Includes the occupier of the land, i.e. a person who is in charge of the land, but not a tenant occupier, e.g. an occupier of residential or commercial premises under a tenancy or similar agreement.

QFES

Queensland Fire and Emergency Services.

Water Supply Service Area

In terms of the *Water Supply (Safety and Reliability) Act 2008*, Part 5, section 161, a Local Government may, by resolution, declare –

2. a) all or part of its local government area to be a service area for a retail water service or sewerage service; and
- b) the service provider for the service area.
3. A local government may, by resolution, amend the declaration by adding an area to, or removing an area from, the service area.

POLICY STATEMENT

Council is committed to ensuring that connections to, or extensions of, the water and sewer networks meet Australian Standards, support population growth, and protect the health and safety of the community.

Council is committed to:

- Connecting a property owner's premise that is within Council's designated water supply service area and/or sewerage infrastructure service area when requested.
- Assessing an application for a water, sewer or fire service connection and responding to the property owner according to the Water and Waste Customer Service Standards.
- Advising property owners applying to connect to Council's water supply and/or sewer infrastructure of the fees and charges upon assessment of the application.
- Publishing standard connection fees information and updating the Schedule of Fees and Charges annually.
- Advising property owners applying to connect to Council's water supply, firefighting and/or sewer infrastructure if a standard connection is not available at the nominated location based on Council's assessment of the application and providing an estimate of the costs required to connect.
- Providing an offer to connect that informs applicants of:
 - The type of connection available.
 - The type of service available to the property once it has been connected.
 - The required fees and charges payable for the type of connection.
 - The construction program associated with the design and construction of the connection, including timeframes.
 - Any approvals the property owner is required to obtain and any preconditions for Council to do the work.
 - Any post-construction requirements.

- After payment has been received from the property owner, constructing/activating or disconnecting the service within Council's established timeframes, as set out in the Water and Waste Customer Standards Policy. Connections which require extension or upgrade of the network may take longer in the construction phase because they are dependent on extension or upgrade works separate to the connection works.
- Not disconnecting a property where it is known, or suspected, by Council, that there is a person or persons living lawfully or unlawfully in the premises.

Property owners requesting to connect to Councils water or sewer network are required to:

- Formally request to be connected or disconnected using Council's relevant application form.
- Nominate the size of the service they would like installed. Council can advise of the most suitable size and in some circumstances will need to nominate a minimum or maximum size to suit the property owner's needs to conform to Council's operational or infrastructure requirements.
- For fire service applications, provide the results of a Flow Test or Network Analysis with their application. The construction of the internal fire system is required to be based on the results of the Flow Test or Network Analysis.
- Pay the relevant connection fee.

Council will not accept applications for connection or disconnection from any party other than the owner of the property or a person authorised by the owner of the property.

Council complies with any requirement or scheme established under the relevant water legislation in Queensland.

All new water supply connections will be metered.

LEGISLATIONS AND RELATED GUIDELINES

- *Water Supply (Safety and Reliability) Act 2008*
- *Planning Act 2016*
- *Building Act 1975*
- *Plumbing and Drainage Act 2018*
- *Sustainable Planning Regulation 2009*
- *Building Code of Australia (E1.3)*
- *Australian Standard AS 2419 Fire Hydrant Installations - System Design, Installation and Commissioning*

REFERENCES

ID	NAME
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Doc Number: CORP-POL-085
Date Effective: [Insert effective date]
This document is uncontrolled when printed.

Document Owner: Water and Waste
Version 2
Page 5 of 6

WW-POL-046	Concealed Leak Remission Policy
WW-POL-084	Water Meter Reading and Billing Policy
WW-POL-108	Water Supply and Wastewater Service Complaints Policy
WW-FRM-272	Application for Water Connection/Disconnection
WW-FRM-329	Application for Sewerage Connection/Disconnection
	Water and Waste Customer Service Standards

DRAFT

MEETING DETAILS	Water and Waste Standing Committee Wednesday 22 May 2024
AUTHOR	Scott Casey
AUTHOR POSITION	Director Water and Waste

6.1 WATER AND WASTE INFORMATION BULLETIN – MAY 2024

EXECUTIVE SUMMARY

The Water and Waste Directorate Information Bulletin for May 2024 is provided for Committee review.

OFFICER'S RECOMMENDATION

That the Committee recommends that Council:

- 1. Notes the Water and Waste Directorate Information Bulletin for May 2024.**

BACKGROUND

The attached Information Bulletin for May 2024 provides an operational update for Committee review on the Water and Waste Directorate.

IMPLICATIONS

Any specific implications or risks will be outlined in the Information Bulletin.

CONSULTATION

Water and Waste Directorate Managers and Staff.

BASIS FOR RECOMMENDATION

This is an information only report.

ACTION ACCOUNTABILITY

Information only report.

KEY MESSAGES

Operational update to the Elected Members.

Report prepared by: SCOTT CASEY Director Water and Waste Date: 9 May 2024	Report Authorised by: KEN GOULDTHORP Chief Executive Officer Date: 16 May 2024
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ATTACHMENTS

- Attachment 1 – Water and Waste Information Bulletin – May 2024

REFERENCE DOCUMENT

- Nil

DATE: May 2024

6.1 WATER AND WASTE

DIRECTORATE HIGHLIGHTS

Annual soil testing on the Wastewater Treatment Plants have been completed and are now aligned with reporting year to the regulator.

The annual Waste team training continued this month, this year focused on the key facets of the QLD Waste Levy, IRC's waste strategy and Mandalay and gatehouse best practice. Again, this was a valuable session for the team and further enhanced their understanding of the waste industry and the services we provide to the community.

EMERGING RISKS

Asset Condition

The deteriorating condition of infrastructure on the Clermont Water Treatment Plant, in the areas around chemical dosing storage, dosing lines and equipment as it nears the end of its operational life, has required a number of temporary installations and workarounds to be installed to combat the performance inconsistencies to the parameters required to ensure quality drinking water. An upgrade of this facility has been identified and the scope is being developed at present.

Landfill Fire

A landfill fire in Moranbah started in March and has re-emerged as smoking on a couple of occasions throughout April. On each occasion Council staff have contained the section of the landfill where the smoke is visible and worked with the landfill management contractor to put out any residual hotspots.

Resourcing Levels

The Water and Wastewater Team has achieved its operations requirements and met all of the challenges of our department's operational environment with limited and restricted staff levels. The continuation of the employment of contract staff alleviates a certain degree of exposure but comes with adverse budget implications.

BUSINESS SERVICES

PREVIOUS MONTH'S PROGRAM:

WATER AND WASTE COMPLIANCE – APRIL 2024

All external compliance reporting is up to date.

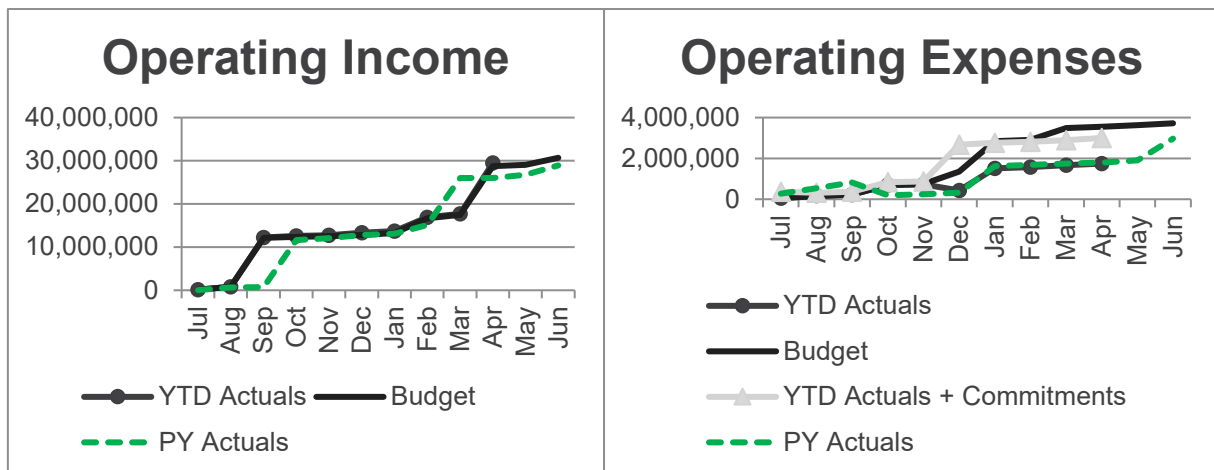
Non-compliance with the Department of Environment, Science and Innovation (DESI)

Date of breach	Community	Medium	Location	Parameter	Status
03/03/2024	Moranbah	Waste	Landfill Cell 1	Landfill Fire	Ongoing

Non-compliance with the Department of Regional Development, Manufacturing, and Water (DRDMW)

Date of breach	Community	Medium	Location	Parameter	Status
13/03/2024	Middlemount	Treated Effluent	WWTP	Free Chlorine and pH	Closed
20/03/2024	Moranbah	Treated Effluent	WWTP	Free Chlorine	Closed
27/03/2024	Middlemount	Treated Effluent	WWTP	pH	Closed

FINANCIAL REPORT:



DEVIATION FROM BUDGET AND POLICY:

Income and Expenditure is within budget for the period.

Water Restrictions

CURRENT AND PROJECTED Location	LEVEL 1 (L1)		LEVEL 2 (L2)		LEVEL 3 (L3)	
	Start Date	End Date	Start Date	End Date	Start Date	End Date
Middlemount (L1)	16/03/2019	18/11/2019	18/11/2019	10/01/2021	01/11/2021	05/11/2021
	05/11/2021	Ongoing				

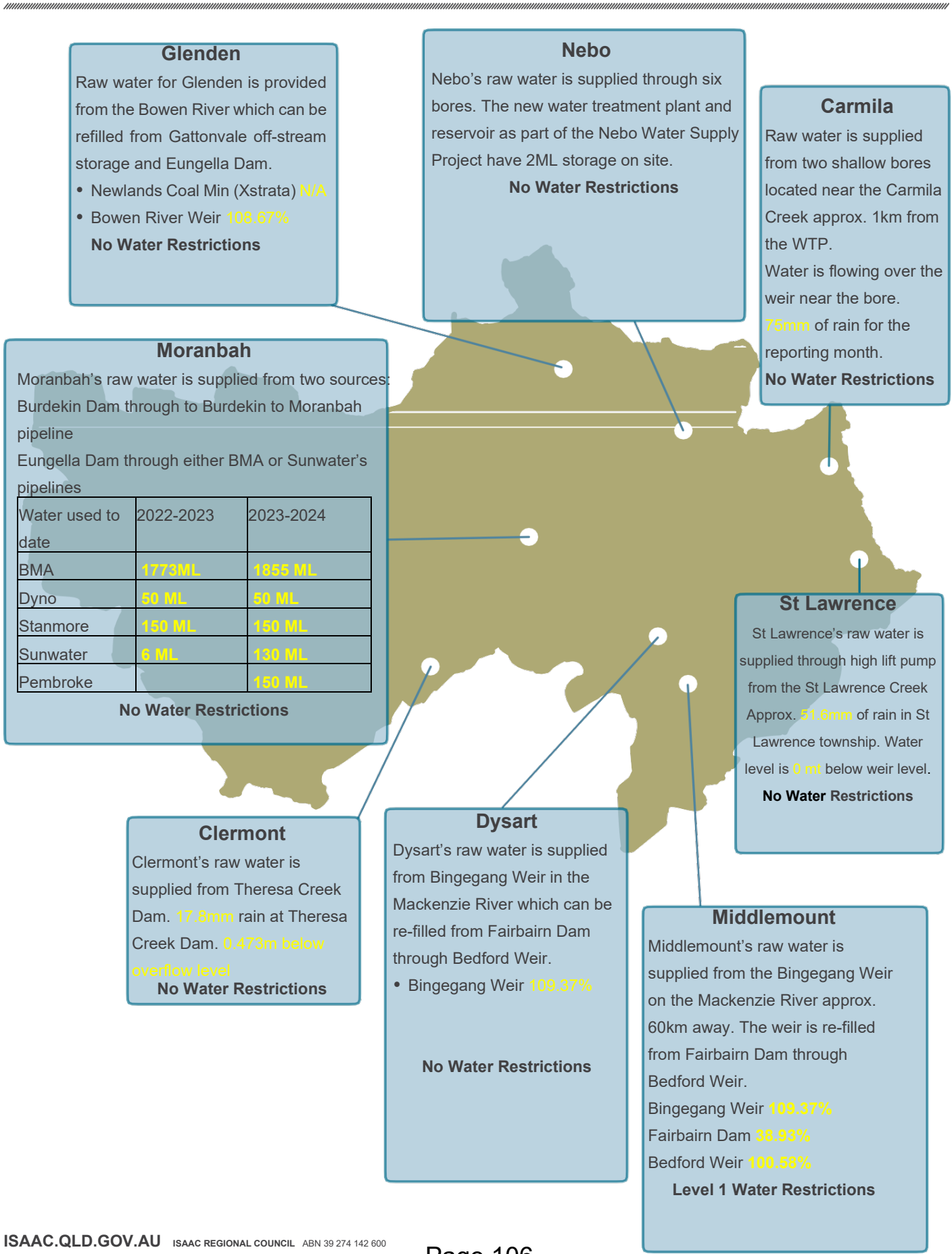
WATER AND WASTEWATER

MONTH'S ACHIEVEMENTS:

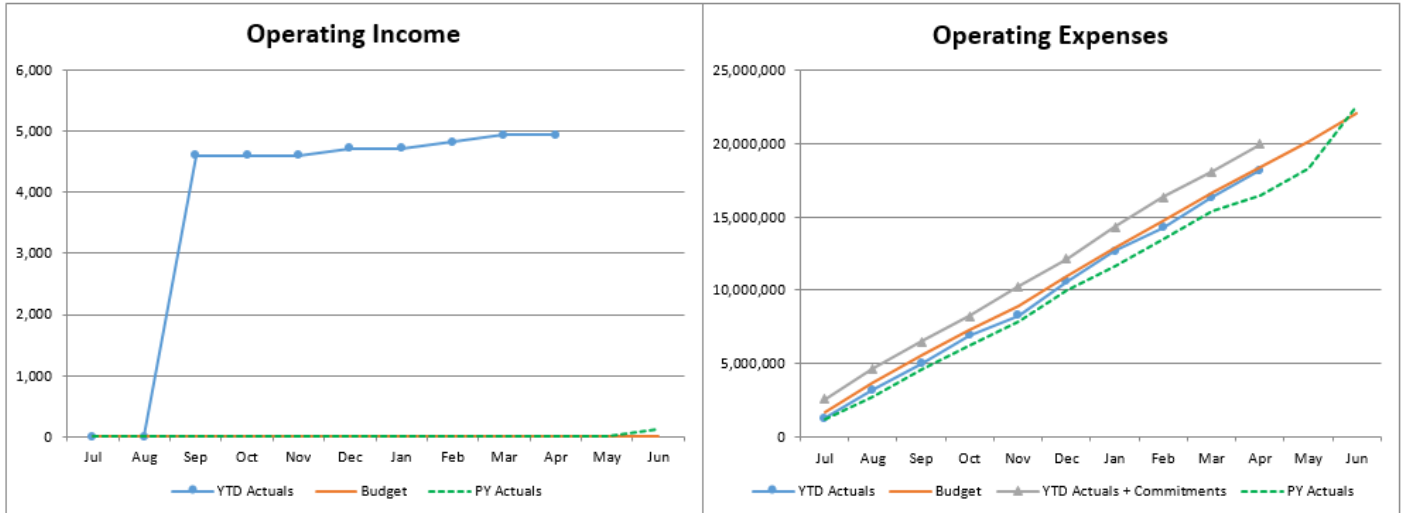
- Dysart Effluent Storage Dam (ESD) leakage study Confirmed Seepage and informed site supervisor to turn on dam seepage collection pump. Southern Supervisor and Treatment Plant Co-ordinator to control BGA before remedial action is taken to control this leakage.
- A section of the Sewer Main running across the Moranbah Golf Course to Sewer Pump Station 2 was located and soil excavated to expose a section of the Sewer Main, the Main was repaired where a constant blockage has been occurring over the last few years and expected area of high inflow during heavy rain.
- The refurbishment of the vertical high lift pumps and modification of water flow and delivery at the Middlemount Water Treatment Plant (WTP) to assist in the security of chlorine contact time of the Drinking Water.
- The plumber from Clermont is attending a Leadership Course and has found this course most enlightening.
- Supernatant survey completed to provide information to the Regulator – identified the requirement for flow monitoring of supernatant return.
- Implementation of SCADA statistics for Middlemount WTP individual filter performance complete.
- Continue implementing new test methods and data collection at Moranbah Wastewater Treatment Plant (WWTP) for Grosvenor Creek release of Recycled Water to minimise reliance on NATA testing.

RAW WATER SOURCES FOR ISAAC REGIONAL TOWNS:

The following diagram provides an update on raw water sources, water levels in dams, water used to date if applicable, and current water restrictions in place for each Isaac regional town. The status of all storages is currently healthy with no anticipated changes to water restriction levels.



FINANCIAL REPORT:



DEVIATION FROM BUDGET AND POLICY:

Operational expenses continue to rise which impacts several budget lines. Cost savings initiatives and additional revenue continue to assist with the overall budget position.

PREVENTATIVE MAINTENANCE PROGRAM

Program	Update
Benchtop Analyser Calibration	Annual calibration for WTP and WWTP laboratory benchtop analyser has been completed in April. This annual calibration and preventive repairs will help secure the accuracy of water quality measurement and monitoring to provide reliable water and wastewater service. Identified items needing repair will be fixed and returned to the treatment plant in May.
Middlemount Water Reservoir	An inspection and assessment of Middlemount’s water reservoir for the structural condition and sludge retention has been carried out during this month. The final report is pending and remediation actions will be developed upon receipt.
Clermont Raw Water Pipe Area De-Vegetation	The Clermont raw water pipeline runs 20km from the Theresa Creek Dam (TCD) intake tower to Clermont WTP. This project will carry out de-vegetation work along with the pipeline. The main scopes are de-vegetation 3 meters on each side of the centreline, mulching large trees and saplings, and poisoning stumps for the 10km stretch between TCD and Clermont WTP in April. Additional 0.4km will be completed in May.



Image 1: Clermont Raw Water Pipe De-vegetation

WASTE SERVICES

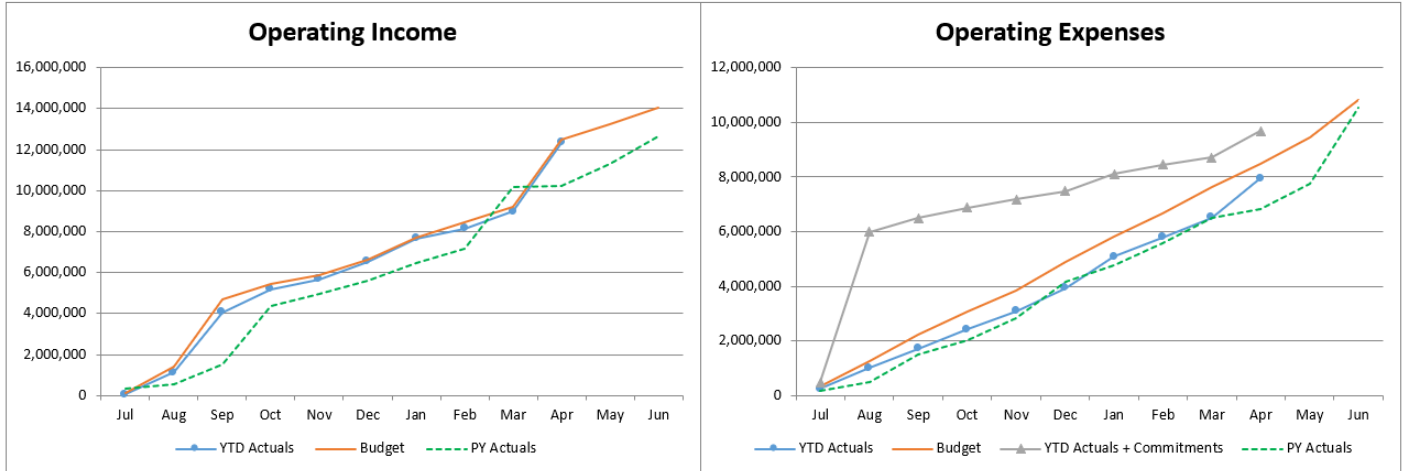
The Waste Services team focused on updating customer service and regulatory training during April to ensure compliance with the Waste Levy regulations.

The Manager Waste Services has also advised that he will be retiring at the end of June. Recruitment for a replacement is underway.

CONTINUING RISKS / ADVERSE EVENTS:

- Kerbside collection – a truck accident in March continues to impact the kerbside collection contractor's ability to deliver consistent recycling collection services to Isaac Coastal communities and Glenden. These communities continue to experience an interruption to kerbside recycling collection and minimal impact on general waste collection. Council is continuing to work with the contractor to implement an interim solution pending delivery of a replacement vehicle along with investigation of alternate solutions.
- Fire at Moranbah landfill – a small fire occurred at the Moranbah landfill at the beginning of March with emergency services in attendance and closure of the facility for the day. The event was reported to the Regulator as a non-conformance against the Environmental Authority for the site. Smoke has continued to emerge intermittently with emergency services in attendance on two more occasions. Council is working with the landfill contractor to contain and extinguish the ongoing hotspots.

FINANCIAL REPORT:



DEVIATION FROM BUDGET AND POLICY:

Income and Expenditure are on track for April 2024.

PLANNING AND PROJECT DELIVERY

PREVIOUS MONTH'S ACHIEVEMENTS:

In April 2024, significant progress was made in project procurement and execution:

Capital Works Projects Awarded:

Capital Works	Project Name	Update
CW233151	St Lawrence Raw Water Storage and Raw Water Main	Following negotiations with the sole bidder for the water storage component, the contract was awarded in late April.

Projects in Procurement Phase:

Capital Works	Project Name	Update
CW233155	Clermont Water Treatment Plant Filter Media and Plant Modernisation	Tender and RFQ processes are ongoing for various upgrades. The Letter of Award/Recommendation Report for the Control Panel SCADA Upgrade component is with the OCEO at the time of writing this report. Design of the Chemical Dosing component and tender evaluation are in progress.

Activities Completed:

Capital Works	Project Name	Update
CW222974	CORP Sewer Relining	Construction work is complete, and as-constructed drawings are being finalised.
CW233156	Clermont Waste Management Facility Weighbridge Installation	The Design & Construct contract was awarded in early January 2024. Weighbridge and new gatehouse installation were completed in April. Construction of new roads and installation of new IT equipment are currently in progress.
CW222983	Moranbah Water Treatment Plant Roof Replacement	Roof structure installation works on-site commenced in March. Application of epoxy coating on the internal wall is in progress before the installation of columns.
CW233141	Nebo Water Network Augmentation	The Design and Construct contractor continued works on-site through April. The contractor will commence works across the road to the depot, planned for early May.
CW222971	Clermont Water Network Augmentation – design.	This project was completed in April.
CW233150	Clermont Water Treatment Plant Filter Media and Plant Modernisation	<p>This project comprises three sub-projects:</p> <p>Turbidity Analysers installation, Switchgear Upgrade Design and Construct, and Chemical Dosing Upgrade Design.</p> <p>The tender for Turbidity Analysers was awarded in late March.</p> <p>The Design and Construct contract for Switchgear Upgrade tender is planned to be awarded in early May.</p> <p>Tender evaluation of the Design of the Chemical Dosing Upgrade contract is in progress. With the responses received for the construction components, it is anticipated that there will be a shortfall of approximately \$50,000, which is proposed to be sourced from the savings from other projects, as indicated in Q3 proposals.</p>
CW223019	Moranbah 400ML Raw Water Dam Remediation	Construction was completed in March.
CW243205	Moranbah Rectification of Landfill Cell	A budget allocation of \$4.2 million has been made for the project in the 2023/24 financial year. The contract for geotechnical specialist engagement was awarded in late April, with the planned kick-off meeting in early May.
CW243239	Carmila Landfill Capping	The design consultant completed the geotechnical investigation of capping material and incorporated the results into erosion and sediment control, drainage, and

		capping works proposal. Landfill Rehabilitation and Landfill Aftercare plans are in progress.
CW243240	Greenhill Landfill Capping	The design consultant completed the geotechnical investigation of capping material and incorporated the results into erosion and sediment control, drainage, and capping works proposal. Landfill Rehabilitation and Landfill Aftercare plans are in progress.
CW243240	Genden Landfill to Transfer Station	Design review completed and finalised. Procurement of materials is in progress, and construction is expected to start within this month.



Image 1: Clermont Waste Management Facility Gatehouse Installation **in progress**



Image 2: Moranbah WTP Roof Replacement - Painting internal wall **in progress**

FINANCIAL REPORT:

As of 30 April 2024, Water and Wastewater actual expenditure totals \$5,133,799 representing 46% of the budget (\$11,160,306) and a total spend inclusive of tender commitments of \$8,196,214 which represents 80% of the budget.

As of 30 April 2024, Waste Services actual expenditure totals \$8,654,886 representing 74% of the budget (\$11,657,881) and a total spend inclusive of tender commitments of \$10,371,883 which represents 89% of the budget.

The combined Water and Waste actual expenditure totals \$13,788,685 representing 60% of the budget, (\$22,818,187) and a total spend inclusive of tender commitments of \$19,254,120 representing 84% of the budget.

EXPENDITURE SUMMARY

Water and Wastewater	April 2024	March 2024	Budget
Actuals Program Expenditure to date	\$5,133,799	\$3,899,861	\$11,160,306
Actual Program Expenditure including Tender commitments to date	\$8,882,237	\$8,196,214	
Waste			
Actual Program Expenditure to date	\$8,654,886	\$8,087,155	\$11,657,881
Actual Program Expenditure including Tender commitments to date	\$10,371,883	\$10,430,568	

OPERATIONAL PLAN / BUSINESS PLAN – EXCEPTION REPORTING

Strategy (i.e., C5)	Service Area	Description	Highlight/Exception, including explanation
I6	Effective and Efficient Capital Works Delivery	Implementation of effective project and contract management systems and procedures: <ul style="list-style-type: none"> >90% of the capital program delivered to budget 	Monitor
		Implementation of effective project and contract management systems and procedures:	Delay in the delivery of some projects has been reflected in under-expenditure for actuals. Monitor

		<ul style="list-style-type: none">• >90% of all subprograms in the Water and Waste capital program are completed on time and in budget	
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NEXT MONTH'S PROGRAM:

The Planning and Project team's focus for the upcoming month includes completing tendering for the remainder of the projects and achieving physical progress in ongoing projects.

Capital Projects Update

For an update on the program at the project level, refer to the Water and Waste 2023-2024 Capital Projects Progress Report and associated attachment.

Report prepared by:

SCOTT CASEY

Director Water and Waste

Date: 9 May 2024