



The Council of the City of Cockburn

Audit Risk and Compliance Committee **Agenda Paper**

Tuesday, 17 September 2024

6pm, Tuesday, 17 September 2024**Table of Contents**

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Audit Risk and Compliance Committee

6pm, Tuesday, 17 September 2024

Agenda

Committee Membership

Cr P Corke (Presiding Member)
Mayor L Howlett
Deputy Mayor C Stone
Cr K Allen
Cr C Reeve-Fowkes
Cr M Separovich (Deputy)
Independent Member W Gately
Independent Member A Kandie

1. Declaration Of Meeting

“Kaya, Wandjoo Whadjuk Boodjar” which means “Hello, Welcome to Wadjuk Land”.

The Presiding Member will acknowledge the Whadjuk Peoples of the Nyungar Nation who are the traditional custodians of the land on which the meeting will be held, and pay respect to their Elders both past and present, and extend that respect to First Nations Peoples present.

2. Appointment of Presiding Member

N/A

3. Disclaimer

Members of the public, who attend Council Meetings, should not act immediately on anything they hear at the Meetings, without first seeking clarification of Council's position.

Persons are advised to wait for written advice from the Council prior to taking action on any matter that they may have before Council.

4. Acknowledgement of receipt of Written Declarations of Financial Interests and Conflict of Interest (by Presiding Member)

5. Apologies and Leave of Absence

Apologies

Mayor Logan Howlett

Cr Kevin Allen

Mr Daniel Simms, Chief Executive Officer

6. Public Question Time

7. Confirmation of Minutes

7.1 Minutes of the Audit Risk and Compliance Meeting - 16/7/2024

Recommendation

That Committee confirms the Minutes of the Audit Risk and Compliance Meeting held on Tuesday, 16 July 2024 as a true and accurate record.

8. Deputations

9. Business Left Over from Previous Meeting (if adjourned)

Nil

10. Declaration by Members who have Not Given Due Consideration to Matters Contained in the Business Paper Presented before the Meeting

11 Reports - CEO (and Delegates)

11.1 Corporate and System Services

11.1.1 Financial Audit Results – Local Government 2022-23 (Office of the Auditor General)

Executive A/Director Corporate and System Services

Author A/Head of Finance

Attachments 1. Financial Audit Results – Local Government 2022-23 [↓](#)

Recommendation

The Committee recommends Council RECEIVES the Office of the Auditor General's report on Financial Audit Results – Local Government 2022-23.

Background

Responsibility for the financial audits of all local governments sits with the Office of the Auditor General (OAG).

In accordance with legislative requirements, the OAG presents a report to Parliament each year on the results of the local government financial audits, including issues that are significant enough to bring to the attention of the Parliament.

The Auditor General encourages local governments to review these audit findings and consider the recommendations made to support continuous improvement of their operating environments and governance frameworks.

This report is presented to the Audit, Risk and Compliance Committee for review and to address the recommendations made by the OAG.

Submission

N/A

Report

The Financial Audit Results – Local Government 2022-23 (report) was tabled in Parliament by the Auditor General on 6 June 2024.

This report included the results and issues identified during the annual audits for 137 of the applicable 147 local government entities (including one remaining audit from 2021-22).

Of the 147 local government entities, only 13 are directly audited by OAG staff, with the remaining 134 entities audited by contracted audit firms.

The City's audit continues to be contracted out to KPMG, including audit of the 2022-23 financial year.

A concern raised by the Auditor General was the timeliness and cost of delays, with 11% of local governments not meeting the legislated deadline of 31 December for their audit reports.

The Auditor General again highlighted financial management and information system control weaknesses within local government for 2022-23, mirroring results from the state government sector.

Audit opinions issued by the OAG can be one of the following:

- **Clear** – this indicates satisfactory financial controls and that the financial report is based on proper accounts, presented fairly, complies with relevant legislation and applicable accounting standards, and fairly represents performance during the year and the financial position at year end
- **Clear with an emphasis of matter** – this brings attention to a matter disclosed in the entity's financial report but is not significant enough to warrant a qualified opinion
- **Qualified** – these opinions are given when the audit identifies that the financial report is likely to be misleading to users, controls were inadequate or there was a material conflict with applicable financial reporting frameworks
- **Disclaimer of opinion** – issued when the auditor is unable to form an opinion due to insufficient evidence being available. This is the most serious audit opinion and is only issued after the auditor has exhausted their efforts to achieve the desired audit objectives.

For the 2022-23 financial year, the City of Cockburn received a **Clear** audit opinion from the Auditor General.

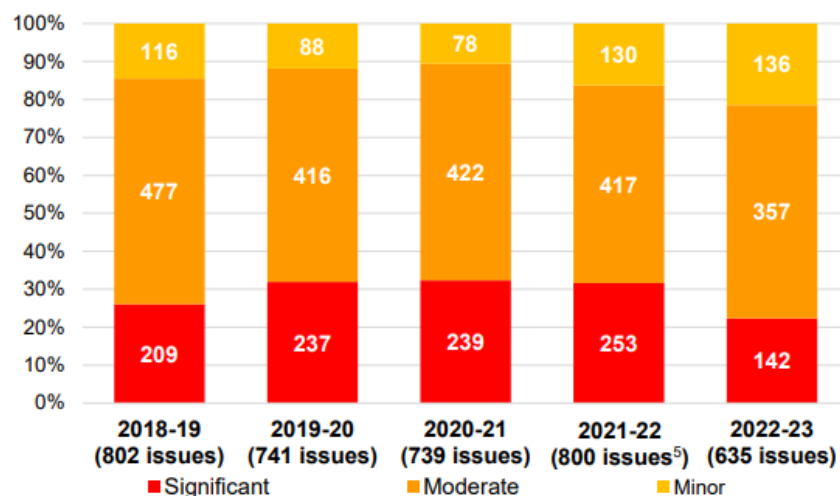
The OAG report shows financial management control weaknesses were tracking significantly lower across the sector.

A total of 635 issues from 123 entities were reported in 2022-23 (average of 5.0) compared to 800 issues (corrected from 880 issues) from 137 entities in 2021-22. A total of 214 control weaknesses identified in 2022-23 were unresolved issues from the prior year.

The City only had two issues reported in its management letter for 2022-23 (same number as prior year).

Of the 635 control weaknesses reported by the OAG, 142 (22.36%) of these were categorised as potentially significant risks.

Importantly, the City's two control weaknesses for 2022.23 were rated as moderate (1) and minor (1). Both issues have since been addressed in 2022-23.



Source: OAG

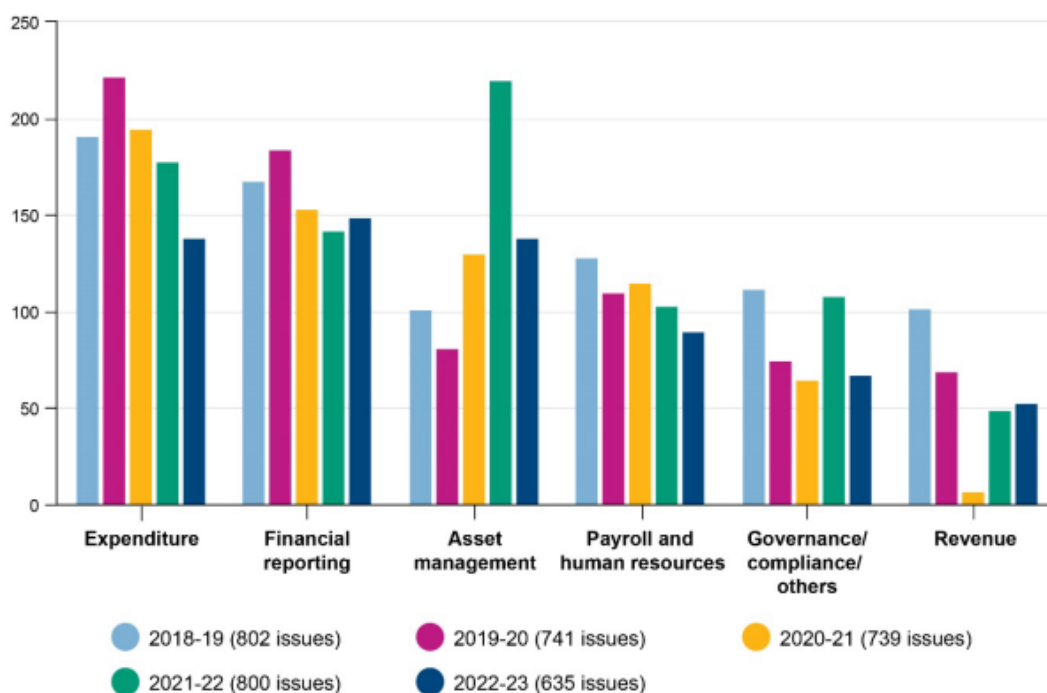
Figure 2: Proportion of control weaknesses reported to management in each risk category and comparative ratings of the control weaknesses

⁵ 2021-22 numbers have been restated from our Local Government 2021-22 - Financial Audit Results report. Total issues reported was 880, it should have been 800.

⁶ Office of the Auditor General, [Local Government 2022-23 – Information Systems Audit Results](#), OAG, 27 May 2024, accessed 31 May 2024.

Within the financial management control issues reported to entities, expenditure, financial reporting and asset management remain key area of concerns.

Although they are on downward trend, the financial reporting issue was higher than the previous year (149 in 2022-23 and 142 in 2021-22).



Source: OAG

Note: 2021-22 numbers have been restated from our Local Government 2021-22 - Financial Audit Results report. Total issues reported was 880, it should have been 800.

Although not required to be reported for 2022-23, the OAG made no findings of material matters of non-compliance during the City's audit (same result as previous year).

The OAG has recognised local government entities who demonstrate best practice in financial reporting and financial controls. The quality of financial reporting is measured against the following assessment criteria:

- timeliness of CEO-certified financial report
- quality of financial report
- quality of working papers that support the financial report
- management resolution of accounting matters
- availability of key staff during the audit process
- number and significance of management letter findings
- clear opinion.

Twenty entities were named in the best practice list.

The OAG report clearly demonstrates the City achieved an excellent audit result for 2022-23 through receiving a clear audit opinion, satisfaction of financial report timeliness requirements, and the financial report being assessed by the OAG as audit ready.

The City's audit opinion was also issued on a timely basis (9 December 2023) and the City's good result further supported by the very low number (and rating) of control issues identified.

Although the City's excellent audit result for the 2022-23 financial year is meritorious, it will continue striving for recognition from the OAG in best practice financial reporting and audit. Better use of the OAG developed better practice guide and audit readiness tools will be made to improve our performance.

OAG Recommendations

The recommendations made by the OAG in their report are summarised in the table below with responding comments made by the City:

Recommendation	City Comment
a. Submit good quality, reviewed and CEO-signed financial reports for audit no later than 30 September. Supporting work papers and reconciliations should also be available by this date	City concurs with this recommendation and its track record in meeting this legislative deadline demonstrates strong commitment to achieve this.
b. Communicate delays to financial report submission early to minimise disruptions and facilitate resource allocation. Flexibility may be required from entities when rescheduling their audit	City agrees with this recommendation, should such delay arise.
c. Engage early with valuers to develop a scope and plan for valuation. This is essential to ensure timely, compliant and sensible valuations. Entity information provided to valuers should be complete and accurate	The last full valuation was conducted in 2020-21 and with the current regulation, valuation is not due until 2025-26. The City will develop a plan in 2025.
d. Alert OAG audit engagement leaders to new processes or systems, any issues encountered during the year, or any area of concern or technical accounting determinations.	City concurs with this recommendation and will liaise with our auditors should new area of concern arise. The City also works closely with its auditor to ensure revised accounting standard requirements are properly applied in the financial statements.
e. Evaluate the significance of errors and decide if they need to be adjusted. Analyse the root cause for the errors.	City concurs with this recommendation and its track record in addressing previous recommendations demonstrates commitment

Strategic Plans/Policy Implications

Listening & Leading

A community focused, sustainable, accountable, and progressive organisation.

- Best practice Governance, partnerships and value for money.

Budget/Financial Implications

N/A

Legal Implications

N/A

Community Consultation

N/A

Risk Management Implications

Reviewing the findings and recommendations contained in the OAG's report into Local Government financial audits each year provides an opportunity for the City to reduce financial management and reporting risks and improve its management controls and governance frameworks.

Advice to Proponent(s)/Submitters

N/A

Implications of Section 3.18(3) *Local Government Act 1995*

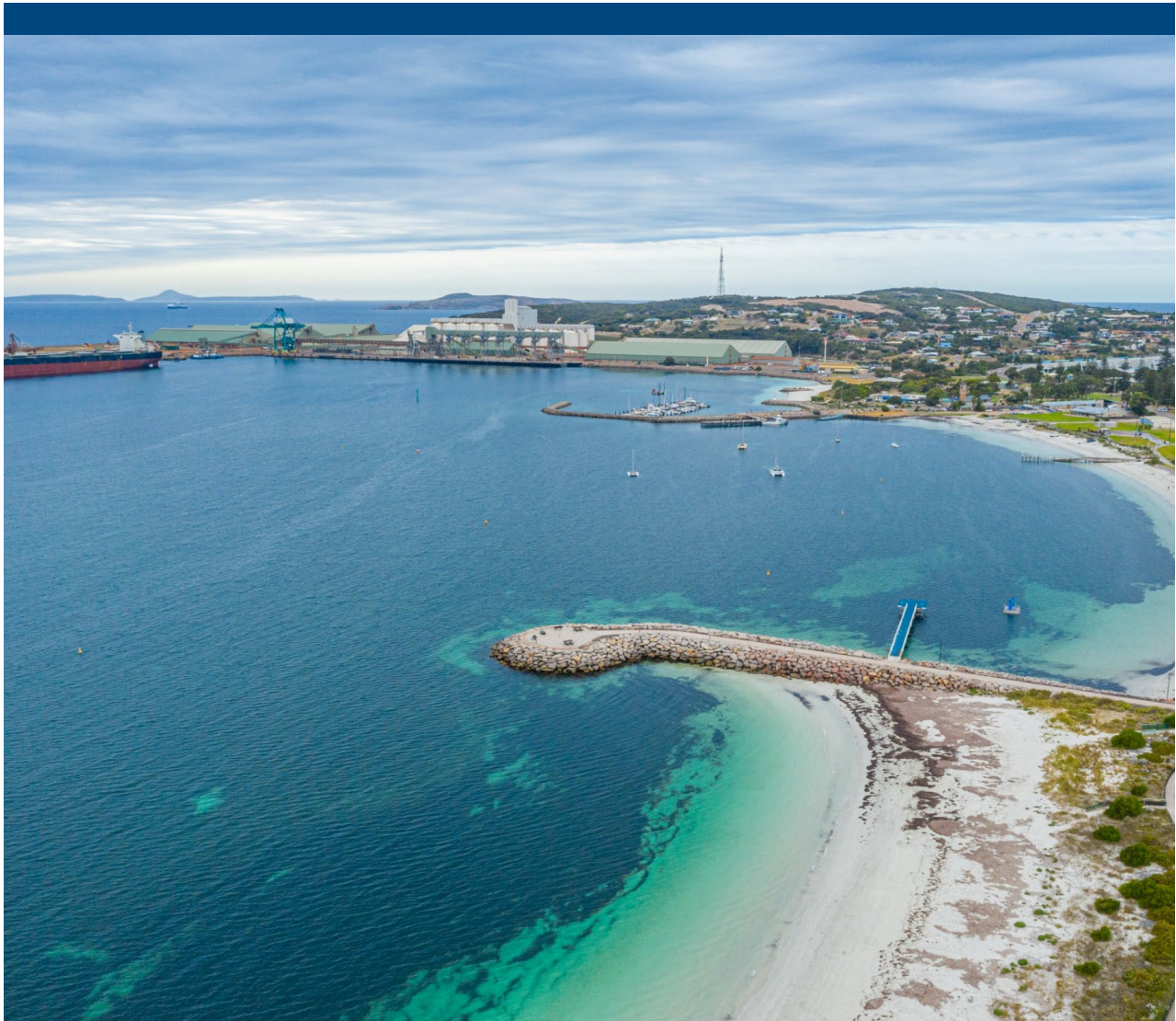
Nil



Report 18: 2023-24 | 6 June 2024

FINANCIAL AUDIT RESULTS

Local Government 2022-23



**Office of the Auditor General
for Western Australia**

Audit team:

Grant Robinson
Kellie Tonich
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Financial Audit teams
Information Systems Audit team

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(to assist people with hearing and voice impairment)

We can deliver this report in an alternative format for
those with visual impairment.

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***The Office of the Auditor General acknowledges the traditional custodians throughout
Western Australia and their continuing connection to the land, waters and community. We
pay our respects to all members of the Aboriginal communities and their cultures, and to
Elders both past and present.***

Image credit: shutterstock.com/trabantos

WESTERN AUSTRALIAN AUDITOR GENERAL'S REPORT

Local Government 2022-23 –
Financial Audit Results

Report 18: 2023-24
6 June 2024

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THE PRESIDENT
LEGISLATIVE COUNCIL

THE SPEAKER
LEGISLATIVE ASSEMBLY

LOCAL GOVERNMENT 2022-23 – FINANCIAL AUDIT RESULTS

This report has been prepared for submission to Parliament under the provisions of section 24 of the *Auditor General Act 2006*.

The report summarises the final results of our annual audits of 137 of 147 local government entities for the year ended 30 June 2023 and the one remaining audit from 2021-22.

I wish to acknowledge the assistance provided by the councils, chief executive officers, finance officers and others, including my staff and contract audit firms, throughout the financial audit program and in finalising this report.

A handwritten signature in black ink, appearing to read 'C. Spencer'.

Caroline Spencer
Auditor General
6 June 2024

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Auditor General's overview

This report summarises the results of 137 of 147 local government entities' annual audits for the year ended 30 June 2023, as well as one audit remaining from 2021-22. There are 10 entities' audits which were outstanding at 31 March 2024 and not included in this report. These entities have encountered various challenges in providing us with information to enable their audits to be finalised.



As I reflect on the 2022-23 audit season – our second year auditing the entire local government sector – we are starting to see the impact of the hard work put in by the sector and our stricter timing initiative. Previously, we have provided greater assistance to entities but at financial cost and later publication of financial reports. This year nearly 90% of audit opinions were signed by 31 December 2023 (compared to just 61% by the same time last year), without any significant change in audit outcomes. We are now in a better place to get a holistic and truer picture of the sector earlier than we did last year.

Pleasingly, we have seen an overall reduction in the number and significance of financial management control issues reported to entities. However, financial reporting, asset and procurement issues remain at relatively high levels. In addition, completeness and accuracy of asset registers and valuations continue to cause significant difficulties for entities.

In particular, valuations are too often accepted without review or question by entity management. We see huge movements in values that entities often cannot explain, suggesting that they have not engaged in any meaningful way with the valuation process and the judgements made for accounting purposes. This increases the risk of errors and generally requires additional audit work and cost. Significant changes in asset values should be adequately explained and supported by logic and evidence. Entities continue to request more guidance with the valuation process. The Department of Local Government, Sport and Cultural Industries (DLGSC) is undertaking a body of work to prepare a valuation guide for the sector. We are hoping the guide will help entities address the issues we continue to see around valuations, including seeking valuations that appropriately recognise restrictions on land use.

Unfortunately, information systems control issues continue to grow and remain unresolved from previous years. A full analysis of these results is contained within my *Local Government 2022-23 – Information Systems Audit Results* report¹.

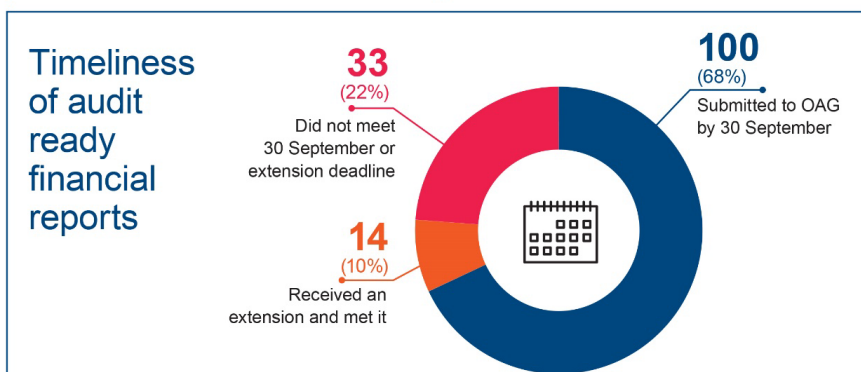
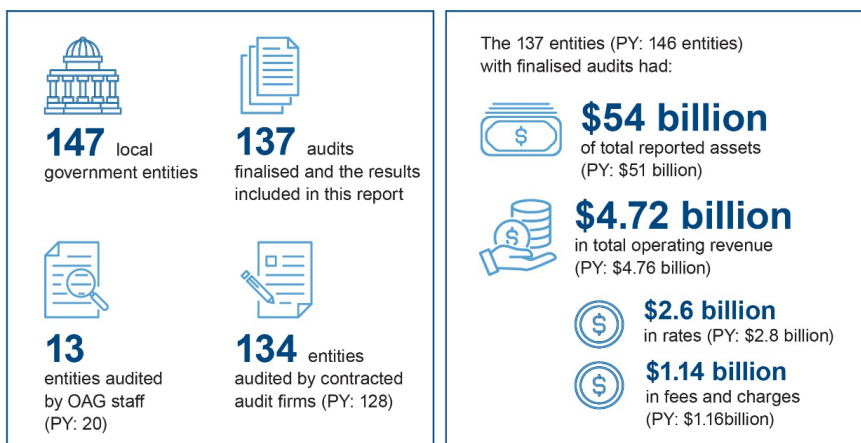
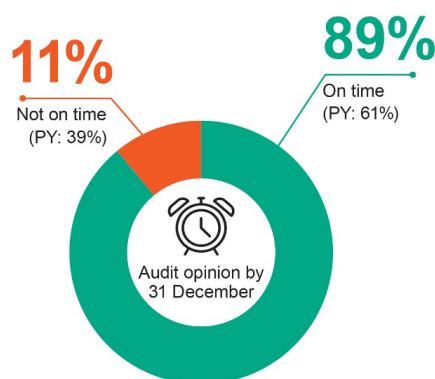
Entities can improve the cost and timeliness of their audits by focussing on fixing issues, particularly those from prior years. Issues which continue year after year present a real financial management risk to entities. Assessing and following up on these issues also requires extra audit work, resulting in increased costs to entities.

I welcome DLGSC's support of the sector via initiatives such as the valuation guide and will continue to offer my Office's support and input where appropriate. I also encourage DLGSC and entities to consider the recommendations included in this report, and draw on our better practice guides, to improve timeliness and efficiency of financial reporting and auditing processes. I commend entities on their contribution to the significant progress made this year and I hope to keep up this momentum for the 2023-24 season.

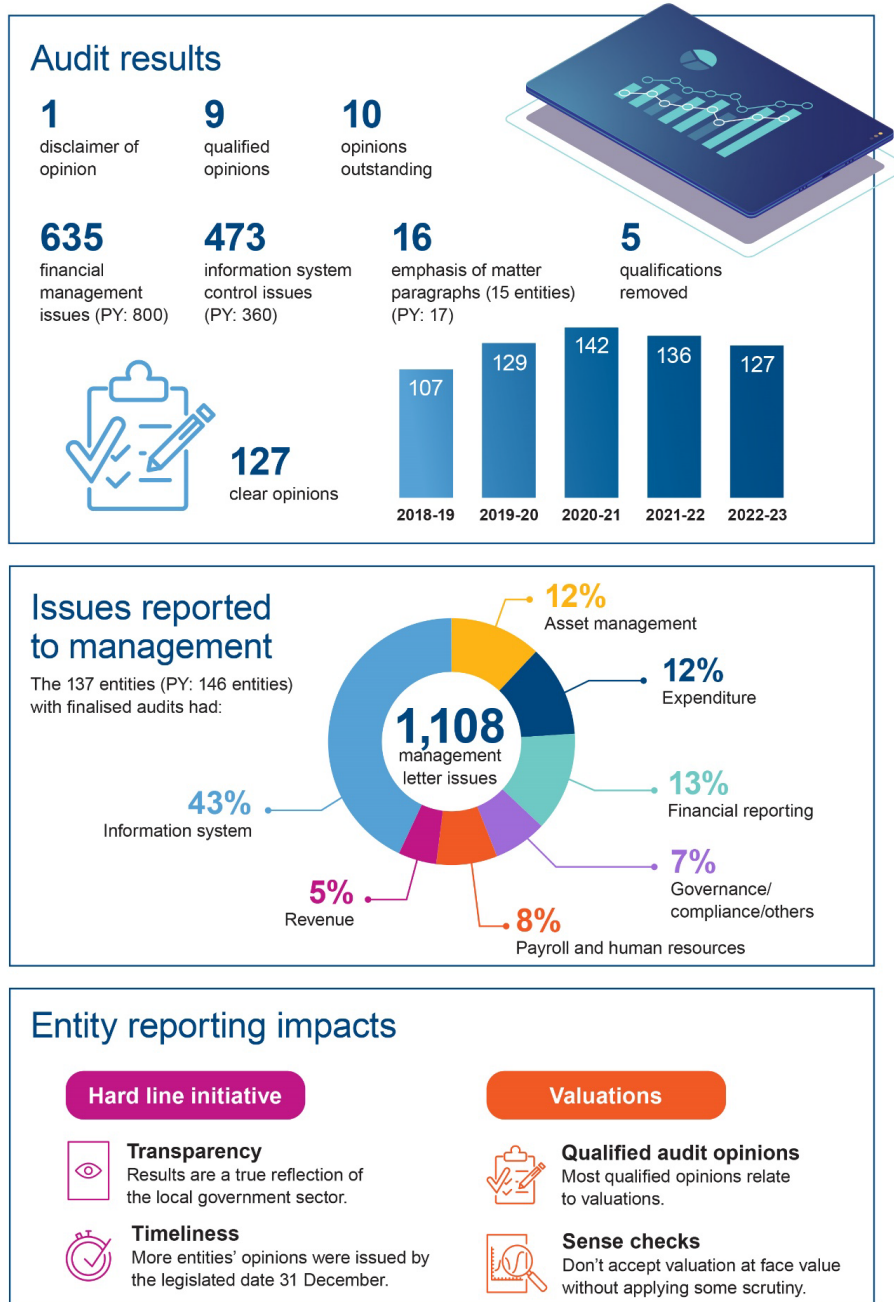
¹ Office of the Auditor General, [Local Government 2022-23 – Information Systems Audit Results](#), OAG, 27 May 2024, accessed 31 May 2024.

2022-23 at a glance

This report contains our findings from the annual financial audits of local government entities with a reporting date ending 30 June 2023. It includes the results for the 137 of 147 entities' audits that we completed by 31 March 2024 (Appendix 1), with the remaining 10 entities' results to be tabled in Parliament once their audits are completed.



(Prior year shown in brackets)



Recommendations

To further improve financial reporting timeliness and reduce costs:

1. Entities should:
 - a. submit good quality, reviewed and CEO-signed financial reports for audit no later than 30 September. Supporting work papers and reconciliations should also be available by this date
 - b. communicate delays to financial report submission early to minimise disruptions and facilitate resource allocation. Flexibility may be required from entities when rescheduling their audit
 - c. engage early with valuers to develop a scope and plan for valuation. This is essential to ensure timely, compliant and sensible valuations. Entity information provided to valuers should be complete and accurate
 - d. alert OAG audit engagement leaders to new processes or systems, any issues encountered during the year, or any area of concern or technical accounting determinations
 - e. evaluate the significance of errors and decide if they need to be adjusted. Analyse the root cause for the errors.
2. DLGSC should:
 - a. provide entities with guidance on valuations. We understand DLGSC plan to have this available before 30 June 2024
 - b. help entities resolve the issues preventing them from submitting their financial report to audit by 30 September. It is critical that support is provided early before issues escalate
 - c. consider further opportunities to reduce financial report disclosure requirements, to provide further relief to entities, without compromising the needs of users of the financial report
 - d. provide guidance to entities on how to account for crossovers, turf, garden/trees and rehabilitation provisions. This will ensure a consistent approach.

DLGSC response:

- a. The DLGSC continues to actively develop a comprehensive guide to assist entities in revaluing assets in collaboration with sector bodies. This guide aims to enhance the consistency and reliability of asset valuations. It will encompass key topics such as valuation methodologies, scope of works and assumptions used in the valuation process as outlined and is scheduled for completion by 30 June 2024.
- b. The *Local Government Act 1995* (the Act) requires that by 30 September following each financial year or such extended time as the Minister allows, a local government is to submit to its auditor the annual financial report and the accounts of the local government balanced up to the last day of the preceding financial year.

The Act allows extensions to be granted to local governments under section 6.4(3). However, any local governments seeking an extension must apply for it prior to the statutory deadline of 30 September.

While each of the 27 applications was subsequently approved, the DLGSC met in some instances with local governments, who had sought multiple extensions over several years. The primary purpose of these meetings was to discuss the reasons for the multiple extensions, identify what actions that had been taken to resolve these reasons, and inquire whether there was any support that DLGSC could provide.

Support will continue to be provided to local governments when requested to guide them through the application process and legislative requirements.

The DLGSC also intends to work collaboratively with local government entities to document experiences from the migration of systems to identify best practices and potential pitfalls. These learnings will be shared to assist local governments forward plan and develop robust strategies for mitigating risks associated with unanticipated system errors. Proactively addressing potential issues can significantly reduce the likelihood of disruptions and strengthen overall data management capabilities, which enable local governments to present reliable financial information for audits.

- c. The DLGSC recognises the importance of this consideration and is committed to continuous review and monitoring for opportunities to streamline and simplify reporting processes. This approach ensures that the necessary information is captured efficiently, while minimising the effort required from entities and the auditor. By regularly evaluating and refining our reporting requirements, DLGSC aims to maintain a balance between thoroughness and ease of use.
- d. The DLGSC will look at adding guidance on accounting for crossovers, turf, garden/trees in the Guidelines for the Valuation of Non-Financial Assets currently under development. DLGSC will also review the current guidance material on rehabilitation and remediation provisions that are contained in the Model Financial Statements Guidance Material.

Review of the 2022-23 financial year

Introduction

Our annual financial audits focus on ensuring the accuracy of an entity's financial report. This report summarises the results of our audits.

The report also covers one disclaimer of opinion from 2021-22 (Appendix 10) and local government certifications (Appendix 8).

Summary of audit opinions

For the financial year ending 30 June 2023, we issued clear opinions for 122 entities by 31 December 2023 and an additional five by 31 March 2024, one audit opinion was disclaimed and nine audit opinions were qualified. We included 16 emphasis of matter paragraphs in the auditor's reports of 15 entities. The numbers and types of opinions issued were similar to the 2021-22 financial year in which there were 136 clear opinions, 1 disclaimed opinion, 10 qualifications and 17 matters emphasised in the auditor's reports.

Care should be taken if comparing qualifications issued between local government entities and State government entities. For local government entities, we issue an opinion on the financial report only whereas in State government entities, we issue an opinion on the financial report, controls and key performance indicators.

One disclaimed opinion for 2022-23

Issuing a disclaimer of opinion is the most serious audit outcome. Of this year's finalised audits, we issued only one disclaimer of opinion (Appendix 4). A disclaimer of opinion is issued when there is insufficient evidence to form an opinion and the effect is pervasive through the financial report.

The entity changed finance systems during the year. A change in finance system is a big undertaking but a reasonably common occurrence. It can have many benefits in the form of improved automation and streamlining of accounting transactions and financial reporting. Due to a mix of resourcing challenges, this entity's changeover and go live was problematic. As a result, we encountered the following challenges:

- We were unable to get underlying information or reconciliations that agreed to the trial balance. Evidence for samples selected for testing were generally unable to be provided, and for all general journals posted, no description or purpose was specified. This is a major fraud risk.
- A fixed asset register was not maintained during the year. This meant various processes and control activities (reconciliations, additions etc.) had not been occurring during the year. A separate process was undertaken post year-end to incorporate all fixed asset movements.

In addition to the finance system items above, we also noted errors in the infrastructure valuation report around missing assets and the valuer's unit rates. Ultimately, we were unable to get enough information to be able to confidently close out these matters.

Nine qualified opinions

In 2022-23, nine entities received qualified opinions (Appendix 5). This is largely consistent with 2021-22 where we qualified the audit opinions of 10 entities.

All nine qualifications related to fixed assets and infrastructure, and their associated balances. Largely, entities had not revalued these assets with sufficient regularity (some had not been revalued since 2017-18) as required by regulations². As a result, we were unable to ascertain their value with confidence.

Additional work is required in the year following a qualification to determine if the qualification needs to remain or if it can be removed. In the majority of instances, the qualification could be resolved by simply revaluing the items.

Emphasis of matter paragraphs

In 2022-23, 16 emphasis of matter (EoM) paragraphs have been included in 15 entity auditor's reports which is reasonably consistent with the 17 EoM paragraphs included in 17 reports in 2021-22. We anticipate this number to increase as the outstanding audits are finalised. This year EoM paragraphs directed the reader's attention to:

- restatements of comparative figures or balances largely related to property and infrastructure assets (2022-23: 11 entities) (2021-22: 14 entities)
- events occurring after balance date (2022-23: 3 entities)
- the basis of accounting used by the entity (2022-23: 1 entity) (2021-22: 3 entities)
- State Administrative Appeal determination pending (2022-23: 1 entity).

A full description of these matters is in Appendix 7.

Significant improvement in timely reporting

We aim to finalise all audits early enough for entities to meet their legislated timeframes for adopting their annual reports. Appendix 1 outlines the date we issued each entity's 2022-23 auditor's report and our assessment of the status of their audit readiness.

The hard line initiative and the way it was supported by the sector were major factors in issuing nearly 90% of entities' audit opinions prior to 31 December 2023 (61% in 2021-22). Entities have worked hard to prepare for their audits and provide information promptly. We have seen more timely reporting by the majority of entities and will continue to build on this momentum next year.

For some audits, our teams did not set clear enough deadlines or waited too long for entities to provide information. This was a missed opportunity for timely reporting and something for our Office to work on with those entities for next year.

The two case studies below illustrate the different outcomes achieved this reporting cycle depending on whether the approach was adopted.

² Section 17A(4)(b) of the Local Government (Financial Management) Regulations 1996.

Case study 1: Entity early application of the hard line initiative

An entity failed to get a complete valuation for assets due for revaluation in 2022-23. The entity was confident a valuation had been undertaken (though never reported in the financial report) sometime during the five preceding years. The entity was not able to locate any historical valuation records other than the 2017-18 valuation.

Rather than continuing to search for the valuation we worked with the entity to close the matter out as is and report the shortcoming in the auditor report. This did result in a qualification of the entity's audit opinion around these assets; however, they were able to finalise their financial report and receive their audit opinion in a timely manner.

It also allowed the entity to move on with the year and focus on the future to rectify this aspect. The annual electors meeting was held early in the 2024 calendar year.

Case study 2: Entities failure to apply hard line initiative early

Several entities were unable to locate sufficient records to resolve audit queries. These entities did not close out the matter with the information at hand and took an extended period of time to try find the information. For some entities, they are still lacking the required information.

Audit costs accumulate while entities try to resurrect workings, search for missing information and back date revaluations. This approach is risky as missing information and back dated valuations may not materialise. Elected members and ratepayers are left wondering when they will get to see the financial report and whether they should be concerned about the state of financial management and reporting in the entity.

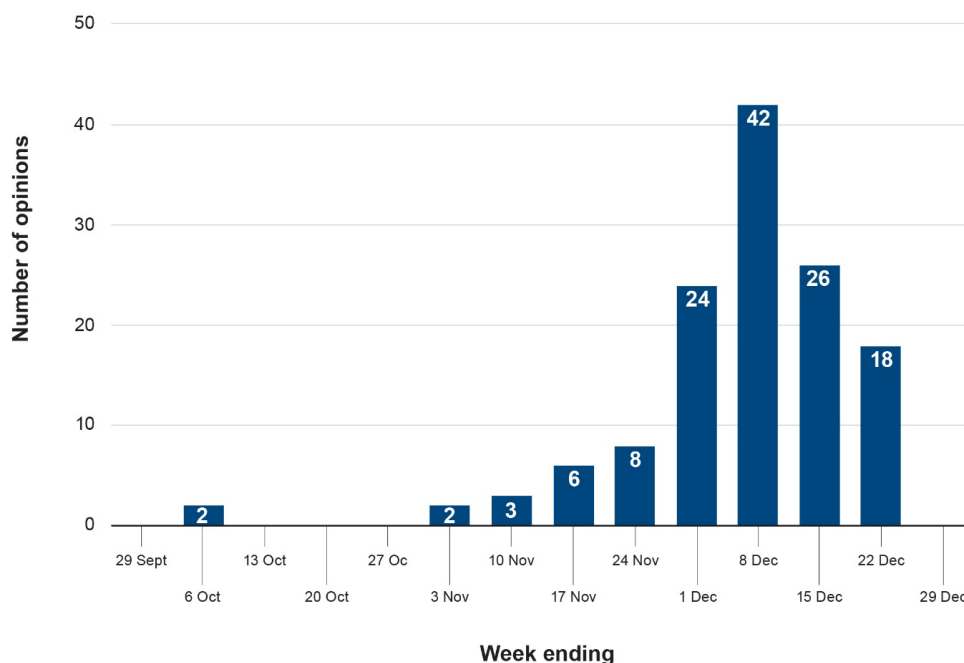
Our hard line initiative is focused on improving the quality and timeliness of financial reports and associated workings provided for audit. It facilitates transparent and timely financial reporting from entities to ratepayers and other users. The Auditor General wrote to entities in early September 2023 outlining the details. As part of the approach, we will no longer wait until the entity is ready if key information and people are not reasonably available within the agreed schedule. Instead, we will issue our audit opinion on the information available, even if this results in a qualified audit opinion.

Qualified audit opinions relate to a discrete area of the financial report, meaning all other information is clear and available for users to rely on. If, due to the state of the financial records, the legislated reporting timeframe (six months after the year-end) cannot be met, then it's appropriate to convey that status in our audit report rather than waiting for further information and causing unreasonable delays to finalising our audit report.

Entities are able to apply to DLGSC prior to the submission deadline of 30 September to seek an extension. DLGSC granted 27 extensions in 2023 (Appendix 2) compared with 13 in 2022. Extensions impact the timeliness of reporting. There can be legitimate reasons for one-off extensions, however, repeat requests are generally symptomatic of other underlying problems where early intervention is critical to prevent these from escalating.

Delays in submitting financial reports creates a bottleneck of audit work and opinion issuing in December and delays our other audit work. Entities need to ensure they advise us early if they are seeking extensions so we can work with them to minimise any adverse impact on scheduling their year-end audit.

Figure 1 illustrates the time pressure point for finalising audits and how critical it is to meet agreed timelines. We need to work with the sector to bring work forward, wherever possible, to reduce the peak in workload.



Source: OAG

Figure 1: Opinions issued per week 2023

Early feedback from entities shows a marked improvement in satisfaction with our work in 2023 compared with prior years. This reflects the effectiveness of our hard line initiative and a commitment from entities and audit teams to communicate and work together to achieve better outcomes for the sector. Survey results are reported in our annual report.

Audits finalised after 31 December 2023 and those that are still in progress

Audits that were not finalised prior to 31 December 2023 encountered numerous challenges. Some entities and audit teams were able to persevere through the difficulties, including issuing one disclaimer opinion, and were able to finalise their audits prior to 31 March 2024. The audits of 10 entities remain incomplete at 31 March 2024 (Appendix 3).

Generally, audits in progress share some of the following themes:

- **Data integrity:** information to support the trial balance and financial report disclosures was not readily available. We encourage entities to review our better practice guides³ to better understand audit information requirements.
- **Key staff availability:** positions were vacated during the audit or have been vacant for some time. When key staff resign prior to or during the audit process, often no one is left at the entity who can assist with audit queries or provide the necessary information.

³ Office of the Auditor General, [Audit Readiness – Better Practice Guide](#), OAG, 30 June 2023 and Office of the Auditor General, [Western Australian Public Sector Financial Statements – Better Practice Guide](#), OAG, 14 June 2021.

- **Difficulty closing out technical reporting matters:** some entities lacked the expertise required to adequately manage complex financial reporting. Technical matters surrounding assets and other topics were left to the audit teams to try to resolve.
- **Incomplete valuations:** valuations are not readily available or we have concerns with their accuracy and/or completeness.

For those audits still in progress, we expect to issue further disclaimed or qualified opinions, or opinions that include an EoM paragraph. We also expect the number of financial control findings to increase.

Best practice entities

This is the second year we have rated entities on their financial reporting practices. The quality of financial reporting is measured against the following criteria:

- timeliness of CEO-certified financial report
- quality of financial report (financial statements and notes)
- quality of working papers that support the financial report
- management resolution of accounting matters
- key staff availability during the audit
- number and significance of management letter findings
- clear opinion.

We congratulate the entities we rated as the top 20 achievers for 2022-23.

Best practice top 20 entities	
<ul style="list-style-type: none">• City of Albany• Shire of Beverley• Shire of Boddington• Shire of Brookton• Shire of Cocos (Keeling) Islands• Shire of Cue• Shire of Dardanup• Shire of Denmark• Shire of Dumbleyung• Eastern Metropolitan Regional Council	<ul style="list-style-type: none">• Shire of Esperance• Shire of Irwin• Shire of Jerramungup• Shire of Merredin• Shire of Mingenew• Shire of Perenjori• City of Rockingham• Shire of Serpentine-Jarrahdale• Shire of Three Springs• Shire of Waroona

Source: OAG

Table 1: Best practice entities for 2022-23

Certifications

During 2023, we worked with the relevant Australian Government department⁴ to clarify the requirements to provide opinions on Roads to Recovery and Local Roads and Community Infrastructure Program certifications. As a result, we have been able to contain our certification workload to 55 this year. A full listing of certifications we have issued is in Appendix 8.

⁴ Department of Infrastructure, Transport, Regional Development, Communications and Arts.

Control weaknesses

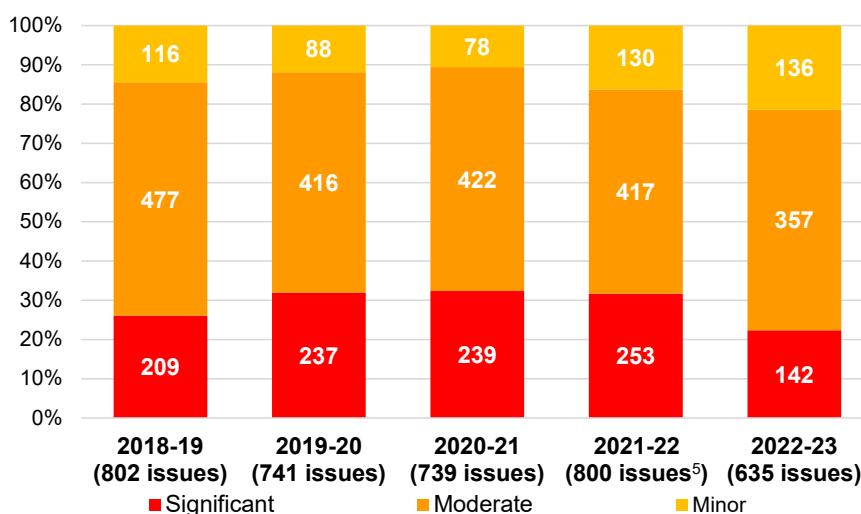
Control environment

We reported a total of 1,108 control findings in 2022-23 which is largely consistent with the prior year (1,160 control findings). These are made up of 635 financial management issues (2021-22: 800⁵) and 473 information system (IS) control issues (2021-22: 360).

An entity's control environment includes the governance and management functions and the attitudes, awareness and day-to-day actions that contribute to sound internal control practices of importance to the entity. A control environment with adequate systems, processes and people reduces the risk of error and fraud, and provides assurance to management, those charged with governance and auditors that financial reports are materially correct. We assess each entity's control environment during our risk assessment procedures. We report details of weaknesses in the environment to entities. The main themes of these weaknesses are discussed in further detail below. We expanded on the IS control findings in a separate report to Parliament⁶.

Financial management controls

We alerted 123 entities to 635 financial management control weaknesses across our three risk categories (Figure 2) compared with 800 weakness reported to 137 entities in 2022. The total number of findings is tracking significantly lower than in recent years. These numbers will increase once the 10 outstanding entities are finalised, however we don't expect the increase to be greater than that reported in 2021-22. Most pleasing, however, is the substantial reduction in the number of significant findings which reflects the focus by entities on resolving these high priority issues, although more work remains to address unresolved issues. Definitions of our finding risk ratings can be found at Appendix 11.



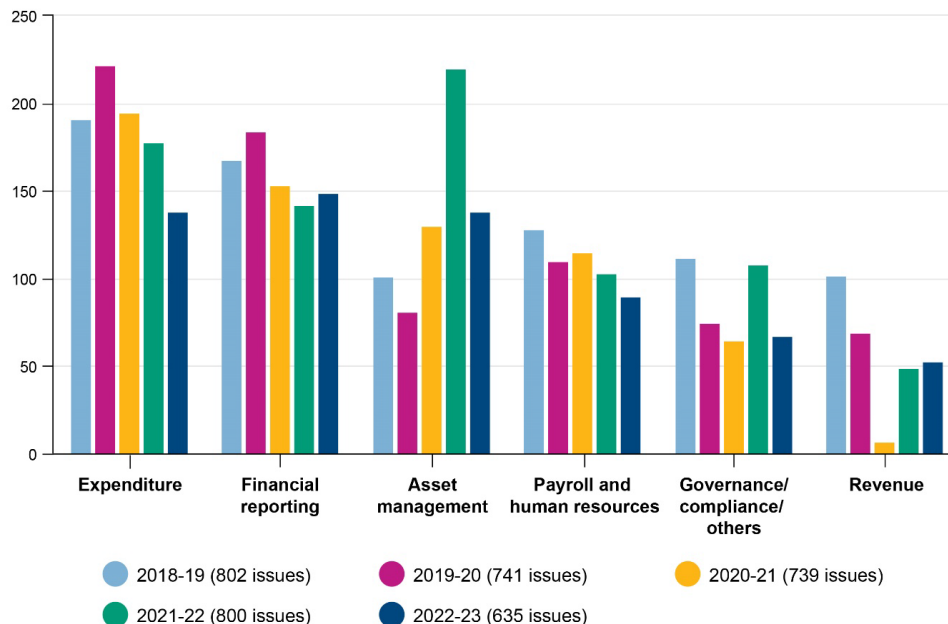
Source: OAG

Figure 2: Proportion of control weaknesses reported to management in each risk category and comparative ratings of the control weaknesses

⁵ 2021-22 numbers have been restated from our Local Government 2021-22 - Financial Audit Results report. Total issues reported was 880, it should have been 800.

⁶ Office of the Auditor General, [Local Government 2022-23 – Information Systems Audit Results](#), OAG, 27 May 2024, accessed 31 May 2024.

As can be seen in Figure 3, expenditure remains a key area of concern, along with financial reporting. In the last two years, asset management issues have increased significantly which coincides with a period where many entities were required to revalue their assets.



Source: OAG

Note: 2021-22 numbers have been restated from our Local Government 2021-22 - Financial Audit Results report. Total issues reported was 880, it should have been 800.

Figure 3: Financial management control issues reported to entities

Expenditure

We reported 138 expenditure weaknesses to 71 entities in 2022-23, compared with 178 issues to 96 entities in 2022. Thirty-six were unresolved from the prior year and 21 of these were rated as significant.

As was the case in the previous year we found instances of purchase orders raised after the invoice date and entities not seeking enough quotes. Seeking an appropriate number of quotes is an important control in ensuring value for money. Purchases made without authorised purchase orders increase the risk of unauthorised spending.

Management of the supplier master file also remained an area of weakness. Entities continue to make changes to the supplier master file without being able to evidence that they were appropriately approved. Unverified changes to the supplier master file may result in errors and there is also an increased risk of fictitious suppliers being established and funds being inappropriately disbursed.

Poor procurement practices increase the risk of fraud. It also increases the risk that entities may not be obtaining the best value for money. Entities need fit for purpose controls and processes that operate effectively to help mitigate against procurement risks.

Financial reporting

We raised 149 issues at entities relating to their financial reporting procedures, while in 2022 this number was 142. We found numerous issues with the financial report compilation process. Entities often provided poor working papers, did not prepare reconciliations and/or adequately consider technical accounting matters. There were often gaps in staff availability or the experience needed to carry out the financial reporting role. Management need to resolve these issues as a priority as they cause delays to the audit, increase audit costs and place undue pressure on entity staff and audit teams.

The financial report submitted to audit should be of a high quality with limited, if any, adjustments required. It should be supported by reconciliations and working papers of an equally high quality. Entities should document the procedures for producing the financial report to ensure business continuity in the event of staff changes. The financial report should be reviewed by the CEO and audit committee to ensure its quality. Following this, the CEO should sign the financial report and submit it for audit. Further guidance for entities is available in our better practice guides accessible on our website⁷.

Asset management

We identified 138 findings at 77 entities compared with 220 findings at 140 entities in 2022. Thirty-three findings were prior year findings which have not been resolved. Most findings related to entities not revaluing their assets with sufficient regularity. Without regular revaluation of land, building and infrastructure assets, there is a risk that the fair value of these assets may not have been adequately determined. This is not compliant with AASB 13 *Fair Value Measurement*, as well as regulation 17(A) of the Local Government (Financial Management) Regulations 1996 and could lead to asset values in financial reports being inaccurately stated.

Entities reasons for not revaluing assets include:

- incomplete data to provide to valuers
- omissions or oversights of assets requiring valuations
- left it too late to engage a valuation consultant
- staff changes at the entity.

Robust asset management processes ensure asset data is complete and accurate, and that valuations are conducted with sufficient regularity in accordance with legislative requirements.

Findings unresolved from prior year

For 2022-23, 214 financial management control findings raised across 82 entities remain unresolved. This represents 34% of all current year findings. Of concern is that 31% (67) of these issues are significant, requiring urgent action.

The carry over findings mainly relate to assets, expenditure and financial reporting. Common themes were:

- outstanding asset and infrastructure valuations
- reconciliations were not performed regularly for assets, bank and other balance sheet items. We found reconciliations were not prepared or reviewed in a timely manner. Specifically, bank reconciliations had long outstanding items. Reconciliations, when completed appropriately, enhance the completeness and accuracy of financial data within the general ledger from which financial reports are derived. Without regular

⁷ Office of the Auditor General, [Audit Readiness – Better Practice Guide](#), OAG, 30 June 2023 and Office of the Auditor General, [Western Australian Public Sector Financial Statements – Better Practice Guide](#), OAG, 14 June 2021.

reconciliation there is an increased risk for fraud or errors going undetected and diminishes the value of reconciliations as regular in-year monitoring controls. This could result in significant variances at year end and adversely impact on the audit opinion

- poor procurement practices. We observed an inadequate number of quotes obtained, raising of purchase orders after invoice date and unverified changes to supplier information.

It's unfortunate that these issues remain outstanding. Issues add to audit time and costs. Entities need to prioritise fixing these issues.

Information system controls

We reported 473 information system control weaknesses to 76 entities. Compared with 360 issues at 61 entities in 2021-22. Disappointingly, almost half of these issues were raised last year and remain unresolved. Information system controls is an area of low maturity for the sector, although engagement with us on this issue is generally high. Many entities are working hard to address exposure risks we have identified.

Computer controls included in information systems form part of the entity's control environment. The auditing standards require us to assess each entity's control environment inclusive of computer controls as part of risk assessment procedures. Local government entities are reliant on information systems to deliver a wide range of services. These are essential to processing and storing data and producing financial reports. We assess the general computer controls to determine if entities' computer controls effectively support preparation of financial reports, delivery of key services, and the confidentiality, integrity and availability of information systems.

Further details on this work are included in the *Local Government 2022-23 - Information Systems Audit Results* report⁸.

Continuous improvement opportunities

Reducing the information included in the financial report will help improve audit costs and timeliness. Entities also need guidance to ensure sector consistency and to help with areas where they are consistently making errors. Usually, these areas are technically challenging or require significant judgement. DLGSC has provided some valuation relief and plan to provide guidance on valuations. DLGSC should consider further guidance on accounting for crossovers and rehabilitation provisions. The major areas for improvement are discussed in further detail below.

Valuation of assets

To reduce costs to entities without unduly compromising the quality of financial reporting, DLGSC made a number of significant changes in reporting requirements. For instance, it reduced the fair value requirements for assets. From 2023-24, entities are only required to revalue land, buildings and infrastructure assets every five years instead of every year that indicators suggest values have changed significantly. Non-valuation years no longer require a fair value assessment. An entity can, however, elect to revalue earlier than five years.

Pleasingly, DLGSC is in the process of developing a guide to assist entities when revaluing assets and improve consistency and reliability of valuations across the sector. We understand the guide will cover topics such as valuation methodologies, scope of works and assumptions used in the valuation process. The valuation guide is expected to be finalised before 30 June 2024.

⁸ Office of the Auditor General, [Local Government 2022-23 – Information Systems Audit Results](#), OAG, 27 May 2024, accessed 31 May 2024.

We expect the guide will help entities address the issues we continue to see around valuations, including seeking valuations that appropriately recognise restrictions on land use. There are perennial issues with the completeness and accuracy of fixed asset registers, incomplete or inappropriate valuations, and poor records generally. Too often valuations are accepted without review or question by entity management. We see huge movements in values that entities often cannot explain, suggesting that they have not engaged in any meaningful way with the valuation process and the judgements made for accounting purposes. This increases the risk for errors and generally requires additional audit work. Entities need to conduct a sense check of valuation results. Significant changes in values should be adequately explained and supported by evidence and logic. For some entities, we requested additional financial report disclosures to highlight factors driving significant revaluation movements.

Entities need to prepare early for their valuations as it is a lengthy exercise and there is a limited pool of qualified independent valuers. Some entities have struggled to find valuers in time for valuations to be included in their financial reports. Valuers need complete and accurate entity data to do their job. Entities need to provide adequate scoping and instructions to their valuers as not all valuations are the same. For example, using the cost approach will garner different results to a valuation performed in accordance with the market approach outlined in AASB 13 *Fair Value Measurement*. Importantly, DLGSC's advice is that land should be valued using the market approach and if the land has any public sector restrictions (including current use for community purposes), the restrictions must be considered when valuing the land.

Recognition of assets

Entities are not consistent in how they account for crossovers. Crossovers are the section of a driveway which starts at the property line and extends to the road. Some entities recognise crossovers as an asset and others do not. Where they are recognised as assets, they are included as an infrastructure asset and revalued every five years.

The reason some entities haven't recognised crossovers as assets is because costs to maintain the crossovers are generally borne by the various property owners, which indicates the property owners benefit from the asset and bear the costs of maintenance. The counter argument to this is that entities can pass the costs on to a property owner, which indicates entity control. Given the inconsistency among entities on accounting for crossovers, we believe this is an area that requires DLGSC guidance. In the meantime, we have continued to accept whatever the entities' current treatment in their financial reports.

Another area of divergent practice, where there is no clearly right or wrong accounting treatment, is in the recognition of turf and shrubbery. Where an entity has valued or revalued its turf, we have sought to understand the reasons for the valuation including the differing nature and purpose of the turf used by the entity. For example, a golf course or playing field turf is usually recognised as an asset. Turf within nature reserves, general shrubbery and garden items have generally been expensed. Where maintained turf and similar assets have been recognised as an asset, we inquire to see if they have been supported by maintenance expenditure in asset management plans.

There is a cost associated with measuring, recording and revaluing these assets, so entities must ensure that the accounting policy adopted is appropriate, with due regard to the cost and benefit in the circumstances of the accounting method adopted. Careful consideration should be given to the reliability of the value adopted and whether the asset could or would be replaced on a like-for-like basis if damaged or destroyed.

The sector could benefit from clear guidance from DLGSC on accounting for these items. Consultation with sector stakeholders to understand the key drivers of the variation in treatment and the implications of mandating or requiring a particular treatment would help buy in and ensure consistency and usefulness of financial reporting across the sector.

Rehabilitation provisions

Sometimes assets come with make good or remediation obligations. In the LG sector this generally relates to the financial responsibility to rehabilitate waste sites or landfills. Obligations can arise from a legal requirement or from what is known as a constructive obligation. These obligations can be confusing because not all landfills or waste sites have the same requirements for rehabilitation.

Entities need to review their landfill licences to determine if they have a legal obligation to restore or rehabilitate waste sites. A constructive obligation arises when an entity promises to make good the site and has by its actions indicated that it will follow through on that intent.

It's critical that entities understand the nature of their legal or constructive obligations associated with this type of work as this will drive the accounting and ongoing measurement. If an obligation is present, a provision should be recognised and the equivalent amount forms part of the cost of the asset, usually a waste management/landfill facility (infrastructure) which is required to be revalued.

Entities have found accounting for rehabilitation provisions confusing. Some entities also lack the technical accounting capability to calculate and account for their rehabilitation provisions. In the absence of guidance from DLGSC on the recognition and ongoing measurement of rehabilitation provisions, we are often required to provide significant guidance to entities who simply do not understand the technical accounting aspects.

Guidance from DLGSC would aid consistency and help entities who are finding this area challenging.

Differential reporting and reduced disclosure requirements

This year DLGSC simplified financial reporting requirements. This is consistent with what our Office has been advocating for and reporting on for some time. It is also consistent with the recommendations of the *Select Committee into Local Government Final Report - Inquiry into Local Government* tabled in September 2020.

Smaller entities are no longer required to comply with various disclosure requirements. DLGSC published two sets of model financial reports, one for larger and another for smaller entities. DLGSC updates its model financial reports annually for currency.

DLGSC also removed the requirements for all entities to report information in their financial reports on fees and charges, discounts and some other items. A list of amendments is available on the DLGSC website⁹. They also moved some financial report disclosure requirements to annual report only disclosures, so they do not need to be audited. All were important contributions to reduce the financial reporting burden which should result in reduced audit costs and more timely reporting.

Adjusted and unadjusted audit errors

We noted that there were no errors in the financial reports at 33 entities. This is generally consistent with the prior year where 34 entities noted no errors. For the other 104 entities, we identified 360 errors, 263 of which entities corrected (adjusted) in the final financial report and 97 which remained uncorrected (Table 2). We do expect the numbers of errors to increase once the remaining audits are finalised.

⁹ Department of Local Government, Sport and Cultural Industries, [Local Government Regulations Amendment Regulations 2023](#), DLGSC website, 13 July 2023.

Year	Number of entities with adjusted errors	Number of adjusted audit errors	Nominal value of errors adjusted during the audit	Number of entities with unadjusted errors	Number of unadjusted audit errors	Nominal value of unadjusted errors
2022-23	93	263	\$989,226,390	55	97	\$67,885,344
2021-22	91	335	\$1,613,529,048	58	132	\$50,668,884

Source: OAG

Table 2: Adjusted and unadjusted errors for entities

We identify errors based on evidence found during our audit. Material errors require correction to (in most cases) avoid qualification; for smaller errors entities can choose whether or not to adjust.

We inform management and those charged with governance, of all errors other than those that are clearly trivial. By hearing about them, the entity can identify potential risk areas or other matters impacting their financial reporting. Entities should consider carefully whether they make adjustments for errors that are not material. Smaller errors have no real impact on the financial but require time to process and validate. All errors, but particularly those which are adjusted by the entity increase the time and cost of financial reporting and of the audit. At one entity we noted 19 errors, it adjusted 17 of these, yet just 3 were material. Entities need to get the balance right in terms of the overall objective of the financial report.

The role of outsourcing in financial reporting

One hundred and one entities prepared their own financial report, the remainder outsourced the function to accounting firms. Outsourcing can be a good option, as it allows entities to tap into a specialist skill set and helps overcome their resource constraints.

However, some aspects of financial reporting cannot be outsourced. Communication and management judgements should not be outsourced. Our teams are often left to conduct the audit with the assistance of the outsourced financial report provider with minimal entity involvement. Financial reports are often not reviewed by management until the audit is almost concluded or a problem arises.




The key to a successful outsourcing arrangement is a strong management presence to connect the service providers, audit teams, operations and council. Early engagement, planning and close contract management are vital. Effective oversight ensures a smoother process with no surprises. It also contributes to lower audit costs and more timely reporting.




The role of outsourcing in delivering OAG audits

Similarly, we outsourced the financial audit work of 134 local government entities (91%), which is an increase on previous years. The ratio of audits outsourced will fluctuate depending on our internal resourcing capacity. In addition to competitive labour market conditions constraining our ability to recruit and retain sufficient staff at key levels, the recent increase in outsourcing is due in part to the scheduled implementation of our new audit tool and methodology, for which our staff are undertaking significant additional training. We plan to progressively increase the number of audits delivered in-house over coming years to our target level of 20%.

The outsourcing of public sector audits is a common practice across jurisdictions to meet periods of peak demand and provide access to specialist skills, and we value the opportunity to benchmark our own audit quality and efficiency. We maintain oversight of our contract audit firms' audit planning, finalisation and key audit judgements, and engage with entities throughout the process, including attending key meetings. We sign all audit opinions, prepare whole of sector reporting and also support capability development across the sector.





























Appendix 1: Status and timeliness of audits

Type of audit opinion	
Clear (unmodified)	
Clear opinion with emphasis of matter or matter of significance paragraph	
Qualified or a disclaimer of opinion	

Financial report timeliness – audit ready submissions*	
Received financial report by statutory deadline of 30 September 2023 and assessed audit ready	
Received an extension from DLGSC to the statutory deadline and met this extension with audit ready financial report	
Extension or statutory deadline was not met with audit ready financial report	

* Financial report initially provided may not be of a quality that is audit ready. The icon in the table below reflects the date we assessed the financial report as audit ready. Many entities' first version of financial report provided to us was audit ready.

Entities listed in alphabetical order with opinion type, opinion date and audit ready financial report submission status.

	Entity	Type of opinion	Opinion issued	Audit ready submissions of FR*
1	Bunbury-Harvey Regional Council		24/11/2023	
2	City of Albany		06/12/2023	
3	City of Armadale		20/12/2023	
4	City of Bayswater		20/12/2023	
5	City of Belmont		28/11/2023	
6	City of Bunbury		29/11/2023	
7	City of Busselton		01/11/2023	
8	City of Canning		07/12/2023	
9	City of Cockburn		08/12/2023	
10	City of Fremantle		12/12/2023	
11	City of Gosnells		13/12/2023	
12	City of Greater Geraldton		15/12/2023	
13	City of Joondalup		01/12/2023	
14	City of Kalamunda		01/12/2023	

	Entity	Type of opinion	Opinion issued	Audit ready submissions of FR*
15	City of Kalgoorlie-Boulder	✓	28/11/2023	📄
16	City of Kwinana	✓	06/12/2023	📄
17	City of Mandurah	✓	20/12/2023	📄
18	City of Melville	✓	21/12/2023	📄
19	City of Nedlands	✗	01/03/2024	📄
20	City of Perth	✓	29/11/2023	📄
21	City of Rockingham	✓	08/11/2023	📄
22	City of South Perth	✓	28/11/2023	📄
23	City of Stirling	✓	15/12/2023	📄
24	City of Subiaco	✓	01/12/2023	📄
25	City of Swan	✓	22/11/2023	📄
26	City of Vincent	✓	08/12/2023	📄
27	City of Wanneroo	✓	30/11/2023	📄
28	Eastern Metropolitan Regional Council	✓	06/10/2023	📄
29	Mindarie Regional Council	✓	15/11/2023	📄
30	Murchison Regional Vermin Council	✓	21/12/2023	📄
31	Rivers Regional Council	✓	07/12/2023	📄
32	Shire of Ashburton	✓	21/12/2023	📄
33	Shire of Augusta-Margaret River	✓	21/11/2023	📄
34	Shire of Beverley	✓	01/11/2023	📄
35	Shire of Boddington	✓	01/12/2023	📄
36	Shire of Bridgetown-Greenbushes	✓	08/12/2023	📄
37	Shire of Brookton	✓	20/12/2023	📄
38	Shire of Broome	✓	15/12/2023	📄
39	Shire of Broomehill-Tambellup	✓	14/12/2023	📄
40	Shire of Bruce Rock	✓	07/12/2023	📄
41	Shire of Capel	✓	15/12/2023	📄
42	Shire of Carnamah	✓	08/12/2023	📄

	Entity	Type of opinion	Opinion issued	Audit ready submissions of FR*
43	Shire of Carnarvon	✓	19/12/2023	
44	Shire of Chapman Valley	✓	19/02/2024	
45	Shire of Chittering	✓	07/12/2023	
46	Shire of Christmas Island	✓	07/12/2023	
47	Shire of Cocos (Keeling) Islands	✓	08/12/2023	
48	Shire of Collie	✓	08/12/2023	
49	Shire of Coolgardie	✓	05/12/2023	
50	Shire of Coorow	✓	07/12/2023	
51	Shire of Corrigin	✓	08/12/2023	
52	Shire of Cranbrook	✓	06/12/2023	
53	Shire of Cuballing	✓	08/12/2023	
54	Shire of Cue	✓	28/11/2023	
55	Shire of Cunderdin	✓	24/11/2023	
56	Shire of Dalwallinu	✓	04/12/2023	
57	Shire of Dandaragan	✓	15/12/2023	
58	Shire of Dardanup	✓	22/11/2023	
59	Shire of Denmark	✓	28/11/2023	
60	Shire of Derby-West Kimberley	✓	18/12/2023	
61	Shire of Donnybrook-Balingup	✓	11/12/2023	
62	Shire of Dowerin	✓	29/11/2023	
63	Shire of Dumbleyung	✓	09/11/2023	
64	Shire of Dundas	✓	19/12/2023	
65	Shire of East Pilbara	✓	11/03/2024	
66	Shire of Esperance	✓	15/11/2023	
67	Shire of Exmouth	✓	06/12/2023	
68	Shire of Gingin	✓	05/12/2023	
69	Shire of Gnowangerup	✓	19/12/2023	
70	Shire of Goomalling	✗	07/12/2023	
71	Shire of Harvey	✓	08/12/2023	

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	Entity	Type of opinion	Opinion issued	Audit ready submissions of FR*
72	Shire of Irwin	✓	30/11/2023	📄
73	Shire of Jerramungup	✓	05/12/2023	📄
74	Shire of Katanning	✗	13/12/2023	📄
75	Shire of Kellerberrin	✓	02/12/2023	📄
76	Shire of Kent	✗	20/12/2023	📄
77	Shire of Kojonup	✓	17/01/2024	📄
78	Shire of Kondinin	✓	18/12/2023	📄
79	Shire of Koorda	✓	13/12/2023	📄
80	Shire of Kulin	✓	30/11/2023	📄
81	Shire of Lake Grace	✓	05/12/2023	📄
82	Shire of Laverton	✓	15/12/2023	📄
83	Shire of Leonora	✓	05/12/2023	📄
84	Shire of Manjimup	✓	29/11/2023	📄
85	Shire of Meekatharra	✓	05/12/2023	📄
86	Shire of Menzies	✓	11/12/2023	📄
87	Shire of Merredin	✓	16/11/2023	📄
88	Shire of Mingenew	✓	01/12/2023	📄
89	Shire of Moora	✓	27/02/2024	📄
90	Shire of Morawa	✓	05/12/2023	📄
91	Shire of Mount Magnet	✗	12/12/2023	📄
92	Shire of Mount Marshall	✓	06/12/2023	📄
93	Shire of Mukinbudin	✓	18/12/2023	📄
94	Shire of Mundaring	✓	12/12/2023	📄
95	Shire of Murchison	✓	05/12/2023	📄
96	Shire of Murray	✓	27/11/2023	📄
97	Shire of Nannup	✗	12/12/2023	📄
98	Shire of Narembeen	✓	05/12/2023	📄
99	Shire of Narrogin	✓	08/12/2023	📄
100	Shire of Northam	✓	14/12/2023	📄

	Entity	Type of opinion	Opinion issued	Audit ready submissions of FR*
101	Shire of Northampton	✓	08/12/2023	🟢
102	Shire of Nungarin	✓	12/12/2023	🟢
103	Shire of Peppermint Grove	✓	06/12/2023	🔴
104	Shire of Perenjori	✓	08/12/2023	🟢
105	Shire of Pingelly	✓	01/12/2023	🟢
106	Shire of Quairading	✓	13/12/2023	🟢
107	Shire of Ravensthorpe	✓	07/12/2023	🟢
108	Shire of Sandstone	✓	16/11/2023	🟢
109	Shire of Serpentine-Jarrahdale	✓	22/11/2023	🟢
110	Shire of Shark Bay	✓	15/12/2023	🟡
111	Shire of Tammin	✓	20/11/2023	🔴
112	Shire of Three Springs	✓	21/11/2023	🟢
113	Shire of Trayning	✓	07/12/2023	🟢
114	Shire of Upper Gascoyne	✓	08/11/2023	🟢
115	Shire of Victoria Plains	✓	27/11/2023	🟢
116	Shire of Wagin	✓	29/11/2023	🔴
117	Shire of Wandering	✓	04/12/2023	🟢
118	Shire of Waroona	✓	17/11/2023	🟢
119	Shire of West Arthur	✓	07/12/2023	🟢
120	Shire of Westonia	✗	18/12/2023	🟢
121	Shire of Wickpin	✗	08/12/2023	🟢
122	Shire of Williams	✓	06/12/2023	🔴
123	Shire of Wiluna	✗	21/12/2023	🟡
124	Shire of Wongan-Ballidu	✓	13/12/2023	🟢
125	Shire of Woodanilling	✗	20/12/2023	🟢
126	Shire of Wyalkatchem	✓	30/11/2023	🔴
127	Shire of Wyndham-East Kimberley	✓	13/12/2023	🔴
128	Shire of Yilgarn	✓	01/12/2023	🟢
129	Shire of York	✓	15/03/2024	🟡

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	Entity	Type of opinion	Opinion issued	Audit ready submissions of FR*
130	Tamala Park Regional Council	✓	05/10/2023	🟢
131	Town of Bassendean	✓	11/12/2023	🔴
132	Town of Cambridge	✓	15/12/2023	🔴
133	Town of Claremont	✓	05/12/2023	🟢
134	Town of Cottesloe	✓	06/12/2023	🟢
135	Town of East Fremantle	✓	11/12/2023	🟢
136	Town of Mosman Park	✓	18/12/2023	🟢
137	Western Metropolitan Regional Council	✓	15/11/2023	🟢

Source: OAG

Appendix 2: Entities who received an extension from DLGSC to submit their financial report after the 30 September legislated deadline

Entity	Extension date
City of Armadale	31 October 2023
City of Karratha	30 November 2023
City of Melville	31 December 2023
City of Nedlands	16 October 2023
Shire of Boyup Brook	16 October 2023
Shire of Bridgetown-Greenbushes	13 October 2023
Shire of Chapman Valley	30 November 2023
Shire of Dandaragan	31 October 2023
Shire of Derby-West Kimberley	30 November 2023
Shire of Halls Creek	31 October 2023 30 November 2023
Shire of Katanning	31 October 2023
Shire of Kojonup	30 October 2023
Shire of Kulin	31 October 2023
Shire of Moora	30 November 2023 15 December 2023
Shire of Mukinbudin	31 October 2023
Shire of Murchison	9 October 2023
Shire of Ngaanyatjaraku	31 October 2023
Shire of Plantagenet	31 October 2023
Shire of Shark Bay	20 October 2023
Shire of Toodyay	31 October 2023
Shire of Wiluna	31 October 2023
Shire of Wyndham-East Kimberley	31 October 2023
Shire of Yalgoo	30 November 2023
Shire of York	13 October 2023
Town of Bassendean	31 October 2023
Town of Cambridge	3 November 2023
Town of Victoria Park	16 October 2023

Source: DLGSC

Appendix 3: Outstanding audits at 31 March 2024¹⁰

Entity	Balance date	Reason for delay
City of Karratha	30 June 2023	Key entity staff turnover delayed the start of the audit until October 2023. This was further delayed until January 2024, with audit finalisation to occur by the end of February 2024. By mid-February 2024 the City was still not able to provide all the required information to conduct the audit. Resolution of some prior year matters also contributed to delays. The audit recommenced in mid-March 2024 and should be finalised no later than May 2024.
Resource Recovery Group	30 June 2023	In November 2023, Member Council resolutions impacted the going concern assessment for the Resource Recovery Group. This was completed in February 2024, and we finalised our review of this assessment in April 2024. Our assessment did not start in February as our auditor's had other scheduled work. We prioritised other work as it was on schedule and pre-booked. We anticipate the audit to be finalised no later than May 2024.
Shire of Boyup Brook	30 June 2023	The independent valuation was delayed due to the availability of consultants which held up the finalisation of the financial statements and the completion of the audit. Complete documents were provided to the audit team in March 2024, and we expect to have the audit finalised no later than May 2024.
Shire of Halls Creek	30 June 2023	The Shire requested two extensions from DLGSC. In January 2024, they sought to pause the audit to complete their financial statements and other inquiries following the departure of their Chief Executive Officer (CEO). In March 2024 it was mutually agreed to conclude the audit based on available information and we expect this to be finalised no later than May 2024.
Shire of Ngaanyatjaraku	30 June 2023	The independent valuation was delayed which held up the finalisation of the financial statements and the completion of the audit. These reports have now been received and we expect the audit to be finalised no later than May 2024.
Shire of Plantagenet	30 June 2023	The resignation of the Shire's Deputy Chief Executive Officer (DCEO) and accountant prior to the commencement of the scheduled audit fieldwork in November 2023 led to considerable delays. The Shire's revaluation report was not concluded until the end of February 2024. We now expect this audit to be finalised no later than May 2024.
Shire of Toodyay	30 June 2023	The financial report was not available to audit until December 2023. The audit commenced in late February 2024, however not all the information required for audit purposes was ready at this time. The resignation of the Shire's CEO caused more delays during fieldwork and there were further delays in responding to audit queries. The audit had to be paused and then recommenced in March 2024 and we expect it to be finalised no later than May 2024.

¹⁰ Date of report cut-off.

Entity	Balance date	Reason for delay
Shire of Yalgoo	30 June 2022 and 30 June 2023	The 2021-22 audit remains outstanding. The audit team did not receive information in a timely manner. This delayed the audit process significantly. Also, there were errors in the valuation of buildings and infrastructure which required additional time for the Shire to resolve. We expect the 2021-22 audit to be finalised no later than May 2024. The 2022-23 audit cannot commence until the 2021-22 is complete. We are negotiating a timeframe for this audit.
Town of Port Hedland	30 June 2023	The Town transitioned its accounting system on 1 November 2022. Some processes and control activities, including key reconciliations, did not occur due to configuration issues until November 2023. Subsequently in November 2023 it was mutually agreed to conclude the audit based on the available information. Following on from this the Town has been resolving valuation issues and there has not been a robust assessment of the fair value of its investment property as at 30 June 2023. We expect this audit to be finalised no later than May 2024.
Town of Victoria Park	30 June 2023	There were issues with the valuation of assets which the Town needed additional time to resolve. The Town and our team had to work through a prior period error which also delayed the audit. The Town finalised these issues in February 2024, regrettably we were unable to resolve them in a timely manner. This audit opinion was issued on 15 April 2024.

Source: OAG

Appendix 4: 2022-23 Disclaimers of opinion

Entity and opinion	Opinion issued
<p>City of Nedlands – Disclaimer of opinion</p> <p>Financial report not supported with complete and accurate underlying records</p> <p>We were unable to obtain sufficient appropriate audit evidence regarding the financial report as a whole as the financial report was submitted for audit purposes without complete and accurate underlying records. We were unable to audit the financial report by alternative means. Consequently, we are unable to determine whether any adjustments were necessary to the financial report as a whole for the year ended 30 June 2023.</p>	<p>1/03/2024</p>

Source: OAG

Appendix 5: 2022-23 Qualified opinions

Entity	Details of qualification
Shire of Goomalling	<p>Infrastructure</p> <p>Roads, drainage and footpaths infrastructure assets reported at the carrying values of \$40,811,937 (2022: \$38,834,816), \$2,153,484 (2022: \$2,194,288) and \$770,060 (2022: \$732,466) respectively in Note 8 (a) of the financial report as at 30 June 2023 were not revalued as required by Regulation 17A(4)(b) of the Local Government (Financial Management) Regulations 1996 since 30 June 2015. Consequently, we were unable to determine the extent to which the carrying amounts of these classes of assets are misstated, as it was impracticable to do so. Additionally, we were unable to determine whether there may be any consequential impact on Revaluation surplus as at 30 June 2023 and 30 June 2022, as well as Depreciation, Net Result for the Period and Retained surplus as at 30 June 2023.</p>
Shire of Katanning	<p>Infrastructure</p> <p>Infrastructure amounting to \$159,205,524 in the statement of financial position as at 30 June 2023 has not been revalued with sufficient regularity, as required by Regulation 17A(4)(b) of the Local Government (Financial Management) Regulations 1996 since 2017-18. Consequently, we were unable to determine the extent to which the carrying amount of Infrastructure is misstated, as it was impracticable to do so. Additionally, I am unable to determine whether there may be any consequential impact on the Revaluation Surplus as at 30 June 2023.</p> <p>Buildings</p> <p>The buildings depreciation expense of \$1,016,090 reported in Note 7(a) of the financial report for year ended 30 June 2023 did not reflect the expected pattern of the future economic benefits of these assets. The Shire did not update rates of depreciation for the year ended 30 June 2023. If the Shire had updated the rates, buildings depreciation would have increased by \$1,259,134. Buildings and Retained Surplus at 30 June 2023 would have decreased by \$1,259,134 and the Net result for the period would have decreased by \$1,259,134.</p>
Shire of Kent	<p>Infrastructure</p> <p>Other Infrastructure reported at the carrying value of \$4,867,091 in Note 9(a) of the financial report as at 30 June 2023 has not been revalued as required by Regulation 17A(4)(b) of the Local Government (Financial Management) Regulations 1996 since 2017-18. Consequently, we were unable to determine the extent to which the carrying amount of Other Infrastructure is misstated, as it was impracticable to do so. Additionally, we were unable to determine whether there may be any consequential impact on Revaluation Surplus as at 30 June 2023.</p>
Shire of Mount Magnet	<p>Infrastructure</p> <p>Other infrastructure asset classes of parks & gardens, aerodromes and other reported in Note 9(a) of the financial report at the carrying values of \$862,215, \$2,787,963 and \$4,584,744 respectively, as at 30 June 2023, have not been revalued with sufficient regularity, as required by Regulation 17A(4A)(b) of the Local Government (Financial Management) Regulations 1996, since 2017-18. Consequently, we were unable to determine the extent to which the carrying amounts of Other Infrastructure asset classes of parks & gardens, aerodromes and other are misstated, as it was impracticable to do so. Additionally, we are unable to determine whether there may be any consequential impact on Revaluation Surplus as at 30 June 2023.</p>

Entity	Details of qualification
Shire of Nannup	<p>Infrastructure</p> <p>Infrastructure reported at the carrying values of \$100,957,611 and \$100,707,176 in the financial report as at 30 June 2023 and 30 June 2022 respectively have not been revalued with sufficient regularity, as required by Regulation 17A(4)(b) of the Local Government (Financial Management) Regulations 1996, since 2016-17. Consequently, We were unable to determine the extent to which the carrying amounts of Infrastructure are misstated, as it was impracticable to do so. Additionally, we were unable to determine whether there may be any consequential impact on Revaluation Surplus as at 30 June 2023 and 30 June 2022, as well as Depreciation, Net Result for the Period and Retained Surplus as at 30 June 2023.</p> <p>Land and Buildings</p> <p>Land and Buildings reported at the carrying values of \$1,615,000 and \$8,737,435 respectively in Note 8(a) of the financial report as at 30 June 2023 have not been revalued with sufficient regularity, as required by Regulation 17A(4)(b) of the Local Government (Financial Management) Regulations 1996, since 2017-18. Consequently, I was unable to determine the extent to which the carrying amounts of Land and Buildings are misstated, as it was impracticable to do so. Additionally, we were unable to determine whether there may be any consequential impact on Revaluation Surplus as at 30 June 2023.</p>
Shire of Westonia	<p>Infrastructure</p> <p>Infrastructure reported at the carrying value of \$43,562,879 in the financial report as at 30 June 2023 has not been revalued as required by Regulation 17A(4)(b) of the Local Government (Financial Management) Regulations 1996 since 2017-18. Consequently, we were unable to determine the extent to which the carrying amount of Infrastructure is misstated, as it was impracticable to do so. Additionally, we were unable to determine whether there may be any consequential impact on Revaluation Surplus as at 30 June 2023.</p>
Shire of Wickpin	<p>Infrastructure</p> <p>Infrastructure reported at the carrying value of \$92,213,435 in Note 7(a) of the financial report as at 30 June 2023 has not been revalued with sufficient regularity as required by Regulation 17A(4)(b) of the Local Government (Financial Management) Regulations 1996 since 2017-18. Consequently, we were unable to determine the extent to which the carrying amount of Infrastructure is misstated, as it was impracticable to do so. Additionally, we were unable to determine whether there may be any consequential impact on the revaluation surplus as at 30 June 2023.</p>
Shire of Wiluna	<p>Airport and Other Infrastructure Assets</p> <p>We qualified the revaluations of the Shire's Airport and Other Infrastructure assets stated at \$5,353,146 and \$2,284,337 respectively in the prior year because they were not supported with appropriate and complete accounting records. The Shire has not made the appropriate corrections for these prior year figures in the current year. Consequently, the opinion on the current year financial report is modified because of the possible effect of this matter on the comparability of the current period's airport and Infrastructure figures in Note 9 (a) and the corresponding figures of the financial report.</p>
Shire of Woodanilling	<p>Building assets</p> <p>We qualified building assets stated at \$4,942,954 in the prior year because the Shire had not revalued its building assets with sufficient regularity or in accordance with Regulation 17A(4)(b) of the Local Government (Financial Management) Regulations 1996. The Shire has not made the appropriate corrections for this prior year figure in the current year. Consequently, the opinion on the current year financial report is modified because of the possible effect of this matter on the comparability of the current period's building asset figure in Note 9 and the corresponding figure of the financial report.</p>

Source: OAG

Appendix 6: Prior year qualifications removed in 2022-23

Entity	Details of prior year qualification
City of Kalamunda	<p>Infrastructure Assets</p> <p>The City has not recognised 969 assets under Infrastructure assets (Drains) in the financial report at 30 June 2022. These assets have been included in the City's Asset Management System at nil values however, they were never recorded in the Fixed Assets Register and revalued to their fair value. As these assets have not been recognised in the financial report at fair value in accordance with Regulation 17A(2)(a) of the Local Government (Financial Management) Regulations 1996, we are unable to determine the extent to which Infrastructure - Drains balance reported in Note 9 of the financial report at \$123,730,140 as at 30 June 2022 (2021: \$124,550,736) is misstated, as it is impracticable to do so.</p> <p>Additionally, there is a consequential impact on Depreciation, Infrastructure, Revaluation Surplus and Retained Earnings.</p>
City of Mandurah	<p>Property, Plant and equipment and Infrastructure Assets</p> <p>As detailed in Notes 8 and 9 to the financial report, at 30 June 2022 the total carrying value of the City's property plant and equipment assets was \$272.2 million and infrastructure assets was \$761.9 million. For property, plant and equipment and infrastructure recorded at fair value, any movements are recognised in revaluation surplus, the balance of which was \$808.7 million at 30 June 2022. For the year ended 30 June 2022, the City recognised a depreciation expense of \$32.4 million and changes in the asset revaluation surplus of \$97.0 million in relation to these assets in the Statement of Comprehensive Income by Nature or Type.</p> <p>Management have indicated that there are gaps in their control processes and they are not confident with the overall completeness of their fixed asset register at 30 June 2022.</p> <p>Consequently, we were unable to obtain sufficient appropriate audit evidence that all property, plant and equipment and infrastructure had been recorded and valued nor could we confirm this by alternative means. We are therefore unable to determine whether any adjustments to property, plant and equipment, infrastructure, revaluation surplus, depreciation expense and changes in asset revaluation surplus were necessary.</p>
Shire of Boyup Brook	<p>Biological assets</p> <p>During 2020-21, we were unable to obtain sufficient appropriate audit evidence to verify the opening balance of biological assets nor were we able to confirm it by alternative means. Since the opening balance of biological assets for the year ended 30 June 2021 affects the determination of operations, we were unable to determine whether any adjustments to the Net result for the year ended 30 June 2021 was necessary. The opinion on the financial report for the period ended 30 June 2021 was modified accordingly.</p> <p>The opinion on the current year financial report is also modified because of the possible effect of this matter on the comparability of the current period's figures and the corresponding figures.</p>
Shire of Mount Magnet	<p>The Shire's operating grants, subsidies and contributions of \$2,650,673, Capital grants, subsidies and contributions of \$521,726 reported in Note 2 (a) and Contract Liabilities of \$110,545 reported within Note 12 of the financial report as at 30 June 2022 were not assessed in accordance with the requirements of <i>AASB 15 Revenue from Contracts with Customers</i> or <i>AASB 1058 Income of Not-for-Profit Entities</i>. We are unable to determine the extent to which these amounts are misstated. Consequently, we were unable to determine whether any adjustments to these amounts were necessary.</p>

Entity	Details of prior year qualification
Shire of Sandstone	Road and footpaths infrastructure assets The opinion was qualified in the prior period because the Shire had not revalued its roads and footpaths infrastructure assets stated at \$37,755,629 and \$71,845 respectively with sufficient regularity or in accordance with <i>Regulation 17A(4)(b) of the Local Government (Financial Management) Regulations 1996</i> . The Shire was unable to make the appropriate corrections for these prior year figures in the current year. Consequently, the opinion on the current year financial report is modified because of the possible effect of this matter on the comparability of the current period's figures and the corresponding figures in Note 8 of the financial report.

Source: OAG

Appendix 7: Emphasis of matter paragraphs included in auditor reports

Entity	Description of emphasis of matter paragraphs	Brief explanation
City of Busselton	Restatement of Comparative Balances We draw attention to Note 27 to the financial report which states that the amounts reported in the previously issued 30 June 2022 financial report have been restated and disclosed as comparatives in this financial report. The opinion is not modified in respect of this matter.	The restatement relates to two material adjustments to the prior year figures due to an error in recording of land and buildings.
City of Fremantle	Events Occurring After the End of the Reporting Period We draw attention to Note 24 to the financial report, which states that, following the end of the financial year ended 30 June 2023, the two remaining member council participants including the City have resolved to withdraw from Resource Recovery Group effective from 1 July 2025. The opinion is not modified in respect of this matter.	On 22 November 2023 the City resolved to withdraw from the Resource Recovery Group and all associated projects, effective 1 July 2025.
City of Kalamunda	Restatement of comparative balances We draw attention to Note 32 to the financial report, which states that the amounts reported in the previously issued 30 June 2022 financial report have been restated and disclosed as comparatives in the financial report. The opinion is not modified in respect of this matter.	A number of Infrastructure assets (Drains) were not recognised in the 2021-22 financial report. The City sought a valuation in 2023 and corrected and restated the prior year balances.
City of Kwinana	Restatement of comparative figures We draw attention to Note 31 to the financial report which states that the amounts reported in the previously issued 30 June 2022 financial report have been restated and disclosed as comparatives in this financial report. The opinion is not modified in respect of this matter.	The restatement relates to two material adjustments to the prior year figures due to an error in the recognition of intangible assets and previously unrecognised developer contributions.
City of Mandurah	Restatement of comparative balances We draw attention to Note 27 to the financial report, which states that amounts reported in the previously issued 30 June 2022 financial report have been restated and disclosed as comparatives. The opinion is not modified in respect to this matter.	Property, plant and equipment and infrastructure assets not previously recognised in the financial report have now been recognised.
City of Melville	Events Occurring After the End of the Reporting Period We draw attention to Note 21 to the financial report, which states that, following the end of the financial year ended 30 June 2023, the two remaining member council participants including the City have resolved to withdraw from Resource Recovery Group effective from 1 July 2025. The opinion is not modified in respect of this matter.	On 21 November 2023 the City resolved to withdraw from the Resource Recovery Group and all associated projects, effective 1 July 2025.

Entity	Description of emphasis of matter paragraphs	Brief explanation
	Restatement of comparative balances We draw attention to Note 17 to the financial report which states that the amounts reported in the previously issued 30 June 2022 financial report have been restated and disclosed as comparatives in this financial report. The opinion is not modified in respect of this matter.	An error was corrected for the infrastructure roads valuation.
City of Subiaco	Restatement of comparative balance We draw attention to Note 31 to the financial report which states that the amounts reported in the previously issued 30 June 2022 financial report have been restated and disclosed as comparatives in this financial report. The opinion is not modified in respect of this matter.	Two prior period errors were corrected. One was in relation to depreciation errors and the other related to an undervaluation of the Lords Recreation Centre.
Rivers Regional Council	Basis of accounting We draw attention to Note 1 of the financial report, which discloses that the Council has decided to wind up Rivers Regional Council. Consequently, the financial report has been prepared on a liquidation basis. The opinion is not modified in respect of this matter	The Council has decided to wind up Rivers Regional Council. Consequently, the financial report has been prepared on a liquidation basis as required under Accounting Standards. Accordingly, all assets and liabilities in the 2022-23 financial statements have been classified as current.
Shire of Ashburton	Restatement of Comparative balances We draw attention to Note 32 of the financial report which states that the amounts reported in the previously issued 30 June 2022 financial report have been restated and disclosed as comparatives in this financial report. The opinion is not modified in respect of this matter.	Roads that were not Shire assets were incorrectly recognised in the financial report.
Shire of Coolgardie	Restatement of Comparative balances We draw attention to Note 30 of the financial statements which states that the amounts reported in the previously issued 30 June 2022 financial report have been restated and disclosed as comparatives in this financial report. The opinion is not modified in respect of this matter.	Two prior period errors were corrected. One correction related to an error in the 2018 valuation of unsealed road infrastructure and the other related to incorrect accounting for a revaluation decrement for other infrastructure.
Shire of Dardanup	Restatement of comparative balances We draw attention to Note 31 to the financial report which states that the amounts reported in the previously issued 30 June 2022 financial report have been restated and disclosed as comparatives in this financial report. The opinion is not modified in respect of this matter.	An error was corrected for the prior year's infrastructure valuation.

Entity	Description of emphasis of matter paragraphs	Brief explanation
Shire of Kent	Restatement of comparative balances We draw attention to Note 28 of the financial report which states that the amounts reported in the previously issued 30 June 2022 financial report have been restated and disclosed as comparatives in this financial report. The opinion is not modified in respect of this matter.	An error in the 2018 unsealed road valuation was corrected.
Shire of Mount Magnet	Trade and Other Receivables We draw attention to Note 5 to the financial report which describes an amount of \$765,599 in the Shire's rates revenue and rates and statutory receivables that is subject to an upcoming State Administrative Tribunal determination. The opinion is not modified in respect of this matter.	Some of the Shire's reported rate revenue and receivables are subject to a State Administrative Tribunal Determination. The Shire recognised these amounts as they were confident at the time that the determination when made, would be made in the Shire's favour.
Shire of Nannup	Restatement of comparative balances We draw attention to Note 28 to the financial report which states that the amounts reported in the previously issued 30 June 2022 financial report have been restated and disclosed as comparatives in this financial report. The opinion is not modified in respect of this matter.	A grant was incorrectly recognised as income rather than a capital grant liability. This error was corrected.
Town of East Fremantle	Investment in associates We draw attention to Note 23 to the financial report, which states that, following the end of the financial year ended 30 June 2023, the two remaining member council participants have resolved to withdraw from Resource Recovery Group effective from 1 July 2025. The opinion is not modified in respect of this matter.	On 20 June 2023 the Town resolved to withdraw from the Resource Recovery Group (RRG) effective 1 July 2024 and subsequent to year end the remaining member council participants also resolved to withdraw from the RRG effective 1 July 2025.

Source: OAG

Appendix 8: Local government certifications issued

Certifications issued for 2022-23

Entity and opinion	Opinion issued
City of Busselton Local Roads and Community Infrastructure Program Roads to Recovery Funding Pensioner Deferments	31 October 2023 31 October 2023 31 October 2023
City of Gosnells Local Roads and Community Infrastructure Program Roads to Recovery Funding Pensioner Deferments	20 November 2023 31 October 2023 10 November 2023
City of Joondalup Pensioner Deferments	31 October 2023
City of Kalamunda Road to Recovery Funding Pensioner Deferments	27 October 2023 12 December 2023
City of South Perth Local Roads and Community Infrastructure Program Roads to Recovery Funding Pensioner Deferments	3 November 2023 31 October 2023 6 November 2023
City of Vincent Pensioner Deferments	16 November 2023
Shire of Upper Gascoyne Local Roads and Community Infrastructure Program Roads to Recovery Funding	31 October 2023 31 October 2023
Shire of York Pensioner Deferments	19 December 2023

Source: OAG

Outstanding certifications issued from 2021-22

Entity and opinion	Opinion issued
City of Karratha Local Roads and Community Infrastructure Program	14 August 2023
City of Nedlands Local Roads and Community Infrastructure Program Roads to Recovery Funding	8 August 2023 30 October 2023
Shire of Christmas Island Local Roads and Community Infrastructure Program Roads to Recovery Funding	4 July 2023 15 July 2023
Shire of Collie Local Roads and Community Infrastructure Program	19 September 2023
Shire of Coorow Local Roads and Community Infrastructure Program	15 December 2023
Shire of Cuballing Local Roads and Community Infrastructure Program	28 February 2024

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Entity and opinion	Opinion issued
Roads to Recovery Funding	5 July 2023
Shire of Cue Local Roads and Community Infrastructure Program	3 August 2023
Shire of Dundas Local Roads and Community Infrastructure Program	31 July 2023
Shire of East Pilbara Local Roads and Community Infrastructure Program Roads to Recovery Funding	30 October 2023 31 October 2023
Shire of Goomalling Local Roads and Community Infrastructure Program	18 December 2023
Shire of Halls Creek Local Roads and Community Infrastructure Program	22 March 2024
Shire of Katanning Local Roads and Community Infrastructure Program	1 March 2024
Shire of Kojonup Local Roads and Community Infrastructure Program	30 January 2024
Shire of Kondinin Local Roads and Community Infrastructure Program	10 November 2023
Shire of Manjimup Local Roads and Community Infrastructure Program Roads to Recovery Funding	2 November 2023 31 October 2023
Shire of Moora Roads to Recovery Funding	30 January 2024
Shire of Mount Magnet Roads to Recovery Funding	13 November 2023
Shire of Murchison Local Roads and Community Infrastructure Program	17 July 2023
Shire of Nungarin Local Roads and Community Infrastructure Program	29 January 2024
Shire of Peppermint Grove Local Roads and Community Infrastructure Program Roads to Recovery Funding	21 December 2023 21 December 2023
Shire of Quairading Roads to Recovery Funding	27 September 2023
Shire of Sandstone Local Roads and Community Infrastructure Program	15 March 2024
Shire of Three Springs Local Roads and Community Infrastructure Program	4 August 2023
Shire of Trayning Local Roads and Community Infrastructure Program	9 August 2023
Shire of Wandering Local Roads and Community Infrastructure Program Roads to Recovery Funding	21 September 2023 31 July 2023

Entity and opinion	Opinion issued
Shire of Wickepin Local Roads and Community Infrastructure Program	18 July 2023
Shire of Wiluna Local Roads and Community Infrastructure Program Roads to Recovery Funding	15 January 2024 15 January 2024
Shire of Wyndham East Kimberley - Local Roads and Community Infrastructure Program Roads to Recovery Funding	31 July 2023 9 October 2023
Shire of York Pensioner Deferments	30 October 2023
Town of Cottesloe Local Roads and Community Infrastructure Program	22 December 2023

Source: OAG

Appendix 9: Other opinions and certifications issued since 10 November 2023

Entity	Opinion issued
Albany Cemetery Board	20 December 2023
Animal Resources Authority	21 December 2023
Australian Pathway Education Group Pty Ltd	20 November 2023
Bunbury Cemetery Board	21 December 2023
Busselton Water Corporation	16 November 2023
ECU Holdings Pty Ltd	21 December 2023
Edith Cowan Accommodation Holdings Pty Ltd	13 December 2023
Electricity Networks Corporation – Report of Factual Findings	11 December 2023
Goldmaster Enterprises Pty Ltd	5 December 2023
Professional Standards Council	13 November 2023
Public Trustee	8 December 2023

Source: OAG

Certification name	Certification issued
Indian Ocean Territories – Service Delivery Agreement	18 December 2023
Local Government Financial Assistance Act – DLG	17 November 2023

Source: OAG

Entity	Royalties for Regions approved projects	Certification issued
Department of Premier and Cabinet	Remote Aboriginal Communities COVID-19 Emergency Relief Fund	18 January 2024
Department of Justice	Enhanced Driver Training and Education for Regional and Remote Communities	19 March 2024
Mental Health Commission	Mental Health Step Up/Step Down Facilities – Kalgoorlie/Goldfields	15 February 2024
WA Country Health	Kimberley Dialysis Unit Residential Aged and Dementia Care Investment Program Royal Flying Doctor Service – Asset Replacement	12 March 2024

Source: OAG

Appendix 10: Completion of 2021-22 local government entities

Entity and opinion	Opinion issued
<p>Shire of Toodyay – Disclaimer of opinion</p> <p>Financial report not supported with complete and accurate underlying records</p> <p>We were unable to obtain sufficient appropriate audit evidence regarding the financial report as a whole, as the financial report was submitted for audit purposes without complete and accurate underlying records. We were unable to audit the financial report by alternative means. Consequently, we are unable to determine whether any adjustments were necessary to the financial report as a whole for the year ended 30 June 2022. The audit opinion on the annual financial report for the year ended 30 June 2021 was disclaimed for the same reasons.</p>	<p>27 October 2023</p>

Source: OAG

Appendix 11: Opinion and management letter definitions

In the auditor's report we include the audit opinion on the annual financial report and any other matters that, in our judgement, need to be highlighted. This year the Auditor General has issued the following types of opinions:

1. **clear opinion:** indicates satisfactory financial controls. The financial report is based on proper accounts, complies with relevant legislation and accounting standards, and fairly represents performance and financial position
2. **clear opinion with an emphasis of matter:** draws attention to a matter disclosed in the financial report to aid the readers understanding but does not result in a qualified opinion
3. **qualified opinion:** given when the audit identifies materially misleading information, inadequate controls or conflicts with the financial reporting frameworks.
4. **disclaimer of opinion:** the most serious audit outcome, issued when the auditor is unable to form an opinion due to insufficient evidence to form an opinion after all reasonable efforts.

We report weaknesses in the control environment to the CEO, mayor, president or chairperson and the Minister for Local Government. Findings will be rated as significant, moderate or minor. We also indicate if the finding has the potential to impact the audit opinion and if it relates to the prior year and remains unresolved. Both quantitative and qualitative aspects guide our ratings.

Risk category	Audit impact	Management action required
Significant	Findings where there is potentially a significant risk to the entity should it not be addressed by the entity promptly. A significant rating could indicate the need for a modified audit opinion in the current year or in a subsequent reporting period if not addressed. However even if the issue is not likely to impact the audit opinion, it should be addressed promptly.	Priority or urgent action by management to correct the material misstatement in the financial report to avoid a qualified opinion or for control risks, implement a detailed action plan as soon as possible, within one to two months.
Moderate	Findings which are of sufficient concern to warrant action being taken by the entity as soon as practicable.	Control weaknesses of sufficient concern to warrant action being taken as soon as practicable, within three to six months. If not addressed promptly, they may escalate to significant or high risk.
Minor	Those findings that are not of primary concern but still warrant action being taken.	Management to implement an action plan within six to 12 months to improve existing process or internal control.

Source: OAG

We give management the opportunity to review our audit findings and provide comments prior to completion of the audit. Each control finding is documented in a management letter which identifies weakness, implications for the entity, risk category and a recommended improvement action.

Auditor General's 2023-24 reports

Number	Title	Date tabled
18	Local Government 2022-23 – Financial Audit Results	6 June 2024
17	Local Government IT Disaster Recovery Planning	31 May 2024
16	Local Government 2022-23 – Information Systems Audit Results	27 May 2024
15	Government Campaign Advertising	15 May 2024
14	State Government 2022-23 – Information Systems Audit	12 April 2024
13	Provision of Supplementary Information to the Standing Committee on Estimates and Financial Operations – Opinions on Ministerial Notifications	5 April 2024
12	Digital Identity and Access Management – Better Practice Guide	28 March 2024
11	Funding for Community Sport and Recreation	21 March 2024
10	State Government 2022-23 – Financial Audit Results	20 December 2023
9	Implementation of the Essential Eight Cyber Security Controls	6 December 2023
8	Electricity Generation and Retail Corporation (Synergy)	8 November 2023
7	Management of the Road Trauma Trust Account	17 October 2023
6	2023 Transparency Report: Major Projects	2 October 2023
5	Triple Zero	22 September 2023
4	Staff Exit Controls for Government Trading Enterprises	13 September 2023
3	Local Government 2021-22 – Financial Audit Results	23 August 2023
2	Electricity Generation and Retail Corporation (Synergy)	9 August 2023
1	Requisitioning of COVID-19 Hotels	9 August 2023

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Office of the Auditor General
for Western Australia

11.1.2 Performance Audit - Local Government Management of Purchasing Cards

Executive A/Director Corporate and System Services

Author A/Head of Finance

Attachments 1. Local Government Management of Purchasing Cards [↓](#)

Recommendation

The Committee recommends Council RECEIVES the Office of the Auditor General's report on Performance Audit – Local Government Management of Purchasing Cards.

Background

The Office of the Auditor General (OAG) published 27 Audit Reports during the 2023-24 financial year, including seven OAG Performance Audit Reports focussed on Local Government.

These included Local Government Management of Purchasing Cards (Report 19: 2023-24) Performance Audit.

The term *performance audit* is defined in section 7.1 of the *Local Government Act 1995* to be 'an examination or investigation carried out under the *Auditor General Act 2006* section 18 (as applied by section 7.12AJ(1) of the *Local Government Act 1995*).

The City of Cockburn (the City) presented reports to the former Audit and Strategic Finance Committee from two previous OAG Performance Audits in which the City participated:

1. Timely Payment of Suppliers, Report 12: 2018, 13 June 2017
2. Records Management in Local Government, Report 17: 2018-19, 09 April 2019

To ensure the City adopts best practice in local government, when a performance audit or report with a local government focus is undertaken by the OAG, the City independently submits a report to the Audit, Risk and Compliance Committee (ARC) to inform the ARC on the OAG Audit or report recommendations and any appropriate control measures that the City has in place or proposes implementing as opportunities for improvement.

Submission

N/A

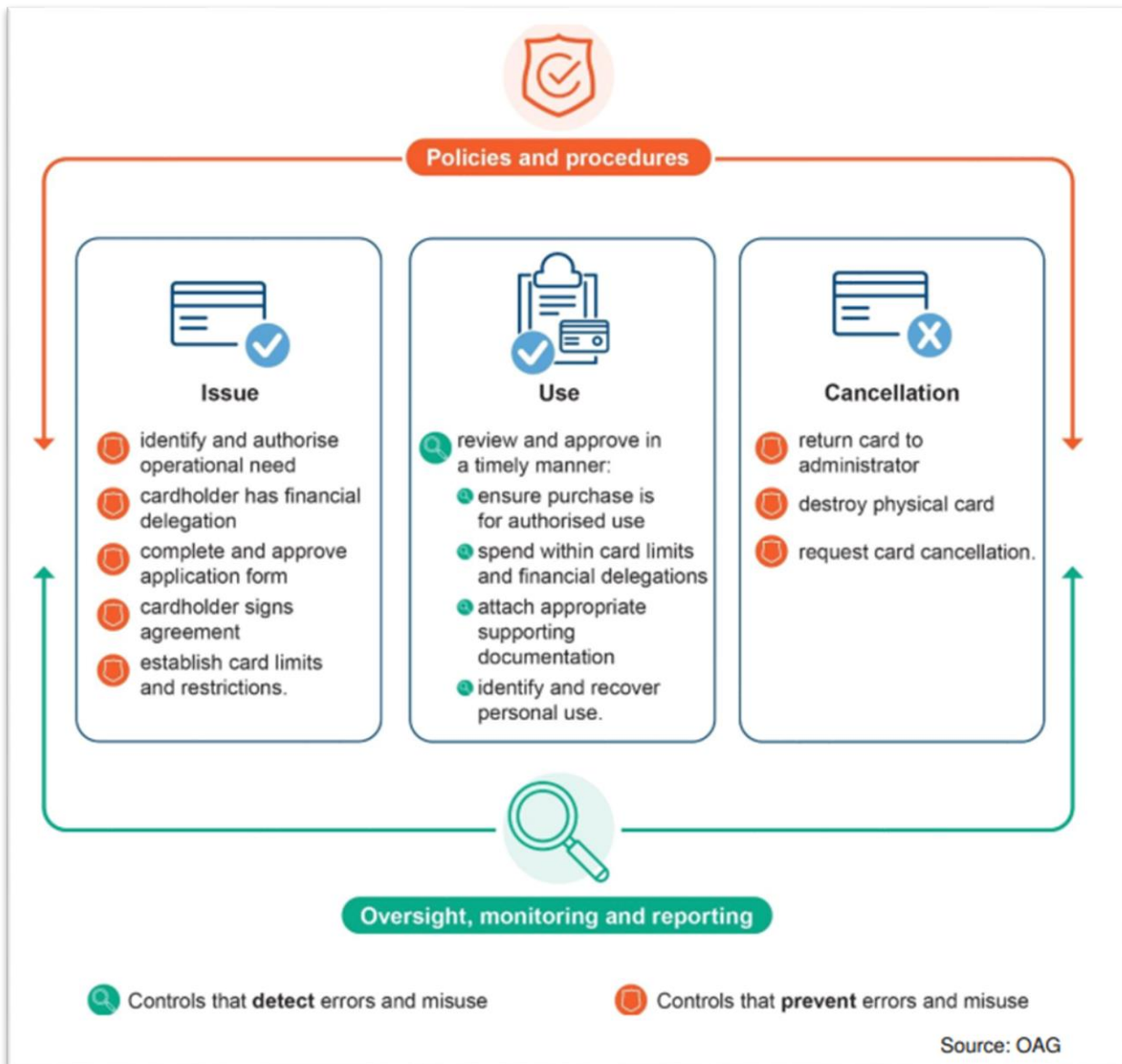
Report

The Performance Audit – Local Government Management of Purchasing Card (Report) was tabled in Parliament by the Auditor General on 12 June 2024.

The Audit assessed whether three regional local government entities (City of Albany, City of Kalgoorlie-Boulder and Shire of Murchison) effectively managed the issue, use and cancellation of purchasing cards.

The OAG found poor management of some controls at these three entities. However, there was no clear evidence found of cards or funds being mishandled by these entities. The audit report included the findings and recommendations made to mitigate the issues identified.

The OAG provided an overview of key components of purchasing card management as shown below:



During this performance audit, the OAG found the following issues from the three regional entities:

- Controls over the use of purchasing cards were partly effective, these include reasonableness of business use and personal use as well as review and approval process
- Controls over the issue and cancellation of cards were partly effective and require improvement
- Lack of appropriate oversight of purchasing card controls, these include inaccurate descriptions on some transactions.

OAG Recommendations

The recommendations made by the OAG in their report are summarised in the table below with responding comments made by the City:

Recommendation	City Comment
a. Develop and implement clear policy guidance for staff on what is allowable and reasonable business use expenditure on items such as travel and food and drink.	City has established clear guidelines on what transactions are reasonable business use e.g. subscriptions, memberships, conferences, training, seminars, travel expenses and low value business purchases not requiring a purchase order.
b. Have suitable controls in place to manage the issue and timely cancellation of purchasing cards.	The City's Accounts Payable and Corporate Credit Card Officer processes a cancellation request as soon as the City's employee leaves the City. Employee exit control processes require the employee to return the card which is destroyed immediately.
c. Review and approve purchasing card transactions in a timely manner.	The acquittal of credit card transactions must be completed by cardholders no longer than one month after statement issue.
d. Keep proper records of the review and approvals of purchasing card transactions and card cancellations.	Transactions must be reviewed and approved by the actual cardholder with a second, independent approval provided by their line manager. Where the cardholder is an Executive or the CEO, the second approval is to be provided by another Executive or CEO. An audit trail is available in the City's record management system (ECM). All relevant correspondences, including new applications and cancellations are also available in ECM.
e. Include sufficient accurate detail in council papers to allow purchasing card expenditure to be appropriately scrutinised	All purchase and credit cards transactions are reported to Council each month as an attachment to the monthly financial report agenda item.

<p>f. Regularly monitor and report on purchasing card controls to allow management to oversee usage and control effectiveness. The results of reviews should be documented and retained</p>	<p>The City is currently conducting an internal audit on credit and purchasing card controls and management. Upon completion of the audit, the results will be submitted to the ARC Committee.</p> <p>The statutory CEO review into the appropriateness and effectiveness of financial management systems and procedures (LG FM Reg. 5) is completed every three years and includes use of credit cards. The review is reported to the ARC Committee.</p>
---	---

In accordance with the Council decision made at the April meeting, the City has engaged an audit firm to conduct an internal audit on the City's Corporate Credit Card Expenditure, Controls and Reporting.

The audit is currently underway and the findings and recommendations from this audit will be brought to the Audit, Risk and Compliance Committee in due course for review.

The Auditor has been provided with this OAG report and the recommendations therein will be considered as part of the Credit Card Audit, to determine further opportunities for improvement.

Strategic Plans/Policy Implications

Listening & Leading

A community focused, sustainable, accountable, and progressive organisation.

- Best practice Governance, partnerships and value for money.

Budget/Financial Implications

N/A

Legal Implications

N/A

Community Consultation

N/A

Risk Management Implications

Reviewing the findings and recommendations contained in the OAG's report into Performance Audit – Local Government Management of Purchasing Cards provides an opportunity for the City to reduce financial management and reporting risks and improve its management controls and governance frameworks.

Advice to Proponent(s)/Submitters

N/A

Implications of Section 3.18(3) *Local Government Act 1995*

Nil



Report 19: 2023-24 | 12 June 2024

PERFORMANCE AUDIT

Local Government Management of Purchasing Cards



**Office of the Auditor General
Western Australia**

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(to assist people with hearing and voice impairment)

We can deliver this report in an alternative format for
those with visual impairment.

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***The Office of the Auditor General acknowledges the traditional custodians throughout
Western Australia and their continuing connection to the land, waters and community. We
pay our respects to all members of the Aboriginal communities and their cultures, and to
Elders both past and present.***

Image credit: shutterstock.com/Suradech Prapairot

WESTERN AUSTRALIAN AUDITOR GENERAL'S REPORT

**Local Government Management of
Purchasing Cards**

Report 19: 2023-24
12 June 2024

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**THE PRESIDENT
LEGISLATIVE COUNCIL**

**THE SPEAKER
LEGISLATIVE ASSEMBLY**

LOCAL GOVERNMENT MANAGEMENT OF PURCHASING CARDS

This report has been prepared for submission to Parliament under the provisions of sections 24 and 25 of the *Auditor General Act 2006*.

Performance audits are an integral part of my Office's overall program of audit and assurance for Parliament. They seek to provide Parliament and the people of WA with assessments of the effectiveness and efficiency of public sector programs and activities, and identify opportunities for improved performance.

This audit assessed whether three regional local government entities effectively managed the issue, use and cancellation of purchasing cards.

I wish to acknowledge the entities' staff for their cooperation with this audit.

A handwritten signature in black ink, appearing to read 'C Spencer'.

Caroline Spencer
Auditor General
12 June 2024

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Auditor General's overview

Purchasing cards offer benefits for local government entities by streamlining purchasing activities. However, these benefits come with the risk of misuse and loss of public money if the purchasing cards are not effectively managed.

In this audit, we looked at the management of purchasing cards at three regional entities. While we found poor management of some important controls, we did not find clear evidence that cardholders misused public money, in part because the entities did not have policy guidance to underpin allowable and reasonable use.

This audit follows on from our 2018 audit of local government entities' use of credit cards¹, which found generally satisfactory controls but noted shortcomings of varying significance in policies and procedures. In addition, our *Local Government 2021-22 - Financial Audit Results*² report found 20 entities with credit card anomalies.

For a more comprehensive review of purchasing cards, this audit looked beyond the use of credit cards and included other cards such as store cards. In reviewing each entity's controls, we did not apply a 'one size fits all' approach as the diversity of the sector means some very small entities, with few cardholders, may not need the same controls as larger entities with more cardholders.

I encourage the sector to use our better practice guidance in Appendix 1 - it contains considerations to help mitigate the risks associated with the use of purchasing cards and for creating an effective control environment.

I thank the staff at each audited entity for their cooperation and assistance in completing this work, and strongly encourage all local government entities to assess their own policies and management of purchasing cards against the focus areas of this audit.



¹ Office of the Auditor General, [Controls Over Corporate Credit Cards](#), OAG website, 9 May 2018.

² Office of the Auditor General, [Local Government 2021-22 Financial Audit Results](#), OAG website, 23 August 2023.

Executive summary

Introduction

The audit assessed whether three regional local government entities (City of Albany, City of Kalgoorlie-Boulder and Shire of Murchison) effectively managed the issue, use and cancellation of purchasing cards. We last audited this topic in the local government sector in 2018³.

In conducting the audit, we considered the requirements of the *Local Government Act 1995* (LG Act) and associated regulations, guidelines issued by the Department of Local Government, Sport and Cultural Industries (DLGSC) and our better practice guidance in Appendix 1.

Background

Purchasing cards represent an approved line of credit and are a well-established part of modern purchasing systems. They include corporate credit cards, store cards⁴, fuel cards and taxi cards. These cards provide entities with a cost effective, convenient and timely way to pay for goods and services of low value.

Local government entities need to have effective controls, appropriate to their size and risk, to prevent and detect inadvertent or deliberate misuse of their purchasing cards and meet their legislated responsibilities around the allocation of finances. This includes being able to demonstrate that purchases meet a business need and meet the expectations of ratepayers in the responsible use of public money. Improper, wasteful or unauthorised purchases that are not identified and resolved can result in financial loss to the entity.

The *Local Government Act 1995* (LG Act) and associated regulations require:

- entities to develop procedures for the payment of accounts to ensure there is effective security for, and properly authorised use of purchasing cards⁵.
- the CEO to keep proper accounts and records in accordance with regulations⁶
- the council to oversee allocation of the local government's finances and resources and determine policies⁷
- entities to provide information about each purchasing card transaction in a payment listing to council and in council minutes to increase transparency, accountability and council oversight of incidental spending⁸.

An effective control environment for purchasing cards should include:

- controls to prevent misuse and errors. These controls establish requirements up-front, and before a purchase is made. Examples include clear policies and procedures,

³ Office of the Auditor General, [Controls Over Corporate Credit Cards](#), OAG website, 9 May 2018.

⁴ Australian Securities and Investments Commission, [store card](#), Moneysmart.gov.au, n.d., accessed 29 April 2024.

⁵ Local Governments (Financial Management) Regulations 1996, regulation 11(1)a.

⁶ *Local Government Act 1995* section 6.5(a).

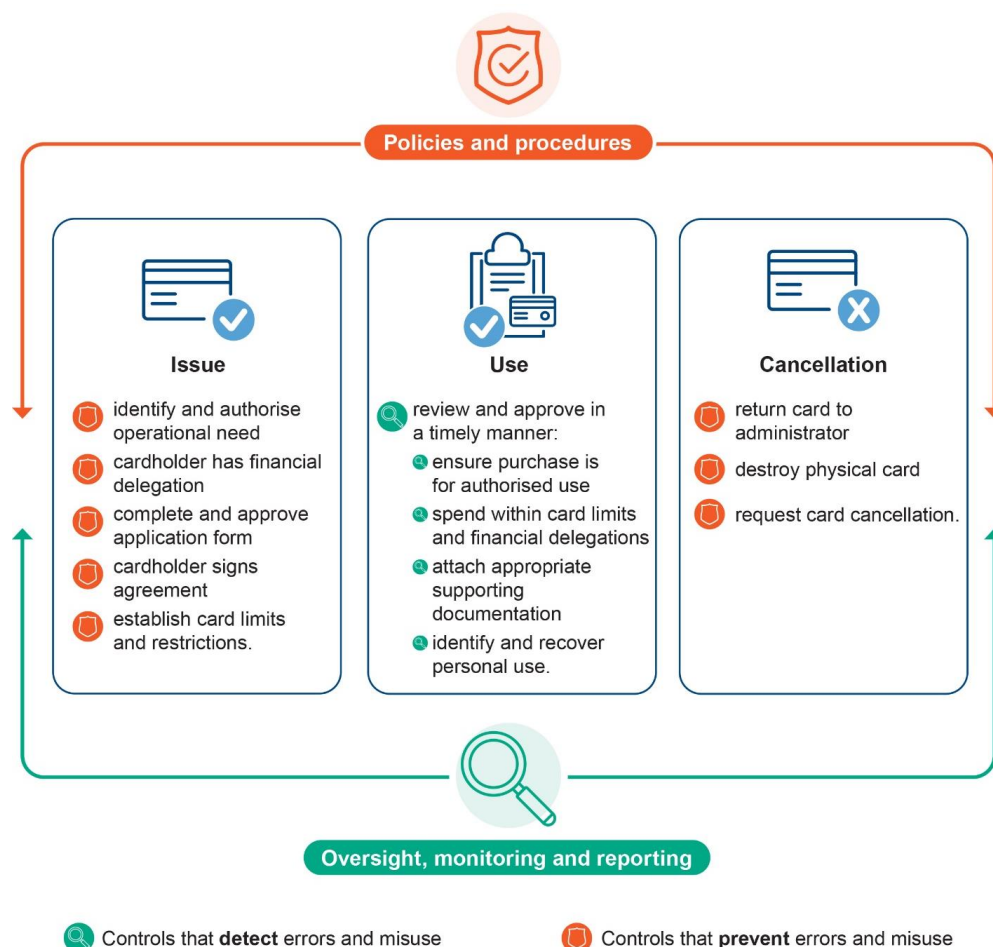
⁷ *Local Government Act 1995* sections 2.7(2)(a) and (b).

⁸ Local Government (Financial Management) Regulations 1996, regulation 13A took effect from 1 September 2023.

delegations to purchase, preset card limits and appropriate card authorisation and destruction processes.

- controls to detect errors and misuse after a purchase is made. These include processes to review and approve purchases, and the monitoring, reporting and oversight of card use.

Figure 1 provides an overview of the key components of purchasing card management, highlighting the controls we assessed during the audit and our better practice guidance (Appendix 1).



Source: OAG

Figure 1: Overview of the key components in purchasing card management and controls

The DLGSC provides the sector with broad guidance on the management of purchasing cards and changes in legislation through accounting and operational guidelines, circulars, alert bulletins and monthly webinars.

Conclusion

The three audited entities had varying controls in place to manage the issue, use and cancellation of their purchasing cards, but weak implementation and control gaps meant their controls were only partly effective.

Appropriately, the entities only issued cards to staff who had delegations to purchase and cardholders generally provided receipts to support their purchases. These controls help entities to meet their legislated responsibilities and ratepayers' expectations around the responsible use of public money.

However, we found gaps and weaknesses in all areas of purchasing card management that increase the likelihood of cards being inadvertently or deliberately misused, which can cause loss of public money:

- There was inadequate policy guidance on what each entity considered was allowable and reasonable expenditure on such things as travel, accommodation, food and drink. In addition, purchases were not always adequately reviewed and approved in a timely manner.
- The operational need for a purchasing card was not always established, cardholder obligations and responsibilities were not made clear, and cards were not promptly returned and destroyed when no longer needed.
- A lack of oversight and monitoring of control effectiveness meant entities were missing opportunities to identify and promptly address the risks of card misuse and financial loss.

Although our audit found poor management of some important controls relating to purchasing cards, our transaction sample testing did not find clear evidence that cardholders misused public money, in part because the audited entities had no policy guidance on what is allowable and reasonable card use and expenditure.

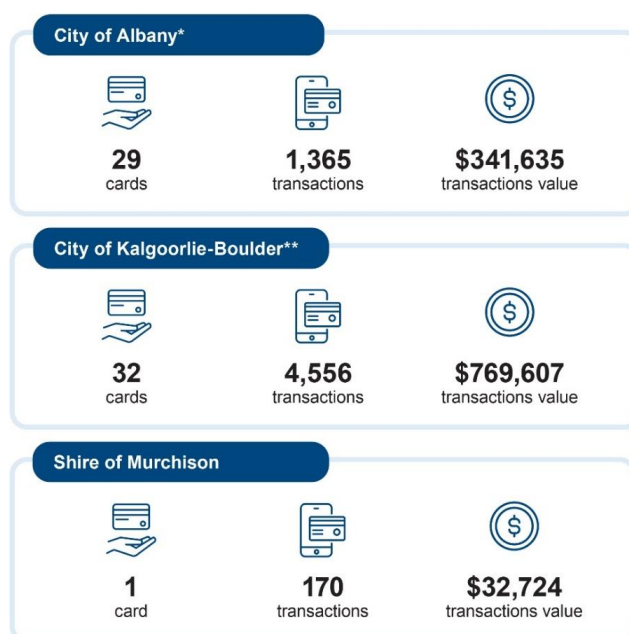
Findings

Controls over the use of purchasing cards were partly effective

We found cardholders generally provided receipts for their purchases and had appropriate delegations to purchase. However, we identified control weaknesses of varying significance across the three audited entities which increased the likelihood of unreasonable or unauthorised purchases. Detailed findings were provided to each of the audited entities.

Entities need to develop clear policy guidance on what is allowable and reasonable business expenditure, regardless of the payment mechanism, and improve card expenditure review and approval processes to prevent and detect inadvertent or deliberate misuse.

The three entities varied in the number of cards issued and the number of purchases over the audit period (Figure 2). All were using their purchasing cards to make low value purchases with most transactions being for items less than \$500.



Source: OAG based on information provided by each entity

* City of Albany: 5 credit cards (1,018 transactions and \$318,543) and 24 store cards (347 transactions and \$23,092).

** City of Kalgoorlie-Boulder: 30 credit cards (4,434 transactions and \$759,181) and 2 store cards (122 transactions and \$10,426).

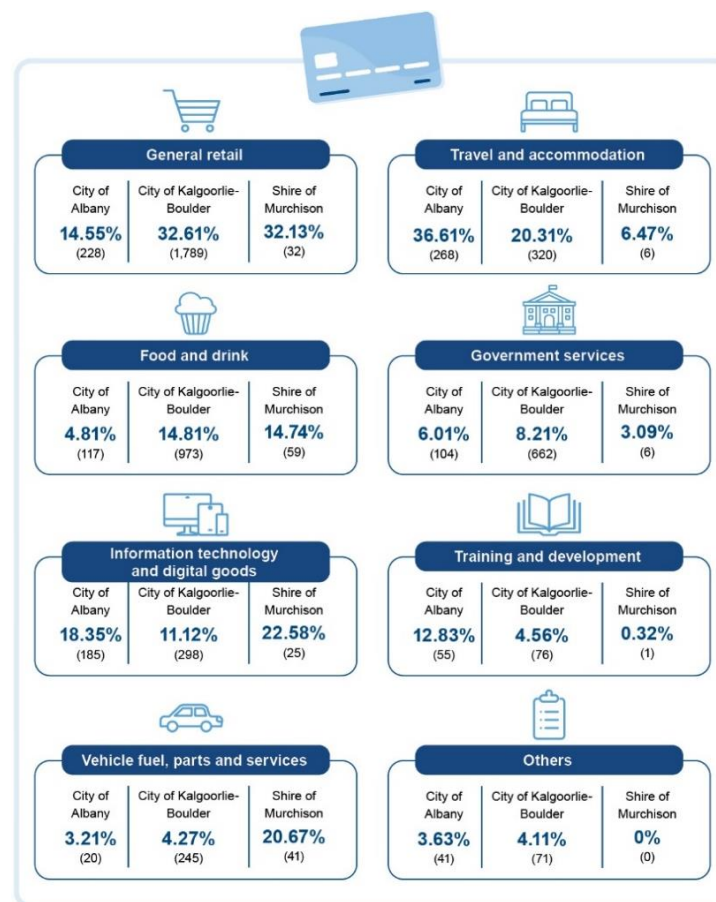
Figure 2: Key purchasing card statistics for 1 November 2022 to 31 December 2023

Our analysis found card purchases generally fell into the following categories:

- general retail (e.g. industrial and construction supplies, hardware and equipment, and office supplies and printing)

- travel and accommodation
- food and drink purchases
- government services (e.g. postal services, licenses, registrations and permits)
- information technology and digital goods
- training and development
- vehicle fuel, parts and services
- others.

We further analysed credit card purchases, which made up most of the purchases over the audit period.⁹ Figure 3 shows the percentage spend and the number of purchases in each category by entity.



Source: OAG based on credit card information provided by each entity

Figure 3: Purchase categories for 1 November 2022 to 31 December 2023

⁹ Credit card purchases were allocated using standard merchant information. Store card purchases were not analysed as merchant categories were not readily available.

Inadequate policy guidance on allowable and reasonable business use

None of the three audited entities had adequate policy guidance for staff on what they considered was allowable and reasonable business expenditure. The entities regularly purchased air fares, accommodation and food and drink¹⁰ (including alcohol) in the absence of any guidance around what was allowable and reasonable.

Policies are an important preventive control designed to assist staff in their decisions prior to them making a purchase and reduce instances of unreasonable and excessive spending. The community has a right to expect that public money will be spent carefully and only for legitimate business purposes. The following case study provides examples of purchases we identified where, in the absence of clear policy guidance, we queried if the spending was reasonable.

Case study 1: Reasonableness of business use

Air travel

- One entity spent \$6,302 for its CEO to fly business class interstate. The entity's current policy only allows business class air fares for elected members and there is no policy to guide allowable and reasonable expenditure on staff air travel.

Food and drink

- An entity purchased alcohol including 24 bottles of wine, 12 bottles of champagne and 15 cartons of beer and cider (\$1,290) and dessert (\$900) for a 'staff celebration'.
- An entity spent \$726 on 'reward and recognition catering' that included \$394 for alcohol and beverages (including five bottles of wine) and \$332 for food.
- An entity paid \$260 for food for a workshop. The approved receipt detailed the purchase of 'raw oysters'.

Supporting documentation did not show who and how many people attended, or the business purpose of the events, so the necessity and reasonableness of expenditure could not be clearly demonstrated.

We also found that none of the entities had documented processes or timeframes to recover money when cards were used to pay for personal items. Corporate purchasing cards should not be used to purchase personal items under any circumstances, even when the cardholder plans to reimburse the entity. If purchases cannot be clearly split into personal and business components at the time of purchase, a better approach is to pay with a personal account and then seek a reimbursement from the entity for the business component.

Entities need to have processes in place to promptly recover the cost of personal purchases to prevent loss of public money.

Case study 2 highlights examples where a purchasing card was used for personal use and an entity failed to promptly recover the money:

¹⁰ DLGSC Operational Guideline, *Use of Corporate Credit Cards*, requires local government entities to establish strict guidelines for expenditure on entertainment.

Case study 2: Personal use

An entity used a purchasing card to pay for the air travel of a staff member's partner who was not travelling in a business capacity. There was a considerable lapse of time (118 days after the transaction) before repayment of the partner's travel costs.

Inadequate review and approval of purchases

The audited entities did not always adequately review and approve purchasing card transactions. We identified:

- none of the entities complied with their own policy and procedures on the review and approval of purchases. For example, staff who were not authorised were approving purchases and purchases were not reviewed within specified timeframes
- CEO purchases approved by a Mayor despite Mayors' having no established administrative authority (City of Albany)
- purchases were approved by a subordinate of the cardholder (City of Kalgoorlie-Boulder).

To ensure expenditure represents allowable and reasonable business use, a direct manager¹¹ who is aware of the cardholder's role and purchasing requirements should conduct a timely review and approval of the purchases. This reduces the likelihood of unreasonable, inappropriate or unauthorised transactions going undetected.

We also found:

- card sharing while the cardholder was absent from the office (Shire of Murchison). This increases the likelihood of unauthorised or fraudulent purchases and makes it difficult to identify the purchaser
- collection of personal reward scheme points on business purchases that were not identified nor reported as part of the approval process (City of Albany and City of Kalgoorlie-Boulder). A risk exists with reward schemes that cardholders may make purchases through a particular supplier to gain a personal advantage.

The following case study is an example of approval timeframes set in the entity's policy and procedures that were not met.

Case study 3: Management approval exceeded timeframes

One entity's corporate policy and procedures require all purchases to be approved by a supervisor/manager within specified timeframes.

We found significant delays in the approval of card purchases during our audit.

- 63% were approved outside of the policy timeframes and included:
 - A significant number of purchases that were only approved in December 2023, after we initiated our audit, through three bulk approval actions. Some of these were for purchases spanning back 10 months to March 2023. The bulk approvals suggest very little actual scrutiny of necessity and reasonableness of expenditure.

¹¹ In the case of the CEO, the chief finance officer (or equivalent) or a suitably senior staff member.

- Significant delays in approval with delays of up to 218 days.

Entities need to promptly review and approve purchases to ensure the expenditure represents allowable and reasonable business use and to detect inadvertent and deliberate misuse.

Controls over the issue and cancellation of cards were partly effective and require improvement

The three audited entities' management of the issue and cancellation of purchasing cards were only partly effective. New cardholders had the necessary financial delegations to purchase, and purchasing card policies were made available to cardholders. However, we identified the following control weaknesses:

- policies and procedures were missing key elements including an application process to approve eligibility and need for a card, and a cardholder agreement form outlining cardholder legal obligations and responsibilities (Shire of Murchison and City of Kalgoorlie-Boulder)
- no management approval of applications to ensure cards are issued to approved staff and spending limits are based on operational need (City of Albany)
- delays of around one and two months in cancelling cards when staff exit the entity (City of Kalgoorlie-Boulder and City of Albany) which can lead to continued card use and unnecessary card administration fees
- purchasing card registers were missing key information such as an acknowledgement of card return and date of card destruction (City of Albany and City of Kalgoorlie-Boulder).

There is an increased likelihood of inadvertent or deliberate misuse and financial loss to entities when cards are not appropriately issued and cancelled.

Lack of appropriate oversight of purchasing card controls

Payment listings provided by the three audited entities to their councils generally met legislated requirements. However, we identified instances where the included descriptions were vague or inaccurate and could have better identified the expenditure to facilitate proper scrutiny.

None of the audited entities had appropriate management oversight of purchasing card control effectiveness. The entities informed us card administrators and line managers did not monitor controls to issue, use and cancel cards or report on shortcomings to management. Regular monitoring would assist entities to identify control gaps and address weaknesses in a timely manner. We noted during the audit that the City of Kalgoorlie-Boulder does have some insight into control effectiveness, but this is limited as it only reviews one month's card use by one randomly selected cardholder as part of its monthly executive meetings.

Case study 4 provides examples that illustrate the need for management oversight over control effectiveness. Our better practice guidance in Appendix 1 provides entities with a range of oversight activities to consider.

Case study 4: Lack of management oversight

We found the following examples where a lack of management oversight limited entities' ability to identify and improve controls:

- Several 'top-up' payments were made in the monthly card statement period as cardholders exceeded their monthly limits. Regular monitoring and reporting may have identified a need to reassess card limits based on operational need. Transactions may be declined and service delivery disrupted when credit limits are exceeded.
- A staff member had stored their entity's card information in a personal online accommodation account, resulting in personal use. The entity recovered the money but did not consider if control improvements were needed to prevent further occurrences.

We found the audited entities had reviewed their financial management systems and procedures at least every three years as required by legislation¹². While these included a limited review of purchasing card procedures, they did not provide ongoing confirmation that purchasing card controls are appropriate or effective. Oversight should be enhanced by other regular monitoring and reporting activities.

¹² Local Government (Financial Management) Regulations 1996, regulation 5(2)c.

Recommendations

The three audited entities, as relevant, should:

1. develop and implement clear policy guidance for staff on what is allowable and reasonable business use expenditure on items such as travel and food and drink
2. have suitable controls in place to manage the issue and timely cancellation of purchasing cards
3. review and approve purchasing card transactions in a timely manner
4. keep proper records of the review and approvals of purchasing card transactions and card cancellations
5. include sufficient accurate detail in council papers to allow purchasing card expenditure to be appropriately scrutinised
6. regularly monitor and report on purchasing card controls to allow management to oversee usage and control effectiveness. The results of reviews should be documented and retained.

In accordance with section 7.12A of the *Local Government Act 1995*, the three audited local government entities should prepare a report on any matters identified as significant to them for submission to the Minister for Local Government within three months of this report being tabled in Parliament, and within 14 days of submission publish it on their website.

Response from the City of Albany

The City of Albany accepts the recommendations and learnings contained in the performance audit. While the audit did not find clear evidence that cardholders misused public money, the City recognises the importance of continuous improvement in the management of its purchasing cards. The City has begun addressing the audit's findings.

Response from the City of Kalgoorlie-Boulder

The City of Kalgoorlie-Boulder has already begun reviewing and updating internal control processes and updated staff training in the use of cards within the City to ensure that processes and systems for the management cards are in line with best practice.

Response from the Shire of Murchison

The audit review of credit card use and overall recommendations for administrative improvements is welcome and as indicated in the Murchison Shire's responses will be actioned as a matter of course.

In context the Shire is very small and has only one credit card which has historically been assigned to the Chief Executive Officer when he or she commences employment. Whilst there has been no documentation on the actual purpose and operational use, the card has always been predominately used as a corporate card, which the CEO is responsible for, rather than for the CEO's work-related use. This form of usage is essential operationally as from time to time some organisations will only accept credit card payments rather than through the formal purchasing order / account payable system.

Whilst on the surface allowing others to use the credit card increases the risk of unauthorised or fraudulent transactions, the smallness of the organisation with only three in the administrative area other than the CEO, and normal checks and posting of transactions means that there is minimal risk of this actually occurring. Future improved documented policy and procedures will assist in demonstrating this situation.

Council's current policy and operational practices also requires credit card transactions to be authorised by the Chief Executive Officer as card holder and checked by an independent Financial Accountant. Details of credit card transactions are included in the list of payments presented to Council for each Council Meeting and as required included the resolution whereby Council have accepted the payment listing. Councillors are well experienced and familiar with the operations of the Shire, which by and large are relatively straight forward, and regularly ask questions and seek clarification.

Audit focus and scope

The focus of this audit was to assess whether three regional local government entities effectively manage the issue, use and cancellation of purchasing cards.

Our criteria were:

- Are there effective controls over the issue and cancellation of purchasing cards?
- Are there effective controls over the use of purchasing cards?

The City of Albany, City of Kalgoorlie-Boulder and Shire of Murchison were included in the audit.

The audit reviewed the issue, use and cancellation practices of each entity over the period of 1 November 2022 to 31 December 2023.



We visited each entity and assessed their policies and procedures against legislative requirements, DLGSC operational guidelines and our better practice guidance in Appendix 1. At each entity, we also assessed a sample of CEO purchasing card transactions and whether there was adequate independent review of CEO use.

This was an independent audit, conducted under section 18 of the *Auditor General Act 2006*, in accordance with Australian Standard on Assurance Engagements ASAE 3500 *Performance Engagements*. We complied with the independence and other ethical requirements related to assurance engagements. Performance audits focus primarily on the effective management of entity programs and activities including compliance with legislative and other requirements. The approximate cost of undertaking the audit and reporting was \$300,000.



Appendix 1: Better practice guidance

Local government entities need to have purchasing card policies and procedures that are up to date and accessible to staff. These policies and procedures should include key controls for the issue, use and cancellation of purchasing cards and be regularly reviewed.

The table lists requirements for effective purchasing card management, which guided our audit. It is not intended to be an exhaustive list.

Purchasing card management	Outcome	What we expect to see
 Issue	Cardholder eligibility and operational need is established, an application is appropriately approved and the cardholder is made aware of their legal obligations and responsibilities	<ul style="list-style-type: none"> cardholder has appropriate financial delegation to incur expenditure. Delegations should also be set for certain types of expenditure an application form is appropriately approved card limits are based on cardholders need cardholder and their manager signs agreement that clearly sets out legal obligations and responsibilities and the purposes for which a card may or may not be used cardholder acknowledges that they understand and will comply with purchasing card policy and procedures cardholder receives training on procedures and requirements card administrator updates the purchasing card register with key cardholder information
 Use	Purchases are for business use, and are properly reviewed and approved in accordance with the purchasing card policies and procedures	<ul style="list-style-type: none"> purchases should be within the transaction and card limits. They should not be split to circumvent these limits entity sets out appropriate delegations for approval of expenditure timely review and approval of transactions: <ul style="list-style-type: none"> <u>cardholder</u>: reviews statements to ensure accuracy of reported purchases, attaches adequate supporting documentation, codes purchases and provides sufficient details to identify the purchase <u>cardholder's direct manager</u>¹³: reviews and approves purchases to ensure appropriate business use, consistency with cardholder's role and responsibilities, and compliance with policies and guidelines review and approval processes have adequate documentation processes to repay any personal purchases guidance for purchases where cards are not physically present such as online telephone and internet purchases

¹³ In the case of the CEO, the chief finance officer (or equivalent) or a suitably senior staff member.

Purchasing card management	Outcome	What we expect to see
		<ul style="list-style-type: none"> treatment of reward schemes and loyalty programs as purchasing cards should not be used to gain a personal benefit procedures for when a cardholder is on leave to ensure card security
 Cancellation	Timely cancellation of purchasing cards to prevent unauthorised purchases and unnecessary card fees	<ul style="list-style-type: none"> immediate cancellation once a cardholder exits or has a change in employment requirements cardholder returns card to the administrator cards should be destroyed, and evidence of destruction recorded administrator enters cancellation and destruction information in cardholder register
 Oversight	<p>Regular monitoring and reporting to provide management with insights into use and the effectiveness of controls and to address shortcomings in a timely manner</p> <p>Evidence of reviews should be retained</p>	<p>Examples of monitoring and reporting include:</p> <ul style="list-style-type: none"> Continuously: <ul style="list-style-type: none"> disclose information about each purchasing card transaction in a payments listing to council and in council minutes record instances of personal use, inappropriate use, and disputed and fraudulent transactions. Take corrective action when required assess the timeliness of reviews and approvals by cardholders and managers, and act when timeframes are not met provide reports to managers on usage within their areas to assess operational need reinforce requirements to cardholders and approvers Annually: <ul style="list-style-type: none"> identify inactive or under-used cards that may require cancellation review appropriateness of transaction and card limits audit and update purchasing card registers review relevance and effectiveness of policies and procedures as part of an annual risk assessment Periodically: <ul style="list-style-type: none"> sample test transactions for appropriate business use and compliance with policies and procedures analyse usage and supplier patterns to inform procurement practices review purchasing card policy against operational guidelines and better practice principles

Purchasing card management	Outcome	What we expect to see
		<ul style="list-style-type: none">○ review the appropriateness and effectiveness of financial management systems and procedures as required by legislation

Source: OAG

Auditor General's 2023-24 reports

Number	Title	Date tabled
19	Local Government Management of Purchasing Cards	12 June 2024
18	Local Government 2022-23 – Financial Audit Results	6 June 2024
17	Local Government IT Disaster Recovery Planning	31 May 2024
16	Local Government 2022-23 – Information Systems Audit Results	27 May 2024
15	State Government Advertising	15 May 2024
14	State Government 2022-23 – Information Systems Audit	12 April 2024
13	Provision of Supplementary Information to the Standing Committee on Estimates and Financial Operations – Opinions on Ministerial Notifications	5 April 2024
12	Digital Identity and Access Management – Better Practice Guide	28 March 2024
11	Funding for Community Sport and Recreation	21 March 2024
10	State Government 2022-23 – Financial Audit Results	20 December 2023
9	Implementation of the Essential Eight Cyber Security Controls	6 December 2023
8	Electricity Generation and Retail Corporation (Synergy)	8 November 2023
7	Management of the Road Trauma Trust Account	17 October 2023
6	2023 Transparency Report: Major Projects	2 October 2023
5	Triple Zero	22 September 2023
4	Staff Exit Controls for Government Trading Enterprises	13 September 2023
3	Local Government 2021-22 – Financial Audit Results	23 August 2023
2	Electricity Generation and Retail Corporation (Synergy)	9 August 2023
1	Requisitioning of COVID-19 Hotels	9 August 2023

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11.2 Infrastructure Services

11.2.1 Department of Water and Environmental Regulation Annual Waste Plan Report

Executive A/Director Infrastructure Services

Author Waste Services Manager

Attachments 1. Cockburn 2023-24 Waste Plan Summary - August 2024 [↓](#)

RECOMMENDATION

The Committee recommends Council ENDORSES the City of Cockburn's 2024 Waste Plan submission to the Department of Water and Environmental Regulation.

Background

Annual reporting on the implementation of actions in the City of Cockburn's Waste Plan, and on any new waste actions being implemented, is a requirement under the *Waste Avoidance and Resource Recovery Act 2007* (WARR Act).

Waste Plans and annual reports are intended to be live documents reflecting the services being delivered by local governments.

The report allows Department of Water and Environmental Regulations (DWER) to make an assessment on whether the City of Cockburn is delivering, or making progress towards delivering, services that are consistent with the Waste Avoidance and Resource Recovery Strategy 2030 (State Waste Strategy), which is also a requirement under the WARR Act.

Submission

Nil

Report

The Waste Report lists a series of actions and milestones under the following six key principles (refer Attachment 1):

1. Waste Services
2. Waste Infrastructure
3. Policy and Procurement
4. Data
5. Behavioural Change Programs and Initiatives
6. Other.

Each action requires a progress update, a status update and completion dates to be populated.

This year's report was updated to the degree possible due to the impending review of the City's Waste Strategy 2020-2030.

Some of the City's significant Waste Strategy 2020-2030 actions have been placed on hold awaiting the consultant's report due in December 2024. Therefore, the only two new initiatives added are the relocation of the HWRP Transfer Station and the construction of an additional leachate pond.

Information has been populated against each action and milestone.

Tracking is in accordance with the City's Waste Strategy 2020–2030 proposed timeframes with any adjustments in consultation with the Department.

Strategic Plans/Policy Implications

Environmental Responsibility

A leader in environmental management that enhances and sustainably manages our local natural areas and resources.

- Sustainable resource management including waste, water and energy.
- Address Climate Change.

Budget/Financial Implications

All actions in the Waste Strategy 2020-2030 are funded through annual operational and reserve budgets.

The Waste Strategy and therefore the DWER Waste Plan may be amended this financial year depending upon the outcome of the consultant's review and Council decisions.

Legal Implications

Compliance with the *Waste Avoidance and Resource Recovery Act 2007*.

Community Consultation

NA

Risk Management Implications

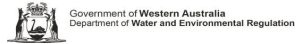
Failure to adopt the recommendation may result in a breach of the *Waste Avoidance and Resource Recovery Act 2007*.

Advice to Proponent(s)/Submitters

N/A

Implications of Section 3.18(3) *Local Government Act 1995*

Nil



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Waste Plan Report 2023-24

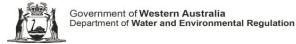
Local Government Name: City of Cockburn

Waste Plan Report Status	Draft
Reporting Period	2023-24
Submission ID	WPR2023-24-0001116
Date Lodged	

Reporter Details		Approver Details	
Name	Lyall Davieson	Name	Daniel Arndt
Position	Waste Manager	Position	A/CEO
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Waste Services

Waste Plan Actions & Milestones	Progress	Action Status	Anticipated Commencement Date	Anticipated Completion Date	Completion Date	Comments
Conduct commercial food waste trial	Complete	Delayed		31/12/2020	7/12/2021	The Food waste trial has transformed into a regular service. Additional customers are constantly sought to ensure operational efficiency. Grant was extended by 6 months to account for commercial food waste business closures due to COVID-19
==> Training of businesses to commence	Complete			30/06/2020	30/06/2020	
==> Bins to be provided and trial commenced	Complete			31/07/2020	31/12/2020	
==> Commercial food waste trial to be completed	Complete			30/11/2020	30/12/2021	
Consult community for an on-demand verge collection service	Not commenced	On track	30/06/2025	31/12/2025		Upon completion of the community consultation, Council approved a pre-booked verge collection service due to commence in July 2024. Further delays were encountered in 23-24 as the Council decided to place the community engagement on hold until a full review of the City's Waste Strategy 2020-2030 due in December 2024.
==> Develop consultation plan by 1 July 2020 in association with Community Engagement Team.	Complete			30/06/2020	29/06/2022	
==> Complete consultation	Not commenced			30/06/2025		
Continue to implement Public Place Recycling rollout	In progress	On track		31/12/2026		No additional public place enclosures were installed in 23-24. 7 enclosures were refurbished in 23-24 under a trial set for North Coogee. The new enclosures feature 2 MSW bins and no recycle bin. This has come about due to an audit that found contamination in the recycle bin was high. The only recyclable component in the public place enclosure recycling bin was the CDS containers. The new dual MSW enclosures will be fitted with a Containers for Change basket for deposit of eligible containers. Ongoing financial commitments to roll out public place enclosures will follow subject to the success of the trial in Coogee.
==> Bins to be ordered by 1 Jan annually and to be installed by 30 June annually	In progress			30/06/2025		
==> \$50k p.a. requested by budget deadline annually	In progress			30/12/2026		
Develop business case to introduce financial incentives for uptake of 140L general waste bins	Complete	On track	3/07/2023	30/06/2024	17/07/2023	The City's Rates Department have advised that the waste levy portion of the rates notice for residential properties is not a separate figure and has not been for several years. As a consequence, there is no mechanism to offer individual deduction to the Rate Charges.
==> Develop business case and report to Council on costs and benefits of reducing size of general waste bins to 140L for properties on 2 bin system	Complete			30/06/2023	17/07/2023	
==> If approved by Council, coordinate rollout of 140L general waste bin	Complete			29/06/2024	17/07/2023	
Residual waste is sent to waste to energy facility	Not commenced	On track	30/09/2024	30/12/2042		The City has a 18-year contract to take the contents of the City's general, (red lid) residual, waste bin to the East Rockingham Waste to Energy Facility. The last reports the ERWTE facility CEO has advised that the City will be required to deliver commissioning tonnes to the facility as of 30/9/24. The general waste from the red lid bin will come from 30,000 properties on a 3-bin GO system and 14,400 properties on the 2-bin system. The estimated tonnages for delivery to the ERWTE Facility is approximately 25,000tpa. This approach meets the requirements of the State Waste Strategy and the Waste Hierarchy.
==> Deliveries of residual waste to East Rockingham Waste to Energy Facility continue	Not commenced			17/02/2025		
==> Deliveries of residual waste to East Rockingham Waste to Energy facility commence	Not commenced			31/12/2026		
Revise the 2023 FOGO Feasibility Report in the 2024/25 financial year	Not commenced	On track	28/02/2025	31/12/2025		Due for review in 2025 and completion in November 2025.
==> Revised 2023 FOGO feasibility study commences	Not commenced			30/06/2025		
==> Revised 2023 FOGO feasibility study completed	Not commenced			17/09/2025		
==> Results of feasibility study and recommendation presented to Council for approval	Not commenced			31/12/2025		
Undertake a FOGO feasibility assessment in the 2022/23 financial year	Complete	On track	19/09/2022	30/06/2025	25/07/2023	Action complete. A review will be conducted in the 2024/25 financial year (see action above).
==> Feasibility study to be commissioned	Complete			31/08/2022	31/08/2022	
==> Feasibility study to be completed	Complete			25/07/2023	25/07/2023	



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Waste Infrastructure

Waste Plan Actions & Milestones	Progress	Action Status	Anticipated Commencement Date	Anticipated Completion Date	Completion Date	Comments
Construction of third leachate pond	Not commenced	On track	1/10/2024	30/06/2025		
==> Construction of leachate pond commences	Not commenced			1/10/2024		New action added in August 2024.
==> Construction of leachate pond completed	Not commenced			30/06/2025		
Continue to invest in onsite renewable energy generation	In progress	On track		30/06/2026		Initial investigations have commenced. Most investigations have centred on a H2 production plant and decarbonising the waste truck fleet. Very few side lift waste trucks have been produced and those on the market do not suit the City's cal-de-sacs and narrow laneways. At the Henderson Waste Recovery Park, the installation of solar array and wind turbines on capped landfill cells to create a "Renewable Energy Park" is still on track for the medium to long term. This FY, the City has established a reserve fund for climate mitigation projects.
==> Consider options post capping of cell 6	In progress			30/06/2026		
Develop strategies to attract waste tonnes to fully utilise available airspace	Complete	On track		31/12/2026	3/01/2022	Reduced gate rates for major customers were developed and implemented. This will be an ongoing program.
==> Develop strategies to attract waste tonnes to fully utilise available airspace	Complete			31/12/2022	31/01/2022	
Manage and reduce leachate volumes in accordance with the Leachate Strategy	In progress	On track		31/12/2026		
==> Cell 6 capping to be complete	Complete			31/12/2020	2/11/2020	Ongoing program. Additional leachate accelerated evaporation units were installed in 23-24. An additional leachate pond has been designed and is due for construction in 24-25 FY.
==> Manage and reduce leachate volumes in accordance with the Leachate Strategy	In progress			30/06/2025		
Plan and open the Cockburn Resource Recovery Precinct at the Henderson Waste Recovery Park site	In progress	On track		27/02/2026		Bulk earthworks were completed. The Superintendent of Detailed Design and Documentation was awarded. The Council has placed a review of the CRRP Business Case.
==> Detailed design to be completed	In progress			30/06/2025		
==> New site to be completed	In progress			30/06/2025		
Post closure management of Cells 1-7	In progress	On track	1/07/2024	30/06/2027		Reviewed according to regular aerial survey to determine accurate volume remaining. Cell 7 is approaching full utilisation of the available airspace, however will continue to be used for filling with soft waste until it is full, concurrently with the commencement of landfilling on Cell 4 and 5. It is anticipated that within 6 months from completion of the landfilling phase on Cell 7, the capping design and works will commence. This is currently set to be October 2025. Post closure management will commence from then for the Southern landfill at that time.
==> As cells are covered and capped, post closure management reviews to commence	In progress			30/06/2026		
Purchase second hand front lift vehicle and front lift bins to service commercial	Superseded	Not Applicable	27/06/2025	30/06/2025		Superseded by DWER on advice from City on 13/9/22 - Providing waste collection services to commercial properties using front lift bins is not the City's core business. In addition, the sector is well serviced by existing private contractors.
==> Budget request to be included by deadline	Superseded			1/09/2022		
==> Front lift vehicles and bins operational	Superseded			30/09/2022		
Relining of leachate ponds A and B	Not commenced	On track	30/06/2028	31/12/2054		Not commenced and not required until 2054.
==> Pond liners to be replaced after 23 years	Not commenced			30/07/2054		
Relocation of community dropoff centre	Not commenced	On track	1/11/2024	31/03/2025		
==> Relocation commences	Not commenced			1/11/2024		New action added in August 2024.
==> Relocation completed	Not commenced			31/03/2025		
Undertake a feasibility study for the use of hydrogen powered waste trucks	Complete	On track		30/06/2026	31/10/2020	Discussions have commenced with Hyzon on the availability of H2 powered side lift waste trucks. One side lift H2 waste truck is currently on trial in the eastern states. The City will contact Remondis to attempt to obtain the trial performance data. These results will assist in the decisions relating to the purchase of a City of Cockburn trial vehicle. Infinite Green Energy is applying for a grant to fund the difference between diesel and H2 side lift waste trucks. The City will await the outcome of this application as well.
==> Study to be delivered	Complete			30/06/2020	31/10/2020	



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Policy and Procurement

Waste Plan Actions & Milestones	Progress	Action Status	Anticipated Commencement Date	Anticipated Completion Date	Completion Date	Comments
City tender documents consider reuse of recycled products e.g. road base	Complete	On track		30/12/2026	30/06/2022	All tender documents where a recycled component is possible are issued with the ability to also price the use of recycled material. In addition, the qualitative evaluation template lists the "Sustainability" requirement as a minimum of 10% in all documents and tenderers are scored accordingly.
==> Working group members to be identified and approached	Complete			31/01/2022	1/01/2022	
==> Develop working group to consider how best to encourage inclusion of recycled products into tenders and RFQ's	Complete			30/12/2026	1/01/2022	
Trial the use of an electric waste truck.	Complete	On track		30/06/2021	30/04/2021	Project completed and vehicle returned to supplier. The EV failed to meet the claims made by the supplier and could not match the performance of its diesel equivalent.
==> Electric vehicle to be in operation	Complete			30/06/2020	1/05/2021	

Data

Waste Plan Actions & Milestones	Progress	Action Status	Anticipated Commencement Date	Anticipated Completion Date	Completion Date	Comments
Conduct a waste audit to determine concentrations of organics of C & D and C & I at HWRP	Superseded	Not Applicable	30/06/2025	30/06/2025		The energy from waste plants will have a significant impact of the waste industry and this audit will provide more value if undertaken post their commissioning in 2023.
==> Report delivered	Superseded			29/06/2025		
==> Consultant to be appointed	Superseded			30/06/2025		
Investigate deployment of technology to assist in the reduction of illegal dumping.	Complete	On track		30/06/2023	1/07/2022	DWER have assisted with deploying cameras to identify offenders in known City of Cockburn illegal dumping locations. ESRI system utilised for online mapping and reporting of dumping.
==> Feasibility study to commence	Complete			1/07/2021	30/06/2022	
==> Feasibility study to be completed	Complete			30/06/2022	30/06/2022	
Report greenhouse gas emissions from HWRP via NGRS	In progress	On track		31/12/2026		Ongoing reporting to continue. The 23-24 Report is due 31/10/24. In the 23-24 FY, the landfill gas managers, LMS, will report on "energy export".
==> All waste volumes and methane production figures to be prepared by end of financial year annually.	In progress			30/06/2025		

Behaviour change programs and initiatives

Waste Plan Actions & Milestones	Progress	Action Status	Anticipated Commencement Date	Anticipated Completion Date	Completion Date	Comments
Continue bin tagging program with team of Community Waste Education Officers	In progress	On track		31/12/2026		This bin tagging program is ongoing and targets areas when contamination is high. In 23-24 the Community Waste Education Officers door knocked recalcitrant residents and business owners. This approach will continue in 24-25.
==> Bin tagging plan to be approved by Waste Manage	Complete			30/06/2020	30/06/2022	
==> Bin tagging implemented	In progress			30/12/2026		
Continue to deliver schools waste education program in alignment with WasteWise Schools Program	In progress	On track		31/12/2026		Ongoing programs. The Waste Wise Schools program was revised to adopt a couple of schools for intensive waste Education Program delivery. These were highly successful.
==> 20 incursions	Complete			30/06/2022	30/06/2022	
==> 20 HWRP tours	Complete			1/09/2022	30/06/2022	
==> Ongoing delivery of schools waste education program	In progress			31/12/2026		
Continue to implement a preventative Illegal Dumping program	Complete	On track		30/06/2024	1/07/2022	Ongoing program. The City will continue to collect illegal dumping and educate resident on this issue.
==> New illegal dumping data capture system to be developed	Complete			30/06/2021	30/08/2022	
Continue to roll out waste education program to staff in all Council-run facilities	Complete	On track		31/12/2026	1/07/2022	Ongoing program. This program will continue year on year.
==> All facilities with Cockburn staff working on site to be audited by July 2021. Rollout behaviour change initiatives	Complete			1/07/2021	30/06/2021	
Coordinate and expand community tours to the HWRP	In progress	On track		31/12/2026		Ongoing program. Additional staff have been trained in order to increase the capability and frequency of HWRP (Henderson Waste Recovery Park) tours annually. Internal, external, school and specific group tours were completed in 23-24.
==> Henderson tours to be incorporated into Sustainable Living Events Program in July and January annually.	In progress			30/06/2025		



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Deliver program of waste education workshops and events through the Sustainable Living events series	In progress	On track		31/12/2026		Ongoing program. The Waste Education programs continued, through 23-24, to be united with the Sustainable living calendar to deliver a wide range of services, subsidies and information.
==> Develop and publish events program by 1 July and 1 Jan each year	In progress			30/06/2026		
Encourage and promote waste initiatives via the Sustainability Grants Program	In progress	On track		31/12/2026		Ongoing program. Grant funding has been sourced and won in 2023-2024 FY. Overlap with the Environment Team occurred with clothes swaps, reusable cups, textiles, plastics and worm farming (organics). Schools also access subsidies to fund tours of the Henderson Waste Recovery Park.
==> Review and assess Sustainability Grant Proposals in March annually.	In progress			30/06/2026		
Fully fund a Waste Education Officer	In progress	On track	30/06/2026	30/06/2027		Waste Technical Officer currently only a contract position. Staff will continue to put this role forward for the Workforce Plan as a full time permanent role.
==> Waste Education Officer appointed	In progress			31/08/2024		
==> Workforce plan approval	In progress			30/06/2027		
Identify new businesses and residents to receive waste education information	In progress	On track		31/12/2026		Ongoing Project. The City's Bin Delivery Officer delivers the City Resource Recovery Calendar with each new set of bins.
==> Liaise with Waste Collection Team to ensure that waste education materials are provided to all new household	In progress			30/06/2026		
Implement Waste Education Campaign	In progress	On track		31/12/2026		Ongoing program. The 23-24 the bin auditing program was be revised to be more targeted information on the correct use of bins with dedicated door knocking in high bin contamination areas. The Waste Education campaign is wide ranging involving tours, workshops, school incursions, waste wise event management and policy development.
==> Implement social and print media campaign focussed on waste hierarchy	In progress			30/06/2025		
==> Prepare and distribute resource recovery calendar to residents annually	In progress			31/12/2026		
Review the benefits and costs of developing a Cockburn Waste App	Superseded	Not Applicable	29/06/2023	30/06/2023	1/07/2021	Superseded by DWER on advice from the City on 13/9/22 - The app was considered to be an unnecessary duplication of the existing RecycleMate app, which has been tailored for each council in Australia. This app is more suitable than a Cockburn-specific app.
==> If approved, app to be rolled out	Superseded			30/06/2022	30/06/2021	
==> Decision on feasibility of implementing ap made	Superseded			30/06/2022	30/06/2021	
==> If feasible, business case provided to council for decision	Superseded			30/12/2022	1/07/2021	
Review the feasibility of creating waste virtual tours	Complete	On track	2/02/2022	30/06/2023	29/07/2022	HWRP virtual tour complete. Suez/Veolia have created an excellent virtual tour of their MRF which has been made available to the City.
==> Decision to be made on feasibility of creating a virtual tour prior to development of interpretive signage	Complete			30/09/2022	17/08/2022	

Other

Waste Plan Actions & Milestones	Progress	Action Status	Anticipated Commencement Date	Anticipated Completion Date	Completion Date	Comments
Continue representation on relevant waste related committees and attend relevant conferences	In progress	On track		31/12/2026		Complete and ongoing. Waste staff attended the Waste and Recycling Conference in 23-24 and will not do so in this FY due to fiscal restraints. The Waste staff attend the WMRR Landfill and Transfer Station Working Group. The Waste Education Coordinator attends the Circular Economy WA Committee.
==> Maintain representation and membership of relevant groups.	In progress			30/06/2025		
==> Ensure attendance at annual WA Waste and Recycling Conference	In progress			30/06/2026		

11.2.2 Local Government Insurance Scheme (LGIS) Fleet Risk Assessment Report

Executive A/Director Infrastructure Services
Author Head of Operations and Maintenance
Attachments 1. LGIS Fleet Risk Assessment Report [↓](#)

RECOMMENDATION

The Committee recommends Council:

- (1) RECEIVES the Local Government Insurance Scheme Fleet Risk Assessment; and
- (2) REQUESTS that the City provide a report to the Audit Risk and Compliance Committee within twelve months.

Background

The City of Cockburn recently participated in an LGIS Fleet Risk Assessment Audit, prompted by the City's significantly high insurance claims when benchmarked against Councils of a similar size.

The Audit was undertaken to identify potential risk factors within the City's fleet management practices and to develop strategies to reduce these risks.

This assessment was critical as the City seeks to address the underlying causes of its elevated claims history and implements best practices in fleet risk management, ensuring safer operations and more efficient use of resources across its diverse fleet.

Submission

N/A

Report

The Fleet Risk Assessment undertaken by LGIS for the City of Cockburn was driven by the need to address the high insurance claims, which were significantly higher compared to similar councils.

This report summarises the key findings and recommendations from the assessment (refer Attachment 1).

Key Findings1. High Claims Frequency

The City of Cockburn has a higher frequency of insurance claims compared to similarly sized councils. This suggests potential issues in fleet management, driving practices, and risk mitigation strategies.

2. Benchmarking Results

Compared to peer councils, the City's claims data indicates areas where risk management practices may need improvement to reduce the frequency and severity of incidents.

3. Risk Exposure

The assessment identified specific risk exposures in the fleet operations that could be contributing to the higher claims, including vehicle usage patterns, driver behaviour, and fleet maintenance practices.

Recommendations from the Fleet Risk Assessment Report

Recommendation		
1	Enhanced Driver Training	Implement targeted driver training programs to address common causes of accidents and improve overall driving behaviour within the fleet.
2	Fleet Management Systems	Consider adopting advanced fleet management systems that provide real-time monitoring of vehicle usage, maintenance schedules, and driver performance.
3	Policy Review	Review and update fleet management policies, focusing on risk reduction strategies, including regular vehicle inspections, driver assessments, and incident reporting protocols.
4	Claims Monitoring	Establish a dedicated team or system for monitoring insurance claims and analysing trends to proactively address emerging risks.
5	Collaboration with LGIS	Continue collaborating with LGIS to refine risk management practices and take advantage of their expertise in mitigating fleet-related risks.

The Fleet Risk Assessment highlighted the need for improved risk management practices within the City's fleet operations.

By implementing the recommendations provided, the City aims to reduce its insurance claims frequency, enhance the safety of its fleet operations.

Strategic Plans/Policy ImplicationsListening and Leading

A community focused, sustainable, accountable, and progressive organisation.

- Best practice Governance, partnerships and value for money.

Budget/Financial Implications

Budget funding to be sourced at a future Expenditure Review Committee meeting.

Legal Implications

- Work Health and Safety Act 2020
- Work Health and Safety (General) Regulations 2022
- Road Traffic (Vehicles) Act 2012
- Road Traffic Act 1974 and subsidiary legislation.

Community Consultation

N/A

Risk Management Implications

The risk management implications of the Fleet Risk Assessment are significant and require immediate attention.

By addressing these risks through the recommended strategies, the City can reduce its exposure to future claims, enhance operational efficiency, and protect its financial and reputational standing.

Increased Financial Risks Increased financial liabilities due to ongoing payouts. This not only impacts the City's budget but also affects insurance premiums, potentially leading to higher costs in the future.

Operational Risks Inefficiencies could result in more frequent vehicle downtimes, reduced productivity, and higher operational costs.

Reputational Risk Incidents that involve public safety concerns. May erode public trust and lead to negative perceptions of the City's ability to manage its assets effectively.

Advice to Proponent(s)/Submitters

N/A

Implications of Section 3.18(3) *Local Government Act 1995*

Nil



Fleet Risk Assessment Report

City of Cockburn
August 2024

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Executive Summary

The City of Cockburn ("the City") participated in LGIS' Fleet Risk Management Program.

Fleet risk management is the process the local government uses to ensure the safety and security of its drivers, operators, vehicles and heavy/plant machinery.

Typically, the fleet composition within a local government consists of a mix of ride-on mowers, street sweepers, waste trucks, sedans and utility vehicles.

The claims associated with such a varied fleet composition is far less diverse than may be anticipated, and consists predominantly of at-fault reversing accidents and hitting stationary objects such as fences, parked vehicles and bollards.

In the past 5 years (July 2019 - June 2024), fleet claims submitted for the City of Cockburn totalled \$1,012,799 (or 146 claims with a basic excess of \$1000).

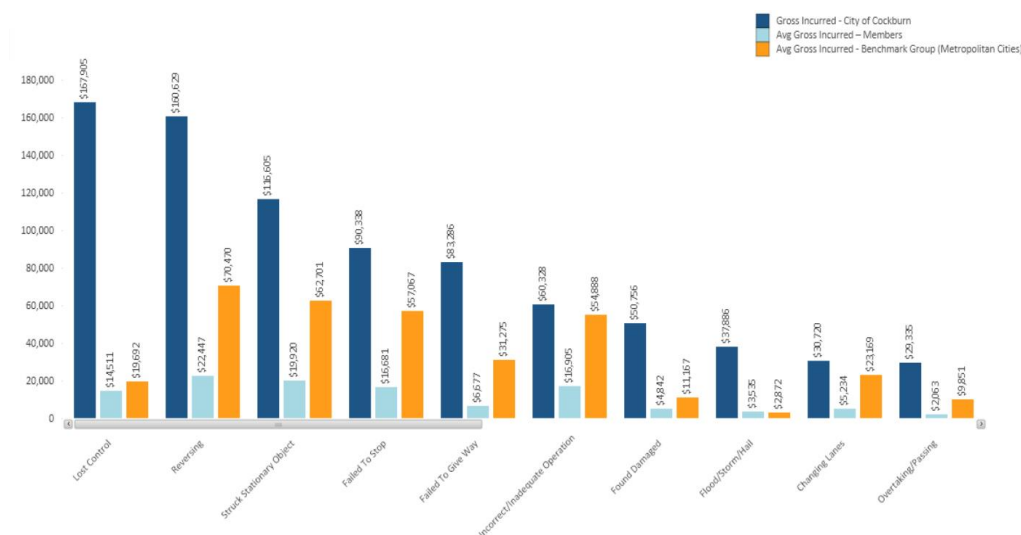
From a member at-fault 'Gross Incurred' perspective, the top three claims categories are as follows:

- Lost Control - \$167,905 (17% of claims).
- Reversing - \$160,629 (16% of claims).
- Struck Stationary Object - \$116,605 (11% of claims).

The top three member at-fault claims categories from a Gross Incurred perspective therefore totals \$445,139 or 44% of all claims.

Of note is that the City's top six claims categories are all considered at-fault. Inclusion of the three additional at-fault categories of 'Failed to Stop' (\$90,338), 'Failed to Give Way' (\$83,286) and Incorrect/Inadequate Operation (\$60,328), increases the Gross Incurred total to \$679,091 or 67% of all claims submitted through the insurance claiming process. These totals exclude all incidents below the claim excess threshold of \$1,000.

Although the size of Cockburn's fleet has an influence over the figures, the City's Gross Incurred claims exceed their Metropolitan City peers in all categories. See graph below.



Graph 1: City of Cockburn Gross Incurred claims benchmarked to Metropolitan Cities Group



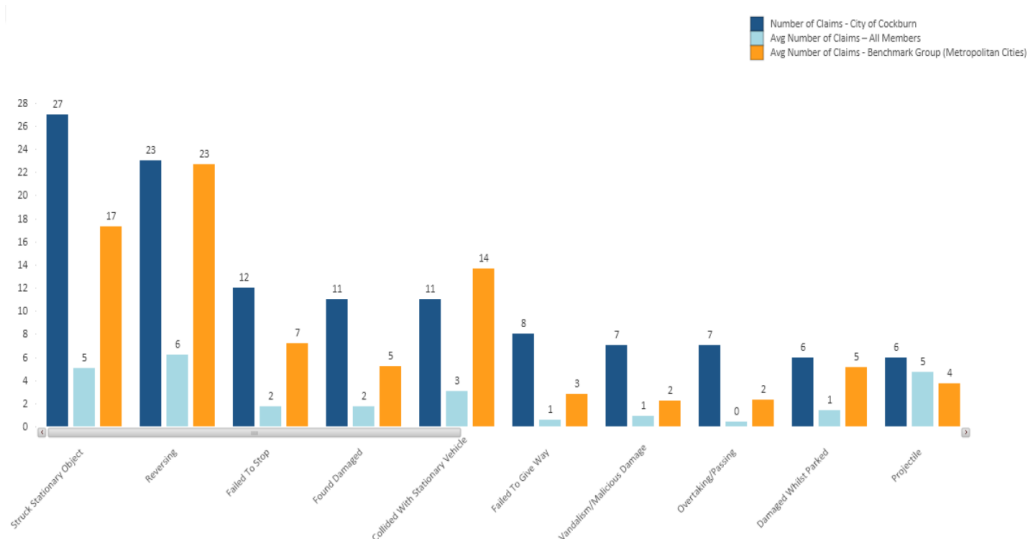
Fleet Risk Management Program

From a member at-fault 'Number of Claims' perspective, the top three claims categories are as follows:

- Struck Stationary Object - 27 claims (18% of claims).
- Reversing - 23 claims (16% of claims).
- Failed to Stop - 12 claims (8% of claims).

The top three at-fault claims categories from a Number of Claims perspective therefore totals 62 claims, or 42% of all claims numbers. Inclusion of all incidents below the claim excess threshold not claimed through the insurance process may have some influence over these figures.

Of the top three at-fault claims categories, the City's Number of Claims exceed their Metropolitan City peers in 'Struck Stationary Object' (27-17), and 'Failed to Stop' (12-7), and match their peers on 'Reversing' (23-23). See graph below.



Graph 2: City of Cockburn Number of Claims benchmarked to Metropolitan Cities Group

Over and above the direct cost of these claims, it is estimated that hidden expenses such as injuries, excesses, lost administration time, management distraction, service disruptions and reduced fleet resale values can add as much as *300% to the actual cost of these accidents.

*Source: QBE Risk Management Report.

In view of the above, this assessment has identified a number of improvement opportunities for the City to consider in order to refine and strengthen its fleet management practices and reduce associated claims numbers and costs. This can be found in the **Observations and Recommendations** section of this report.



Fleet Risk Management Program

Approach

- Reviewed the Council's Claims Profile.
- Pre-visit Fleet Risk Assessment template sent to Craig Marshall, Acting Head of Operations and Maintenance, for prior completion of background administration and training-related topics.
- On-site walk-through of the Works Depot in Bibra Lake, accompanied by Craig Marshall, Acting Head of Operations and Maintenance.
- Completion of the Fleet Risk Assessment template with Craig, Mel Hayward, Fleet Contracts Officer, Nathan Liadow, Fleet Technical Officer and John Thornton, WHS Manager, to obtain an understanding of relevant processes and Controls associated with the in-scope areas.
- Fleet Risk Assessment Report (this document) highlighting the approach to the risk assessment, observations, and recommended areas for improvement for further consideration by the City.



Fleet Risk Management Program

Summary of Recommendations

Focus Area	Risk	Recommendation
Drivers and Operators		Centralise all regulatory information related to the operation of vehicles and plant into one system for ongoing monitoring. Include relevant competencies, training, certification and vehicle and driver license validity.
		Develop a formal procedure to ensure that violations, traffic infringements and complaints against drivers and operators are adequately managed through RMSS or ECM and that staff with multiple offences are appropriately identified and coached for improvement. *(Please refer to the background notes related to this recommendation on Pages 8 & 9).
		Develop a formal driver and operator training matrix to ensure important training and awareness topics are not missed. This could be developed by extracting topics recorded in previous toolbox or WHS fleet-related meetings over the past few years and should include topics such as: <ul style="list-style-type: none"> Safety procedures, such as weather, incidents and fatigue and also new fleet and road technology, new driving legislation, safe driving practices, the safety of drivers and occupants and the protection of fleet, and Driver-vehicle procedures, such as traffic management, security requirements for keys, assets and cargo in the vehicle (tools, equipment, herbicides, fuel, heavy goods, etc.) and procedures to increase driver awareness of hazards and obstructions to safe egress. *(Please refer to the background notes related to this recommendation on Page 9).
		Implement a formal handover familiarisation process prior to handover whenever a driver is given custody of a new or different vehicle. This includes light fleet and utilities. Include training on breakdown and accident procedures, vehicle technology, vehicle safety features and use of the correct fuel or correct charging procedures.
		Wherever possible, drivers should be given the same vehicle to drive. This is shown to lead to better protection of the asset and a more confident driver. Implement a formal handover familiarisation process prior to handover whenever a driver is given custody of a new or different vehicle. This includes light fleet and utilities. Include training on breakdown and accident procedures, vehicle technology, vehicle safety features and use of the correct fuel or correct charging procedures.
		Employees are included in the development and implementation of new procedures. Make employees aware of the City's accident statistics compared to their peers and task them in teams to develop and implement new procedures to reduce at-fault claims. This includes light fleet users. Consider: <ul style="list-style-type: none"> Incentives and disincentives for individuals and business units. Formal supervisor safety observations.

Fleet Risk Management Program

Focus Area	Risk	Recommendation
		<ul style="list-style-type: none"> - The use of spotters and egress processes for working kerbside or exiting parking areas. - Traffic management and security requirements for keys, assets and cargo. - Attitudes towards safety of themselves and their work colleagues and care of their fleet. - Support for advanced driver training - The management of work pressures, fatigue and distractions. <p>These procedures should be included in the City's Fleet Usage Guidelines and all drivers and operators given a hard copy of the guidelines.</p> <p>All fleet incidents, with or without injury, or claimed through the insurance process or not, should then be monitored by executive to gauge the effectiveness of these new procedures.</p> <p>*(Please refer to the background notes related to this recommendation on Page 11).</p>
Storage and Usage of Fleet		Recommend having the central driveway leading from west to east tarred and new line markings applied. See images 8, 9 and 10.
		Develop formal 'Working Kerbside' procedures for fleet parked while out at a job, such as traffic management, supervisor safety observations, security requirements for keys, assets and cargo in the vehicle and using 'spotters' or 'witches' hats around the parked vehicle to increase driver awareness of hazards and obstructions to safe egress.
		Develop a formal policy and procedure to outline the carriage and storage of vehicle cargo including obligations for weight, conduct and utilisation and provide load restraint training for workers.
		Implement a formal Grey Fleet Policy that defines the use of personal vehicles for work purposes and outlines the employee's (and potentially volunteer's) responsibility for business-use insurance, safety standards and maintenance and which is signed by the employee.
		Consider replacing 40-year-old fuel tanks prior to the end of their lifecycle to avoid potential fuel storage contamination and subsequent damage or breakdowns of fleet.
Incident and Emergency Management		Develop a formal procedure, and enforce adherence to the procedure, to ensure that all incidents, with or without injury, or claimed through the insurance process or not, are recorded in the RMSS system. The leadership team should then receive regular (quarterly?) reporting of all fleet incidents, including near-misses and minor damage below the claim threshold. *(Please refer to the background notes related to this recommendation on Page 17).
		If practicable, consider deducting claims excesses and costs from the budget of the business unit or specific vehicle responsible for multiple at-fault incidents.
		<p>Install in-vehicle fire detection and suppression systems into heavy vehicles carrying potentially flammable materials, such as waste trucks.</p> <p>Upgrade in-vehicle equipment used to combat firefighting.</p>

Focus Area	Risk	Recommendation
		<p>High-value fleet is not separated from others of high value when parked. There are no buffer spaces provided by fire-resistant barriers (such as walls) or low value items parked between vehicles and high value fleet items.</p> <ul style="list-style-type: none"> Rearrange parking arrangements to provide buffer spaces to separate high value fleet from others of high value. See also Images 16 A, B & C. <p>Also for consideration:</p> <ul style="list-style-type: none"> Install fire detection systems in the fleet parking area such as alarmed thermal cameras. Install smoke alarms in all recreational, storage and works areas. Validate that all site emergency response plans are up to date, and evacuation drills have been performed. Validate that thermographic scans are conducted on relevant infrastructure. Move bins away from under trees acting as a potential fire hazard. See image 14. Maintain green waste below wall height and install sprinklers on a pole above wall height. Upgrade the site fire response system to include a tank and a booster pump. Incorporate formal response procedures into the depot site emergency response plan for evacuation of fleet to another pre-determined safe site if required.

Key

Risk Criteria	Rating	Description
Critical		These recommendations are offered to manage an immediate risk to operations, whereby controls can be implemented now, and is considered an essential risk management system by the Scheme for this type of operation.
High		These recommendations are offered to better manage an existing risk and is considered a high priority risk management system by the Scheme for this type of operation. Action/progress is recommended within 3 months or prior to renewal.
Moderate		These recommendations are offered to better manage a risk that already has controls, or higher priority recommendations are already offered for this risk. Action/progress is recommended within 12 months.
Advisory		These recommendations are offered as best advice based on our experience and knowledge of insurance industry expectations. Action will demonstrate best practice management of the asset.

Scope

The ultimate objective of LGIS' Fleet Risk Management Program is **to minimise fleet-related claims numbers and costs across the local government sector** through identifying and sharing best practice techniques used by local government fleet managers across Western Australia, in managing the risks to their fleet.

Other objectives include the facilitation of improvements in the management of fleet risks and to enable LGIS to assess how its members manage their fleet.

The program is aligned with the Australian Risk Management Standard ISO 31000 guidelines. Accordingly, 'Risks' are described as the point along an event sequence where control is lost.

An event sequence is shown below:

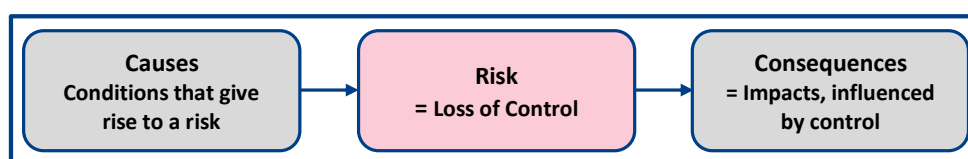


Figure 1: Risk Event Sequence

In the context of fleet risk management, a risk materialises in the form of an actual fleet or plant accident once control is lost.

At this point of lost control, the level of risk likelihood now becomes irrelevant and only the level of consequence that arises from the risk event remains. Staff attitudes towards the seriousness of these events should not be considered as only potential bumper-bashings, dents or scrapes, but rather that every loss of control by a driver, however likely or unlikely, could potentially result in far more severe outcomes. And they are normally preventable.

Since the ultimate objective of the Fleet Risk Management Program is to minimise claims across the local government sector, in alignment with ISO 31000, the initial approach is the identification of the best practice techniques (i.e. Controls) used by local government fleet managers to manage their risk.

These identified Controls aimed at reducing the likelihood or consequence of risk can then be implemented in the form of improvements (i.e. new or re-designed Controls).

Common Fleet Controls

Preventative Controls – are aimed at preventing the risk occurring in the first place, such as:

- Leadership's statement of continued commitment to good driving, made known through a formal Policy and monitored through oversight of operations.
- Drivers and operators starting each day well aware of what is expected of them.
- Compliance with Work, Health and Safety responsibilities.
- Training.

Detective Controls - are used to identify failures, such as:

- Licence and certification checks.
- Fitness for work tests.
- Audits and stocktakes.

Fleet Risk Management Program



Corrective (or Reducing) Controls – are aimed at minimising the consequences such as:

- Airbags.
- Protection / Insurance.
- First aid kits and fire extinguishers.

To be effective, Controls should be:

- Documented and aligned with policies and procedures.
- Up to date and understood by users.
- Delivered consistently within statutory or service delivery standards.
- Subject to ongoing monitoring.
- Reviewed and tested regularly.

The scope for this project involved an assessment of the following Controls:

Focus Area	Scope
Drivers and Operators	<ol style="list-style-type: none"> 1. On-Boarding 2. Ongoing Management of Conduct and Capabilities 3. Training 4. City Leadership
Storage and Usage of Fleet	<ol style="list-style-type: none"> 1. At the Depot / Works Operations Centre 2. Away from the Depot / Works Operations Centre 3. Grey Fleet (private vehicles used by staff or volunteers for work purposes) 4. Bushfire Fleet 5. Fuel, Charging Stations and Keys 6. Use of Technology and Advancements of Fleet
Maintenance Activities	<ol style="list-style-type: none"> 1. Record-Keeping (excluding maintenance) 2. Maintenance Procedures 3. Maintenance Activities
Incident and Emergency Management	<ol style="list-style-type: none"> 1. Reporting and Recording of incidents 2. Incident Management 3. Vehicle and Plant Emergency Management 4. On-Site Emergencies

Observations and Recommendations

The following Observations are based on prevailing conditions at the time of the assessment and information provided by City of Cockburn personnel. These have not necessarily been validated (as would occur in a formal audit) and no assumptions should be made by virtue of these observations.

Only the Works Depot in Bibra Lake was visually inspected for completion of this initial report.

Section 1: Drivers and Operators

a. On-Boarding	Good practices
	<ul style="list-style-type: none"> There is a formal, documented and centrally monitored on-boarding process for all drivers and operators. Driver and operator experience, maturity and physical health is assessed through the recruitment process and pre-employment medical, drug and alcohol test and Police clearance. Driver and operator licence and certification checks are performed for all light and heavy fleet users. As a minimum, onboarding clearly outlines: <ol style="list-style-type: none"> 1) Appropriate use of fleet, 2) Fitness for Work responsibilities, 3) Accountability for accidents, 4) Work, Health and Safety responsibilities. These responsibilities are included in signed employment contracts or position descriptions. The on-boarding process includes an observed assessment of skills for all heavy fleet and specialised equipment to assess suitability, and a 'buddy' system for oversight and support. There is a formal Verification of Competency (VOC) for Waste and Landfill.
On-Boarding	Recommendations
	<ul style="list-style-type: none"> None
b. Ongoing Management of Conduct and Capabilities	Good practices
	<ul style="list-style-type: none"> There is a regular confirmation of driver and operator competencies, certifications and licenses. There is a policy that defines driver safety practices covering areas such as the use of mobile phones, prohibited substances and managing fatigue.
Ongoing Management of Conduct and Capabilities	Recommendations
	<p>While there is an expectation that formal driving and operating competency and license validity reviews are conducted annually, this process is not centralised and is managed by the individual business units themselves. This could lead to gaps or bias.</p> <ul style="list-style-type: none"> Centralise all regulatory information related to the operation of vehicles and plant into one system for ongoing monitoring. Include relevant competencies, training, certification and vehicle and driver license validity. <p>Drivers are responsible for paying their own infringements; however it is unclear whether infringements are recorded and then monitored to identify staff with multiple infringements. This would occur equally for a loss of demerit points or for multiple complaints.</p>

There is no formal procedure to validate that this conduct is entered into the Records Management Safety System (RMSS) or Enterprise Content Management (ECM), or that it is monitored after.

Without proactive management of this information to identify areas for improvement, management and executive remain unaware of the conduct of their staff. This is further expanded under 'Reporting and Recording of Incidents'.

- Develop a formal procedure to ensure that violations, traffic infringements and complaints against drivers and operators are adequately managed through RMSS or ECM and that staff with multiple offences are appropriately identified and coached for improvement.

c. Driver and Operator Training	Good practices
	<ul style="list-style-type: none"> • A formal handover familiarisation process is conducted whenever a driver is given custody of a different heavy vehicle. • Training includes changes to use of fleet due to technological improvements, such as new vehicle safety features and appropriate charging of electric vehicles. • Specialised training is provided for supervisors and managers. • Specialised training is provided for heavy fleet operation (VOC's Buddy system). • Chain of responsibility training is provided for workers.
c. Driver and Operator Training	Recommendations
	<p>Currently, there is no standardised, regular and ongoing driver and operator training schedule which includes safe driving practices, the safety of drivers and occupants and the protection of fleet.</p> <p>There is also no centralised driver and operator training matrix in place to ensure important training and awareness topics are not missed, and it is unclear whether all business units had provided training, information and instruction to staff who are not drivers or operators but who may be exposed to plant.</p> <p>Individual business units do not necessarily have the resources to consistently coordinate important training and awareness topics.</p> <p>Develop a formal driver and operator training matrix to ensure important training and awareness topics are not missed. This could be developed by extracting topics recorded in previous toolbox or WHS fleet-related meetings over the past few years and should include topics such as:</p> <ul style="list-style-type: none"> • Safety procedures, such as weather, incidents and fatigue and also new fleet and road technology, new driving legislation, safe driving practices, the safety of drivers and occupants and the protection of fleet, and • Driver-vehicle procedures, such as traffic management, security requirements for keys, assets and cargo in the vehicle (tools, equipment, herbicides, fuel, heavy goods, etc.) and procedures to increase driver awareness of hazards and obstructions to safe egress. <p>A formal handover familiarisation process is conducted whenever a driver is given custody of a new heavy fleet vehicle, however this is not the case for light fleet and utilities. Training on the use of the correct fuel, breakdown and accident procedures, technological improvements, vehicle safety features and appropriate charging of electric vehicles, etc., should occur prior to handover.</p> <p>Wherever possible, drivers should be given the same vehicle to drive. This is shown to lead to better protection of the asset and a more confident driver.</p> <ul style="list-style-type: none"> • Implement a formal handover familiarisation process prior to handover whenever a driver is given custody of a new or different vehicle. This includes light fleet and utilities. Include training on breakdown and accident procedures, vehicle technology, vehicle safety features and use of the correct fuel or correct charging procedures.

d. Leadership	Good practices
	<ul style="list-style-type: none"> A culture of safe driving is promoted by management and executive (Safe Work Method Statements, work instructions, toolboxes). Ongoing Fitness for Work tests (including hearing, drug and alcohol) are performed to ensure driver health and capability. Employees are included in the development and implementation of new procedures.
Leadership	Recommendations
	<p>Drivers and operators are monitored for adherence to fleet and safety procedures by their supervisors and team, however this appears inclined towards incidents and is not necessarily proactively reported.</p> <p>A culture of safe driving is also promoted by management and executive, however, the City's gross incurred claims exceed their Metropolitan City peers in all categories, with the top six claim categories all considered member-at-fault.</p> <p>These six claim categories have accounted for a gross incurred total of 67% of all claims submitted through the insurance claiming process over the past 5 years. These exclude all incidents below the claim excess threshold of \$1,000, which could notably increase all categories.</p> <p>Injuries, lost administration time, management distraction, service disruptions and reduced fleet resale values add considerably to the actual cost of these accidents.</p> <p>As these claims relate to driver behaviour, they could be indicative of drivers and operators not being aware of what is expected of them, are poorly trained, or have a poor attitude towards safety and damage to fleet, or management and executive efforts are being disregarded by staff or are ineffective.</p> <p>Employees are included in the development and implementation of new procedures.</p> <ul style="list-style-type: none"> Make employees aware of the City's accident statistics compared to their peers and task them in teams to develop and implement new procedures to reduce at-fault claims. This includes light fleet users. <p>Consider:</p> <ul style="list-style-type: none"> Incentives and disincentives for individuals and business units. Formal supervisor safety observations. The use of spotters and egress processes for working kerbside or exiting parking areas. Traffic management and security requirements for keys, assets and cargo. Attitudes towards safety of themselves and their work colleagues and care of their fleet. Support for advanced driver training The management of work pressures, fatigue and distractions. <p>These procedures should be included in the City's Fleet Usage Guidelines and all drivers and operators given a hard copy of the guidelines.</p> <p>All fleet incidents, with or without injury, or claimed through the insurance process or not, should then be monitored by executive to gauge the effectiveness of these new procedures.</p>



Section 2: Storage and Usage of Fleet

a. At the Depot	Good practices
	<ul style="list-style-type: none"> The depot is protected from unauthorised entry, theft and vandalism and is monitored by CCTV. Suitable external lighting and security lighting is in place and operational. There are allocated parking bays for fleet. Line marking is used to assign bays and direct pedestrian movement. Parking bay tyre barriers and safety bollards are in use to protect people and infrastructure. All roads are one-way only to allow for a smooth flow of traffic. Vehicles are parked facing in the same direction to reduce reversing blind-spots.
At the Depot	Recommendations
	<p>Surfaces are free from potholes and potential trip and fall hazards in all areas other than the central driveway leading from west to east which is in poor condition with flooded potholes. While this area is not frequented by pedestrians, it is used frequently for the movement of fleet and therefore a potential contributor to tyre damage.</p> <ul style="list-style-type: none"> Recommend having the central driveway leading from west to east tarred and new line markings applied. See images 8, 9 and 10. Trees overhanging fleet assets or in close proximity to buildings should be trimmed back. See Images 5, 6 & 7.
b. Away from the Depot	Good practices
	<ul style="list-style-type: none"> There is a formal Light Fleet Policy that outlines appropriate usage of the vehicle and driver and occupant responsibilities. There is a formal policy that defines the use of fleet assets for limited private use. There are minimum safety and security requirements for light fleet parked at a staff member's home, the sports centre, etc. There are driver-vehicle procedures, such as traffic management, security requirements for keys, assets and cargo in the vehicle (tools, equipment, herbicides, fuel, heavy goods, etc.) and procedures to increase driver awareness of hazards and obstructions to safe egress are in place. Fleet (such as graders, buses or utility vehicles) are never hired out or loaned to profit-making groups or businesses.
Away from the Depot	Recommendations
	<p>There are specific procedures for fleet parked while out at a job, however these are not formalised, and at-fault claims may indicate gaps.</p> <ul style="list-style-type: none"> Develop formal 'Working Kerbside' procedures for fleet parked while out at a job, such as traffic management, supervisor safety observations, security requirements for keys, assets and cargo in the vehicle and using 'spotters' or 'witches' hats around the parked vehicle to increase driver awareness of hazards and obstructions to safe egress. <p>There is no formal policy that outlines the carriage and storage obligations for weight, conduct and utilisation of vehicle cargo and load restraint training has not been provided for workers.</p> <ul style="list-style-type: none"> Develop a formal policy and procedure to outline the carriage and storage of vehicle cargo including obligations for weight, conduct and utilisation and provide load restraint training for workers.

c. Grey Fleet	Good practices
	<ul style="list-style-type: none"> Minimal use of Grey fleet (private vehicles used by staff or volunteers for work purposes) and the practice is discouraged.
Grey Fleet	Recommendations
	<p>A vehicle is legally a 'workplace' if a person performs a work task in their own vehicle, and the local government should ensure that it meets the required safety standards of a workplace prior to permitting the practice.</p> <p>Minimum maintenance and safety standards for private vehicles used for work purposes should be established, such as a minimum ANCAP rating, maximum age of vehicle, and vehicle type, such as not allowing motorcycles to be used for work purposes.</p> <p>A Grey Fleet Policy defines the use of personal vehicles for work purposes and outlines the employee's responsibility for business-use insurance, safety standards and maintenance and this should be signed by the employee to confirm understanding.</p> <p>Good practice would include confirmation that the vehicle is fit-for-purpose for the type of road and travel conditions where regional travel occurs.</p> <ul style="list-style-type: none"> Implement a formal Grey Fleet Policy that defines the use of personal vehicles for work purposes and outlines the employee's (and potentially volunteer's) responsibility for business-use insurance, safety standards and maintenance and which is signed by the employee.
d. Bushfire Fleet	Good practices
	<ul style="list-style-type: none"> All Bushfire vehicles are supplied and maintained by DFES The City are responsible for housing the bushfire fleet. Vehicle storage facilities are kept locked, portable assets are secured out of sight and keys are securely stored. The internal and external structure and amenities, plumbing, gas and electrical infrastructure is maintained in good condition to reduce potential unauthorised access. Gas bottles, fuel or other combustibles are not stored in bushfire fleet facilities.
Bushfire Fleet	Recommendations
	<ul style="list-style-type: none"> None
e. Fuel	Good practices
	<ul style="list-style-type: none"> Fuel is stored on site in certified and environmentally safe storage tanks. (2 Diesel, 1 Unleaded). Fuel storage is not in close proximity to unnecessary external risks such as bushfire, adjacent property fire, vandalism, theft or arson. The bowzers are in a bunded area protected from impact and with restricted access to authorised users only. The integrity of the tanks is verified (annually) to detect fuel storage contamination or leaks.
Fuel	Recommendations
	<p>The integrity of the fuel tanks is formally verified (annually) to detect fuel storage contamination or leaks, however the older tanks are around 40 years old and may be approaching the end of their lifecycle.</p> <ul style="list-style-type: none"> Consider replacing 40-year-old fuel tanks prior to the end of their lifecycle to avoid potential fuel storage contamination and subsequent damage or breakdowns of fleet.

f. Charging Stations	Good practices
	<p>The City currently has two electric vehicles and maintains three public EV charging stations (EVCS) and is considering commissioning additional EV's and EVCS's. Guidance on future installations can be found in the LGIS 'Electric Vehicle Charging Areas' Property conservation guidelines - October 2023 as follows:</p> <ul style="list-style-type: none"> • If located indoors, EVCS are installed in an area easily accessible to emergency services, close to garage entrances, away from lower levels or basements and their location will not obstruct escape from the building in the event of a fire. • If located indoors, EVCS are sufficiently spaced and at least 10M distance from combustible materials and any hazardous or critical installations. • If located indoors, EVCS are contained in a separate fire safety compartment with 60-120-minutes of fire resistance and adequate ventilation for the release of flammable gases. • The indoor area is fitted with automatic sprinkler protection and an automatic fire detection and alarm signalling system transmitted to a continuously occupied location. • Vehicle charging is prohibited within the premises outside of business hours. • Chargers are physically protected against mechanical damage by tyre barriers or bollards. • If located outdoors, the EVCS are as far as possible (at least 10M) from buildings, structures and utilities. • Staff have been trained on the correct use of the charging equipment, detecting and reporting issues, and actions to be taken in the event of a thermal event. • Charging stations are visually inspected daily to detect signs of damage and an annual electrical inspection with infra-red thermography is performed. • Chargers have been installed by an approved EVCS installer and have a dedicated electrical circuit separated from the general main and fitted with circuit breakers and surge protection. • On detection of a damaged or malfunctioning charger, the charger is shut off and locked until it has been repaired and recertified by an authorised company. • Staff are not permitted to charge their e-scooters or e-bikes in buildings or parking areas or removing the battery and charging at their desks or in common areas.
Charging Stations & EV's	Property protection considerations
	<ul style="list-style-type: none"> • Almost every local government is considering commissioning new or additional electric vehicles (EV's) and subsequently installing EV charging stations (EVCS). Guidance on installations of electric vehicle charging stations is clearly property-conservation conscious due to the very unlikely but potentially real thermal runaway from a lithium-ion battery sometimes caused by overcharging, damage or neglect. Once this process starts to occur, it is very difficult to stop and could lead to significant harm to people and assets. A fire caused by even a small lithium-ion battery can engulf an entire room in two to three minutes. It is therefore preferable to be conservative. • In most cases, e-scooters and e-cycles have more than adequate range for commuting journeys without requiring regular charging at the workplace. Battery collection by local governments has long been an area of concern, with many local governments placing these collection points within their administrative offices to allow the public a disposal point. Careful consideration should be given to the placing of these collection points in a safe area at an appropriate distance from administrative offices and egress routes.

g. Keys	Good practices
	<ul style="list-style-type: none">• There is a dedicated storage area for keys in a fire-resistant enclosure.• Spare keys are located at an alternate site in a fire-resistant enclosure.• Access to key storage and spare key storage areas are restricted to authorised users only and there is a booking system in place.
Keys	Recommendations
	<ul style="list-style-type: none">• None
h. Use of Technology	Good practices
	<ul style="list-style-type: none">• As a minimum, local government technology requirements are integrated into fleet procurement.• Heavy fleet is monitored using GPS tracking (route planning and location).• There is a formal fleet replacement strategy to dispose of vehicles with outdated technology.• Longer-term technology trends are analysed and reported.
Use of Technology	Recommendations
	<ul style="list-style-type: none">• None



Section 3: Maintenance Activities

a. Record-Keeping (excluding maintenance)	Good practices
	<ul style="list-style-type: none"> An accurate record of all fleet assets is managed in a centralised system (Tech 1 asset maintenance system). The system includes all relevant licencing and registration information against each asset number. The system is updated to reflect additions, modifications, disposals or transfers. All fleet values are reflective of market.
Record-Keeping (excluding maintenance)	Recommendations
	<ul style="list-style-type: none"> None
b. Maintenance Procedures	Good practices
	<ul style="list-style-type: none"> An accurate log of all fleet maintenance requirements is managed in a centralised system and includes light and heavy fleet (time or KM-based with KM's recorded through BP fuel cards). Accurate records of completed maintenance activities, including dates, costs and service providers is maintained in this centralised system. There is an easy-to-use defect reporting system for staff to capture issues in addition to routine servicing schedules.
Maintenance Procedures	Recommendations
	<ul style="list-style-type: none"> None
c. Maintenance Activities	Good practices
	<p>A dedicated heavy fleet maintenance workshop is maintained in-house.</p> <p>A small stock of important spare parts is maintained in-house.</p> <p>There is also a formal process in place for more complex repairs or to comply with manufacturer's warranty conditions.</p> <p>A formal process with AutoMasters is in place for routine maintenance of light fleet.</p> <p>Detailed breakdown procedures are in place.</p> <p>There are fuel management procedures in place to ensure the correct fuel is used.</p> <p>Fleet safety visual checks are performed periodically to identify defects and monitor the condition of vehicles and Bridgestone tyre contractor monitors condition.</p> <p>Standard work practices include isolation procedures when carrying out maintenance, repairs, cleaning or emergency shutdown.</p>
Maintenance Activities	Recommendations
	<ul style="list-style-type: none"> None

Section 4: Incident and Emergency Management

a. Reporting and Recording of Incidents	Good practices
<ul style="list-style-type: none"> The overall culture supports staff reporting incidents and near-misses. There is one centrally managed incident and accident recording and reporting system in place which includes near-misses, injuries from use of fleet, and damage to fleet without injuries. All incidents and accidents (with or without injuries) are formally investigated, followed up and closed out (Injury Management Adviser). 	
Reporting and Recording of Incidents	Recommendations
<p>All incidents, with or without injury, should be recorded in one centrally managed system. Without this, accidents without injuries are managed through the insurance claims process and not brought to the leadership's attention unless they are serious in nature.</p> <p>While there are procedures in place and there is one centrally managed incident recording and reporting system in place (RMSS), consensus indicated that RMSS is not always completed. Without proactive management of this information to identify areas for improvement, management and executive efforts may be ineffective or be disregarded by staff.</p> <ul style="list-style-type: none"> Develop a formal procedure, and enforce adherence to the procedure, to ensure that all incidents, with or without injury, or claimed through the insurance process or not, are recorded in the RMSS system. The leadership team should then receive regular (quarterly?) reporting of all fleet incidents, including near-misses and minor damage below the claim threshold. 	
b. Incident Management	Good practices
<ul style="list-style-type: none"> Drivers and operators are aware of the correct procedures they should take in the event of an accident or breakdown (booklet in glove box, RAC, Wrights). There a structured communication channel between drivers and the depot or their administration. There is oversight across fleet activities and incidents through GPS tracking. Disciplinary procedures are implemented for staff responsible for multiple at-fault incidents or infringements. 	
Incident Management	Recommendations
<p>Claims costs including the claims excess is paid from a bulk finance budget. Where a vehicle-specific budgets exists, or business-unit-specific fleet budgets exist, it may be feasible to allocate these expenses to those budgets at the time of second at-fault and any subsequent at-fault incidents. This should increase awareness of the importance of reducing at-fault incidents.</p> <ul style="list-style-type: none"> If practicable, consider deducting claims excesses and costs from the budget of the business unit or specific vehicle responsible for multiple at-fault incidents. 	

c. Vehicle and Plant Emergency Management	Good practices
<ul style="list-style-type: none"> • Every vehicle is equipped with the relevant safety equipment required to ensure an immediate response to an emergency (extinguishers, first aid kit, etc.). • The safety equipment is regularly reviewed and replenished. • There is a formal procedure in place for responding to waste igniting within a waste vehicle, bus or other heavy fleet. • Periodic training is conducted on emergency procedures and on equipment handling. • Additional safety features have been put in place for heavy machinery (exclusion zone, pre-starts, JHA's, SWMS). 	
Vehicle and Plant Emergency Management	Recommendations
<p>Heavy vehicles such as waste trucks do not have in-vehicle fire detection and suppression systems.</p> <ul style="list-style-type: none"> • Install in-vehicle fire detection and suppression systems into heavy vehicles carrying potentially flammable materials, such as waste trucks. • Upgrade in-vehicle equipment used to combat firefighting. 	
d. On-Site Emergencies	Good practices
<ul style="list-style-type: none"> • Some high value items have protection from interaction with the elements and other vehicles. • All on-site fire suppression systems are adequate and have been inspected and tested. • There is a dedicated, secure, ventilated and fireproof storage area for hazardous materials. • There is a dedicated, secure storage area for gas bottles or other flammable material. • Smoking controls and hot works controls are in place and are adequate. • The landfill site has been formally assessed for natural environmental exposures such as flood, storm, hail and bushfire and response plans are in place. 	
On-Site Emergencies	Recommendations
<p>High-value fleet is not separated from others of high value when parked. There are no buffer spaces provided by fire-resistant barriers (such as walls) or low value items parked between vehicles and high value fleet items.</p> <ul style="list-style-type: none"> • Rearrange parking arrangements to provide buffer spaces to separate high value fleet from others of high value. See also Images 16 A, B & C. <p>Also for consideration:</p> <ul style="list-style-type: none"> • Install fire detection systems in the fleet parking area such as alarmed thermal cameras. • Install smoke alarms in all recreational, storage and works areas. • Validate that all site emergency response plans are up to date, and evacuation drills have been performed. • Validate that thermographic scans are conducted on relevant infrastructure. • Move bins away from under trees acting as a potential fire hazard. See image 14. • Upgrade the site fire response system to include a tank and a booster pump. • Maintain green waste below wall height and install sprinklers on a pole above wall height. • Incorporate formal response procedures into the depot site emergency response plan for evacuation of fleet to another pre-determined safe site if required. 	

High level overview of site operations and history
Changes in the previous 12 months? None Planned for upcoming 24 months? None
Property construction: Combustibles in construction (EPS expanded polystyrene and ACP aluminium composite present?) – None. Ultrabond FR product considered non-combustible.
Housekeeping: <ul style="list-style-type: none"> • Plant and equipment - Adequate • Maintenance workshops - Adequate • Bulk storage areas - Adequate • Mobile equipment – N/A • IT servers – N/A
Utilities supply: <ul style="list-style-type: none"> • Main switch board – Adequate. Maintenance records available. No evidence of thermographic scans conducted. • Water, gas and other utility connections - Adequate • Backup power generation? 2X diesel generators. • Solar system - 30 Kilowatts. Monthly savings – unknown.
Fire protection and installation: <ul style="list-style-type: none"> • Fire protection coverage (hydrants, hoses and extinguishers). Flow test results for hydrants – conducted and deemed adequate. • Fire pumps and tanks - None • Special hazard suppression (gas/foam suppression) None • Smoking controls - Adequate • Permitting systems (hot works, confined spaces, etc) - Adequate
Hazardous goods storages: <ul style="list-style-type: none"> • Ignitable liquids and gas storages - Adequate
External exposures: <ul style="list-style-type: none"> • Minimal. Security personnel (Cockburn CoSafe) on site after hours. Multiple CCTV cameras. • Fire – Unlikely. Yellow and grey FR type ACP building cladding considered to be non-combustible. • Cyclone - Unlikely • Flood - Unlikely • Access roads – Adequate (3)



Images:



Image 1: Bush Fire Prone Area Results

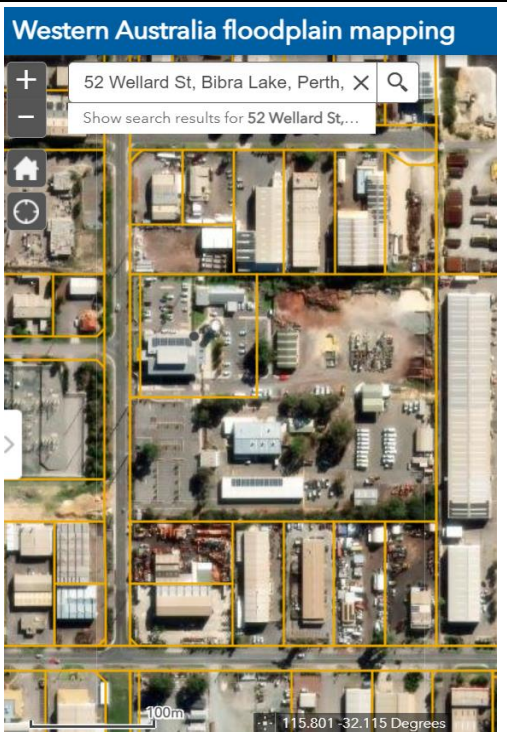


Image 2: Floodplain Mapping Results



Image 3: Building cladding & electric bike



Image 4: Fleet parking arrangements



Image 5: Trees overhanging infrastructure



Image 6: Trees overhanging fleet



Image 7: Trees overhanging fleet



Image 8: Potholes





Image 9: Potholes



Image 10: Green waste storage area



Image 11: High-value fleet parking arrangements



Image 12: Welding area

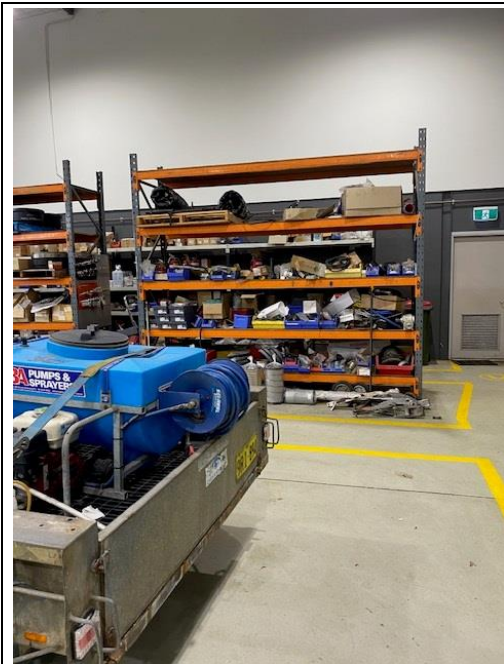


Image 13: Spare parts storage area



Image 14: Bins under trees



Image 15: High-value fleet under cover parking arrangements

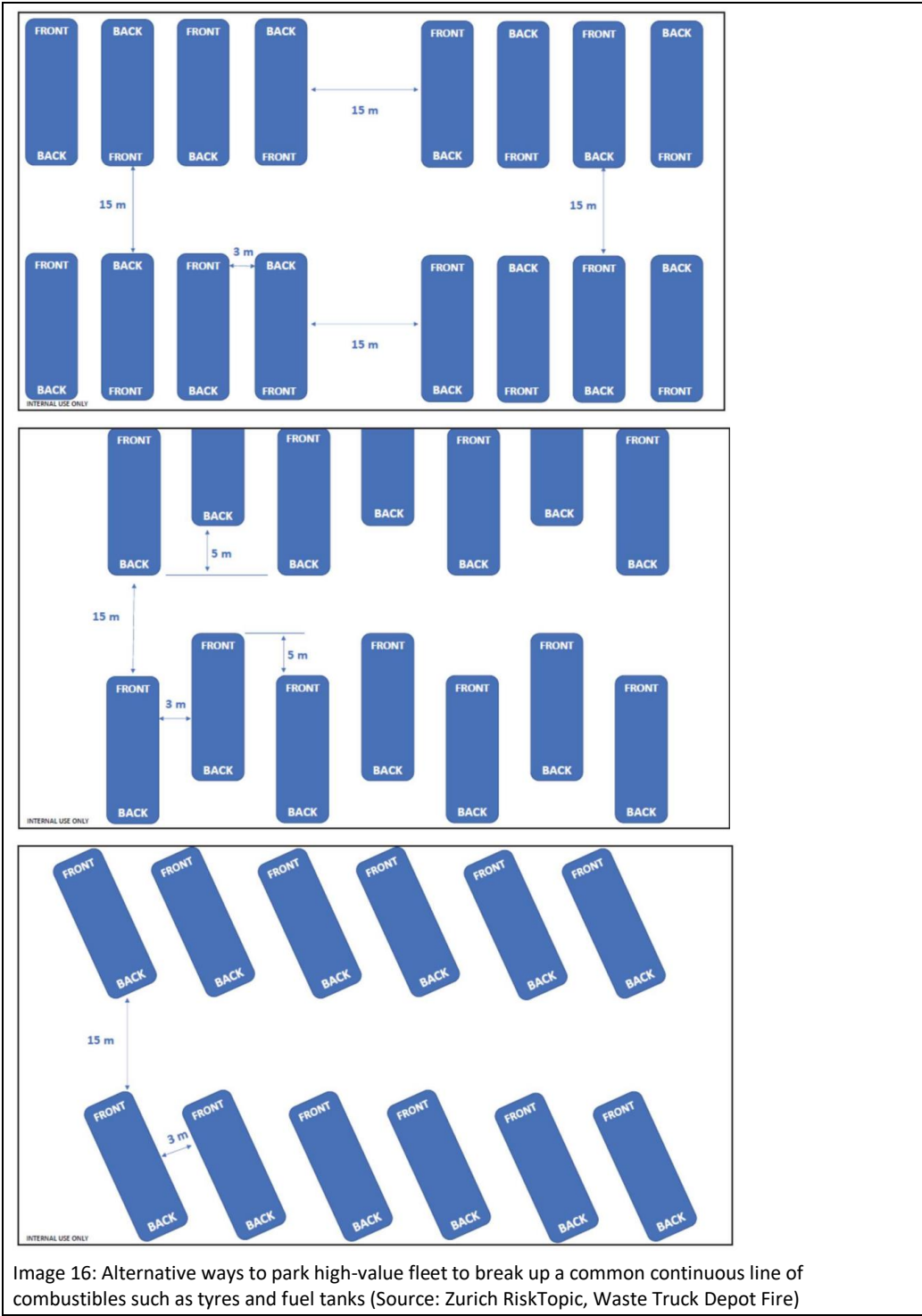


Image 16: Alternative ways to park high-value fleet to break up a common continuous line of combustibles such as tyres and fuel tanks (Source: Zurich RiskTopic, Waste Truck Depot Fire)

Conclusion

The City of Cockburn is to be commended for undertaking an assessment of this nature.

Assessments such as these open up the organisation's practices to analysis and allow for the identification and rectification of any gaps in a safe environment which an assessment offers.

LGIS would like to thank the City of Cockburn for their participation in this assessment and to the staff who were involved, for their hospitality and contribution towards its completion.

Our services are available to assist the City in the customisation and implementation of recommendations contained within this report.

Report compiled by Michael Sparks, LGIS Senior Risk Consultant, August 2024.

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Fleet Risk Management Program

Report Disclaimer

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11.2.3 City of Cockburn Annual Groundwater Monitoring Summary 2023-2024 Report

Executive A/Director Infrastructure Services
Author Environment, Parks and Streetscapes Manager
Attachments 1. City of Cockburn Annual Groundwater Monitoring Summary 2023-2024 [↓](#)

RECOMMENDATION

The Committee recommends Council RECEIVES the City's 2023-2024 Annual Groundwater Monitoring Summary submission to the Department of Water and Environmental Regulation.

Background

The City's Irrigation Operating Strategy provides a strategic direction to the management, monitoring and reporting of abstracted groundwater for the City's open spaces and streetscapes.

Contingency measures are also detailed to address abstraction limits being exceeded, adverse impacts of the abstraction are detected, or in the event the licensed abstraction limit is reduced by the Department of Water and Environmental Regulation (DWER).

An annual summary of groundwater usage is required to comply with the City's ground water licence (GWL) conditions.

This report outlines the groundwater usage for 2023–2024 which will be issued to DWER.

Submission

City of Cockburn Annual Groundwater Monitoring Summary 2023-2024

Report

The City's primary use for groundwater is to irrigate parks, gardens, and streetscapes for active, passive, and ornamental purposes.

The GWL issued to the City of Cockburn for the 2023–2024 year are governed by the operating strategy for the irrigation of parks and streetscapes and assessed in this report.

DWER is in the process of amalgamating the City's GWLs in the same subarea along with a new operating strategy to be approved as part of this process.

While this process is underway, the City is treating all GWLs within the one subarea as one GWL i.e., water can be traded between the sites in one subarea.

Key findings of the report are summarised below:

Water Usage

- A groundwater saving of 83,534 kiloliters or 3% across all the City's Sub-Areas
- Total saving has not met the City's Water Efficiency Plan target of 10%, however one subareas (Success) individually has not meet this target
- Significant oval repairs from Sting Nematode and high club use, coupled with an extremely hot and dry summer have impacted water use in many subareas
- Static water levels (SWL) across selected bores within the City's subareas remain steady
- Efficiencies at the Henderson Landfill Facility have resulted in reduced water usage when compared to the 22-23 period.

Water Quality

- Water quality and salinity levels remain within acceptable irrigation water quality levels
- Monitoring of Manning Azelia indicates that groundwater salinity levels have stabilised to a moderately saline level. Monthly monitoring and reduced ground water use, where possible, will continue
- Mitigating leaching of nutrients into the groundwater is a key factor impacting water quality with the primary cause being fertiliser applications which are scheduled to not coincide with large rain events.

Water Quantity

- Water levels appear to have been adversely impacted by a combination of abstraction, a long irrigation season, and a poor 2023 winter recharge. The capacity of the aquifer to sustain the City's demands appears to be adequate. The City's groundwater management has continually improved over recent years and there is no reason to suggest that a sustainable trend will not continue.

Groundwater Sub-Area	Metered Bore Sites	Abstraction (Kilolitres)	DWER Allocation (Kilolitres)	Percentage of allocation abstracted
Kogalup	114	1,499,372	1,504,654	99.6%
Success	55	763,292	680,099	112%
South Lake	21	279,153	351,000	80%
City of Cockburn	33	331,807	393,745	84%
Airport	18	168,559	188,731	89%
Thompsons	11	115,946	118,351	98%
Banjup	6	25,167	28,250	89%
Total	258	3,183,296	3,266,830	97%

Detailed analysis of groundwater flow meter readings, water quality testing and static groundwater levels can be found in the Groundwater Monitoring Summary attached.

The City has another two GWL Licences governed by separate operating strategies and are independent of this report.

1. GWL 200065 - geothermal heating Cockburn ARC with a zero-kilolitre net abstraction.
2. GWL 159917 - groundwater interception drain (GID) at Port Coogee which is sub surface abstract.

Strategic Plans/Policy Implications

Environmental Responsibility

A leader in environmental management that enhances and sustainably manages our local natural areas and resources.

Budget/Financial Implications

N/A

Legal Implications

N/A

Community Consultation

N/A

Risk Management Implications

The City is required to submit an Annual Groundwater Monitoring Summary to the Department of Water and Environmental Regulation as per the groundwater licence conditions.

If Council does not accept the recommendations of this report, the City will be in breach of the groundwater licence conditions which poses a significant risk in maintaining its active reserves, park, streetscapes, street trees, etc.

Advice to Proponent(s)/Submitters

N/A


Implications of Section 3.18(3) *Local Government Act 1995*

Nil



ANNUAL GROUNDWATER MONITORING SUMMARY
2023 – 2024



Document Information				
Document Title:		Annual Groundwater Monitoring Summary		
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Appendices

Appendix 1: Groundwater Well Licences
Appendix 2: Groundwater Well Licence Subarea Maps
Appendix 3: Flow meter readings 2023 – 2024
Appendix 4: Groundwater salinity levels
Appendix 5: Water quality of selected bores.
Appendix 6: Comprehensive water analysis of selected bores September 2015
Appendix 7: Laboratory certificates 2023 - 2024

1. Introduction

The City of Cockburn is a local government authority providing services to the community. Its use of groundwater is primarily to irrigate parks and gardens for active, passive and ornamental purposes. The City of Cockburn is located 15 km south of the Perth CBD.

The groundwater well licences (GWL) issued to the City of Cockburn for the 2023 – 2024 year governed by the operating strategy for the irrigation of parks and gardens and assessed in this report are outlined in Table 1 and are presented in full in Appendix 1 and Appendix 2 shows maps of irrigated areas of each subarea.

The Department of Water and Environmental Regulation (DWER) is in the process of amalgamating GWLs in the same subareas and has an operating strategy has been submitted as part of this process. While this process is underway, the City is treating all GWLs within the one subarea as one GWL i.e., water can be traded between the sites in one subarea.

GWL200065 is a geothermal heating project with a zero kilolitre net abstraction. GWL159917 is a groundwater interception drain (GID) associated with the Port Coogee Marina development (Table 2). Both of these GWLs are governed by their own operating strategies and as such are reported on independently of the GWLs in Table 1. GWL159917 is expected to be amalgamated with GWL49535 as part of the new operating strategy, however, GWL200065 will remain standing alone.

Table 1: Groundwater well licences held by the City of Cockburn 2023 – 2024 for irrigating parks and gardens.

GWL	Groundwater Area	Groundwater Subarea	Aquifer	Expiry	Water year	Allocation kL
GWL49535	Cockburn	Kogalup	Perth: Superficial Swan	14 Aug 2029	1 Jul – 30 Jun	1,502,654
GWL204089	Cockburn	Kogalup	Perth: Superficial Swan	11 Mar 2030	1 Oct – 30 Sep	2,000
Total for Kogalup subarea						1,504,654
GWL203203	Jandakot	Success	Perth: Superficial Swan	7 Aug 2029	1 Jul – 30 Jun	680,099
Total for Success subarea						680,099
GWL49545	Perth	City of Cockburn	Perth: Superficial Swan	14 Aug 2029	1 Jul – 30 Jun	395,745
Total for City of Cockburn subarea						395,745

GWL	Groundwater Area	Groundwater Subarea	Aquifer	Expiry	Water year	Allocation kL
GWL203189	Jandakot	South Lake	Perth: Superficial Swan	4 Aug 2029	1 Jul – 30 Jun	351,000
Total for South Lake subarea						351,000
GWL203196	Jandakot	Airport	Perth: Superficial Swan	5 Aug 2029	1 Jul – 30 Jun	112,470
GWL202853	Jandakot	Airport	Perth: Superficial Swan	5 Aug 2029	1 Jul – 30 Jun	53,731
GWL155669	Jandakot	Airport	Perth: Superficial Swan	3 Dec 2023	1 Jul – 30 Jun	22,530
Total for Airport subarea						188,731
GWL203255	Cockburn	Thompsons	Perth: Superficial Swan	14 Aug 2029	1 Jul – 30 Jun	118,351
Total for Thompsons subarea						118,351
GWL203204	Jandakot	Banjup	Perth: Superficial Swan	7 Aug 2029	1 Jul – 30 Jun	28,250
Total for Banjup subarea						28,250

Table 2: Groundwater well licences held by the City of Cockburn 2023 – 2024 for Port Coogee Marina GID and the geothermal heating project.

GWL	Groundwater Area	Groundwater Subarea	Aquifer	Expiry	Allocation kL
GWL59917	Cockburn	Kogalup	Perth: Superficial Swan	14 Aug 2027	1,350,500
GWL200065	Jandakot	Jandakot Confined	Perth: Yarragadee North	16 Jul 2027	0

This report has been prepared by Sports Turf Technology on behalf of the City of Cockburn and pertains to the 1 July 2023 – 30 June 2024 reporting year.

2. Climate and Rainfall

Although the City of Cockburn is located closer to the Jandakot Aero Bureau of Meteorology station (ID 9172), Jandakot station does not measure evaporation. Consequently, comprehensive data from the Perth Airport Station (ID 9021) has been used in this report.

The Perth metropolitan area experiences a Mediterranean climate with hot, dry summers and cool, wet winters. This climate results in the need for irrigation in the warmer months when temperatures and net evaporation are high. The irrigation season traditionally runs from September to April, however, the 2023 – 2024 irrigation season extended into May with 21 consecutive days in the middle of the month experiencing no rainfall.

Current and ten-year mean rainfall and net evaporation data are presented in Table 3 and Table 4.

Table 3: The 2023 – 2024 rainfall (mm) and the 10-year moving mean rainfall (mm).

	2023 – 2024 rainfall (mm)	10-year average rainfall (mm)
July	119.2	130.4
August	47.2	121.6
September	58.2	74.9
October	6.4	33.2
November	6.6	25.7
December	0.0	8.8
January	0.8	16.7
February	2.6	18.2
March	1.2	20.8
April	0.0	29.7
May	69.8	85.6
June	133.2	92.9
Total	445.2	658.6

Table 4: The 2023 – 2024 net evaporation and the 10-year moving mean net evaporation.

	2023 – 2024 net evaporation (mm)	10-year average net evaporation (mm)
July	-63.2	-62.8
August	20.4	-38.4
September	50.6	45.7
October	188.4	144.2
November	259.4	224.8
December	311.4	284.6
January	16.7	292.1
February	18.2	251.1
March	20.8	217.2
April	29.7	118.7
May	85.6	16.8
June	92.9	-38.4
Total	658.6	1455.3

3. Hydrogeology

The bores relevant to this report are constructed in the Perth Superficial Aquifer. The Perth Superficial Aquifer is a major unconfined aquifer that extends throughout the Swan Coastal Plain. It is located in surficial sediments that are Quaternary overlying Cretaceous overlying Jurassic. The sediments range from predominantly clayey through a sandy succession to sand and limestone within the coastal belt (Davidson, 1995).

4. Borefield Description

The bores in the GWLs held by the City of Cockburn relevant to this report are constructed in the Perth Superficial Aquifer and are spread across the groundwater areas of Perth, Jandakot and Cockburn.

The City of Cockburn does not have any bores constructed in the Leederville Aquifer.

GWL200065 is a geothermal project for the purpose of heating the Cockburn Aquatic Recreational Centre. The borefield accesses the Yarragadee Aquifer and consists of an abstraction bore and an injection bore. Compliance reporting of GWL200065 is independent of this report. A detailed description of the project is contained in that report.

The lithology of the GWLs of Kogalup, Thompsons and the western part of the City of Cockburn is limestone and calcrete and was formed in the Quaternary.

The lithology of the eastern part of the City of Cockburn GWL and the Airport, Banjup, South Lake and Success GWLs is sand and gravel from an indeterminable geological age.

The bores are all production bores and are used to irrigate turf and garden areas. Most bores pump directly into reticulated irrigation systems. Others are pumped into holding lakes or tanks and the water is drawn from the lake or tank to irrigate turf or garden. Their peak draw is at the height of summer, usually February.

5. Groundwater Abstraction

As of 30th June 2024, the City of Cockburn has 258 meters installed on bores within its jurisdiction relevant to this report. It is understood that all the City's bores are metered, however, due to the vast number of bores within the City's jurisdiction, periodically a site is discovered to not be metered. This anomaly is rectified as soon as it is discovered.

Managing the vast quantity of bores licenced to the City is challenging. The City is continually trialling new water management software options to improve its water efficiency and improve its record keeping but one single system has not proved effective as yet.

The City uses the SD central control system as a management tool on 225 of its parks. Flow meter readings are stored and downloaded from these sites. All sites are read manually on the first working day of each month and these manual data form the basis of this report.

6. Monitoring Results

6.1. Production

The City remained within its allocation across all but four of its GWLs. GWL204089 (Kogalup), GWL203023 (Success), GWL202853 (Airport) and GWL155669 (Airport) exceeded DWER's allocation of 7,500 kL/ha/yr. The volume of metered water abstracted is presented in Table 5.

GWL204089 will be amalgamated with the wider Kogalup subarea GWL49535. When this is accounted for, abstraction across the two GWLs in the subarea was 99.6% of the allocated entitlement.

GWL203203 is an amalgamation of six GWLs from last year. It exceeded its entitlement by 83,193 kL or 12%. The Success subarea historically has been difficult to manage due to it being a developing area with numerous GWLs. The amalgamation during the current monitoring period is anticipated to make management of abstraction within the Success subarea easier in the future.

GWL202853 and GWL155669, both in the Airport subarea, exceeded their entitlement. These GWLs will be amalgamated with GWL203196. When this is accounted for, abstraction across the three GWLs in the subarea was 89% of the allocated entitlement.

Bore production increased as rainfall decreased and was at its greatest in the hottest months of the year. Abstraction across all subareas was greater in 2023 – 2024 than it has been since 2020 – 2021 water year. The only exception to this is in South Lake, possibly due to the replacement of irrigated POS with a synthetic hockey surface at Lakelands Oval, and Thompsons subarea where it appears efficiency at the Landfill Facility has improved. The increase in abstraction is the result of a combination of greater irrigated areas due to development and a very long irrigation season which uncharacteristically required irrigation of parks well into May.

In accordance with the Water Efficiency Plan, the City set ambitious targets to reduce groundwater abstraction to levels 10% below 2007 – 2008 allocations by 2017 – 2018. The City achieved this in 2020 – 2021 and 2021 - 2022 in all

their eight amalgamated GWLs. However, in 2022 – 2023 and 2023 – 2024 the City was unable to achieve this in the Success and Thompsons subareas. In 2023 – 2024 the Kogalup subarea was also unsuccessful in keeping abstraction to 90% of the total allocation permitted. This indicates that there will be times when achieving DWER's proposal of reducing allocations from 7,500 kL/ha to 6,750 kL/ha for the irrigation of turf and gardens will be a difficult target to hit.

The overall abstraction of groundwater by the City is 3% below the allocated volume of water issued to the City. In this sense, the City was not able to achieve its goal of abstraction being 10% less than the allocation.

Flow meter readings and annual abstraction volumes are presented in Appendix 3.

Table 5: The number of meters and the percentage of abstraction of each GWL.

GWL	Groundwater subarea	Number of metered sites	Abstraction	DWER	
				Allocation	% of DWER allocation abstracted
GWL49535	Kogalup	113	1,497,175	1,502,654	99.6
GWL204089	Kogalup	1	2,197	2,000	109.9
		114	1,499,372	1,504,654	99.6
GWL203203	Success	55	763,292	680,099	112
		55	763,292	680,099	112
GWL49545	City of Cockburn	33	331,807	395,745	84
		33	331,807	395,745	84
GWL203189	South Lake	21	279,153	351,000	80
		21	279,153	351,000	80
GWL203196	Airport	10	44,765	112,470	40
GWL202853	Airport	6	95,675	53,731	178
GWL155669	Airport	2	28,119	22,530	125
		18	168,559	188,731	89
GWL203255	Thompsons	11	115,946	118,351	98
		11	115,946	118,351	98
GWL203204	Banjup	6	25,167	28,250	89
			25,167	28,250	89
Total		258	3,183,296	3,266,830	97

6.2. Rainfall

The effect of the rainfall was such that excessive irrigation was required during the 2023 – 2024 water year. The irrigation season for 2023 – 2024 began under stressed conditions with less than half the average August rainfall. Demand was greater than typical for 10 of the 12 months of the 2023 – 2024 year.

Rainfall throughout the irrigation season was at an all time. The Perth metropolitan area experienced its driest October to April on record during the 2023 – 2024 year. Although rainfall in May was near the 10-year moving mean, there were 21 consecutive days in the middle of the month when no rain fell. May's rain fell in two cold fronts: one at the beginning of the month and one at the end.

The 2023 – 2024 rainfall (445.2 mm) was 235 mm less than the 10-year moving mean (680.2 mm) (Figure 1) and the 2023 – 2024 net evaporation (1756.2 mm) was 333.9 mm less than the 10-year moving mean (1422.3 mm). Ten-year moving mean data and 2023 – 2024 data are presented in Table 3 and Table 4, Section 2.

Figure 1 highlights that the rainfall in 2023 – 2024 was significantly less than the 10-year moving mean. Figure 2 shows the monthly distribution of rainfall in 2023 – 2024 highlighting the minimal rainfall from October to April and Figure 3 shows the clustered distribution of rainfall in May 2024. Figure 4 shows the monthly distribution of the 2023 – 2024 annual net evaporation was higher than the 10-year moving mean net evaporation in 10 of the 12 2023 – 2024 months.

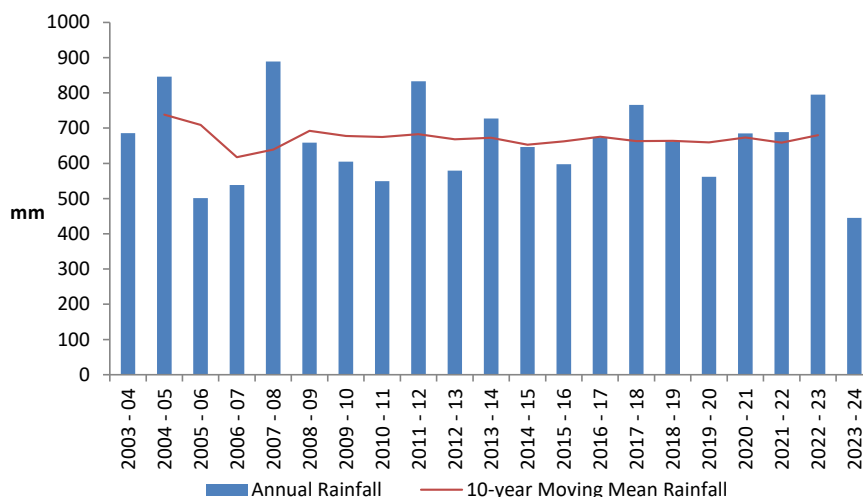


Figure 1: Annual rainfall and 10-year moving mean rainfall since 2003 – 2024.

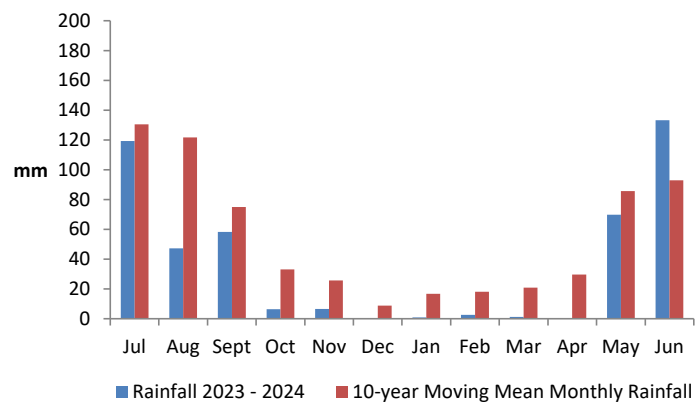


Figure 2: Monthly rainfall for 2023 – 2024 compared with 10-year moving mean.

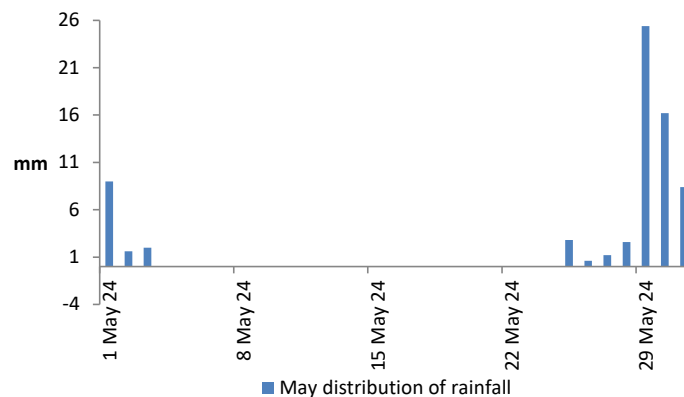


Figure 3: Distribution of rainfall during May. Note that rainfall in the first three days of the month was equivalent to two irrigation events. Active playing fields were still requiring five irrigation events per week during May 2024.

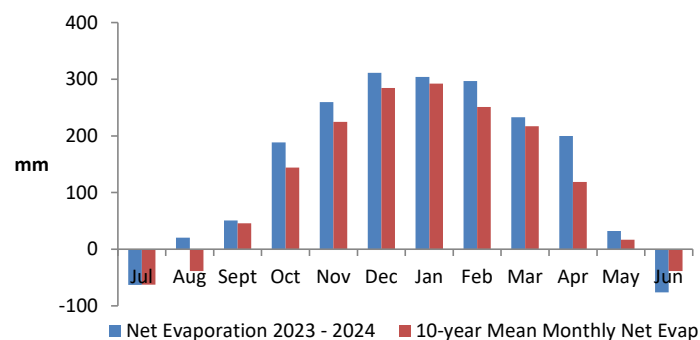


Figure 4: Net evaporation for 2023 – 2024 compared with 10-year moving monthly mean.

6.3. Water Quality

6.3.1. Salinity

In general, the salinity status of the bore water sampled within the City's jurisdiction is considered marginal but suitable for irrigation (Table 6). However, two sites regularly return values in the brackish and moderately saline ranges: Kurrajong in the Banjup subarea and Manning Azelia in the Kogalup subarea.

During 2023 – 2024, Kurrajong in the Banjup subarea has maintained its value of approximately 1500 mg/L after uncharacteristically dropping well into the marginal range with a salinity of 640 mg/L at the March 2021 monitoring period.

During 2023 – 2024, Manning Azelia in the Kogalup subarea did not show the variability that has been present over the history of the monitoring program. Historically, salinity at the bore has ranged from 550 mg/L to 3600 mg/L. The current year's data has been relatively stable around the brackish to moderately saline level (2000 mg/L). There is no sustained seasonal pattern associated with the variation in data.

During 2023 – 2024, Durango Park maintained its value of approximately 350 mg/L after uncharacteristically increasing in salinity at the April 2021 date to 970 mg/L. The solitary increase that was initially of concern has not recurred since.

6.3.2. pH

The pH of the selected sites is slightly acid to slightly alkaline (6.6 – 7.5) (Table 7) over the 2023 – 2024 monitoring period. Over the history of the monitoring program the range is 6 – 8 and mostly appears stable.

Durango Park is one of the least stable sites for pH and is also the most acid of the monitored sites. Over the history of the monitoring program Durango's pH has been measured 6.5 – 7.2 with the exception of its lowest on record of 6 during the 2019 – 2020 monitoring period. It remained at 6.6 and 6.8 over the current monitoring period.

Bibra Lake Picnic Area recorded its highest pH in its monitoring history at the March 2022 monitoring event. Results for the current 2023 – 2024 monitoring year show that the elevated pH has not been sustained and has returned to its stable level of 6.6 and 6.7 at the last four monitoring events.

6.3.3. Nitrogen

Generally, nitrogen in the sampled bores is not of concern. During the 2023 – 2024 monitoring period most sites returned total nitrogen values below the ANZECC (2000) Guidelines for irrigation water long-term trigger value (LTV)

of 5 mg/L. However, Bibra Lake Picnic Area has continued to return values above the LTV but below the ANZECC (2000) Guidelines' short-term trigger value (STV) of 25 – 125 mg/L. The Manning Park bores also showed evidence of total nitrogen levels near the LTV but appear to be trending downwards. Success Sports Complex 1 recorded a spike in total nitrogen in September 2021 which has not been replicated since.

The majority of the nitrogen detected at Bibra Lake Picnic Area continues to be in the ammonium form. The source of ammonium is usually reduced nitrate or pollution suggesting that the origin of the nitrogen detected in the Bibra Lake Picnic Area samples may be pollution based.

The majority of the nitrogen detected in the Manning bores was in the nitrate form. The source of nitrate is usually the decay of nitrogen fixing plants, the oxidation of ammonium, organic fertilisers or contamination. This suggests the origin of the nitrogen is undeterminable.

The spike detected at Success Sports Complex 1 in September 2021 has not been sustained at subsequent monitoring events and therefore is not of ongoing concern. Given the minimal amounts of both nitrate and ammonium detected, it appears that the 6.6 mg/L recorded in September 2021 could be a laboratory error.

6.3.4. Phosphorus

Generally, phosphorus in the sampled bores is not of concern. During the 2023 – 2024 monitoring period, eight of the 12 sites returned values that exceeded the ANZECC (2000) Guidelines' LTV for total phosphorus (0.05 mg/L), however none of the sites exceeded the STV of 0.8 – 12 mg/L. The highest was 0.19 mg/L at Kurrajong Reserve.

Kurrajong Reserve has the highest levels of phosphorus throughout the history of the monitoring period yet well below the STV. However, the April 2021 dropped drastically to 0.03 mg/L, the lowest it has measured over the duration of the monitoring program. It returned to its levels of approximately 0.18 and 0.19 mg/L during the current monitoring period.

Until September 2019 the phosphorus levels at Durango Park had been slowly increasing over the monitoring history, however not at alarming levels. In April 2020, there was a significant reduction from 0.09 mg/L to 0.01 mg/L. That low level was measured again in September 2020 but increased again to 0.1 mg/L in March 2021 and remained near that level till this monitoring period where it has decreased to hover around the LTV (0.05 mg/L).

Kevin Bowman recorded a similar trend to Durango with the difference being that the values at Kevin Bowman for the most part remained below the 0.05 mg/L. Levels rose gradually before peaking at 0.07 mg/L in September 2021

before gradually declining to 0.02 mg/L in the previous 2022 – 2023 period. Levels for the current monitoring period finished at 0.04 mg/L in June 2024.

Phosphorus can be naturally exist in the mineralogy of the aquifer or can be a consequence of fertiliser or sewage contamination.

7. Water Levels / Quantity

Static water levels (SWL) of the selected bores across all the City's GWLs, in general, have remained steady over the time that data is available until this 2023 – 2024 monitoring period (Table 8). The 2023 – 2024 data has deviated from the traditional trends. The historical and expected seasonal variation has been observed at most sites over monitoring history, however, during the 2023 – 2024 monitoring period some sites did not show a traditional level of recovery or decline. In September 2023, the recovery in water levels over the 2023 recharge period was less than historically expected at sites such as the three Manning bores in the Kogalup subarea, and the Success Sports Complex bores in the Success subarea. At the conclusion of the abstraction period, levels in eight of the 14 bores across the City's jurisdiction recorded their lowest levels on record. This is likely a result of both lower water levels prior to the commencement of the abstraction period and a higher abstraction volume across most subareas.

Table 6: Table of graphs of salinity for selected bores in selected subareas.

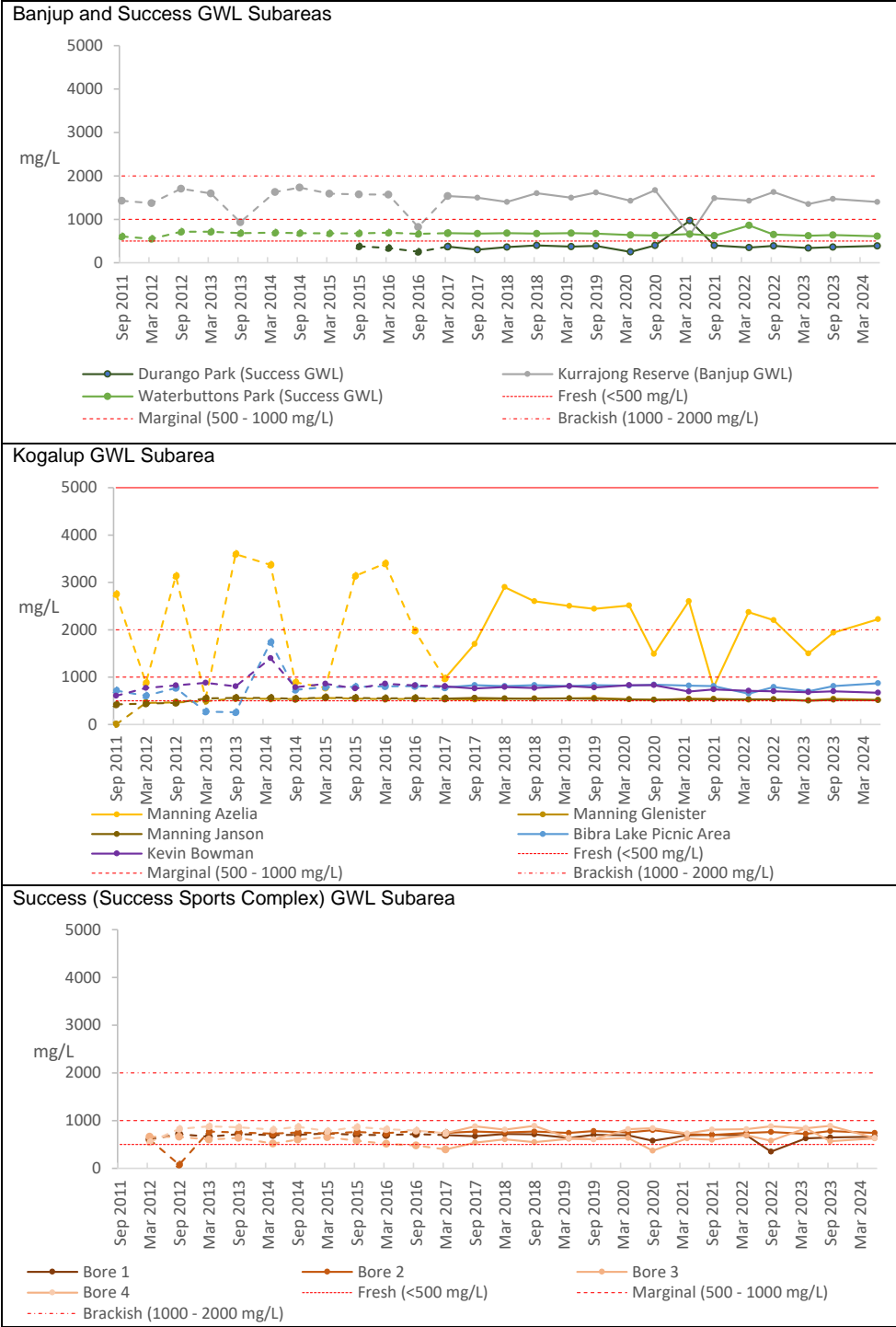


Table 7: Table of graphs of pH for selected bores in selected subareas.

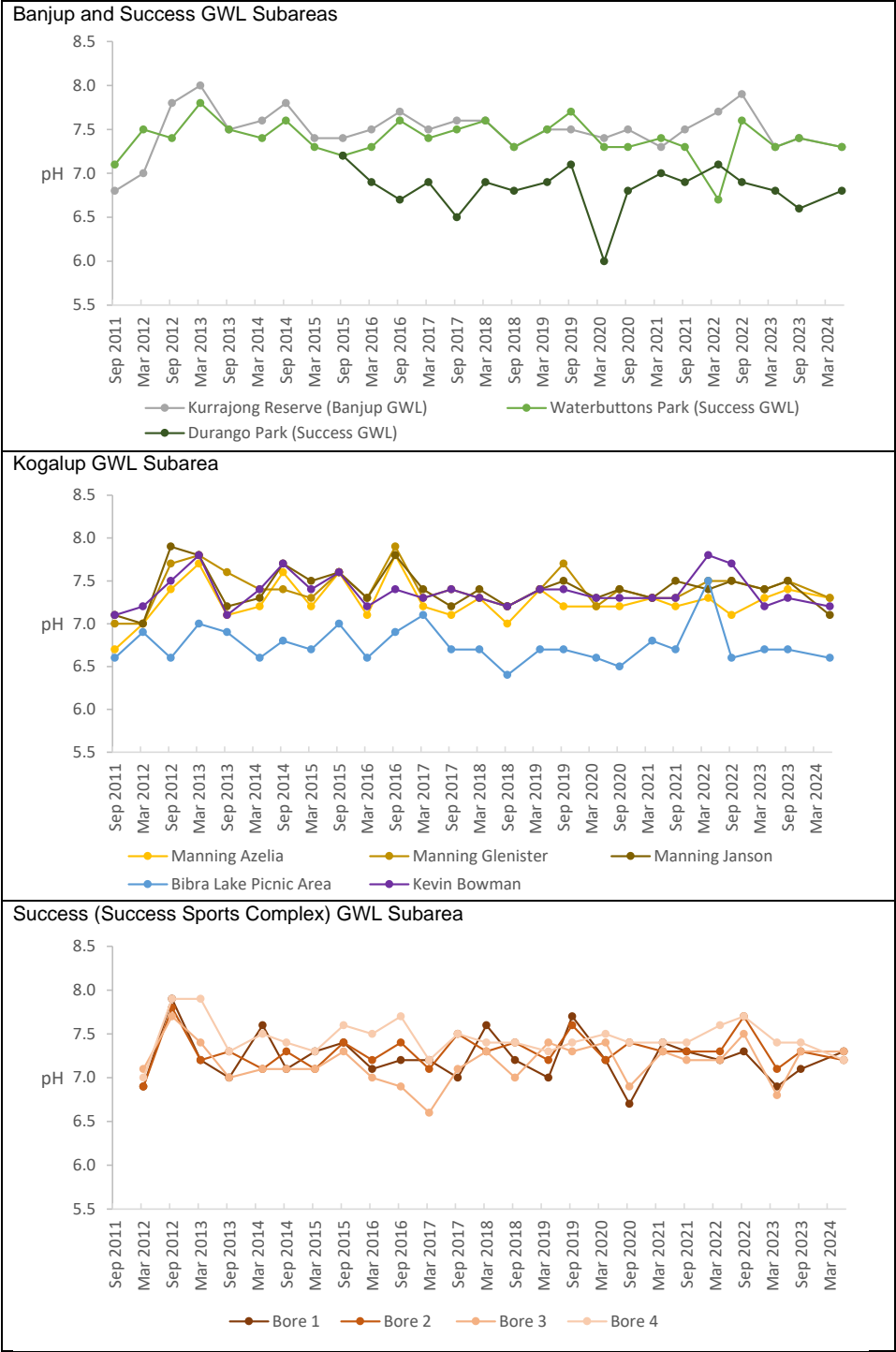
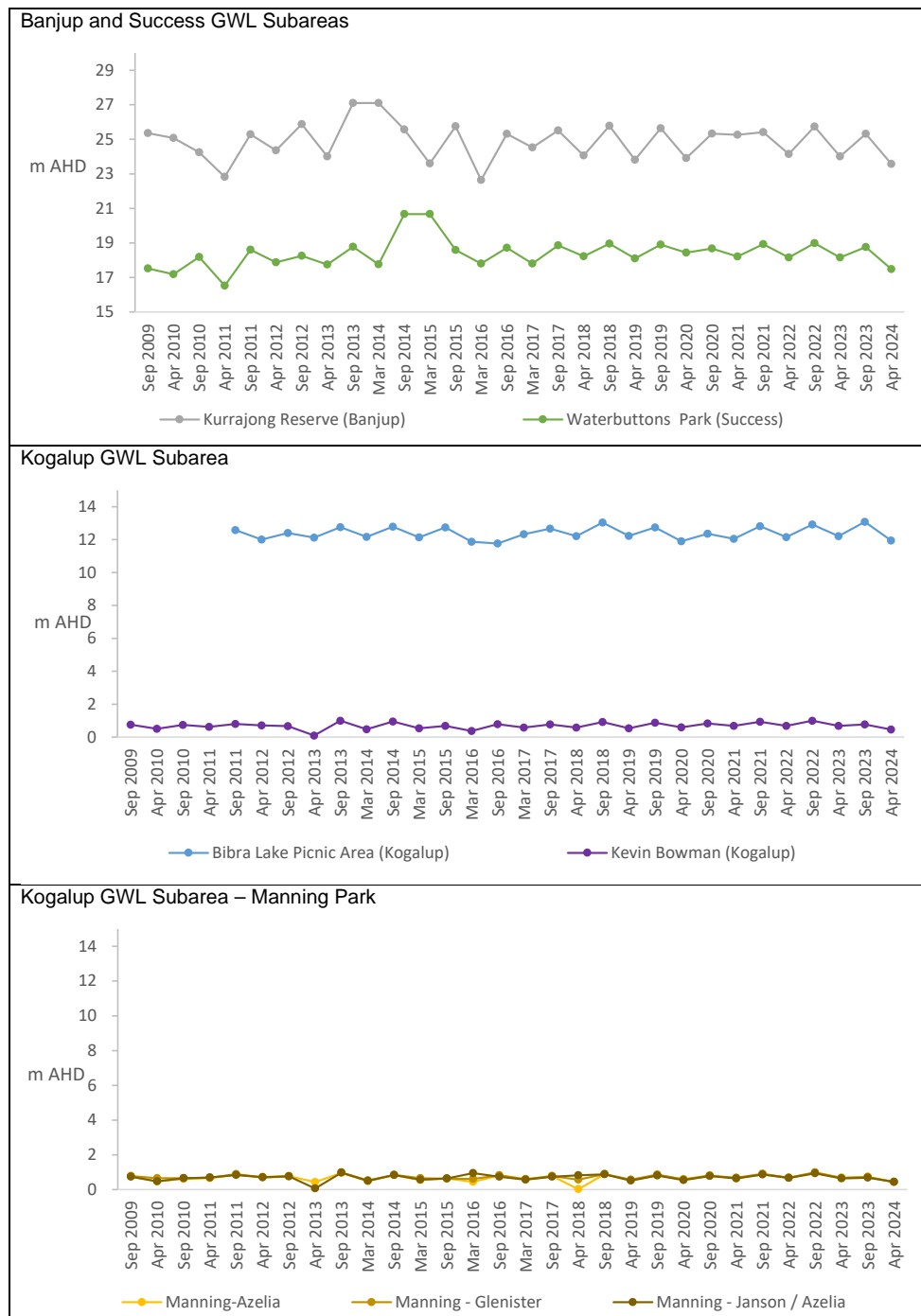
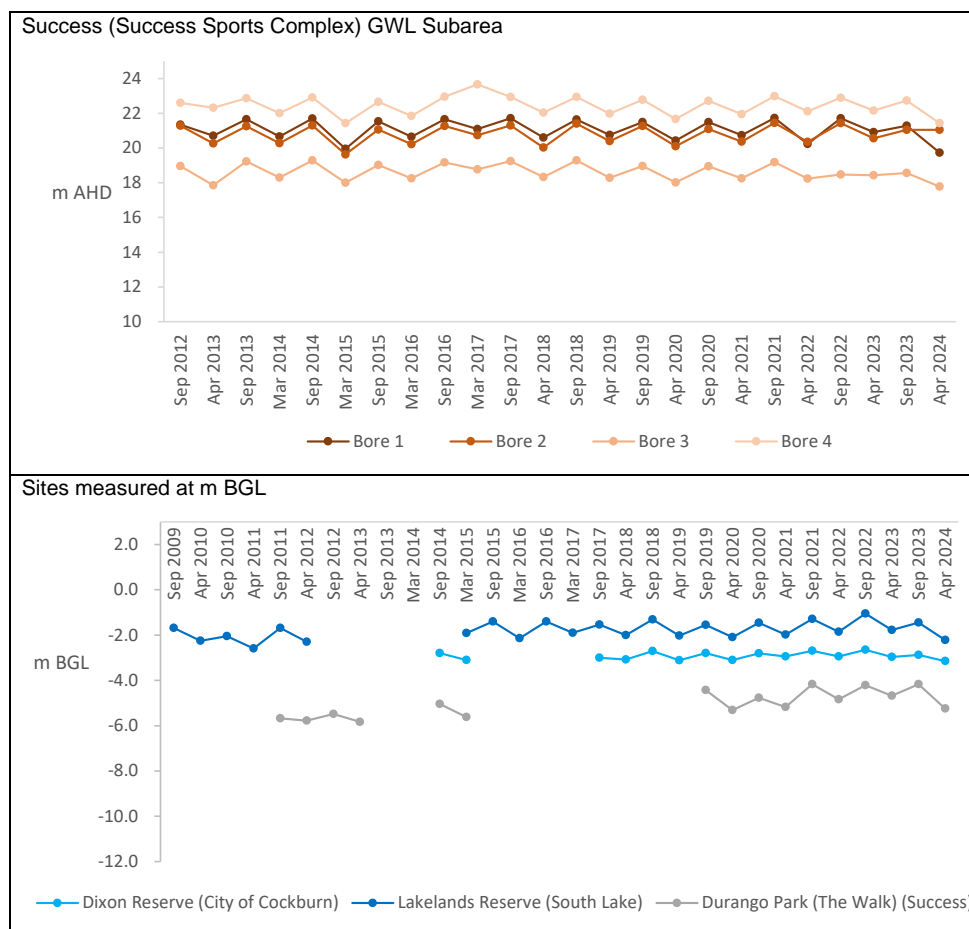


Table 8: Table of graphs of static water levels of selected bores in selected subareas.
Note that vertical scales are the same to illustrate the degree of variation across the City's jurisdiction.





8. Water Quality

8.1. Electrical Conductivity (EC)

The majority of selected bores returned water that was fresh to marginal. The two exceptions were Kurrajong which was brackish, and Manning Azelia which ranged between margin and moderately saline. Salinity thresholds are available in Appendix 5. The salinity of the selected bores was generally below the 1500 mg/L trigger value with the exception of Manning Azelia bore in the Kogalup GWL.

The salinity at Manning Azelia has fluctuated over time. There does not appear to be a consistent pattern in the fluctuating salinity levels at this site. The common pattern in many bores sees salinity increasing with abstraction and decreasing with recharge. This pattern is not observed at Manning

Azelia. Monthly monitoring of the bore began at the beginning of the 2017 – 2018 abstraction season. Since then, moderately saline conditions up to 3000 mg/L were common, with occasions when salinity decreased to marginal and brackish levels. Since September 2022 salinity levels have regularly been about 2000 mg/L. It has not decreased below the trigger value of 1500 mg/L. It does not appear that lower salinity conditions coincide with recent rainfall events. There may be a correlation between abstraction and salinity conditions however the structure of the recorded data does not allow for confirmation of that correlation.

It is likely that the source of the salinity at the site is the ocean and with historical increased abstraction and decreased recharge the saltwater interface had extended further inland and not retreated. Other bores in the immediate region are not as affected as the Manning Azelia bore possibly due to the cavernous nature of the Tamala Limestone and the variable hydraulic conductivities which range greatly depending on location and depth (Davidson, 1995). Abstraction at this site needs to be altered to reduce the likelihood of saltwater ingress from the ocean extending any further inland.

The Kurrajong bore in the Banjup GWL continues to sit in the middle of the brackish range (1000 – 2000 mg/L). There have been significant single-event decreases in salinity when marginal (500 – 1000 mg/L) results have been recorded. The brackish levels recorded during the current monitoring period appear to be the normal range for the site and has remained stable since 2012 with the exception of three events. The significant single-event decreases occurred at the September 2013, September 2016 and April 2021 monitoring dates and appear to be attributed to high rainfall events in the week immediately preceding the sampling events.

The Bibra Lake Picnic Area and the Kevin Bowman bores in the Kogalup GWL spiked to brackish levels at the March 2014 monitoring date. Salinity levels at both of those sites returned immediately to levels in the marginal range (500 – 1000 mg/L), have remained at those levels and are not currently of concern.

All the monitored sites are in wetland areas and no adverse impacts on surrounding vegetation have been observed.

The salinity at the Hammond Road Sports Complex has remained steady and abstraction does not appear to have any adverse effects on the salinity of the aquifer.

No turf or gardens irrigated appeared to show signs of poor water quality.

Data are presented in Appendix 5 and Appendix 7.

8.2. pH

Water with a pH value in the range of 6.0 – 7.0 is most desirable for use on turf. Water with pH values outside of this range may not directly influence turf performance, but indicates a possible need to evaluate other chemical components.

The pH of the selected bores has generally been steady since monitoring began in 2012. One exception is the pH at Bibra Lake Picnic Area which has historically fluctuated seasonally but has not followed this pattern since March 2017. Until April 2022 the pH over the duration of the monitoring program varied only between 6.4 and 7.1. In April 2022 Bibra Lake Picnic Area recorded its highest pH at 7.5 but has returned to its average of approximately 6.7 since then. The absence of an identifiable trend is not of concern given that the greatest water level fluctuation over the monitoring history is 1.32 m and the pH range is 1.1 pH units. The variation in water level and pH is within an acceptable range and therefore not of great concern, however, it should continue to be monitored closely. Historically low water levels seen at many sites in the program are not an issue at Bibra Lake Picnic Area in the 2023 – 2024 monitoring period, therefore reducing the likelihood of pH issues associated with the exposure of acid sulphate soils.

The decrease in pH at Durango Park in March 2020 has not been detected again since then. Decreases such as these need to be monitored as it may be an indicator of acid sulphate soils, particularly in low-lying areas such as at Durango Park. Lowering water levels in such areas can cause acidification of the groundwater. Abstraction must be managed to avoid these impacts.

The lowest pH recorded at Waterbuttons in April 2022 coincided with the end of the abstraction season but it was not the lowest water level on record at the site. The water level at Waterbuttons in April 2024 was the third lowest on record at the site and pH remained at 7.3, near its mean of 7.4. Although it appears stable, pH at this site needs to continue to be monitored to ensure that it is not adversely impacted by abstraction in the area.

The bores at Success Sports Complex continue to remain within an acceptable pH range for both the aquifer and for irrigation purposes. There has been some variation over the monitoring history but it is not of concern. The slight and uniform acidification of all bores in April 2023 was not sustained. pH in all bores in the 2023 – 2024 monitoring period ranged from 7.1 to 7.4.

Data are presented in Appendix 5 and Appendix 7.

8.3. Nitrogen

Total nitrogen values have generally been steady across the monitored sites indicating that the levels at each site are likely to be background and naturally occurring at the site. They are generally not of concern.

It is assumed that the spike in the nitrogen levels at Success Sports Complex 1 in September 2021 is an anomaly, likely a laboratory reporting error. While particular attention will be given to this site, it is expected that it will not be of concern.

Sites with elevated nitrogen values do not currently receive fertiliser applications any greater than sites with lower nitrogen values. While some nitrogen detected in the groundwater may originate from fertiliser, it is expected that a significant quantity of the current concentration is an historical legacy from intensive horticulture or septic contamination. Given that the monitored sites are all near water bodies, nitrogen in the groundwater may also originate from the decaying organic matter that may be present in the aquifer.

8.4. Phosphorus

Most of the sites have returned steady phosphorus levels since monitoring began in September 2017, albeit above the ANZECC LTV (0.05 mg/L). Three sites, Kurrajong Reserve, Durango Park and Kevin Bowman, were exceptions. Durango Park continues to maintain its elevated values (~0.06 mg/L) compared to the decrease to 0.01 mg/L recorded at the April and September 2020 monitoring events. Kurrajong recorded its traditionally elevated levels (~0.2 mg/L) after it decreased significantly at the March 2021 date to 0.03 mg/L, and Kevin Bowman (0.04 mg/L) is approaching the 0.05 mg/L LTV having decreased gradually from 0.07 mg/L in September 2021 to 0.02 mg/L in September 2023.

Kurrajong Reserve has the highest levels of phosphorus for the history of the monitoring program yet well below the STV. However, at the April 2021 it dropped drastically to 0.03 mg/L, the lowest it has measured over the history of the monitoring program. During the 2021 – 2022 monitoring period, phosphorus levels returned to their characteristically high values. The reason for the decrease in April 2021 is not apparent but may be linked to the drop in salinity. The rainfall event in the week preceding sampling may have had a diluting effect of the salinity and the phosphorus in the groundwater.

The phosphorus level at Durango Park was showing an increasing trend from 0.04 mg/L in September 2017 to 0.09 mg/L in September 2019 before decreasing suddenly to below the ANZECC LTV in 2020 and increasing again suddenly to 0.1 mg/L in April 2021. Since September 2021, levels were

similar to those recorded before the decrease in 2020 with most recent results being 0.04 mg/L and 0.06 mg/L.

Kevin Bowman and the Manning bores are the only bores that regularly remain below the ANZECC LTV (0.05 mg/L). Kevin Bowman's phosphorus levels increased above the ANZECC LTV at the September 2021 monitoring date but dropped back below to 0.03 mg/L in April 2022 and has remained at that level.

Phosphorus concentrations are not expected to be a consequence of current fertiliser practices. The City only applies phosphorus should both leaf and soil tests indicate the nutrient is deficient. It is expected that some of the phosphorus detected is historical legacy from intensive horticulture but there is a fraction of phosphorus that is naturally resulting from phosphatic nodules occurring at the base of the Superficial Aquifer.

9. Other

Comprehensive water analysis for selected bores in September 2017 has been included in Appendix 6.

10. Compliance

The City's compliance with the monitoring programme is very good. April 2024 water analysis was delayed as a consequence of contractor staff changes. Other anomalies are likely to be due to issues associated with administrative transfers and amalgamations.

11. Recommended Changes to Monitoring Programme

- Manning Azelia continue to be monitored monthly all year round for salinity to determine the extent and trends of the salinity of the groundwater.

12. Assessment of Impacts

The medium-term water quality data set that the City has built indicates that historically there is little impact of its abstraction from the aquifer. Minor impacts on water quality continue to be observed at Manning Azelia with fluctuation of salinity.

Water levels appear to have been adversely impacted by a combination of abstraction, a long irrigation season, and a poor 2023 winter recharge.

The capacity of the aquifer to sustain the City's demands appears to be adequate. The City's groundwater management has continually improved over recent years and there is no reason to suggest that a sustainable trend will not continue.

13. Recommendations

- Ideally, abstraction from Manning Azelia should be minimised as much as possible, or even ceased. Salinity consistently exceeds 1500 mg/L which is the trigger value to cease abstraction at the bore. This action is an attempt to prevent the saltwater interface advancing further inland.
- Maintain monthly monitoring into the recharge season at Manning Azelia bore for salinity to ensure the water source is fit for purpose and to assess the recovery of the salinity levels during the recharge season.
- To prevent leaching of nutrients into the groundwater, ensure that applications of fertiliser do not coincide with rain events.
- Continue with amalgamation of outstanding GWLs.
- Continue with the preparation of the operating strategy currently in draft.

14. References

ANZECC (2000) *Australian and New Zealand guidelines for fresh and marine water quality*, Canberra.

Davidson WA (1995) Hydrogeology and groundwater resources of the Perth Region, Western Australia, Western Australia Geological Survey, Bulletin 142.

Davidson WA, and Yu X (2008) *Perth regional aquifer modelling system (PRAMS) model development: Hydrogeology and groundwater modelling*, Western Australia Department of Water, Hydrogeological record series HG 20.

Appendices

Appendix 1: Groundwater Well Licences

File No:
DWERT1714~7Government of Western Australia
Department of Water and Environmental Regulation

Page 1 of 5

Instrument No. GWL49535(17)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Licensee(s)	City of Cockburn		
Description of Water Resource	Cockburn Perth - Superficial Swan	Annual Water Entitlement	1,502,654kL
Location of Water Source	<p> Lot 1 On Diagram 46969 Volume/Folio 1381/702 Lot 1 Fallow Cr Spearwood Macfaull Lot 10 On Diagram 50188 Volume/Folio 1615/926 Lot 10 Lintott Wy Spearwood Edwards Park Lot 100 On Diagram 36807 Volume/Folio 247/89a Lot 100 Nineham Av Spearwood Greenslade Reserve Lot 100 On Diagram 93385 Volume/Folio 2128/956 Lot 100 Spearwood Lucius Park Lot 1000 On Plan 400768 Volume/Folio Lr3164/81 Lot 1000 Crown Tce Coogee Lot 101 on Diagram 93385 Volume/Folio 2128/957 Lot 101 Spearwood Dalmatinac Club Lot 109 on Plan 68906 Volume/Folio LR3161/246 Lot 109 Beeliar S/S Spearwood Ave Bluebush to Beeliar Lot 11 On Diagram 50189 Volume/Folio 1615/925 Lot 11 Lintott Wy Spearwood Edwards Park Lot 11 On Diagram 8642 Volume/Folio 1028/153 Lot 11 Rockingham Rd Hamilton Hill Davilak Oval Lot 12 On Diagram 48538 Volume/Folio 1752/323 Lot 12 Lintott Wy Spearwood Edwards Park Lot 120 On Plan 38035 Volume/Folio 2583/654 Lot 120 Coleville Cr Spearwood Civic Centre Grounds Lot 124 On Diagram 37915 Volume/Folio 220/173a Lot 124 Spearwood Macfaull Lot 146 On Diagram 57132 Volume/Folio 1543/347 Lot 146 Southwell Cr Hamilton Hill Phoenix Rise Lot 15 On Plan 27079 Volume/Folio 1321/199 Lot 15 Hamilton Rd Spearwood Beale Park Lot 16 On Plan 27079 Volume/Folio 1028/883 Lot 16 Kent St Spearwood Beale Park LOT 160 ON PLAN 412108 - Volume/Folio LR3168/836 - Lot 160 FIRBANK RD BEELIAR Lot 172 On Plan 93642 Volume/Folio Lr3107/990 Lot 172 Powell Rd Coogee Coogee Beach Reserve Lot 177 On Plan 12884 Volume/Folio 1596/854 Lot 177 Ely St Hamilton Hill Goodchild Park Lot 20 On Diagram 47590 Volume/Folio 1393/462 Lot 20 Sussex St Spearwood Beale Park Lot 2010 On Diagram 26212 Volume/Folio Lr3051/686 Lot 2010 Azelia Rd Spearwood Manning Park Lot 206 On Plan 60216 Volume/Folio Lr3154/173 Lot 206 Waterbank Av Beeliar Waterbank Pos Lot 207 On Plan 8377 Volume/Folio 1300/154 Lot 207 Alfred St Spearwood Dubove Park Lot 210 On Diagram 57132 Volume/Folio 1596/872 Lot 210 Southwell Cr Hamilton Hill Southwell Public Open Space Lot 2192 On Diagram 24604 Volume/Folio 1322/145 Lot 2192 Interim Rd Spearwood Interim Road Reserve Lot 22 On Diagram 48015 Volume/Folio 1408/901 Spearwood Av Spearwood Peace Park Lot 2201 On Plan 9792 Volume/Folio Lr3052/519 Lot 2201 Malabar Wy Bibra Lake Malabar Lot 2310 On Plan 8041 Volume/Folio Lr3053/9 Lot 2310 Isted Av Hamilton Hill Isted Reserve Lot 2518 on Plan 12368 Volume/Folio 3005/351 Lot 2518 Thackeray St Spearwood Bishop Park Lot 2519 on Plan 12368 Volume/Folio LR3005/352 Lot 2519 Barrington Rd Spearwood Smart Park Lot 2546 On Plan 12365 Volume/Folio Lr3141/835 Lot 2546 Hope Rd Bibra Lake Mellar Park Lot 2548 on Plan 188370 Volume/Folio LR3140/690 Lot 2548 Compton Cl Munster Hagan Park Lot 2578 On Plan 12630 Volume/Folio Lr3138/74 Lot 2578 Needwell Rd Bibra Lake Duffield Reserve Lot 2626 On Plan 13108 - Volume/Folio LR3154/522 - Lot 2626 Kingsley Cl Spearwood Katich Park Lot 2688 on Plan 13814 Voume/Folio LR3154/521 Lot 2688 Prout Wy Bibra Lake Mears Park Lot 2705 on Plan 13865 Volume/Folio LR3147/467 Lot 2705 South Lake Hopbush Park Lot 2736 On Plan 13939 Volume/Folio Lr3147/272 Lot 2736 Elderberry Dr South Lake Hopbush Park Lot 2771 on Plan 14414 Volume/Folio LR3148/374 Lot 2771 Parakeet Wy Coogee Powell Reserve Lot 2781 On Plan 14503 Volume/Folio Lr3146/926 Lot 2781 South Lake Allamanda Park Lot 2809 On Plan 14794 Volume/Folio Lr3144/928 Lot 2809 Arlington Loop Coogee Len Mctaggart Reserve Lot 281 On Plan 8375 Volume/Folio 1300/147 Lot 281 Bullfinch St Spearwood S/S Phoenix Road Stock To Rockingham Lot 2819 On Plan 14906 Volume/Folio Lr3144/930 Lot 2819 South Lake Blackburn Park Lot 2851 On Plan 15066 Volume/Folio Lr3146/621 Lot 2851 South Lake Glen Mia Reserve Lot 2890 on Diagram 69548 Volume/Folio LR3146/928 Lot 2890 South Lake Allamanda Park Lot 2943 On Plan 15902 Volume/Folio Lr3139/584 Lot 2943 Magnolia Gdns Yangebup Warthwyke Park Lot 2944 On Plan 15902 Volume/Folio Lr3139/585 Lot 2944 Magnolia Gdns Yangebup Warthwyke Park Lot 2980 on Diagram 66698 Volume/Folio LR3143/730 Lot 2980 South Lake Broadwater Gardens Lot 3 On Plan 3176 Volume/Folio 1151/713 Lot 3 Rockingham Rd Spearwood Watsons Reserve Lot 300 On Diagram 45318 Volume/Folio 1362/183 Lot 300 Lintott Wy Spearwood Edwards Park LOT 300 ON PLAN 71815 Lot 3032 On Diagram 75631 Volume/Folio Lr3145/394 Lot 3032 Hamilton Rd Coogee Poole Reserve </p>		

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No:
DWERT1714~7



Government of Western Australia
Department of Water and Environmental Regulation

Page 2 of 5

Instrument No. GWL49535(17)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Lot 33 On Plan 11047 Volume/Folio 1410/710 Lot 33 Bourbon St Hamilton Hill Bourbon Street Pos
Lot 36 On Diagram 45327 Volume/Folio 1366/496 Lot 36 March St Spearwood Gerald St Reserve
Lot 38 on Diagram 43329 Volume/Folio LR3159/266 Lot 38 King St Coogee Rotary Lookout
Lot 38 On Plan 3488 Volume/Folio 2002/764 Lot 38 Angus Av Spearwood Hulijich Reserve
Lot 4055 On Plan 18467 Volume/Folio Lr3126/766 Lot 4055 Sherbrooke Gdns Bibra Lake Dellar Drive
Road Reserve
Lot 4138 On Diagram 85539 Volume/Folio Lr3117/5 Lot 4138 Forrest Rd Bibra Lake Marshwood Retreat
Lot 4160 On Diagram 78534 Volume/Folio Lr3105/850 Lot 4160 Boyd Cr Hamilton Hill Reserve 43749
Lot 4161 On Plan 17568 Volume/Folio Lr3105/851 Lot 4161 Montebello Rise Yangebup Ronsard
Reserve
Lot 417 on Plan 22707 Volume/Folio LR3125/840 Lot 4719 Progress Drive, Bibra Lake
Lot 4185 On Diagram 65104 - Volume/Folio LR3106/1 - Lot 4185 Bibra Dr Bibra Lake Skate Park
Lot 4196 On Plan 20584 Volume/Folio Lr3038/206 Lot 4196 Emplacement Cr Hamilton Hill
Lot 4305 On Plan 21395 Volume/Folio Lr3108/800 Lot 4305 Congdon Av Beeliar Radonich Park
Lot 4315 On Plan 20764 Volume/Folio Lr3075/241 Lot 4315 Hybanthus Loop Beeliar Owgan Reserve
Lot 4346 On Diagram 88310 Volume/Folio Lr3121/126 Lot 4346 Inn Cl Bibra Lake Bramley Park
Lot 4367 On Plan 20152 Volume/Folio Lr3110/243 Lot 4367 Kotisina Gdns Munster Kevin Bowman
Reserve
Lot 4415 On Plan 19851 Volume/Folio Lr3111/447 Lot 4415 Duchart Wy Coogee Picottee Park
Lot 4421 On Plan 20303 Volume/Folio Lr3111/668 Lot 4421 Bibra Lake Inercauld/Forrest Entry
Lot 4436 On Plan 193598 Volume/Folio Lr3112/62 Lot 4436 Russell Rd Munster South Coogee Reserve
Lot 4451 On Plan 19952 Volume/Folio Lr3112/786 Lot 4451 Yorn Cct Beeliar Habitat Reserve
Lot 4553 On Plan 194828 Volume/Folio Lr3116/738 Lot 4553 Munster Santich Park
Lot 470 On Plan 20778 Volume/Folio 2049/845 Lot 470 Watson Rd Beeliar Radonich Reserve
Lot 4732 On Plan 31193 Volume/Folio Lr3127/394 Lot 4732 Sussex St Spearwood Beale Park
Lot 4764 On Plan 33338 Volume/Folio Lr3128/339 Lot 4764 Bayview Tce Yangebup Visko Reserve
Lot 4774 On Plan 32914 Volume/Folio Lr3129/155 Lot 4774 Belladonna Dr Yangebup Lopressti
Lot 48 On Plan 14414 Volume/Folio 1657/502 Lot 48 Coogee Geordie Court Road Reserve
Lot 4882 On Plan 58224 Volume/Folio Lr3154/142 Lot 4882 Ravello Vsta Yangebup
Lot 50 On Diagram 65206 Volume/Folio 1649/923 Lot 50 Wellard St Bibra Lake Operations Centre
Lot 505 On Plan 416937 Volume/Folio (2988/431)
Lot 518 On Diagram 57267 Volume/Folio 1543/346 Lot 518 Southwell Cr Hamilton Hill Southwell Pos
Lot 542 on Plan 13008 Volume/Folio 3151/142 Lot 542 Sandpiper Loop Yangebup Perena Rocchi
Reserve
Lot 548 On Plan 13353 Volume/Folio Lr3130/740 Lot 548 Swallow Dr Yangebup Nicholson Reserve
Lot 566 on Plan 13147 Volume/Folio LR3081/304 Lot 566 Moorhen Dr Yangebup Nicholson Reserve
Lot 591 On Diagram 69641 Volume/Folio Lr3142/687 Lot 591 Milgun Dr Yangebup Milgun Reserve
Lot 60 On Diagram 35259 Volume/Folio 1435/799 Lot 60 Macmorris Wy Spearwood Bavich Reserve
Lot 617 on Plan 22591 Volume/Folio LR3132/215 Lot 617 Wauhop Cir Beeliar Garbin Park
Lot 638 On Plan 28997 Volume/Folio Lr3133/223 Lot 638 Orlando Av Bibra Lake The Glade
Lot 640 On Plan 18039 Volume/Folio Lr3101/3 Lot 640 Dunraven Dr Yangebup Dunraven Playground
Lot 65 On Plan 11049 Volume/Folio 1410/782 Lot 65 Erpingham Rd Hamilton Hill Eliza Park
Lot 685 On Plan 20763 Volume/Folio Lr3106/743 Lot 685 Nogga Rtt Beeliar Nogga
Lot 69 On Diagram 34263 Volume/Folio 23/47a Lot 69 Melun St Spearwood Macfaull
Lot 7 On Plan 1764 Volume/Folio 1368/830 Lot 7 Kent St Spearwood Beale Park
Lot 768 On Plan 75251 Volume/Folio Lr3163/469 Lot 768 McLaren Av Beeliar Systema Park
Lot 8000 on Plan 44213 Volume/Folio LR3135/934 Lot 8000 Riverina Pde Munster Riverina Reserve
Lot 8000 On Plan 72612 - Volume/Folio LR3162/411 - Lot 8000 Desertpea Rd Beeliar
Lot 8001 On Plan 48324 Volume/Folio Lr3137/829 Lot 8001 Munster Mervyn Bond Park
Lot 8002 On Plan 48778 Volume/Folio Lr3137/850 Lot 8002 Spinnaker Hts Yangebup Spinnacker
Reserve
Lot 8002 On Plan 66326 Volume/Folio Lr3159/385 Lot 8002 Lot 8002 Syndicate Link Munster
Lot 8003 On Plan 407790 - Volume/Folio LR3166/473 - Lot 8003 Reinforcement Pde North Coogee
Lot 8005 On Plan 401243 Volume/Folio Lr3164/629 Lot 8005 - Eliza Ponds
LOT 8006 ON DEPOSITED PLAN 405702 - Volume/Folio LR3165/887 - Lot 8006 Hopbush Wy Beeliar
Lot 8007 On Plan 401768 Volume/Folio Lr3165/10 Lot 8007 Karbuni Pde Spearwood
Lot 8008 On Plan 401760 Volume/Folio Lr3164/674 Lot 8008 Rasano Prom Coogee
Lot 8012 On Plan 404526 - Volume/Folio LR3165/559 - Lot 8012 Galipo Lp Coogee Galipo Park
Lot 8012 On Plan 51223 Volume/Folio Lr3140/800 Lot 8012 South Beach Prom North Coogee Barrow
Reserve
Lot 803 On Plan 400872 - Volume/Folio 2861/800 - Lot 803 McTaggart Cove North Coogee CY O'Connor
Reserve

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

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Instrument No. GWL49535(17)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Lot 81 On Plan 413024 - Volume/Folio 2939/351 - Mc Laren Av Beeliar
Lot 858 On Plan 55642 Volume/Folio Lr3145/659 Lot 858 Samphire Turn Beeliar Peregrine Park
Lot 866 On Plan 34917 Volume/Folio Lr3130/300 Lot 866 Possum Glde Beeliar Deiderich Park
Lot 878 On Plan 36905 Volume/Folio Lr3131/582 Lot 878 Beeliar Beeliar Reserve
Lot 88 On Plan 55584 Volume/Folio Lr3012/89 Lot 88 Positano Cr Yangebup Minori Gardens
Lot 9000 On Plan 43443 Volume/Folio 2680/957 Lot 9000 Glenister Rd Hamilton Hill Manning Park
Lot 9000 On Plan 72050 Volume/Folio 2788/163 Lot 9000 Goodchild Park
Lot 9905 On Plan 63063 Volume/Folio Lr3159/270 Lot 9905 Ocean Rd Coogee Mills St Playground
Road Reserve Apra Court, South Lake
Road Reserve Cnr Wells Rd and Fanstone Ave, Beeliar
Road Reserve Progress Drive, Bibra Lake
Road Reserve corner Hamilton and Rockingham Road, Hamilton Hill Davilak Triangle
Streetscape Cockburn and Mayor Road Reserve, Munster
Streetscape North Lake/Elderberry/Osprey Road, Yangebup
Streetscape Osprey Drive, Yangebup
Streetscape Rockingham and Mayor Road, Munster
Streetscape Spearwood Ave Barrington to Sudlow, Bibra Lake
Streetscape Spearwood Avenue Stock Road to Doolette Street, Spearwood
Streetscape Spearwood Avenue Wellard Street to Stock Road, Bibra Lake

Authorised Activities	Taking of water for	Location of Activity
	Irrigation of road verge	Lot 48 On Plan 14414 Volume/Folio 1657/502 Lot 48 Coogee Geordie Court Road Reserve Lot 858 On Plan 55642 Volume/Folio Lr3145/659 Lot 858 Samphire Turn Beeliar Peregrine Park Road Reserve Cnr Wells Rd and Fanstone Ave, Beeliar
	Irrigation of up to 1.41 ha of public open space	Lot 8002 On Plan 407790 - Volume/Folio LR3166/472 - Lot 8002 Reinforcement Pde North Coogee
	Irrigation of up to 117.02 ha of public open space	Lot 112 On Plan 55588 Volume/Folio Lr3154/170 Lot 112 Minori Gdns Yangebup Minori Gardens Lot 25 On Plan 47120 Volume/Folio Lr3137/849 Lot 25 Ningaloo Rise Yangebup Spinnacker Reserve Lot 2771 on Plan 14414 Volume/Folio LR3148/374 Lot 2771 Parakeet Wy Coogee Powell Reserve Lot 2783 on Plan 14503 Volume/Folio LR3146/927 Lot 2783 South Lake Allamanda Park Lot 4305 On Plan 21395 Volume/Folio Lr3108/800 Lot 4305 Congdon Av Beeliar Radonich Park Lot 4346 On Diagram 88310 Volume/Folio Lr3121/126 Lot 4346 Inn Cl Bibra Lake Bramley Park Lot 4377 On Plan 219808 Volume/Folio Lr3071/681 Lot 4377 Leonard Wy Spearwood Vela Luka Park Lot 4415 On Plan 19851 Volume/Folio Lr3111/447 Lot 4415 Duchart Wy Coogee Picottee Park Lot 452 On Plan 48514 Volume/Folio Lr3138/426 Lot 452 The Grange Beeliar Wearne Park Lot 4882 On Plan 58224 Volume/Folio Lr3154/142 Lot 4882 Ravello Vsta Yangebup Lot 519 On Plan 409336 - Volume/Folio LR3167/257 - Lot 519 Ravello Vsta Yangebup Lot 61 On Diagram 29258 Volume/Folio 1277/16 Lot 61 Azelia Rd Spearwood Manning Park

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

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Instrument No. GWL49535(17)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

	<p>Lot 676 On Plan 18041 Volume/Folio Lr3106/216 Lot 676 Yangebup Ronsard Reserve</p> <p>Lot 689 On Diagram 77539 Volume/Folio Lr3142/689 Lot 689 Rhus Ct Yangebup Milgun Reserve</p> <p>Lot 69 On Diagram 33994 Volume/Folio 32/173a Lot 69 Interim Rd Spearwood Interim Road Reserve</p> <p>Lot 8002 On Plan 48778 Volume/Folio Lr3137/850 Lot 8002 Spinnaker Hts Yangebup Spinnacker Reserve</p> <p>Lot 8008 On Plan 401760 Volume/Folio Lr3164/674 Lot 8008 Rasano Prom Coogee</p> <p>Lot 803 On Plan 400872 - Volume/Folio 2861/800 - Lot 803 McTaggart Cove North Coogee CY O'Connor Reserve</p> <p>Lot 858 On Plan 55642 Volume/Folio Lr3145/659 Lot 858 Samphire Turn Beeliar Peregrine Park</p> <p>Lot 88 On Plan 55584 Volume/Folio Lr3012/89 Lot 88 Positano Cr Yangebup Minori Gardens</p> <p>Lot 9905 On Plan 63063 Volume/Folio Lr3159/270 Lot 9905 Ocean Rd Coogee Mills St Playground</p> <p>Lot 50 On Plan 226118 - Volume/Folio 1694/515 - Lot 50 Bibra Dr Bibra Lake Skate Park</p> <p>Road Reserve corner Hamilton and Rockingham Road, Hamilton Hill Davilak Triangle</p>
Irrigation of up to 2.4 ha of public open space	<p>LOT 8005 ON DEPOSITED PLAN 404190 - Volume/Folio LR3165/503 - Lot 8005 Plumosa Ave Beeliar</p> <p>LOT 8006 ON DEPOSITED PLAN 408838 - Volume/Folio 2912/446 - Lot 8006 Plumosa Ave Beeliar</p> <p>Road Reserve - Pin1193976 Tindal Ave Beeliar</p> <p>Road Reserve - Pin12265564 Delphinium Wy Beeliar</p> <p>Road Reserve - Pin12318326 Delphinium Wy Beeliar</p>
Irrigation of up to 64.25 ha of recreation areas	<p>Lot 11 On Diagram 8642 Volume/Folio 1028/153 Lot 11 Rockingham Rd Hamilton Hill Davilak Oval</p> <p>Lot 124 On Diagram 37915 Volume/Folio 220/173a Lot 124 Spearwood Macfaull</p> <p>Lot 16 On Plan 27079 Volume/Folio 1028/883 Lot 16 Kent St Spearwood Beale Park</p> <p>Lot 20 On Diagram 47590 Volume/Folio 1393/462 Lot 20 Sussex St Spearwood Beale Park</p> <p>Lot 207 On Plan 8377 Volume/Folio 1300/154 Lot 207 Alfred St Spearwood Dubove Park</p> <p>Lot 23 On Diagram 32222 Volume/Folio 1306/429 Lot 23 Pomfret Rd Spearwood Macfaull</p> <p>Lot 2683 on Diagram 61829 Volume/Folio LR3141/837 Lot 2683 Parkway Rd Bibra Lake Meller Park</p> <p>Lot 342 On Plan 47403 Volume/Folio Lr3142/115 Lot 342 The Grange Beeliar Beeliar Reserve</p>
Duration of Licence	From 6 June 2023 to 14 August 2029

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

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Instrument No. GWL49535(17)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

This Licence is subject to the following terms, conditions and restrictions:

1. The annual water year for water taken under this licence is defined as 1 July to 30 June.
2. The licensee shall not use water for sprinkler irrigation between 9 am and 6 pm except for the establishment of newly planted areas. For newly planted areas water may be used within these hours for a period of up to 28 consecutive days, commencing from the date of planting.
3. Between 1 June and 31 August in any year, the licence-holder must not water a lawn, garden, or grass-covered area ("turf") by reticulation, provided always that this restriction shall not apply; watering with a hand held hose; or watering, by way of reticulation: golf course tees and greens, turf wickets, bowling greens and active sporting areas; newly planted areas for a period of up to 28 days from the date of planting; for renovating turf; or for maintenance of reticulation systems
4. The licensee shall comply with the commitments of the Water Resource Operating Strategy June 2015 - June 2018 as prepared by the City of Cockburn and approved by the Department of Water and Environmental Regulation on 26/06/2015, including any modifications to the commitments as approved during the term of the licence.
5. Every 12 Months the licensee shall provide to the Department of Water and Environmental Regulation a Groundwater Monitoring Summary for the preceding water year. The first report is due 30/09/2023.

End of terms, conditions and restrictions

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

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Department of Water and Environmental Regulation

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Instrument No. GWL204089(2)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Licensee(s)	City of Cockburn		
Description of Water Resource	Cockburn Perth - Superficial Swan	Annual Water Entitlement	2,000kL
Location of Water Source	LOT 8002 ON PLAN 419345 - Volume/Folio LR3172/348 - Lot 8002 AZURE TCE LAKE COOGEE		
Authorised Activities	Taking of water for	Location of Activity	
	Irrigation of up to .21 ha of public open space	LOT 8001 ON PLAN 419345 - Volume/Folio LR3172/347 - Lot 8001 AZURE TCE LAKE COOGEE LOT 8002 ON PLAN 419345 - Volume/Folio LR3172/348 - Lot 8002 AZURE TCE LAKE COOGEE	
Duration of Licence	From 20 April 2023 to 11 March 2030		

This Licence is subject to the following terms, conditions and restrictions:

1. The annual water year for water taken under this licence is defined as 1 October to 30 September.
2. The licensee shall not use water for sprinkler irrigation between 9 am and 6 pm except for the establishment of newly planted areas. For newly planted areas water may be used within these hours for a period of up to 28 consecutive days, commencing from the date of planting.
3. Between 1 June and 31 August in any year, the licence-holder must not water a lawn, garden, or grass-covered area ("turf") by reticulation, provided always that this restriction shall not apply to watering with a hand held hose; or watering, by way of reticulation: newly planted areas for a period of up to 28 days from the date of planting; for renovating turf; or for maintenance of reticulation systems.

End of terms, conditions and restrictions

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

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Instrument No. GWL203203(3)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Licensee(s)	City of Cockburn		
Description of Water Resource	Jandakot Perth - Superficial Swan	Annual Water Entitlement	609,249kL
Location of Water Source	CROWN RESERVE 43583 - Lot 725 on Diagram 94631 - Brenchley Drv - Atwell CROWN RESERVE 47162 - Lot 4828 on Plan 34757 - Bartram Rd - Success CROWN RESERVE 47164 - Lot 864 on Plan 34962 - Harmony Ave - Atwell CROWN RESERVE 48275 - Lot 740 on Plan 45461 - Mosman Lp - Success CROWN RESERVE 48290 - Lot 570 on Plan 41691 - Charnely Bnd - Success CROWN RESERVE 48963 - Lot 471 on Plan 51303 - Camden Bvd - Aubin Grove CROWN RESERVE 49020 - Lot 8001 on Plan 53298 - Observatory Ave - Aubin Grove CROWN RESERVE 50501 - Lot 8004 on Plan 62256 - Mala Wy - Success CROWN RESERVE 50600 - Lot 8006 on Plan 66953 - Colorado Pde - Aubin Grove LOT 201 ON PLAN 73516 - Lot 201 Miningwal Loop Hammond Park POS Lot 205 On Plan 51902 Volume/Folio Lr3140/787 Lot 205 Aubin Grove Princeton Circuit Lot 226 On Plan 52780 Volume/Folio Lr3145/688 Lot 226 Aubin Grove Versailles Park Lot 385 On Plan 29035 Volume/Folio Lr3132/827 Lot 385 Reeves Ent Success Reeves Park Lot 4000 on Plan 411347 Volume/Folio (LR3170/139) - 15 Dimago Vista Hammond Park WA 6164 Lot 4000 On Plan 55719 Volume/Folio Lr3147/664 Lot 4000 Botany Pde Hammond Park Botany Reserve Lot 4002 On Plan 44642 Volume/Folio Lr3136/209 Lot 4002 Wentworth Pde Success Wentworth Reserve Lot 401 On Plan 55718 Volume/Folio Lr3149/333 Lot 401 Camden Bvd Aubin Grove Camden Park Lot 4542 On Plan 23441 Volume/Folio Lr3116/278 Lot 4542 Steiner Av Success Steiner Reserve And Future Pos Lot 4773 On Plan 24785 Volume/Folio Lr3129/48 Lot 4773 Success Jan Hammond Lot 4801 On Plan 31442 Volume/Folio Lr3129/504 Lot 4801 Domain Cir Success Hanlon Lot 4838 On Plan 35880 Volume/Folio Lr3130/359 Lot 4838 Gandossi Ct Success Gandossi Lot 4977 on Plan 38401 Volume/Folio Lr3132/186 - Jackadder Av - Hammond Park Duggan Park Lot 506 On Plan 57107 Volume/Folio Lr3152/724 Lot 506 Humboldt Ent Aubin Grove Bologna Park Lot 5076 On Plan 40533 Volume/Folio Lr3134/807 Lot 5076 Aubin Grove Blue Boy Park Lot 655 On Plan 19341 Volume/Folio Lr3103/339 Lot 655 O'Farrell Ct Atwell Mosedale Park Lot 656 on Plan 18634 Volume/Folio Lr3145/713 Lot 656 Hoult Mews, Atwell Tapper Reserve Lot 669 On Diagram 88144 Volume/Folio Lr3101/867 - Brenchley Dr - Atwell Atwell Reserve Lot 691 On Diagram 90854 Volume/Folio Lr3106/380 Lot 691 Brenchley Dr Atwell Brenchley Lot 698 On Plan 21189 Volume/Folio Lr3108/796 Lot 698 St Claire Gdns Atwell Freshwater Reserve LOT 699 ON DEPOSITED PLAN 408370 - Volume/Folio LR3167/485 - Lot 699 BONDI WAY AUBIN GROVE Lot 732 On Plan 22643 Volume/Folio Lr3112/789 Lot 732 Kennack Vsta Atwell Kennack Park Lot 764 On Plan 23323 Volume/Folio Lr3114/821 Lot 764 Tozer Loop Atwell Tozer Reserve Lot 787 on Deposited Plan 412331 - Volume/Folio LR3169/85 - Lot 787 Lewisham Vista Success Lot 8001 On Plan 52119 Volume/Folio Lr3140/232 Lot 8001 Aubin Grove Durango Park Lot 8002 On Plan 49269 Volume/Folio Lr3137/820 Lot 8002 Aubin Grove Radiata Park Lot 8003 On Plan 42081 Volume/Folio Lr3135/428 Lot 8003 Success Evelyn Massey Lot 8006 On Plan 58335 Volume/Folio Lr3152/788 Lot 8006 Starbush Gdns Success Starbush Gardens LOT 8008 ON PLAN 409192 - Volume/Folio LR3167/508 - Lot 8008 VOYAGEURS WAY HAMMOND PARK Lot 8009 On Plan 69256 Volume/Folio (LR3168/827) - 30 Alberod Street Hammond Park WA 6164 Lot 8051 On Plan 66999 Volume/Folio Lr3160/354 Lot 8051 Gaebler Rd Aubin Grove Monticola Gardens Lot 817 on Diagram 100044 Volume/Folio LR3122/63 Lot 817 Reynardson Ave Atwell Atwell Community Centre Lot 82 On Plan 49453 Volume/Folio Lr3138/511 Lot 82 Aubin Grove Balboa Park Lot 824 on Plan 73736, LR3162/491 - Weetman Rd - Hammond Park LOT 837 ON PLAN 30840 - Volume/Folio LR3127/432 - Lot 837 CARNEGIE PDE SUCCESS Lot 842 On Plan 31535 Volume/Folio Lr3128/130 Lot 842 Serenity Pwy Hammond Park Christmas Tree Park Road Reserve - Pin11608834 - Streetscapes - Russell Rd - Hammond Park Road Reserve - Pin1370883 - Streetscapes Levens Ct - Success		

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

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Instrument No. GWL203203(3)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Authorised Activities	Taking of water for	Location of Activity
	Irrigation of up to 0.27 ha of public open space	Lot 4000 on Plan 411347 Volume/Folio (LR3170/139) - 15 Dimago Vista Hammond Park WA 6164
	Irrigation of up to 0.33 ha of public open space	Lot 8009 On Plan 69256 Volume/Folio (LR3168/827) - 30 Alberod Street Hammond Park WA 6164
	Irrigation of up to 0.46 ha of public open space	LOT 8008 ON PLAN 409192 - Volume/Folio LR3167/508 - Lot 8008 VOYAGEURS WAY HAMMOND PARK
	Irrigation of up to 0.75 ha of public open space	LOT 837 ON PLAN 30840 - Volume/Folio LR3127/432 - Lot 837 CARNEGIE PDE SUCCESS
	Irrigation of up to 0.77 ha of public open space	LOT 699 ON DEPOSITED PLAN 408370 - Volume/Folio LR3167/485 - Lot 699 BONDI WAY AUBIN GROVE LOT 726 ON DEPOSITED PLAN 408371 - Volume/Folio LR3167/491 - Lot 726 BONDI WAY AUBIN GROVE
	Irrigation of up to 1.12 ha of public open space	LOT 201 ON PLAN 73516 - Lot 201 Miningwal Loop Hammond Park POS LOT 8000 ON PLAN 415217 - Volume/Folio LR3170/623 - Lot 8000
	Irrigation of up to 1.7ha ovals and playing fields	Lot 449 On Plan 41688 Volume/Folio 2591/362 Lot 449 Aurora Dr Atwell Harmony Primary School Oval
	Irrigation of up to 15.29 ha of recreation areas	CROWN RESERVE 43583 - Lot 725 on Diagram 94631 - Brenchley Drv - Atwell CROWN RESERVE 47164 - Lot 864 on Plan 34962 - Harmony Ave - Atwell CROWN RESERVE 48963 - Lot 471 on Plan 51303 - Camden Bvd - Aubin Grove Lot 4000 On Plan 55719 Volume/Folio Lr3147/664 Lot 4000 Botany Pde Hammond Park Botany Reserve
	Irrigation of up to 2.11 ha of landscaped gardens	LOT 8001 ON PLAN 415217 - Volume/Folio LR3170/624 - Lot 8001
	Irrigation of up to 3.87 ha of road verge	CROWN RESERVE 48368 Lot 1004 On Plan 40531 Volume/Folio Lr3134/811 Lot 1004 Cape Le Grand Av Aubin Grove S/S Cape Le Grand Lot 3000 On Plan 48524 Volume/Folio Lr3138/700 Lot 3000 Aurora Dr Atwell Streetscape Aurora Drive Road Reserve - Gibbs Rd near Tapper Rd - Pin 1188888 Road Reserve - Pin11007212 - Streetscapes Wentworth Pde - Success Road Reserve - Pin11012186 - Streetscapes Ashendon Bvd - Hammond Park Road Reserve - Pin11020714 - Streetscapes Ashendon Bvd - Hammond Park Road Reserve - Pin11091205 - Streetscapes Wentworth Pde - Success Road Reserve - Pin11102222 - Streetscapes Wentworth Pde - Success Road Reserve - Pin11150604 - Streetscapes Wentworth Pde - Success Road Reserve - Pin11381241 - Streetscapes Wentworth Pde - Success

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	Road Reserve - Pin11409122 - Streetscapes Wentworth Pde - Success
	Road Reserve - Pin11409123 - Streetscapes Wentworth Pde - Success
	Road Reserve - Pin11491098 - Streetscapes Radiata Prom - Aubin Grove
	Road Reserve - Pin11608834 - Streetscapes - Russell Rd - Hammond Park
	Road Reserve - Pin11616916 - Streetscapes Aristata Pde - Aubin Grove
	Road Reserve - Pin1166630 - Streetscapes Tapper Rd - Atwell
	Road Reserve - Pin11816788 - Streetscapes Ironbark Tce - Hammond Park
	Road Reserve - Pin1183632 - Streetscapes Russell Road - Hammond Park
	Road Reserve - Pin11847221 - Streetscapes Russell Rd - Hammond Park
	Road Reserve - Pin11869091 - Streetscapes Tapper Rd - Atwell
	Road Reserve - Pin11871390 - Streetscapes Tapper Rd - Atwell
	Road Reserve - Pin11871420 - Streetscapes Wentworth Pde - Success
	Road Reserve - Pin1188885 - Streetscapes Lyon Rd - Aubin Grove
	Road Reserve - Pin11956126 - Streetscapes Wentworth Pde - Success
	Road Reserve - Pin11956127 - Streetscapes - Wentworth Pde - Success
	Road Reserve - Pin1300209 - Streetscapes - Steiner Ave - Success
	Road Reserve - Pin1370883 - Streetscapes Levens Ct - Success
	Road Reserve - Pin1377159 - Streetscapes - Wentworth Pde - Success
	Road Reserve - Pin1390728 - Streetscapes - Wentworth Pde - Success
	Streetscape Carmel Way, Success
	Streetscape cnr Reynardson Ave and Lanao Way to Lydon Bvd, Atwell
	Streetscape Hindmarsh Way, Success
	Streetscape Macquarie Blvd Botany Pde to Condamine App, Hammond Park
	Streetscape Nancarrow Way, Atwell
	Streetscape Tongaroo Boulevard, Success
	Streetscape Waters Ave, Lydon Bvd to Lombe Gardens, Atwell
	Streetscape Banning Ave Steiner Ave to Bamkin Court, Success

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LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Irrigation of up to 55.75 ha of public open space	<p>CROWN RESERVE 47162 - Lot 428 on Plan 34757 - Bartram Rd - Success</p> <p>Crown Reserve 47905 Volume/Folio Lr3123/699 4000 Galveston Bend Success Wentworth Reserve</p> <p>CROWN RESERVE 48275 - Lot 740 on Plan 45461 - Mosman Lp - Success</p> <p>CROWN RESERVE 48290 - Lot 570 on Plan 41691 - Charnely Bnd - Success</p> <p>CROWN RESERVE 48368</p> <p>Crown Reserve 48692 Volume/Folio Lr3138/361 Success Boronia Park</p> <p>Crown Reserve 48692 Volume/Folio Lr3140/254 Success Boronia Park</p> <p>Crown Reserve 48787 Volume/Folio Lr3138/539 4003 St Joseph Fawy Success Milkwort Park</p> <p>CROWN RESERVE 49020 - Lot 8001 on Plan 53298 - Observatory Ave - Aubin Grove</p> <p>CROWN RESERVE 49069 - Lot 457 on Plan 47384 - Russell Rd - Success</p> <p>CROWN RESERVE 50494 - Lot 8005 on Plan 64736 - Durango Trn - Aubin Grove</p> <p>CROWN RESERVE 50501 - Lot 8004 on Plan 62256 - Mala Wy - Success</p> <p>CROWN RESERVE 50600 - Lot 8006 on Plan 66953 - Colorado Pde - Aubin Grove</p> <p>Crown Reserve 50710, LR3162/492 - Lot 904 on Plan 73736 - Neilson St - Hammond Park</p> <p>Crown Reserve 51126 Volume/Folio Lr3161/807 560 Wentworth Pde Success Wentworth Reserve</p> <p>Lot 1000 On Plan 49453 Volume/Folio Lr3138/512 Lot 1000 Aubin Grove Gaebler To Queens Paw</p> <p>Lot 1001 On Plan 52784 Volume/Folio Lr3147/695 Lot 1001 Camden Bvd Aubin Grove Camden Paw</p> <p>LOT 13 ON DIAGRAM 91797 - Lot 13 ATWELL</p> <p>Lot 142 On Plan 48515 Volume/Folio Lr3138/467 Lot 142 Success Boronia Park</p> <p>Lot 204 On Plan 51902 Volume/Folio Lr3140/786 Lot 204 Aubin Grove Princeton Circuit</p> <p>Lot 205 On Plan 51902 Volume/Folio Lr3140/787 Lot 205 Aubin Grove Princeton Circuit</p> <p>Lot 2073 On Plan 58179 Volume/Folio Lr3154/169 Lot 2073 Atwell Congenial Reserve</p> <p>Lot 226 On Plan 52780 Volume/Folio Lr3145/688 Lot 226 Aubin Grove Versailles Park</p> <p>Lot 3001 On Plan 48495 Volume/Folio Lr3136/940 Lot 3001 Hammond Rd Success Purslane Park</p> <p>Lot 385 On Plan 29035 Volume/Folio Lr3132/827 Lot 385 Reeves Ent Success Reeves Park</p> <p>Lot 4001 On Plan 44907 Volume/Folio Lr3136/293 Lot 4001 Rutherford Ent Success Bluesquill Park</p>
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This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

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Instrument No. GWL203203(3)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

	<p>Lot 4001 On Plan 68774 Volume/Folio Lr3160/169 Lot 4001 Johnsonia Bend Hammond Park Johnsonia Reserve</p> <p>LOT 4002 ON DEPOSITED PLAN 48107 - Kirkley Ct - SUCCESS</p> <p>Lot 4002 On Plan 44642 Volume/Folio Lr3136/209 Lot 4002 Wentworth Pde Success Wentworth Reserve</p> <p>Lot 401 On Plan 55718 Volume/Folio Lr3149/333 Lot 401 Camden Bvd Aubin Grove Camden Park</p> <p>Lot 4542 On Plan 23441 Volume/Folio Lr3116/278 Lot 4542 Steiner Av Success Steiner Reserve And Future Pos</p> <p>Lot 4743 On Plan 31246 Volume/Folio Lr3127/636 Lot 4743 Richmond Ent Success Richmond Park</p> <p>Lot 4773 On Plan 24785 Volume/Folio Lr3129/48 Lot 4773 Success Jan Hammond</p> <p>Lot 4801 On Plan 31442 Volume/Folio Lr3129/504 Lot 4801 Domain Cir Success Hanlon</p> <p>Lot 4838 On Plan 35880 Volume/Folio Lr3130/359 Lot 4838 Gandossi Ct Success Gandossi</p> <p>Lot 4977 on Plan 38401 Volume/Folio Lr3132/186 - Jackadder Av - Hammond Park Duggan Park</p> <p>Lot 5076 On Plan 40533 Volume/Folio Lr3134/807 Lot 5076 Aubin Grove Blue Boy Park</p> <p>Lot 655 On Plan 19341 Volume/Folio Lr3103/339 Lot 655 O'Farrell Ci Atwell Mosedale Park</p> <p>Lot 656 on Plan 18634 Volume/Folio Lr3145/713 Lot 656 Hoult Mews, Atwell Tapper Reserve</p> <p>Lot 657 On Plan 19338 Volume/Folio Lr3145/714 Lot 657 Lydon Bvd Atwell Tapper Reserve</p> <p>Lot 657 On Plan 19340 Volume/Folio Lr3145/715 Lot 657 Atwell Tapper Reserve</p> <p>Lot 662 On Plan 19645 Volume/Folio Lr3104/910 Lot 662 Carlhausen Ci Atwell Carlhausen Park</p> <p>Lot 669 On Diagram 88144 Volume/Folio Lr3101/867 - Brenchley Dr - Atwell Atwell Reserve</p> <p>Lot 697 On Plan 21189 Volume/Folio Lr3108/795 Lot 697 Hawkesbury Rtt Atwell Freshwater Reserve</p> <p>Lot 698 On Plan 21189 Volume/Folio Lr3108/796 Lot 698 St Claire Gdns Atwell Freshwater Reserve</p> <p>Lot 711 On Plan 193575 Volume/Folio Lr3110/824 Lot 711 Tournier Rtt Atwell Pipeline Reserve</p> <p>Lot 732 On Plan 22643 Volume/Folio Lr3112/789 Lot 732 Kennack Vsta Atwell Kennack Park</p> <p>Lot 764 On Plan 23323 Volume/Folio Lr3114/821 Lot 764 Tozer Loop Atwell Tozer Reserve</p> <p>Lot 770 On Plan 67221 Volume/Folio Lr3159/384 Lot 770 Irvine Pde Hammond Park</p> <p>Lot 776 on Plan 23576 Volume/Folio LR3116/825 Lot 776 Brenchley Dr, Atwell Pipeline Reserve</p> <p>Lot 780 On Diagram 97711 Volume/Folio Lr3117/845 Lot 780 Bartram Rd Atwell Jakovich Reserve</p> <p>Lot 787 on Deposited Plan 412331 - Volume/Folio LR3169/85 - Lot 787 Lewisham Vista Success</p>
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This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No: RF394-05~15



Government of Western Australia
Department of Water and Environmental Regulation

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Instrument No. GWL203203(3)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

	<p>Lot 790 On Plan 68922 Volume/Folio Lr3160/339 Lot 790 Atkins Pde Hammond Park</p> <p>Lot 8001 On Plan 41460 Volume/Folio Lr3035/559 Lot 8001 Makjanich Pl Success Gandossi</p> <p>Lot 8001 On Plan 47619 Volume/Folio Lr3137/304 Lot 8001 Cressida Pwy Success Grasstree Park</p> <p>Lot 8001 On Plan 52119 Volume/Folio Lr3140/232 Lot 8001 Aubin Grove Durango Park</p> <p>Lot 8001 On Plan 60329 Volume/Folio Lr3157/779 Lot 8001 Hammond Rd Success Daviesia Reserve</p> <p>Lot 8002 On Plan 43607 Volume/Folio Lr3137/822 Lot 8002 Cape Le Grand Av Aubin Grove Pearl Flower Park</p> <p>Lot 8002 On Plan 49269 Volume/Folio Lr3137/820 Lot 8002 Aubin Grove Radiata Park</p> <p>LOT 8002 ON PLAN 62257 - Volume/Folio LR3158/803 - Lot 8002 SUCCESS</p> <p>Lot 8003 On Plan 42081 Volume/Folio Lr3135/428 Lot 8003 Success Evelyn Massey</p> <p>Lot 8003 On Plan 48739 Volume/Folio Lr3137/804 Lot 8003 Aubin Grove Tangle Park</p> <p>Lot 8003 On Plan 54239 Volume/Folio 2666/727 Lot 8003 Durango Turn Aubin Grove Durango Park</p> <p>LOT 8003 ON PLAN 62256 - Volume/Folio LR3157/780 - Lot 8003 SUCCESS</p> <p>Lot 8004 On Plan 54239 Volume/Folio Lr3147/629 Lot 8004 Durango Turn Aubin Grove Durango Park</p> <p>Lot 8005 On Plan 42081 Volume/Folio Lr3135/429 Lot 8005 Cressida Pwy Success Rush Park</p> <p>LOT 8005 ON PLAN 62257 - Volume/Folio LR3158/804 - Lot 8005 SUCCESS</p> <p>Lot 8006 On Plan 58335 Volume/Folio Lr3152/788 Lot 8006 Starbush Gdns Success Starbush Gardens</p> <p>Lot 8007 On Plan 54251 Volume/Folio Lr3145/617 Lot 8007 Mariposa Gdns Success Waterbuttons</p> <p>LOT 8007 ON PLAN 62255 - Volume/Folio 2710/873 - Lot 8007 SUCCESS</p> <p>LOT 8008 ON PLAN 62255 - Volume/Folio 2710/874 - Lot 8008 SUCCESS</p> <p>Lot 8009 On Plan 57651 Volume/Folio Lr3151/208 Lot 8009 Aubin Grove Edulis Park</p> <p>LOT 8009 ON PLAN 62255 - Volume/Folio 2710/875 - Lot 8009 SUCCESS</p> <p>Lot 801 on Plan 400381, LR3164/13</p> <p>Lot 8051 On Plan 66999 Volume/Folio Lr3160/354 Lot 8051 Gaebler Rd Aubin Grove Monticola Gardens</p> <p>Lot 810 On Plan 23939 Volume/Folio Lr3121/92 Lot 810 Waters Av Atwell Pipeline Reserve</p> <p>Lot 815 On Plan 22571 Volume/Folio Lr3122/61 Lot 815 Lydon Bvd Atwell Lydon Park</p> <p>Lot 816 On Diagram 100044 Volume/Folio Lr3122/62 Lot 816 Lombe Gdns Atwell Lombe Park</p>
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This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No: RF394-05~15



Government of Western Australia
Department of Water and Environmental Regulation

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Instrument No. GWL203203(3)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

	<p>Lot 817 on Diagram 100044 Volume/Folio LR3122/63 Lot 817 Reynardson Ave Atwell Atwell Community Centre</p> <p>Lot 82 On Plan 49453 Volume/Folio Lr3138/511 Lot 82 Aubin Grove Balboa Park</p> <p>Lot 824 on Plan 73736, LR3162/491 - Weetman Rd - Hammond Park</p> <p>Lot 842 On Plan 31535 Volume/Folio Lr3128/130 Lot 842 Serenity Pwy Hammond Park Christmas Tree Park</p> <p>Lot 850 On Plan 27917 Volume/Folio Lr3128/462 Lot 850 Brenchley Dr Atwell Brenchley</p> <p>Lot 865 On Plan 34962 Volume/Folio Lr3130/250 Lot 865 Harvest Lakes Bvd Atwell Goodwill Reserve</p> <p>Lot 875 On Plan 37740 Volume/Folio Lr3130/940 Lot 875 Chorus Cir Atwell Chorus Reserve</p> <p>Lot 877 On Plan 70540 Volume/Folio Lr3161/231 Lot 877 Frankland Av Hammond Park</p> <p>Lot 884 On Plan 39278 Volume/Folio Lr3134/514 Lot 884 Tranquil Gdns Atwell Tranquil Gardens Park</p> <p>Lot 887 On Plan 70540 Volume/Folio Lr3161/232 Lot 887 Piesley St Hammond Park</p> <p>LOT 9053 ON PLAN 36814 - Volume/Folio 2547/758 - Lot 9053 BARTRAM RD SUCCESS</p> <p>Lot 93 On Plan 31381 Volume/Folio 2515/89 Lot 93 Brenchley Dr Atwell Water Corporation Pipeline</p> <p>Lot 94 On Plan 31381 Volume/Folio 2515/90 Lot 94 Brenchley Dr Atwell Water Corporation Pipeline</p>
Duration of Licence	From 12 July 2022 to 7 August 2029

This Licence is subject to the following terms, conditions and restrictions:

1. The annual water year for water taken under this licence is defined as 1 July to 30 June.
2. The licensee shall not use water for above sprinkler irrigation between 9 am and 6 pm except for the establishment of newly planted areas. For newly planted areas water may be used within these hours for a period of up to 28 consecutive days, commencing from the date of planting.
3. Between 1 June and 31 August in any year, the licence-holder must not water a lawn, garden, or grass-covered area ("turf") by reticulation, provided always that this restriction shall not apply; watering with a hand held hose; or watering, by way of reticulation: golf course tees and greens, turf wickets, bowling greens and active sporting areas; newly planted areas for a period of up to 28 days from the date of planting; for renovating turf; or for maintenance of reticulation systems
4. The licensee shall comply with the commitments of the Water Resource Operating Strategy June 2015- June 2018 as prepared by City of Cockburn and approved by the Department of Water and Environmental Regulation on 26/06/2015, including any modifications to the commitments as approved during the term of the licence.
5. Every 12 Months the licensee shall provide to the Department of Water and Environmental Regulation a Groundwater Monitoring Summary for the preceding water year. The first report is due 30/09/2022.

End of terms, conditions and restrictions

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No: RF8093-1



Government of Western Australia
Department of Water and Environmental Regulation

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Instrument No. GWL49545(11)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Licensee(s)	City of Cockburn		
Description of Water Resource	Perth Perth - Superficial Swan	Annual Water Entitlement	395,745kL
Location of Water Source	Crown Reserve 24551 Lot 1784 on Plan 6719 - Mortlock St - Hamilton Hill Bakers Square Crown Reserve 26743 Lot 1985 on Plan 7619 - Jakob Pl - Hamilton Hill Jacob Reserve CROWN RESERVE 28611 LOT 2112 ON PLAN 8698 - FORTINI CT HAMILTON HILL Crown Reserve 30992 Lot 2194 on Plan 9338 - Lavinia Cr - Coolbellup Rinaldo Reserve Crown Reserve 34011 Lot 2984 Visser St Coolbellup Crown Reserve 37399 Lot 2651 on Diagram 30091 - Longson St - Hamilton Hill Hobbs Park Crown Reserve 38463 Lot 2745 on Plan 14213 - Rossetti Ct - North Lake Bassett Reserve Crown Reserve 38587 Lot 2759 on Plan 8231 - Hawkes St - Coolbellup Jarvis Park LOT 1932 ON PLAN 7461 - Volume/Folio LR3150/458 - Lot 1932 SAWLE RD HAMILTON HILL LOT 1979 ON PLAN 7668 - Volume/Folio LR3143/552 - Lot 1979 WHEELER RD HAMILTON HILL Lot 2089 On Plan 8639 Volume/Folio Lr3052/53 - Stephano Wy - Coolbellup Tempest Park Lot 2097 On Plan 8704 Volume/Folio Lr3005/259 - Perdita Wy - Coolbellup Perdita Reserve Lot 210 on Plan 7069 - Forrest Rd - Coolbellup LOT 2141 ON PLAN 8705 - Volume/Folio LR3052/231 - Lot 2141 HARGREAVES RD COOLBELLUP LOT 2143 ON DIAGRAM 35809 - Volume/Folio LR3005/35 - Lot 2143 WAVERLEY RD COOLBELLUP LOT 2485 ON DIAGRAM 48027 - Volume/Folio LR3155/843 - Hanlon St - Hamilton Hill LOT 2595 ON PLAN 12742 - Volume/Folio LR3154/524 - Lot 2595 NORTH LAKE LOT 2756 ON PLAN 8383 - Volume/Folio LR3148/352 - Lot 2756 HARTLEY ST COOLBELLUP LOT 2777 ON PLAN 8993 - Volume/Folio LR3148/631 - Lot 2777 MAMILLIUS ST COOLBELLUP LOT 2803 ON PLAN 186983 - Volume/Folio LR3054/288 - Lot 2803 NORTH LAKE RD COOLBELLUP LOT 2979 ON PLAN 191179 - Volume/Folio LR3050/828 - Lot 2979 HEALY RD HAMILTON HILL LOT 300 ON PLAN 48464 - Volume/Folio LR3138/801 - Lot 300 CORDELIA AV COOLBELLUP LOT 4381 ON PLAN 219824 - Volume/Folio LR3110/456 - Lot 4381 STARLING ST HAMILTON HILL Lot 500 On Plan 64235 Volume/Folio Lr3157/71 - Cordelia Av - Coolbellup Community Centre LOT 57 ON PLAN 401037 - Volume/Folio LR3164/645 - Montague Wy Coolbellup Lot 618 On Plan 189879 - Casserly Dr - Leeming Classon Park Lot 62 On Plan 75558 Volume/Folio Lr3163/402 - Scholar Tce - Coolbellup Old Canteen Park Lot 631 On Plan 18276 Volume/Folio Lr3100/439 - Sylvan Cr - Leeming Heatherlea Reserve Lot 649 On Plan 191507 Volume/Folio Lr3101/132 - Casserly Dr - Leeming Brandwood Reserve LOT 729 ON PLAN 22865 - Volume/Folio LR3038/787 - Lot 729 ALLENDALE ENT NORTH LAKE Road Reserve - Pin11812448 - Corner Coolbellup Av and Camillo St Coolbellup Road Reserve - Pin11813845 Waverley St to Coolbellup Av Coolbellup Road Reserve - Pin1259210 - Baker Ct corner Farrington Rd North Lake		

Authorised Activities	Taking of water for	Location of Activity
Irrigation of up to .18 ha of public open space	Irrigation of up to .18 ha of public open space	LOT 42 ON PLAN 408272 - Volume/Folio LR3167/186 - Cordelia Av Coolbellup
		LOT 44 ON PLAN 408272 - Volume/Folio LR3167/187 - Cordelia Av Coolbellup
		Road Reserve - Pin12248164 - Chalk CI Coolbellup
	Irrigation of up to .18 ha of public open space	LOT 2484 ON DIAGRAM 51121 - Volume/Folio LR3155/842 - Hanlon St - Hamilton Hill LOT 2485 ON DIAGRAM 48027 - Volume/Folio LR3155/843 - Hanlon St - Hamilton Hill
Irrigation of up to .2 ha of public open space	Irrigation of up to .2 ha of public open space	Lot 2097 On Plan 8704 Volume/Folio Lr3005/259 - Perdita Wy - Coolbellup Perdita Reserve
Irrigation of up to .3 ha of public open space	Irrigation of up to .3 ha of public open space	LOT 2881 ON PLAN 15031 - Volume/Folio LR3146/579 - Lot 2881 WHITMORE PL COOLBELLUP

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No: RF8093~1



Government of Western Australia
Department of Water and Environmental Regulation

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Instrument No. GWL49545(11)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Irrigation of up to .6 ha of public open space	CROWN RESERVE 29976 Lot 2270 on Plan 9406 - Waverley Rd - Coolbellup LOT 2143 ON DIAGRAM 35809 - Volume/Folio LR3005/35 - Lot 2143 WAVERLEY RD COOLBELLUP
Irrigation of up to .86 ha of public open space	LOT 57 ON PLAN 401037 - Volume/Folio LR3164/645 - Montague Wy Coolbellup
Irrigation of up to 17.22 ha of public open space	CROWN RESERVE 28611 LOT 2112 ON PLAN 8698 - FORTINI CT HAMILTON HILL Crown Reserve 38587 Lot 2759 on Plan 8231 - Hawkes St - Coolbellup Jarvis Park LOT 1932 ON PLAN 7461 - Volume/Folio LR3150/458 - Lot 1932 SAWLE RD HAMILTON HILL LOT 1979 ON PLAN 7668 - Volume/Folio LR3143/552 - Lot 1979 WHEELER RD HAMILTON HILL Lot 2089 On Plan 8639 Volume/Folio Lr3052/53 - Stephano Wy - Coolbellup Tempest Park LOT 2777 ON PLAN 8993 - Volume/Folio LR3148/631 - Lot 2777 MAMILLIUS ST COOLBELLUP LOT 2803 ON PLAN 186983 - Volume/Folio LR3054/288 - Lot 2803 NORTH LAKE RD COOLBELLUP Lot 61 On Plan 75558 Volume/Folio Lr3163/401 - Scholar Tce - Coolbellup Lot 62 On Plan 75558 Volume/Folio Lr3163/402 - Scholar Tce - Coolbellup Old Canteen Park Lot 63 On Plan 75558 Volume/Folio Lr3163/403 - Hilory St - Coolbellup Lot 649 On Plan 191507 Volume/Folio Lr3101/132 - Casserly Dr - Leeming Brandwood Reserve LOT 728 ON PLAN 23001 - Volume/Folio LR3038/786 - Lot 728 CHESHUNT GDNS NORTH LAKE LOT 729 ON PLAN 22865 - Volume/Folio LR3038/787 - Lot 729 ALLENDALE ENT NORTH LAKE LOT 821 ON PLAN 23680 - Volume/Folio LR3118/686 - Allendale Ent - North Lake LOT 824 ON PLAN 23680 - Volume/Folio LR3122/367 - Allendale Ent - North Lake
Irrigation of up to 29.32 ha of public open space	Crown Reserve 24551 Lot 1784 on Plan 6719 - Mortlock St - Hamilton Hill Bakers Square Crown Reserve 26743 Lot 1985 on Plan 7619 - Jakob Pl - Hamilton Hill Jacob Reserve Crown Reserve 30992 Lot 2194 on Plan 9338 - Lavinia Cr - Coolbellup Rinaldo Reserve CROWN RESERVE 32513 Lot 2295 on Plan 8383 - Hartley St - Coolbellup CROWN RESERVE 36349 - Lot 2691 on Plan 13801 - Palmerose Ct - North Lake Monaco Park Crown Reserve 37399 Lot 2651 on Diagram 30091 - Longson St - Hamilton Hill Hobbs Park Crown Reserve 38463 Lot 2745 on Plan 14213 - Rossetti Ct - North Lake Bassett Reserve LOT 2141 ON PLAN 8705 - Volume/Folio LR3052/231 - Lot 2141 HARGREAVES RD COOLBELLUP

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No: RF8093~1



Government of Western Australia
Department of Water and Environmental Regulation

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Instrument No. GWL49545(11)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

		<p>LOT 2595 ON PLAN 12742 - Volume/Folio LR3154/524 - Lot 2595 NORTH LAKE</p> <p>LOT 2756 ON PLAN 8383 - Volume/Folio LR3148/352 - Lot 2756 HARTLEY ST COOLBELLUP</p> <p>LOT 2979 ON PLAN 191179 - Volume/Folio LR3050/828 - Lot 2979 HEALY RD HAMILTON HILL</p> <p>LOT 300 ON PLAN 48464 - Volume/Folio LR3138/801 - Lot 300 CORDELIA AV COOLBELLUP</p> <p>LOT 4381 ON PLAN 219824 - Volume/Folio LR3110/456 - Lot 4381 STARLING ST HAMILTON HILL</p> <p>Lot 500 On Plan 64235 Volume/Folio Lr3157/71 - Cordelia Av - Coolbellup Community Centre</p> <p>Lot 618 On Plan 189879 - Casserly Dr - Leeming Classon Park</p> <p>Lot 631 On Plan 18276 Volume/Folio Lr3100/439 - Sylvan Cr - Leeming Heatherlea Reserve</p>
	Irrigation of up to 3.81 ha of road verge	<p>Crown Reserve 34011 Lot 2984 Visser St Coolbellup</p> <p>Lot 210 on Plan 7069 - Forrest Rd - Coolbellup</p> <p>LOT 210 ON PLAN 8383 - Volume/Folio 2163/576 - Winterfold Rd - Coolbellup</p> <p>LOT 2764 ON PLAN 8383 - Volume/Folio LR3148/372 - Lockett St - Coolbellup</p> <p>LOT 2983 ON PLAN 188794 - Volume/Folio LR3151/344 - Lockett St - Coolbellup</p> <p>Road Reserve - Pin11803933 - Streetscape Farrington Rd - Bibra Drv to Ellendale Ent</p> <p>Road Reserve - Pin11812448 - Corner Coolbellup Av and Camillo St Coolbellup</p> <p>Road Reserve - Pin11813845 Waverley St to Coolbellup Av Coolbellup</p> <p>Road Reserve - Pin11813846 - Streetscape Coolbellup Av - Counsel Rd to Cordelia Av</p> <p>Road Reserve - Pin1259210 - Baker Ct corner Farrington Rd North Lake</p>
Duration of Licence	From 7 March 2023 to 14 August 2029	

This Licence is subject to the following terms, conditions and restrictions:

1. The annual water year for water taken under this licence is defined as 1 July to 30 June.
2. Between 1 June and 31 August in any year, the licence-holder must not water a lawn, garden, or grass-covered area ("turf") by reticulation, provided always that this restriction shall not apply; watering with a hand held hose; or watering, by way of reticulation: golf course tees and greens, turf wickets, bowling greens and active sporting areas; newly planted areas for a period of up to 28 days from the date of planting; for renovating turf; or for maintenance of reticulation systems
3. The licensee shall not use water for sprinkler irrigation between 9 am and 6 pm except for the establishment of newly planted areas. For newly planted areas water may be used within these hours for a period of up to 28 consecutive days, commencing from the date of planting.
4. The licensee shall comply with the commitments of the Water Resource Operating Strategy June 2015 - June 2018 as prepared by the City Of Cockburn and approved by the Department of Water and Environmental Regulation on 26/06/2015, including any modifications to the commitments as approved during the term of the licence.

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No: RF8093~1



Government of **Western Australia**
Department of **Water and Environmental Regulation**

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Instrument No. GWL49545(11)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

This Licence is subject to the following terms, conditions and restrictions:

5. Every 12 Months the licensee shall provide to the Department of Water and Environmental Regulation a Groundwater Monitoring Summary for the preceding water year. The first report is due 30/09/2023.

End of terms, conditions and restrictions

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No: RF394-05~17

Government of Western Australia
Department of Water and Environmental Regulation

Page 1 of 3

Instrument No. GWL203189(3)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Licensee(s)	City of Cockburn		
Description of Water Resource	Jandakot Perth - Superficial Swan	Annual Water Entitlement	351,000KL
Location of Water Source	CROWN RESERVE 48639 Lot 1 On Diagram 67669 Volume/Folio 1696/558 Lot 1 Parkway Rd Bibra Lake Bibra Community Centre Lot 100 on Plan 28543 - SouthLake Drv - South Lake - Lakelands Senior High School LOT 121 ON PLAN 409053 - Volume/Folio LR3167/177 - Lot 121 VETERANS PDE COCKBURN CENTRAL LOT 122 ON DEPOSITED PLAN 409053 - Volume/Folio LR3167/178 - Lot 122 LEGACY WAY COCKBURN CENTRAL LOT 125 ON DEPOSITED PLAN 409053 - Volume/Folio LR3167/180 - Lot 125 Lot 16 On Plan 51288 Volume/Folio Lr3140/798 Lot 16 Cockburn Central Cockburn Central LOT 24 ON PLAN 415482 - Volume/Folio 2964/411 - Lot 24 CUTLER RD JANDAKOT LOT 25 ON PLAN 415482 - Volume/Folio 2964/412 - Lot 25 CUTLER RD JANDAKOT Lot 259 On Plan 33071 Volume/Folio Lr3123/292 Lot 259 North Lake Rd South Lake Anning Park Lot 2883 On Plan 15279 Volume/Folio Lr3146/570 Lot 2883 South Lake Lucken Reserve LOT 405 ON PLAN 400928 - Lot 405 WENTWORTH PDE SUCCESS Lot 4761 On Plan 31209 Volume/Folio Lr3128/250 Lot 4761 Sycamore Av South Lake Sycamore Park Lot 4892 On Plan 36797 Volume/Folio Lr3120/705 Lot 4892 Koojarra Rise South Lake Koojarra Reserve LOT 493 ON DIAGRAM 54953 - Lot 493 PARKWAY RD BIBRA LAKE LOT 50 ON PLAN 9782 - Volume/Folio 2757/316 - Lot 50 SOUTH LAKE DR SOUTH LAKE Lot 52 On Plan 211310 Volume/Folio Lr3015/471 Lot 52 Buckley St Cockburn Central LOT 604 ON PLAN 16600 - Lot 604 WINEBERRY LOOP SOUTH LAKE LOT 605 ON PLAN 16600 - Lot 605 BLOODWOOD CIR SOUTH LAKE Lot 650 On Plan 18962 Volume/Folio Lr3102/503 Lot 650 Shoalhaven Rise Success Michigan Reserve LOT 722 ON PLAN 22781 - Lot 722 LAKERIDGE DR COCKBURN CENTRAL LOT 8001 ON PLAN 415251 - Volume/Folio LR3170/337 - Lot 8001 PADDOCK PDE COCKBURN CENTRAL LOT 8002 ON PLAN 402390 - Volume/Folio LR3164/677 - Lot 8002 DELARONDE DR SUCCESS LOT 804 ON PLAN 41233 - Volume/Folio 2577/569 - Lot 804 LOT 9002 ON PLAN 65563 - Volume/Folio 2797/690 - Lot 9002 LOT 9006 ON DEPOSITED PLAN 415990 - Volume/Folio 2968/608 - Lot 9006 Road Reserve - Pin11112580 Road Reserve - Pin11615780 - Streetscapes Beeliar Drv - Cockburn Central Road Reserve - Pin11870276 Road Reserve - Pin12121051		

Authorised Activities	Taking of water for	Location of Activity
	Dust suppression for earthworks and construction purposes	LOT 8002 ON PLAN 402390 - Volume/Folio LR3164/677 - Lot 8002 DELARONDE DR SUCCESS
	Establish of specific area public open space	LOT 125 ON DEPOSITED PLAN 409053 - Volume/Folio LR3167/180 - Lot 125
	Irrigation of up to .1 ha of public open space	Lot 16 On Plan 51288 Volume/Folio Lr3140/798 Lot 16 Cockburn Central Cockburn Central
	Irrigation of up to .1 ha of public open space	Lot 650 On Plan 18962 Volume/Folio Lr3102/503 Lot 650 Shoalhaven Rise Success Michigan Reserve
	Irrigation of up to .2 ha of lawns and gardens	Lot 1 On Diagram 67669 Volume/Folio 1696/558 Lot 1 Parkway Rd Bibra Lake Bibra Community Centre
	Irrigation of up to .28 ha of lawns and gardens	LOT 405 ON PLAN 400928 - Lot 405 WENTWORTH PDE SUCCESS LOT 406 ON PLAN 400928 - Lot 406 WENTWORTH PDE SUCCESS

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No: RF394-05~17

Government of Western Australia
Department of Water and Environmental Regulation

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Instrument No. GWL203189(3)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Irrigation of up to .3 ha of lawns and gardens	Lot 52 On Plan 211310 Volume/Folio Lr3015/471 Lot 52 Buckley St Cockburn Central
Irrigation of up to .3 ha of public open space	LOT 604 ON PLAN 16600 - Lot 604 WINEBERRY LOOP SOUTH LAKE
Irrigation of up to .32 ha of public open space	LOT 722 ON PLAN 22781 - Lot 722 LAKERIDGE DR COCKBURN CENTRAL
Irrigation of up to .6 ha of road verge	Road Reserve - Pin11615780 - Streetscapes Beeliar Drv - Cockburn Central
Irrigation of up to .9 ha of road verge	Road Reserve - Pin1133356 - Streetscapes Wentworth Pde - Success Road Reserve - Pin11953203 - Streetscapes Alabaster Drv - Success
Irrigation of up to 0.26 ha of road verge	CROWN RESERVE 48639 LOT 24 ON PLAN 415482 - Volume/Folio 2964/411 - Lot 24 CUTLER RD JANDAKOT LOT 25 ON PLAN 415482 - Volume/Folio 2964/412 - Lot 25 CUTLER RD JANDAKOT LOT 804 ON PLAN 41233 - Volume/Folio 2577/569 - Lot 804 LOT 9002 ON PLAN 65563 - Volume/Folio 2797/690 - Lot 9002 Road Reserve - Pin11112580 Road Reserve - Pin11870276 Road Reserve - Pin12121051
Irrigation of up to 1 ha of public open space	LOT 4757 ON PLAN 30594 - Lot 4757 KOOJARRA RISE SOUTH LAKE Lot 4892 On Plan 36797 Volume/Folio Lr3120/705 Lot 4892 Koojarra Rise South Lake Koojara Reserve
Irrigation of up to 1.4 ha of public open space	Lot 2883 On Plan 15279 Volume/Folio Lr3146/570 Lot 2883 South Lake Lucken Reserve
Irrigation of up to 1.5 ha of public open space	LOT 111 ON PLAN 42251 - Lot 111 TARWHINE CL SOUTH LAKE LOT 300 ON PLAN 42251 - Lot 300 TARWHINE CL SOUTH LAKE LOT 3000 ON PLAN 45165 - Lot 3000 CORALGUM GRN SOUTH LAKE LOT 4366 ON PLAN 21510 - Lot 4366 SYCAMORE AV SOUTH LAKE LOT 4716 ON PLAN 27011 - Lot 4716 KABBARLI CT SOUTH LAKE LOT 4759 ON PLAN 31511 - Lot 4759 MARRA WAY SOUTH LAKE Lot 4761 On Plan 31209 Volume/Folio Lr3128/250 Lot 4761 Sycamore Av South Lake Sycamore Park LOT 923 ON PLAN 45165 - Lot 923 CORALGUM GRN SOUTH LAKE
Irrigation of up to 1.5 ha of public open space	LOT 651 ON PLAN 19084 - Lot 651 JUBILEE AV SUCCESS

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No: RF394-05~17

Government of Western Australia
Department of Water and Environmental Regulation

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Instrument No. GWL203189(3)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Irrigation of up to 10.1 ha of public open space	LOT 8001 ON PLAN 415251 - Volume/Folio LR3170/337 - Lot 8001 PADDOCK PDE COCKBURN CENTRAL LOT 8002 ON PLAN 402390 - Volume/Folio LR3164/677 - Lot 8002 DELARONDE DR SUCCESS LOT 8006 ON PLAN 409666 - Volume/Folio LR3168/264 - Lot 8006
Irrigation of up to 2 ha of public open space	LOT 493 ON DIAGRAM 54953 - Lot 493 PARKWAY RD BIBRA LAKE
Irrigation of up to 3 ha of public open space	LOT 605 ON PLAN 16600 - Lot 605 BLOODWOOD CIR SOUTH LAKE LOT 611 ON DIAGRAM 77579 - Lot 611 BLOODWOOD CIR SOUTH LAKE
Irrigation of up to 4 ha of public open space	LOT 50 ON PLAN 9782 - Volume/Folio 2757/316 - Lot 50 SOUTH LAKE DR SOUTH LAKE
Irrigation of up to 4.1 ha of public open space	LOT 122 ON DEPOSITED PLAN 409053 - Volume/Folio LR3167/178 - Lot 122 LEGACY WAY COCKBURN CENTRAL LOT 123 ON DEPOSITED PLAN 411715 - Volume/Folio LR3168/372 - Lot 123 Remembrance Ave
Irrigation of up to 4.5 ha of recreation areas	Lot 100 on Plan 28543 - SouthLake Drv - South Lake - Lakelands Senior High School Lot 3028 On Plan 16996 Volume/Folio Lr3013/186 Lot 3028 South Lake Lakelands Reserve
Irrigation of up to 5.07ha ovals and playing fields	LOT 121 ON PLAN 409053 - Volume/Folio LR3167/177 - Lot 121 VETERANS PDE COCKBURN CENTRAL
Irrigation of up to 6 ha of recreation areas	Lot 259 On Plan 33071 Volume/Folio Lr3123/292 Lot 259 North Lake Rd South Lake Anning Park LOT 288 ON PLAN 107760 - Lot 288 SOUTH LAKE LOT 2975 ON PLAN 173870 - Lot 2975 NORTH LAKE RD SOUTH LAKE LOT 598 ON PLAN 167305 - Lot 598 NORTH LAKE RD SOUTH LAKE
Duration of Licence	From 23 January 2023 to 4 August 2029

This Licence is subject to the following terms, conditions and restrictions:

- The annual water year for water taken under this licence is defined as 1 July to 30 June.
- The licensee shall not use water for sprinkler irrigation between 9 am and 6 pm except for the establishment of newly planted areas. For newly planted areas water may be used within these hours for a period of up to 28 consecutive days, commencing from the date of planting.
- Between 1 June and 31 August in any year, the licence-holder must not water a lawn, garden, or grass-covered area ("turf") by reticulation, provided always that this restriction shall not apply; watering with a hand held hose; or watering, by way of reticulation: golf course tees and greens, turf wickets, bowling greens and active sporting areas; newly planted areas for a period of up to 28 days from the date of planting; for renovating turf; or for maintenance of reticulation systems
- The licensee shall comply with the commitments of Water Resource Operating Strategy June 2015 - June 2018 as prepared by City of Cockburn and approved by the Department of Water and Environmental Regulation on 26/06/2015, including any modifications to the commitments as approved during the term of the licence.
- Every 12 Months the licensee shall provide to the Department of Water and Environmental Regulation a Groundwater Monitoring Summary for the preceding water year. The first report is due 30/09/2023.

End of terms, conditions and restrictions

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No: RF394-05-8



Government of Western Australia
Department of Water and Environmental Regulation

Page 1 of 2

Instrument No. GWL203196(3)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Licensee(s)	City of Cockburn		
Description of Water Resource	Jandakot Perth - Superficial Swan	Annual Water Entitlement	112,470kL
Location of Water Source	Lot 4268 On Plan 21401 Volume/Folio Lr3107/840 Lot 4268 Glen Iris Dr Jandakot Bunker Gardens LOT 661 ON PLAN 19594 - Turnbury Park Dr - Jandakot LOT 700 ON PLAN 193166 - Jandakot - Dean Park Lot 703 On Plan 219619 Volume/Folio Lr3109/858 Lot 703 Jandakot Yarra Vista Park Lot 706 On Plan 22060 Volume/Folio Lr3036/847 Lot 706 Riversdale Pass Jandakot Fairway Park LOT 8021 ON DEPOSITED PLAN 410148 - Volume/Folio LR3168/31 - Lot 8021 Lot 831 On Diagram 96391 Volume/Folio Lr3127/258 Lot 831 Jandakot Princep Park LOT 9031 ON PLAN 54269 - Volume/Folio 2926/504 - Lot 9031 TREEBY Road Reserve - Pin 1153112 - Streetscapes Glen Iris Dr - Jandakot Road Reserve - Pin 1169487 - Streetscapes Glen Iris Dr - Jandakot Road Reserve - Pin 1187103 - Streetscapes Turnbury Park Dr - Jandakot		

Authorised Activities	Taking of water for	Location of Activity
	Irrigation of up to .5 ha of public open space	Lot 706 On Plan 22060 Volume/Folio Lr3036/847 Lot 706 Riversdale Pass Jandakot Fairway Park
	Irrigation of up to .7 ha of public open space	Lot 4268 On Plan 21401 Volume/Folio Lr3107/840 Lot 4268 Glen Iris Dr Jandakot Bunker Gardens
	Irrigation of up to 1 ha of road verge	Road Reserve - Pin 1153112 - Streetscapes Glen Iris Dr - Jandakot Road Reserve - Pin 1169487 - Streetscapes Glen Iris Dr - Jandakot Road Reserve - Pin 1187083 - Streetscapes Glen Iris Dr - Jandakot Road Reserve - Pin 1187092 - Streetscapes Dean Rd - Jandakot Road Reserve - Pin 1187103 - Streetscapes Turnbury Park Dr - Jandakot Road Reserve - Pin 1187109 - Streetscapes Hartwell Pde - Jandakot Road Reserve - Pin 1187129 - Streetscapes Dean Rd - Jandakot Road Reserve - Pin 1199586 - Streetscapes Twin Waters Ps - Jandakot
	Irrigation of up to 5.1 ha of public open space	LOT 8014 ON DEPOSITED PLAN 413125 - Volume/Folio LR3170/134 - Lot 8014 LOT 8022 ON DEPOSITED PLAN 410148 - Volume/Folio LR3168/32 LOT 8024 ON DEPOSITED PLAN 414506 - Volume/Folio LR3170/263 - Lot 8024 LOT 9031 ON PLAN 54269 - Volume/Folio 2926/504 - Lot 9031 TREEBY LOT 9539 ON PLAN 403472 - Volume/Folio 2939/775 - Lot 9539 TREEBY Road Reserve - Pin12138388

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No: RF394-05-8



Government of Western Australia
Department of Water and Environmental Regulation

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Instrument No. GWL203196(3)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

		Road Reserve - Pin12162122 Road Reserve - Pin12163727 Road Reserve - Pin12277735 Road Reserve - Pin12281721 Road Reserve - Pin12290712 Road Reserve - Pin12325483 Road Reserve - Pin12327438 Road Reserve - Pin12349932
	Irrigation of up to 6.3 ha of public open space	LOT 661 ON PLAN 19594 - Turnbury Park Dr - Jandakot Lot 699 On Plan 19792 Volume/Folio Lr3047/743 Lot 699 Kooyonga Crss Jandakot Capricorn Park LOT 700 ON PLAN 193166 - Jandakot - Dean Park Lot 703 On Plan 219619 Volume/Folio Lr3109/858 Lot 703 Jandakot Yarra Vista Park Lot 831 On Diagram 96391 Volume/Folio Lr3127/258 Lot 831 Jandakot Princep Park
Duration of Licence	From 16 December 2020 to 5 August 2029	

This Licence is subject to the following terms, conditions and restrictions:

1. The annual water year for water taken under this licence is defined as 1 July to 30 June.
2. Between 1 June and 31 August in any year, the licence-holder must not water a lawn, garden, or grass-covered area ("turf") by reticulation, provided always that this restriction shall not apply; watering with a hand held hose; or watering, by way of reticulation: golf course tees and greens, turf wickets, bowling greens and active sporting areas; newly planted areas for a period of up to 28 days from the date of planting; for renovating turf; or for maintenance of reticulation systems
3. The licensee shall not use water for sprinkler irrigation between 9 am and 6 pm except for the establishment of newly planted areas. For newly planted areas water may be used within these hours for a period of up to 28 consecutive days, commencing from the date of planting.
4. The licensee shall comply with the commitments of the Water Resource Operating Strategy June 2015- June 2018 as prepared by City of Cockburn and approved by the Department of Water and Environmental Regulation on 26/06/2015, including any modifications to the commitments as approved during the term of the licence.
5. Every 12 Months the licensee shall provide to the Department of Water and Environmental Regulation a Groundwater Monitoring Summary for the preceding water year. The first report is due 01/08/2020.
6. The City of Cockburn is to provide a revised operating strategy to the Department of Water and Environmental Regulation in accordance with Operational Policy 5.08 'Use of Operating Strategies in the water licensing process'.

End of terms, conditions and restrictions

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No: RF8091~1



Government of Western Australia
Department of Water and Environmental Regulation

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Instrument No. GWL202853(3)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Licensee(s)	City of Cockburn		
Description of Water Resource	Jandakot Perth - Superficial Swan	Annual Water Entitlement	53,731kL
Location of Water Source	LOT 8004 ON PLAN 402663 - Volume/Folio LR3165/48 - Lot 8004 CLEMENTINE BVD TREEBY LOT 8010 ON PLAN 407061 - Volume/Folio LR3166/684 - Lot 8010 SUNSTONE BVD TREEBY LOT 8016 ON PLAN 405787 - Volume/Folio LR3168/888 - Lot 8016 SAPPHIRE DR TREEBY LOT 8019 ON DEPOSITED PLAN 415256 - Volume/Folio LR3170/351 - Lot 8019 LOT 8021 ON DEPOSITED PLAN 410148 - Volume/Folio LR3168/31 - Lot 8021		

Authorised Activities	Taking of water for	Location of Activity
	Irrigation of up to 0.1 ha of public open space	CROWN RESERVE 52864 LOT 3098 ON PLAN 416946 - Volume/Folio 2971/137 - Lot 3098 CLEMENTINE BVD TREEBY Road Reserve - Pin12266927 Road Reserve - Pin12266928 Road Reserve - Pin12272469
	Irrigation of up to 0.72 ha of public open space	LOT 8004 ON PLAN 402663 - Volume/Folio LR3165/48 - Lot 8004 CLEMENTINE BVD TREEBY LOT 8005 ON PLAN 406025 - Volume/Folio LR3167/619 - Lot 8005 CLEMENTINE BVD TREEBY LOT 8010 ON PLAN 407061 - Volume/Folio LR3166/684 - Lot 8010 SUNSTONE BVD TREEBY LOT 8011 ON PLAN 407405 - Volume/Folio LR3167/460 - Lot 8011 MARBLE ST TREEBY LOT 8021 ON DEPOSITED PLAN 410148 - Volume/Folio LR3168/31 - Lot 8021 LOT 8022 ON DEPOSITED PLAN 410148 - Volume/Folio LR3168/32 Road Reserve - Pin11871424
	Irrigation of up to 0.86 ha of public open space	CROWN RESERVE 52864 LOT 8016 ON PLAN 405787 - Volume/Folio LR3168/888 - Lot 8016 SAPPHIRE DR TREEBY
	Irrigation of up to 1.7 ha of native plants	Road Reserve - Pin12138388 Road Reserve - Pin12162122 Road Reserve - Pin12163727 Road Reserve - Pin12325483 Road Reserve - Pin12327438
	Irrigation of up to 2.76ha ovals and playing fields	LOT 8019 ON DEPOSITED PLAN 415256 - Volume/Folio LR3170/351 - Lot 8019

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No: RF8091~1



Government of Western Australia
Department of Water and Environmental Regulation

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Instrument No. GWL202853(3)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Duration of Licence	From 17 March 2021 to 5 August 2029
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This Licence is subject to the following terms, conditions and restrictions:

1. The annual water year for water taken under this licence is defined as 1 July to 30 June.
2. The licensee shall not use water for sprinkler irrigation between 9 am and 6 pm except for the establishment of newly planted areas. For newly planted areas water may be used within these hours for a period of up to 28 consecutive days, commencing from the date of planting.
3. Between 1 June and 31 August in any year, the licence-holder must not water a lawn, garden, or grass-covered area ("turf") by reticulation, provided always that this restriction shall not apply to watering with a hand held hose; or watering, by way of reticulation: newly planted areas for a period of up to 28 days from the date of planting; for renovating turf; or for maintenance of reticulation systems.
4. Every 12 Months the licensee shall provide to the Department of Water and Environmental Regulation a Groundwater Monitoring Summary for the preceding water year. The first report is due 01/08/2021.
5. The licensee shall comply with the commitments of the Water Resource Operating Strategy June 2015-June2018 as prepared by City of Cockburn and approved by the Department of Water and Environmental Regulation on 26/06/2015, including any modifications to the commitments as approved during the term of the licence.

End of terms, conditions and restrictions

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No: RF394-05~14

Government of Western Australia
Department of Water and Environmental Regulation

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Instrument No. GWL155669(13)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Licensee(s)	City of Cockburn		
Description of Water Resource	Jandakot Perth - Superficial Swan	Annual Water Entitlement	22,530kL
Location of Water Source	Crown Reserve 53786		

Authorised Activities	Taking of water for	Location of Activity
	Irrigation of up to 1.79 ha of public open space	Crown Reserve 53786 Crown Reserve 53831 LOT 1509 ON PLAN 419066 - Volume/Folio 2989/743 - Lot 1509 TORWOOD AV TREEBY LOT 8027 ON PLAN 414098 - Volume/Folio LR3171/77 - Lot 8027 MUDSTONE RD TREEBY LOT 8028 ON PLAN 414098 - Volume/Folio LR3171/78 - Lot 8028 CATSEYE WALK TREEBY LOT 8029 ON DEPOSITED PLAN 414098 - Volume/Folio LR3171/79 - Lot 8029 Road Reserve - Pin11871423 Road Reserve - Pin1203665 Road Reserve - Pin12277735 Road Reserve - Pin12290712 Road Reserve - Pin12366808 Road Reserve - Pin12370158 Road Reserve - Pin12380215
Duration of Licence	From 18 May 2022 to 3 December 2023	

This Licence is subject to the following terms, conditions and restrictions:

1. The annual water year for water taken under this licence is defined as 1 July to 30 June.
2. The licensee shall not use water for sprinkler irrigation between 9 am and 6 pm except for the establishment of newly planted areas. For newly planted areas water may be used within these hours for a period of up to 28 consecutive days, commencing from the date of planting.
3. Between 1 June and 31 August in any year, the licence-holder must not water a lawn, garden, or grass-covered area ("turf") by reticulation, provided always that this restriction shall not apply; watering with a hand held hose; or watering, by way of reticulation: golf course tees and greens, turf wickets, bowling greens and active sporting areas; newly planted areas for a period of up to 28 days from the date of planting; for renovating turf; or for maintenance of reticulation systems
4. The licensee shall comply with the commitments of the Water Resource Operating Strategy June 2015 - June 2018 as prepared by City of Cockburn and approved by the Department of Water and Environmental Regulation on 26/06/2015, including any modifications to the commitments as approved during the term of the licence.

End of terms, conditions and restrictions**This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.**

File No: RF394-05~20

Government of Western Australia
Department of Water and Environmental Regulation

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Instrument No. GWL203255(5)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Licensee(s)	City of Cockburn		
Description of Water Resource	Cockburn Perth - Superficial Swan	Annual Water Entitlement	118,351kL
Location of Water Source	LOT 2 ON DIAGRAM 17998 - Volume/Folio 1824/46 - Lot 2 WATTLEUP Henderson - Henderson Landfill Site Lot 202 On Plan 60443 Volume/Folio 2705/369 Lot 202 Rockingham Rd Henderson Henderson Landfill Site LOT 2022 ON PLAN 27846 - Volume/Folio LR3005/250 - Lot 2022 FRANKLAND AV HAMMOND PARK Lot 235 On Plan 226117 Volume/Folio 1824/45 Lot 235 Dalison Av Henderson Henderson Landfill Site LOT 78 ON PLAN 405773 - Volume/Folio LR3166/690 - Lot 78 TERAMO ST HAMMOND PARK Lot 8000 on Plan 416340 Volume/Folio (LR3170/641) - 2 Canary Drive Hammond Park WA 6164 Lot 8001 On Plan 400205 Volume/Folio Lr3165/596 Lot 8001 Marquis St Hammond Park Marquis Park LOT 8002 ON PLAN 410851 - Volume/Folio LR3168/625 - Lot 8002 DICKERSON LOOP HAMMOND PARK Road Reserve - Pin 11497889 - Sparks Road Henderson		

Authorised Activities	Taking of water for	Location of Activity
	Dust suppression for industrial purposes	LOT 2 ON DIAGRAM 17998 - Volume/Folio 1824/46 - Lot 2 WATTLEUP Henderson - Henderson Landfill Site Lot 202 On Plan 60443 Volume/Folio 2705/369 Lot 202 Rockingham Rd Henderson Henderson Landfill Site Lot 235 On Plan 226117 Volume/Folio 1824/45 Lot 235 Dalison Av Henderson Henderson Landfill Site
	Irrigation of road verge	Road Reserve - Pin 11497889 - Sparks Road Henderson Road Reserve - Pin 11497890 - Quill Way Henderson Road Reserve - Pin 11497891 - Nautical Drive, Henderson Road Reserve - Pin 11826639 - Welding Pass Henderson Road Reserve - Pin11976777 Road Reserve - Pin12291239 Road Reserve - Pin12332263 Road Reserve - Pin1376147
	Irrigation of up to .14 ha of public open space	Lot 8001 On Plan 400205 Volume/Folio Lr3165/596 Lot 8001 Marquis St Hammond Park Marquis Park
	Irrigation of up to .2 ha of lawns and gardens	Lot 202 On Plan 60443 Volume/Folio 2705/369 Lot 202 Rockingham Rd Henderson Henderson Landfill Site
	Irrigation of up to .26 ha of public open space	Crown Reserve 52137 Lot 8002 on Plan 400205, Volume/Folio LR3165/597 - Marquis Rd - Hammond Park
	Irrigation of up to .3 ha of public open space	LOT 78 ON PLAN 405773 - Volume/Folio LR3166/690 - Lot 78 TERAMO ST HAMMOND PARK
	Irrigation of up to .3 ha of public open space	Road Reserve - Pin12353480 Road Reserve - Pin12380520

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No: RF394-05~20



Government of Western Australia
Department of Water and Environmental Regulation

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Instrument No. GWL203255(5)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

	Irrigation of up to .33 ha of public open space	LOT 8002 ON PLAN 410851 - Volume/Folio LR3168/625 - Lot 8002 DICKERSON LOOP HAMMOND PARK
	Irrigation of up to .98 ha of public open space	LOT 8003 ON PLAN 409659 - Volume/Folio LR3167/538 - Lot 8003 DICKERSON LOOP HAMMOND PARK LOT 8004 ON PLAN 413426 - Volume/Folio LR3169/73 - Lot 8004
	Irrigation of up to 0.6 ha of public open space	Lot 8000 on Plan 416340 Volume/Folio (LR3170/641) - 2 Canary Drive Hammond Park WA 6164 LOT 8001 ON PLAN 416340 - Volume/Folio LR3170/642 - Lot 8001 MCPHEE RD HAMMOND PARK LOT 8005 ON PLAN 421986 - Volume/Folio LR3174/275 - Lot 8005 MCPHEE RD HAMMOND PARK Road Reserve - Pin12298073 Road Reserve - Pin12304761
	Irrigation of up to 3.46 ha of public open space	LOT 2022 ON PLAN 27846 - Volume/Folio LR3005/250 - Lot 2022 FRANKLAND AV HAMMOND PARK
Duration of Licence		From 12 July 2023 to 14 August 2029

This Licence is subject to the following terms, conditions and restrictions:

1. The annual water year for water taken under this licence is defined as 1 July to 30 June.
2. Between 1 June and 31 August in any year, the licence-holder must not water a lawn, garden, or grass-covered area ("turf") by reticulation, provided always that this restriction shall not apply; watering with a hand held hose; or watering, by way of reticulation: golf course tees and greens, turf wickets, bowling greens and active sporting areas; newly planted areas for a period of up to 28 days from the date of planting; for renovating turf; or for maintenance of reticulation systems
3. The licensee shall not use water for sprinkler irrigation between 9 am and 6 pm except for the establishment of newly planted areas. For newly planted areas water may be used within these hours for a period of up to 28 consecutive days, commencing from the date of planting.
4. The licensee shall comply with the commitments of the Water Resource Operating Strategy June 2015- June 2018 as prepared by City of Cockburn and approved by the Department of Water and Environmental Regulation on 26/06/2015, including any modifications to the commitments as approved during the term of the licence.
5. Every 12 Months the licensee shall provide to the Department of Water and Environmental Regulation a Groundwater Monitoring Summary for the preceding water year. The first report is due 30/09/2023.

End of terms, conditions and restrictions

This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

File No: RF394-05



Government of Western Australia
Department of Water and Environmental Regulation

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Instrument No. GWL203204(1)

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Licensee(s)	City of Cockburn		
Description of Water Resource	Jandakot Perth - Superficial Swan	Annual Water Entitlement	28,250kL
Location of Water Source	Lot 414 On Plan 226040 Volume/Folio Lr3136/703 - Oxley Rd - Banjup Lot 843 On Plan 33813 Volume/Folio Lr3128/175 Lot 843 Callistemon App Atwell Kurrajong Park Road Reserve - Gibbs Rd near Tapper Rd - Pin 1188888		

Authorised Activities	Taking of water for	Location of Activity
	Domestic use	Lot 414 On Plan 226040 Volume/Folio Lr3136/703 - Oxley Rd - Banjup
	Dust suppression for earthworks and construction purposes	Lot 414 On Plan 226040 Volume/Folio Lr3136/703 - Oxley Rd - Banjup
	Firefighting purposes	Lot 414 On Plan 226040 Volume/Folio Lr3136/703 - Oxley Rd - Banjup
	Irrigation of up to .3 ha of public open space	Lot 414 On Plan 226040 Volume/Folio Lr3136/703 - Oxley Rd - Banjup
	Irrigation of up to .58 ha of road verge	Lot 2168 on Deposited Plan 69449 - Flourish Lp - Atwell Lot 2169 On Plan 69449 Volume/Folio Lr3160/941 Lot 2169 Flourish Loop Atwell Flourish Loop Paw Road Reserve - Bendee Dr - Pin 11018365 Road Reserve - Sedge Link east - Pin11159463 Road Reserve - Sedge Link west - Pin11069952
	Irrigation of up to 2 ha of public open space	Lot 843 On Plan 33813 Volume/Folio Lr3128/175 Lot 843 Callistemon App Atwell Kurrajong Park

Duration of Licence	From 8 August 2019 to 7 August 2029
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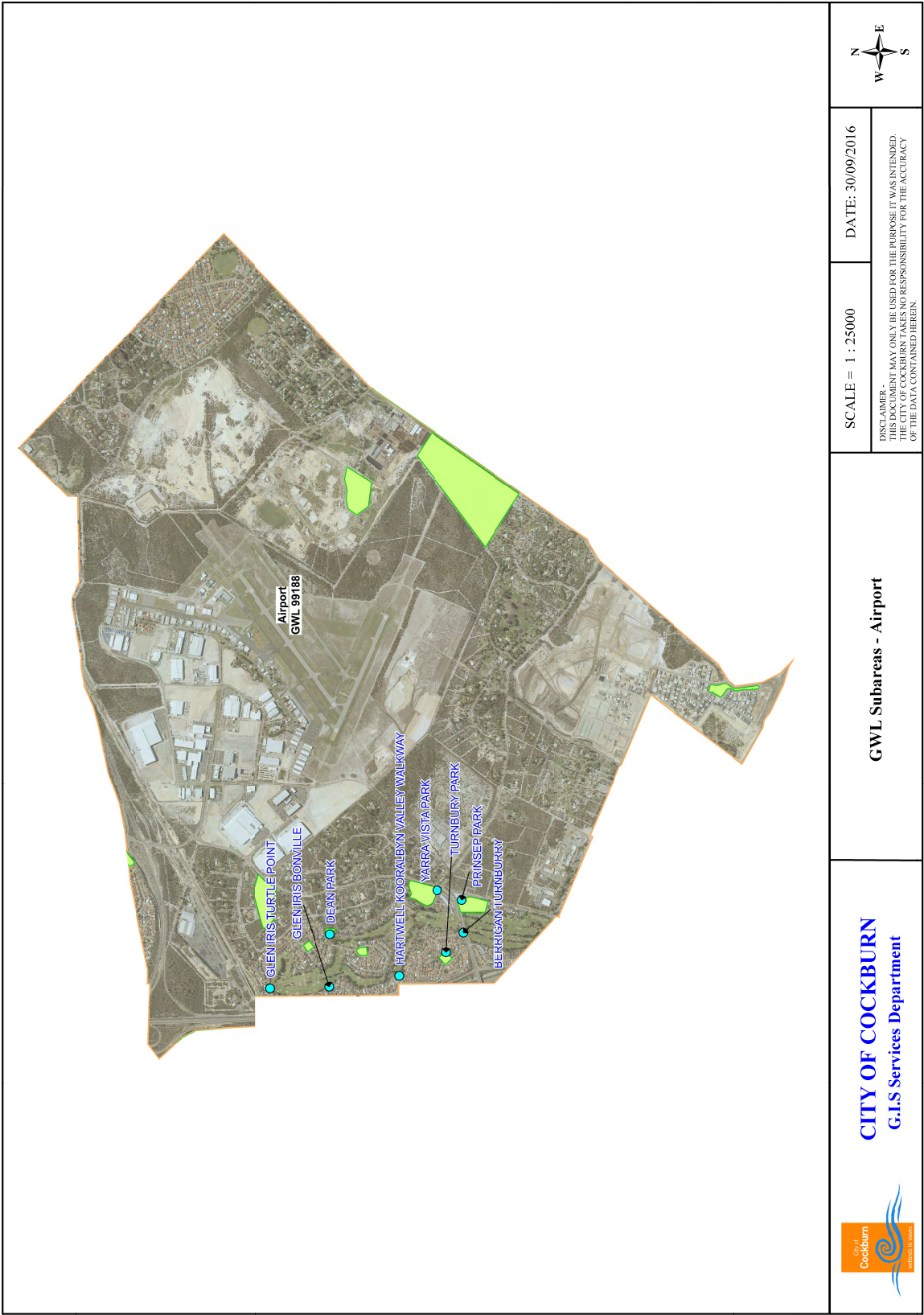
This Licence is subject to the following terms, conditions and restrictions:

- The annual water year for water taken under this licence is defined as 1 Jul to 30 June.
- The licensee shall comply with the commitments of the Water Resource Operating Strategy June 2015- June 2018 as prepared by City of Cockburn and approved by the Department of Water and Environmental Regulation on 26/06/2015, including any modifications to the commitments as approved during the term of the licence.
- The licensee shall provide a revised operating strategy to the Department of Water and Environmental Regulation for approval by 01/03/2020. The strategy shall be prepared in accordance with Operational Policy 5.08 'Use of Operating Strategies in the water licensing process'.
- Between 1 June and 31 August in any year, the licence-holder must not water a lawn, garden, or grass-covered area ("turf") by reticulation, provided always that this restriction shall not apply to watering with a hand held hose; or watering, by way of reticulation: newly planted areas for a period of up to 28 days from the date of planting; for renovating turf; or for maintenance of reticulation systems.
- The licensee shall not use water for sprinkler irrigation between 9 am and 6 pm except for the establishment of newly planted areas. For newly planted areas water may be used within these hours for a period of up to 28 consecutive days, commencing from the date of planting.

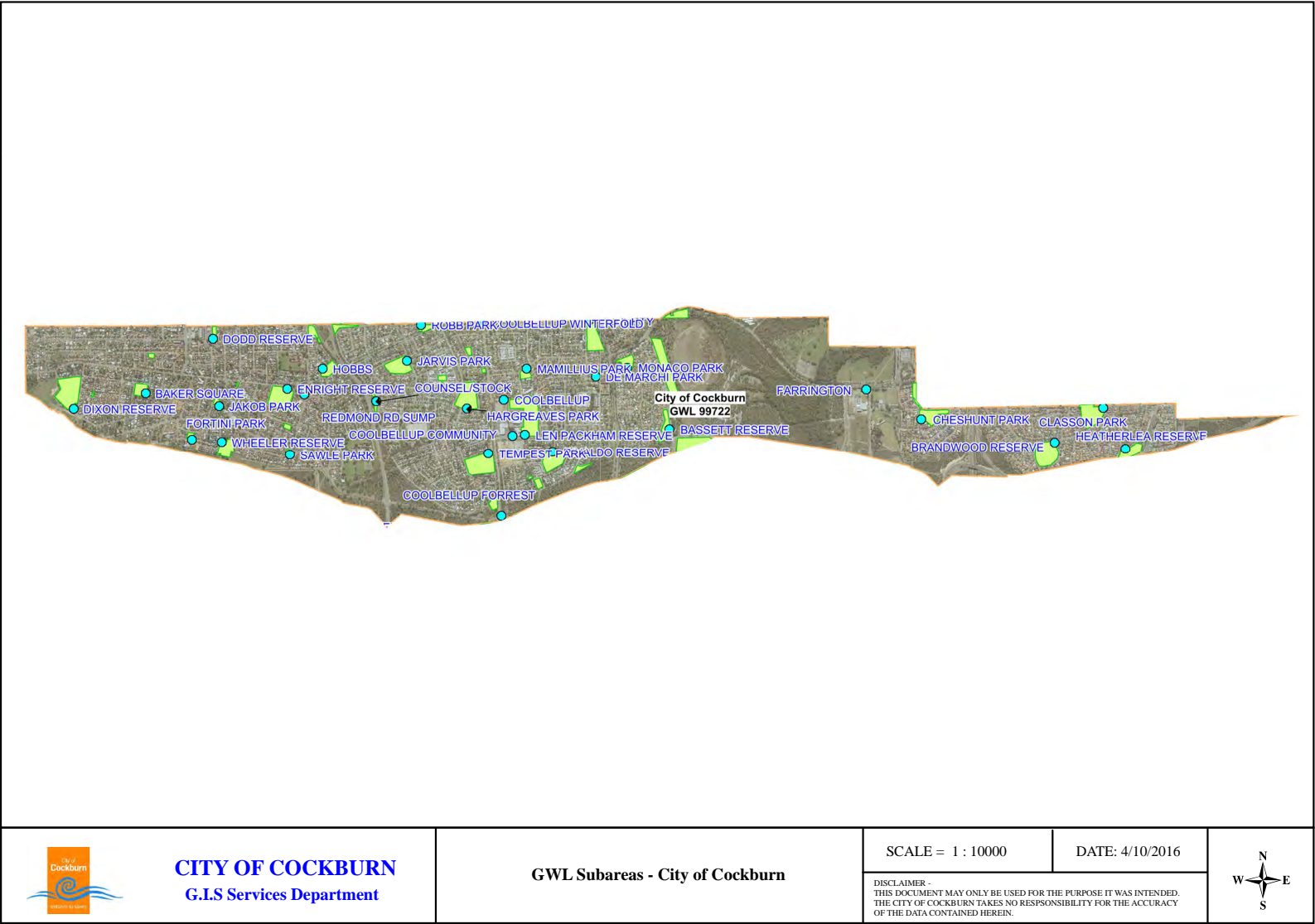
End of terms, conditions and restrictions

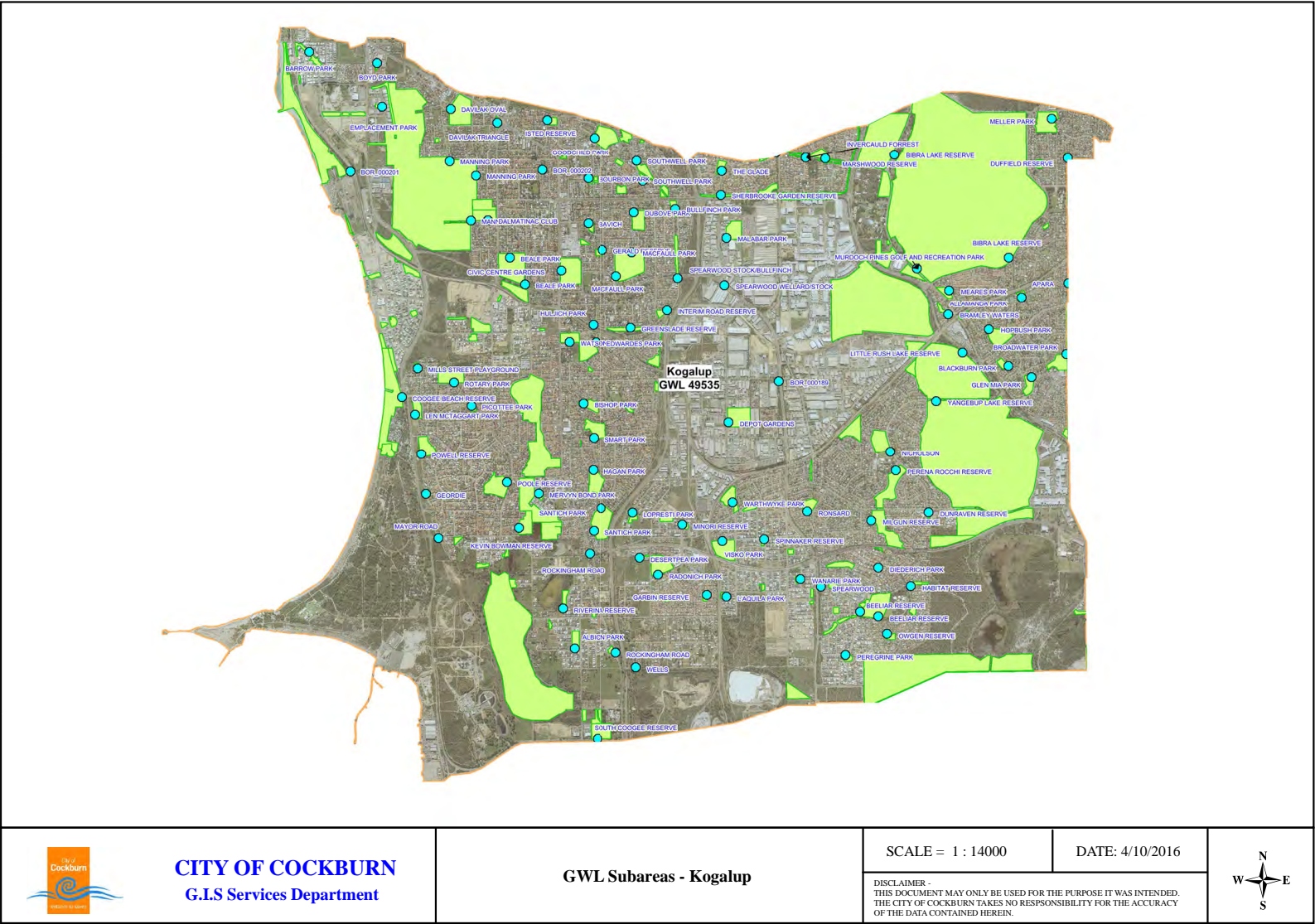
This Licence is granted subject to the Rights in Water and Irrigation Regulations 2000.

Appendix 2: Groundwater Well Licence Subarea Maps

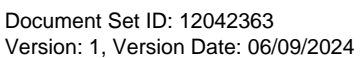


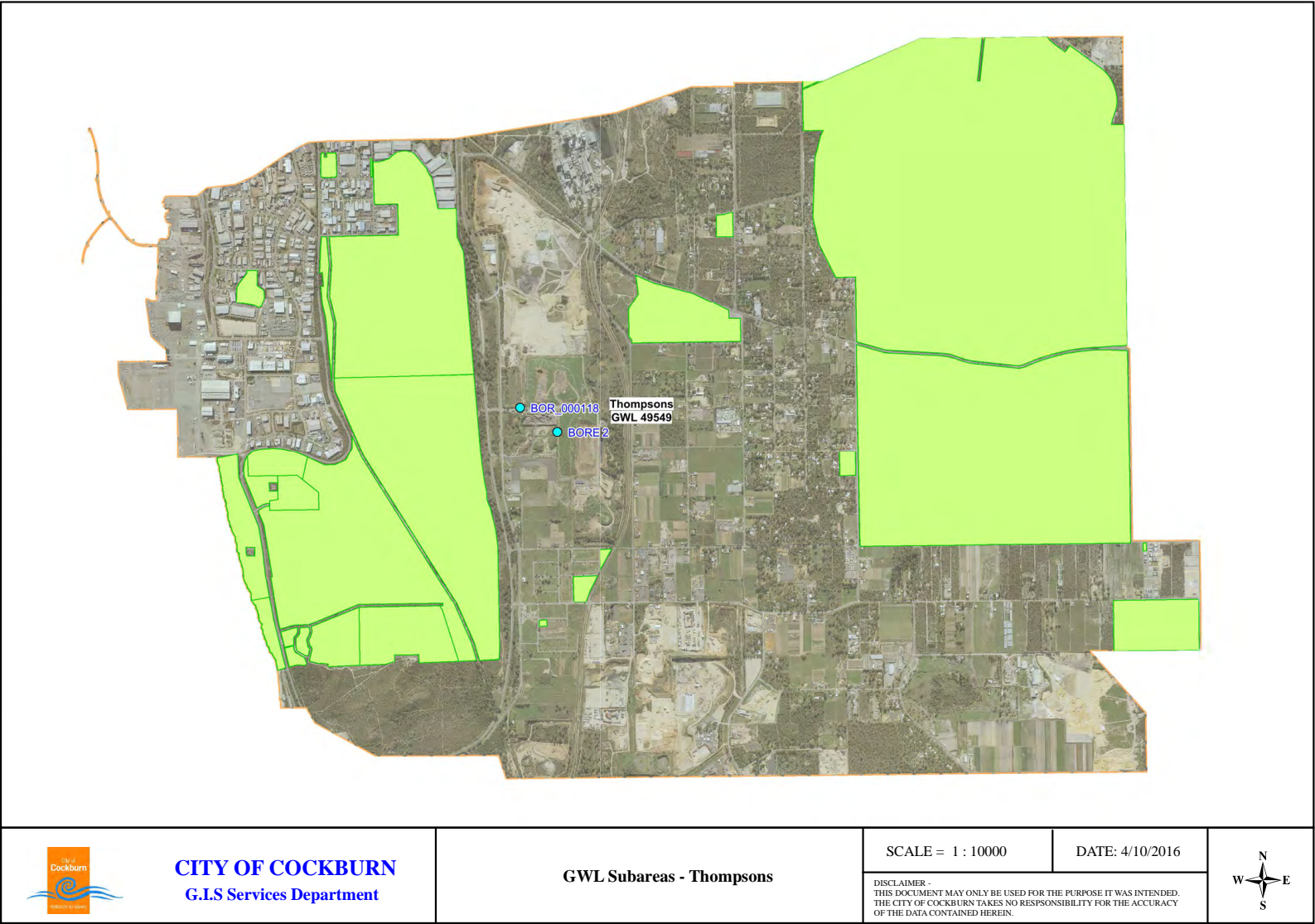












Appendix 3: Flow meter readings 2023 – 2024

City of Cockburn Reserve Name	1 Jul 23	1 Aug 23	1 Sep 23	1 Oct 23	1 Nov 23	1 Dec 23	1 Jan 24	1 Feb 24	1 Mar 24	1 Apr 24	1 May 24	1 Jun 24	1 Jul 24	Total
GWL49535 (Kogalup)														
Allamanda	16789	16789	16789	16796	17047	17475	17862	18259	18624	18807	18923	18977	18979	2190
Apara Court	2	2	2	3	3	3	3	3	3	3	3	3	3	1
Barrow (Bore Emplacement Court)	589071	589102	589117	589135	600964	603304	608126	611753	615636	619626	621763	622511	622523	33452
Bavich	48008	48008	48009	48041	48191	48551	49061	49527	49977	50297	50577	50592	50592	2584
Beale 1 (Kent St Old Bore)	375550	375550	375554	376523	378688	382940	389082	394588	400197	405334	407148	408322	408339	32789
Beale 2 (Spearwood Ave)	419801	419801	419802	420792	422027	427409	433711	437724	443515	449083	450709	451928	451943	32142
Beeliar Lakefill (Bore)	1527019	1527062	1527111	1528281	1534793	1543641	1552001	1562507	1571135	1579992	1587655	1591476	1591497	64478
Bibra Golf	262761	262761	262761	262794	263564	266540	268862	271374	273670	274662	275520	275772	275780	13019
Bibra Lake POS	421224	421224	421224	421683	425408	433784	440844	447700	455067	458373	461423	462484	462488	41264
Bishop	94789	94789	94789	94806	94944	96647	98460	100190	101700	102900	103750	103778	103778	8989
Blackburn	22715	22716	22716	22725	22880	23534	24095	24681	25242	25572	25752	25805	25805	3090
Blue Bush (irrigates Costa , Mariposa,Wearn Pks)	263220	263220	263220	263440	264578	266116	267799	270287	272067	273850	274688	275075	275078	11858
Bourbon POS	36162	36163	36165	36193	36436	36658	37243	37735	38353	38700	38904	39093	39094	2932
Boyd Crescent	14226	14226	14226	14226	14268	14387	14553	14698	14882	14993	15019	15020	1	795
Bramley	37961	37961	37961	37980	38354	39665	40733	41802	42810	43435	43819	44011	44012	6051
Broadwater	267854	267857	267863	268273	271289	275494	279103	282558	285480	288078	289482	290158	290160	22306
Catherine Point (Cy O'Connor)	83172	83172	83175	83229	83572	84489	85527	86510	87443	88307	88874	88967	88967	5795
Civic Centre Grounds	233716	233716	233716	234287	236548	240906	245380	249510	253250	256177	259019	260227	260227	26511
Coogee Beach	152144	152144	152144	152475	153687	155787	158077	160167	162890	165122	165815	166235	166235	14091
Crown (Mayor Rise)	49529	49593	49593	49654	49992	50287	50944	51747	52509	53191	53433	53461	53461	3932
Dalmatia Park (Kitj Park)	127009	127009	127009	127265	129488	130808	133769	136535	138264	138264	138265	140669	140813	13804
Dalmatinac	193242	193242	193253	193591	194475	196537	199276	251	5017	7206	8308	9353	9372	15406
Davilak	553482	553503	553503	553680	555426	558159	566868	570789	579166	587699	592399	596473	596477	42995
Davilak Triangle	9657	9657	9657	9711	9882	10484	11199	11892	12553	13131	13454	13522	13523	3866
Desert Pea	24775	24781	24786	24786	25006	25640	26244	26779	27317	27861	28284	28308	28308	3533

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Diedrich (also irrigates Touchell)	124580	124580	124582	124757	125327	126187	126865	127683	128155	128155	128155	128250	128251	3671
Ditullio Park	3012	3012	3012	3012	3244	3665	4211	4689	5248	5690	5901	5938	5938	2926
Dubove	283987	283993	283993	284157	286129	288598	292627	295943	300128	302530	304252	305368	305368	21381
Duffield	13785	13785	13876	13914	14048	14385	14714	15214	15737	15894	15975	16015	16016	2231
Dunraven	9745	9745	9745	9748	9795	9999	10201	10400	10599	10800	10899	10907	10909	1164
Edwards	430859	430859	430861	664	3003	7812	13235	19296	25037	31205	33647	34415	34418	34420
Eliza Cave (Bibra Lake Skate Park)	30648	30649	30649	30658	30835	31077	31498	32572	33604	34129	34362	34456	34456	3808
Eliza Ponds (Kooboolong Pk)	215406	215406	215819	215917	217501	219840	222642	225118	227797	230153	231791	232996	233394	17988
Firbank Park	24673	24673	24677	24737	24737	25013	25079	26787	27453	28224	28869	28969	28974	4301
Garbin	21454	21454	21490	21492	21708	22039	22521	22981	23396	23732	24027	24027	24030	2576
Gage Park (Fmrly Shoreline POS)	161105	161105	161464	162511	163545	167564	174064	177597	180103	180107	185501	185737	186420	25315
Galipo Park	29895	29895	29895	29895	0	30824	31454	32181	32902	33336	33435	33725	33725	33725
Geordie Crt	4580	4580	4580	4580	4619	4692	4881	5036	5195	5336	5381	5389	5389	809
Gerald	40240	40240	40240	40240	0	40848	41506	41697	42115	42400	42797	42845	42845	42845
Glenmia	7229	7229	7229	7255	8136	10292	12024	13826	15542	16900	17539	17848	17851	10622
Goodchild	537742	537818	537852	538488	542303	546768	553693	559431	566954	571417	575827	578674	578694	40952
Greenslade	23740	23740	23740	23740	23894	24326	820	1227	1616	1870	2060	2081	2081	2667
Habitat Park	171761	171761	171761	171761	172390	173979	176797	178199	181230	183018	184231	184299	184299	12538
Hagan	370859	370859	370926	0	1915	5199	10023	14281	18183	20679	22636	22936	22936	23003
Hanlon Park	6875	6875	6875	6888	7016	7249	7599	7875	8153	8273	8391	8521	8522	1647
Hopbush	52749	52749	52754	53273	57107	62814	68729	75512	81577	85224	87825	89181	89181	36432
Huljich	17892	17892	17892	17898	18000	18197	18468	18710	18919	19160	19208	19211	7	1326
Interim Rd	36388	36388	36388	36443	37148	38716	41321	42731	44328	45390	46726	46921	46926	10538
Invercauld	5332	5332	5333	5333	5380	5450	5565	5652	5748	5808	5854	5876	5876	544
Isted	46272	46274	46274	46345	47056	48070	49747	51126	52863	53781	54534	55012	55013	8741
Katich Park	8210	8210	8210	8210	8410	8772	9268	9594	9964	10361	10709	10757	10757	2547
Kevin Bowman	91064	91064	91064	91068	91170	91356	91960	92120	92543	92999	93000	93000	93000	1936
Len McTaggart	97519	97519	97527	97685	98135	99434	101106	102701	104320	105942	106545	106664	106664	9145

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Lopresti	53785	53785	53785	53785	53799	53958	55246	55311	56498	57147	57253	57261	57261	3476
Malabar	151514	151514	151514	151514	151628	153100	153100	153100	159200	159200	161460	162036	162111	10597
Manning Azelia	113294	113314	113325	113744	115885	120842	126158	131455	137242	141561	144570	144728	144741	31447
Manning Glennister	395165	395165	395165	395997	400275	408555	417357	426446	435035	443248	447739	448079	448079	52914
Manning Janson	137304	137304	137304	137582	138950	142567	147690	152532	157510	160779	162929	163255	163255	25951
Marshwood	12156	12156	12157	12161	12357	12676	12910	13107	13329	13499	13586	13641	13642	1486
McFaull 1	259282	259282	259289	259589	262282	265247	270217	274302	281241	285041	287627	287972	288200	28918
McFaull 2	387521	387521	387521	387798	390778	393670	398596	402652	408388	410959	413628	415473	415601	28080
Meares	16342	16342	16344	16483	17310	19189	20680	22236	23806	25000	25486	25753	25774	9432
Meller	515966	515968	515968	516456	519495	527426	532706	538716	541973	547178	549325	550763	550763	34797
Mervyn Bond	239174	239174	239174	239348	239847	241092	242731	244620	246503	248097	249107	249212	249212	10038
Milgun	317227	317227	317227	317275	319270	323668	330139	336428	342442	347180	350249	350740	350740	33513
Mills St Playground	8118	8118	8118	8180	8278	8446	8648	8910	9094	9267	9316	9328	9328	1210
Minori	30813	30813	30813	30813	30928	31224	31726	32148	32569	32860	33020	33031	33037	2224
Nicholson	225565	225565	225588	225913	228838	234342	239440	245487	251284	256116	260480	262079	262079	36514
Nola Waters	5119	5119	5119	5129	5165	5296	5410	5530	5633	5699	5705	5757	5757	638
Olive Tree Park	30605	30605	30605	30605	30940	31559	32238	33058	33809	34451	34898	34961	34961	4356
Operations Centre	52629	52629	52630	53619	54617	56363	57215	58800	60282	61303	62214	62718	62718	10089
Owgan (Hakea fed from Owgan bore)	228197	228245	228245	228574	229295	230549	231790	233462	234811	236352	237036	237239	237239	9042
Peace Park	9296	9296	9297	9359	9421	9565	9855	10135	10356	10599	10777	10794	10794	1498
Peregrine	177227	177247	177247	177255	177652	177839	179487	180546	181550	182329	182329	182597	182613	5386
Perena Rocchi Bore 1	50950	50953	50953	50957	51266	51859	53637	55328	56811	58014	58237	58237	58237	7287
Perena Rocchi Bore 2	99028	99029	99029	99029	99576	100565	103535	106311	108874	110928	111320	111320	111320	12292
Phoenix Rd Median	264560	264572	264572	264835	265581	267063	269425	272216	274632	276078	277985	278202	278214	13654
Phoenix Rise	112433	112433	112435	112472	112542	114159	115891	117237	119012	119958	120599	121163	121164	8731
Picotee / Duchart	7812	7812	7812	7829	7982	8260	8638	9043	9452	9808	10060	10087	10088	2276
Poole	31109	31109	31109	31433	34475	34775	38002	40641	43793	45952	47356	47884	47884	16775
Powell	266310	266310	266310	266619	268805	272504	277000	281710	286040	291096	293457	294477	295404	29094

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Radonich	0	14	31	31	1580	4389	8762	11610	15229	18052	20140	20609	20609	20609
Ravello (Prev Shallcross)	73354	73354	73354	73355	74080	75838	77648	79815	81604	82969	83846	84001	84012	10658
Riverina Reserve (Bindjar Reserve)	78012	78014	78018	78018	78388	79179	80078	80773	81512	81512	82558	82609	82615	4603
Ronsard	130947	130947	130968	130984	131811	133290	135645	137880	139822	141549	142925	143184	143200	12253
Rotary Lookout	30865	30865	30865	30878	31097	31676	32377	33130	33176	34194	34377	34400	34400	3535
Santich 1	466368	466368	466386	466585	468746	472157	477490	482495	487785	492325	494966	496427	496484	30116
Santich 2	451798	451798	451800	452008	454176	457550	462952	468204	473460	478153	480888	481727	481745	29947
Smart	157148	157377	157724	158092	159915	163211	167984	172006	175887	179722	183132	184460	184480	27332
South Coogee	251625	251625	251625	251825	253549	256150	260054	263888	267619	270857	274620	274743	274743	23118
Southwell POS	63092	63092	63095	63160	63394	64934	66540	67866	69626	70629	71192	71681	71682	8590
Spinnaker Heights	39178	39182	39182	39185	39378	39654	40129	40759	40759	41846	42262	42281	42281	3103
SS Amberley/Old	1990	1990	1990	1990	2002	2035	2068	2097	2139	2189	2231	2231	2231	241
SS Cockburn/Mayor	7673	7673	7673	7711	7788	7860	8079	8237	8384	8512	8563	8572	8572	899
SS Deller Dr Entry	12963	12963	12964	12988	13078	13208	13486	13700	13950	14128	14248	14304	14305	1342
SS Osprey Ave	49967	49967	49967	49993	50485	51667	52615	54361	56147	56897	57237	57373	57374	7407
SS Osprey/North Lake	12176	12176	12176	12187	12349	12757	13126	13463	13784	14054	14193	14255	14256	2080
SS Rockingham/Mayor	15857	15857	15857	15858	16030	16297	16622	16914	17206	17502	17843	17856	17856	1999
SS Rockingham/Stock	11282	11282	11282	11282	11413	11640	11887	12045	12419	12600	12683	12684	12684	1402
SS Spearwood Ave - Barrington - Sudlow	66336	66366	66372	66375	66842	66842	67564	68802	69508	70398	70896	71071	71071	4735
SS Spearwood Ave – Stock to Bullfinch	13537	13537	13542	13572	13890	13890	14229	15470	16048	16658	17103	17186	17186	3649
SS Spearwood Ave – Wellard to Stock	60328	60328	60328	60334	60701	61400	62153	63025	63961	64703	65314	65373	65373	5045
St Pauls The Glade	235682	235762	235765	235787	235916	237896	239392	240626	241997	242914	243545	243970	243976	8294
Syndicate Link (Albion Pk)	118580	118606	118611	118613	119464	120837	122669	124455	126304	127585	128535	128622	128644	10064
Systema	43582	43582	43582	43582	44115	45440	47050	48030	49359	50584	51858	52111	16	8545
Visko	137652	137669	137669	137915	138889	139257	147943	153370	156603	159124	161884	162595	162605	24953
Warthwyke	74930	74930	74937	75006	75326	76066	77163	78359	78833	79565	80044	80044	80044	5114
Waterbank	29429	29429	29429	29429	29652	30127	30896	31568	32204	32682	33027	33070	33076	3647

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Watson	229850	229850	229850	230245	231762	234494	236634	240193	242663	245599	246996	247547	247547	17697
WA Wildlife Centre (Native Arc)	7958	8024	8098	8316	8950	9893	10848	11853	12522	13133	13412	13774	13839	5881
Wells Rd POS	13788	13788	13788	13788	13788	13788	13788	13788	13788	13788	13788	13788	13788	0
Wetlands Education Centre	13395	13559	13684	13969	14522	15438	16202	16790	17349	17883	18226	18503	18590	5195
											Total for GWL49535 (Kogalup)			1491439
GWL204089 (Kogalup)														
Azure	6820	6820	6826	6828	6968	6978	7245	7854	8190	8638	8957	9014	9017	2197
											Total for GWL204089 (Kogalup)			2197
GWL49545 (City of Cockburn)														
Bakers Square Netball Grounds	83109	83112	83112	83301	83967	84808	85778	86676	87686	88753	89196	89586	89586	6477
Bassett	50893	50894	50896	50947	51423	52090	53133	53999	55034	55746	56118	56428	56429	5536
Brandwood	148987	148987	148987	149024	150344	153094	155944	159024	161879	163863	164854	165584	165585	16598
Classon	28920	28920	28944	28967	29756	32236	34366	36683	39199	40296	41347	42100	42100	13180
Coolbellup Community	52511	52512	52516	52599	52999	53623	54607	55568	56311	56917	57285	57548	57554	5043
De Marchi - Lot 2143 Waverly	4695	4695	4695	4759	4970	5352	5981	6374	6887	7084	7290	7438	7440	2745
Dixon	70718	70718	70721	70808	71832	73054	74664	75905	78026	79054	79662	79949	79952	9234
Doherty	43312	43313	43313	43362	43772	44435	45097	45730	46515	47217	47491	47805	47807	4495
Enright	623466	623487	623518	624080	627153	632199	638379	643052	649942	655184	659203	661532	661536	38070
Fortini	25858	25925	26011	26047	26638	26823	26960	27294	27696	27972	28082	28211	28213	2355
Hargreaves Park	159415	159427	159431	159571	160105	162762	164963	166702	169428	171172	172501	173615	173615	14200
Heatherlea	76611	77114	77114	77114	77968	78866	80146	81395	82147	82931	83665	84332	84332	7721
Hobbs	76767	76769	76769	76834	77502	78269	79687	81039	82393	83140	83762	84148	84149	7382
Jakob (Senior Citizens)	51109	51112	51117	51168	51689	52445	53548	54615	55948	56510	56900	57137	57138	6029
Jarvis	126312	126313	126317	126470	126792	129556	132008	134116	136639	138589	140254	141638	141661	15349
Len Packham	409581	409624	409667	410226	414090	419005	426277	434266	440258	446134	450814	453677	453690	44109
Mamilius	35540	35542	35546	35633	35916	36349	37011	37750	38130	38542	38792	39008	39012	3472
Monaco	46984	46986	46987	47023	47576	48271	49452	50412	51521	344	864	1289	1292	5829
Murdoch Chase	96438	96445	96445	97761	98953	103814	107928	112002	116814	120434	122213	123267	123275	26837

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Old Canteen	49742	49745	49749	49828	50141	50390	51297	51732	52243	52687	52919	53119	53121	3379
Peridita Park	11476	11476	11478	11491	11636	11983	12299	12558	12862	12958	13192	13318	13320	1844
Rinaldo	345506	345509	345521	345775	347949	351200	356677	361177	365301	368942	370888	372576	372586	27080
Robb	51713	51717	51721	51758	52275	52876	53983	54891	55937	56622	57042	57371	57372	5659
Sawl Sump	19757	19758	19759	19790	19915	20121	20527	20845	21258	21481	21623	21708	21709	1952
SS Coolbellup – Waverly to Cordelia Front of Shops	57055	57055	57057	57091	57286	57286	57623	58475	58942	59429	59790	59885	59887	2832
SS Council/Stock	12082	12082	12083	12132	12352	12764	13345	13786	14420	14938	15460	15580	15581	3499
SS Farrington Rd Verge	55224	55224	55227	55228	55234	55234	55264	55312	55388	55427	55501	55510	55510	286
SS Forrest/Coolbellup	12703	12703	12808	12830	13207	13207	13552	14593	15114	15899	16215	16429	16430	3727
SS Redmond Rd Sump	8304	8304	8308	8329	8388	8480	8699	8831	9008	9109	9182	9234	9235	931
SS Winterfold/Coolbellup	9028	9029	9029	9044	9107	9194	9543	9810	10044	10141	10221	10270	10271	1243
Tempest	480512	480518	480546	480811	483274	486821	491557	495986	500391	503450	506418	508510	508514	28002
The Playground Coolbellup	62465	62466	62466	62549	63139	64207	65596	66756	68111	69069	69621	70056	70058	7593
Wheeler Rd POS	86054	86055	86056	86127	86854	87934	89572	90932	92821	93960	94656	95172	95173	9119
Total for GWL49545 (City of Cockburn)														331807
GWL202853 (Airport: Treeby)														
Cilantro Park	154335	154335	154438	154688	156382	156382	158992	162671	164641	166838	167867	168289	168318	13983
Hydrangea Park														000
Sapphire Park	48971	48971	48995	49097	49526	49526	50365	51978	53022	54100	54712	55223	55264	6293
Sunstone Park	111659	111659	111709	112005	113297	113297	115340	119001	122330	122642	123739	124057	124080	12421
Treeby Dog Park	177542	177542	177542	177701	179852	179852	183362	190536	195115	201784	204092	204484	204549	27007
Treeby Oval	206831	206831	208377	208704	210798	210798	215594	225694	231023	235855	240768	242749	242802	35971
Sub total for GWL202853 (Airport: Treeby)														95675
GWL203196 (Airport)														
Bunker Gardens	52414	52415	52415	52423	52599	52872	53125	53396	53658	53998	54122	54207	54207	1793
Dean	76547	76550	76572	76586	77001	78291	79202	80625	81944	82847	83418	83715	83715	7168
Fairway Park	15931	15932	15932	16943	16997	17006	18020	19212	20228	20734	21019	21210	21293	5362
Hartwell POS	188	188	188	188	188	188	188	188	188	188	188	188	188	0

City of Cockburn Reserve Name	1 Jul 23	1 Aug 23	1 Sep 23	1 Oct 23	1 Nov 23	1 Dec 23	1 Jan 24	1 Feb 24	1 Mar 24	1 Apr 24	1 May 24	1 Jun 24	1 Jul 24	Total
Prinsep	87367	87367	87367	87381	87885	89222	90401	91652	92743	93506	93988	94162	94162	6795
SS Bonville	7238	7238	7239	7241	7302	7492	7680	7855	8042	8179	8263	8305	8305	1067
SS Turnbury/Berrigan	7068	7068	7068	7071	7090	7169	7238	7310	7370	7434	7462	7469	7469	401
SS Turtle Point Cove	10762	10762	10762	10768	10850	11059	11236	11418	11580	11704	11776	11800	11800	1038
Turnbury Park	41454	41455	41455	41473	41962	43067	43948	44971	45696	46405	46763	46942	46942	5488
Yarra Vista	179995	179997	179997	180044	181643	184792	186250	190075	192415	194113	195131	195648	195648	15653
GWL203189 (South Lake)											Total for GWL203196 (Airport)			44765
Alabaster / Michigan	415564	415593	415617	416174	417784	419686	422454	426560	430107	433609	435509	437002	437002	21438
Anning	894114	894121	894137	896033	2150	4436	15685	24092	32129	37949	42213	44141	44173	46092
Bibra Lake Community	19624	19625	19625	19641	19828	20302	20726	21325	21990	22314	22531	22589	22589	2965
Bloodwood	25151	25154	25154	25154	27960	32477	35934	39609	43124	46305	47863	49122	49123	23972
Delaronde Park (Lakeside)	124390	124390	124425	124448	125662	125965	128149	131869	134067	136345	137808	138139	138147	13757
FESA	20149	20149	20149	20157	20315	20564	20753	20966	21189	21366	21468	21538	21541	1392
Koojarra / Berrigan	30245	30245	30245	30254	30381	30757	31070	31398	31711	31905	31996	32056	32056	1811
Lakelands Oval	107023	107235	107595	108753	112438	116922	121771	128463	134165	138342	141218	143721	143936	36913
Lakeridge	3850	3850	3850	3852	3969	4249	4627	4967	5316	5567	5802	5813	5821	1971
Legacy Park	224073	224335	224337	225290	227052	229973	233091	237119	241299	244692	247082	248541	248541	24468
Lucken	140390	140391	140394	140446	141550	144375	146639	149978	153539	156919	157657	158115	158116	17726
Paddock Parade (Mojo)	58197	58197	58249	58262	59271	59271	61213	64271	65736	67442	68342	68574	68588	10391
Ramsay	339158	339158	339158	339270	340429	342720	344625	347107	349688	351469	352322	352971	352971	13813
SS North Lake Road (Hammond Rd Nth to Midgegooroo Ave)	65727	65727	65750	65772	66881	66881	68346	72094	74601	76852	77735	78309	78315	12588
SS Verde Drive	1747	1747	1749	1750	1761	1761	1790	1860	1913	1977	2014	2029	2031	284
Sycamore	156143	156144	156144	156175	156426	157633	159939	162564	164507	166141	166865	167447	167447	11304
Transmission	580179	580180	580180	580219	581828	584684	586936	590222	592974	594546	596152	597270	597270	17091
Wentworth Parade (Levens Crt bore)	25952	25972	25983	26073	26454	27588	28545	29968	31145	32495	33116	33368	33376	7424
Wineberry	10627	10628	10628	10628	10845	11336	11718	12132	12476	12835	12987	13105	13105	2478
Yandi Park (Bore at Legacy Oval)	29722	29722	29732	29766	30444	30444	31642	33381	34976	37055	37608	37812	37812	8090

City of Cockburn Reserve Name	1 Jul 23	1 Aug 23	1 Sep 23	1 Oct 23	1 Nov 23	1 Dec 23	1 Jan 24	1 Feb 24	1 Mar 24	1 Apr 24	1 May 24	1 Jun 24	1 Jul 24	Total
Youth Centre	287	287	287	350	530	992	1399	1908	2320	2786	3152	3472	3472	3185
GWL203203 (Success)											Total for GWL203189 (South Lake)			279153
Alberod Park	13775	13775	13785	13787	13951	13951	14172	14708	14962	15266	15430	15581	15581	1806
Atwell Community Centre	106461	106461	106461	106491	106564	106889	107287	107833	108348	108730	108910	108953	108956	2495
Atwell Reserve	40716	40748	40748	42128	47090	53970	62787	73524	81119	88914	97631	99869	99874	59158
Aubin Grove Reserve	472894	472933	472992	473227	477769	482899	488205	494611	500806	505209	509035	511163	511319	38425
Balboa	64843	64847	64847	64971	65528	66493	67851	69291	70802	71849	72490	72647	72647	7804
Blue Boy	714637	714679	714683	714683	714683	714683	714683	714683	740828	745119	745800	747304	747304	32667
Bologna Park	3474	3474	3476	3536	3772	4167	4686	5240	5796	6190	6410	6474	6475	3001
Bondi Park	56243	56251	56258	56492	56829	58018	59543	60979	62732	63909	64503	64677	64680	8437
Botany	785353	785647	785941	787551	792773	799967	805708	814402	820543	827736	833296	837749	837972	52619
Brenchley (Now Lydon Park)	19428	19430	19430	19502	19682	19975	20277	20614	20905	21213	21547	21594	21599	2171
Camden POS	55612	55614	55616	55676	55916	56554	57041	57692	58239	58688	58995	59061	59062	3450
Christmas Tree Park	53258	53262	53265	53416	53953	54886	55690	56980	57957	59003	59564	60127	60128	6870
Colorado	177898	177996	178005	178194	179691	181183	182892	185086	187353	188988	189730	189994	190005	12107
Dimago Park	7773	7773	7775	7806	7962	7962	8293	8850	9160	9517	9813	9852	9853	2080
Duggan	134215	134215	134216	134341	134841	135668	136549	137817	138873	139968	140549	140838	140838	6623
Durango Turn (The Walk)	175983	175983	175983	176097	176567	177373	178729	181136	182394	183500	183619	184994	185052	9069
Evelyn Massey	56438	56438	56438	56551	57185	58515	59878	61730	63219	64831	65563	65761	65761	9323
Freshwater Reserve	115760	115760	115761	115917	115917	117713	119669	121853	123813	125503	126424	126577	126577	10817
Gaebler (Monticola Gdns)	26910	26913	26916	26939	27042	27207	27441	27665	27888	28031	28136	28183	28183	1273
Gandossi	31269	31375	31375	31454	31691	32183	32643	33263	33757	34301	34569	34650	34650	3381
Hanlon	30493	30493	30493	30540	30699	31084	31450	31994	32444	32963	33193	33276	33276	2783
Harmony Park Bore 1	391993	391993	392993	392997	393907	395134	401005	408122	413617	418765	422827	424190	425330	33337
Harmony Park Bore 2	22031	23067	23528	23951	29396	35721	41992	50543	56715	62757	69288	74899	76830	54799
Harmony Primary School Oval	50467	50481	50481	50869	52183	54259	58027	61591	64352	66987	68588	69656	69659	19192
Horsehire	210523	210524	210526	210868	212032	213865	215683	218401	220457	222835	223902	224213	224213	13690

City of Cockburn Reserve Name	1 Jul 23	1 Aug 23	1 Sep 23	1 Oct 23	1 Nov 23	1 Dec 23	1 Jan 24	1 Feb 24	1 Mar 24	1 Apr 24	1 May 24	1 Jun 24	1 Jul 24	Total
Jan Hammond	124406	124410	124420	125316	128006	132505	137238	143271	148241	154072	156659	157676	157676	33270
Lewisham Park	27675	27675	27692	27741	28113	28113	28502	29340	29869	30419	30931	30997	30999	3324
Magnolia Gardens (Now Beaumont Pk)	344684	344703	344719	345003	346746	350162	353502	357915	364483	367546	369351	370013	370041	25357
Minigwal Loop	33529	33529	33539	33592	33714	33714	34380	35395	36503	37225	37853	37993	37997	4468
Mosedale	91897	91897	91906	92118	92677	93677	95004	96393	97628	98711	100020	100246	100246	8349
Observatory	35480	35485	35488	35569	35802	36298	36844	37344	37941	38380	38686	38800	38802	3322
Pipeline	31485	31485	31563	32121	34101	37262	41224	45408	48939	52473	54217	54605	54605	23120
Princeton Circuit	140117	140123	140127	140220	141313	142160	143222	144557	145841	146728	147261	147503	147505	7388
Purslane	189402	189405	189409	189619	190276	191669	193022	194997	196800	198867	199908	200282	200285	10883
Radiata POS	122423	122442	122459	123231	125281	127431	129858	132702	135522	139847	139944	140131	140137	17714
Reeves	25409	25409	25409	25556	26230	27230	28036	29117	30250	31343	31950	32640	32640	7231
SS Ashendon-Russel	6715	6727	6727	6744	6823	6980	7090	7269	7451	7630	7701	7764	7764	1049
SS Freshwater Entry	28401	28431	28434	28505	28703	28971	29314	29695	30221	30775	31255	31391	31391	2990
Starbush	64057	64057	64057	64161	64476	65036	65481	66044	66488	67022	67348	67445	67445	3388
Stiener	109272	109298	109318	109781	111207	114248	116728	119875	121651	123837	125335	125925	125925	16653
Tapper Reserve	215438	215438	215438	215438	215438	215438	215438	215438	215438	215438	222152	223132	223153	7715
Tozer	39173	39174	39178	39306	39695	40379	41330	42469	43465	44410	45031	45160	45176	6003
Versailles	82360	82364	82368	82423	82649	83027	83608	84347	85188	85699	86164	86297	86297	3937
Voyageurs	39860	39860	39870	39870	40016	40016	40575	41652	42264	42952	43570	43685	43688	3828
Waterbuttons (The Edge)	245419	245419	245429	245590	246687	248269	249999	252387	254437	256745	258104	258655	258658	13239
Weetman (irrigates Atkins , Irvine , Nelson, Piesley, Seventy Parks & Inverson Blvd	225033	225046	225052	225216	229796	229917	232430	237808	242078	246476	248193	248844	249091	24058
Wentworth POS	190649	190662	190662	191192	192773	195867	199042	203022	206499	210288	212782	213732	213732	23083
Hammond Rd Sports Bore 1	191574	191574	191577	192203	193299	194958	196518	199844	202092	204479	206617	207816	207816	16242
Hammond Rd Sports Bore 2	259156	259157	259158	259790	261378	263700	265589	269288	271584	274536	276423	277850	277851	18695
Hammond Rd Sports Bore 3	170975	170975	170975	171587	172729	174404	175941	179158	181444	184068	185849	186998	186998	16023
Hammond Rd Sports Bore 4	211022	211022	211024	211090	212228	213898	215445	215887	215956	216853	217170	217835	217835	6813
Alberod Park	13775	13775	13785	13787	13951	13951	14172	14708	14962	15266	15430	15581	15581	1806

City of Cockburn Reserve Name	1 Jul 23	1 Aug 23	1 Sep 23	1 Oct 23	1 Nov 23	1 Dec 23	1 Jan 24	1 Feb 24	1 Mar 24	1 Apr 24	1 May 24	1 Jun 24	1 Jul 24	Total
Atwell Community Centre	106461	106461	106461	106491	106564	106889	107287	107833	108348	108730	108910	108953	108956	2495
Atwell Reserve	40716	40748	40748	42128	47090	53970	62787	73524	81119	88914	97631	99869	99874	59158
Aubin Grove Reserve	472894	472933	472992	473227	477769	482899	488205	494611	500806	505209	509035	511163	511319	38425
Balboa	64843	64847	64847	64971	65528	66493	67851	69291	70802	71849	72490	72647	72647	7804
Blue Boy	714637	714679	714683	714683	714683	714683	714683	714683	740828	745119	745800	747304	747304	32667
Bologna Park	3474	3474	3476	3536	3772	4167	4686	5240	5796	6190	6410	6474	6475	3001
Bondi Park	56243	56251	56258	56492	56829	58018	59543	60979	62732	63909	64503	64677	64680	8437
Botany	785353	785647	785941	787551	792773	799967	805708	814402	820543	827736	833296	837749	837972	52619
Brenchley (Now Lydon Park)	19428	19430	19430	19502	19682	19975	20277	20614	20905	21213	21547	21594	21599	2171
Camden POS	55612	55614	55616	55676	55916	56554	57041	57692	58239	58688	58995	59061	59062	3450
Total for GWL203203 (Success)														705519
Thompsons (GWL203255)														
Australian Marine Complex	107331	107331	107331	107331	107331	107331	107331	107331	107331	107331	107331	107331	107331	0
Canary Park	30017	0	0	63	1253	1253	4158	7378	11352	13885	14900	15428	15441	15441
Dickerson Park	90085	90085	90174	90385	91469	91469	93327	96900	98047	100932	102455	102878	102878	12793
Frankland Park South Bore 2	70819	70819	70871	71054	72508	72508	75123	79882	82700	85886	87518	88884	88922	18103
Frankland Park North Bore 1	23706	23706	23761	23983	25013	25013	28990	28990	38217	41764	43890	45562	45609	21903
Henderson Landfill Entry Bore 1	49054	49199	49545	49715	50082	50870	51900	53005	53005	53894	54399	54924	54958	5904
Henderson Landfill Bore 2	251022	251203	252276	254008	257035	260665	264298	267472	267472	274329	276671	277963	277963	26941
Henderson Landfill S/E Bore 3	17795	18917	19398	19398	19399	19399	19399	19399	19399	19399	19399	19399	19399	1604
Henderson Landfill North Bore 4	20	20	20	20	20	20	23	23	23	23	23	23	23	3
Teramo Park	35616	35616	35623	35720	36253	36253	37309	39392	40732	42038	42788	42968	42968	7352
Marquis North	36442	36450	36452	36599	37038	37872	38541	39887	40815	41784	42210	42342	42344	5902
Australian Marine Complex	107331	107331	107331	107331	107331	107331	107331	107331	107331	107331	107331	107331	107331	0
Canary Park	30017	0	0	63	1253	1253	4158	7378	11352	13885	14900	15428	15441	15441
Dickerson Park	90085	90085	90174	90385	91469	91469	93327	96900	98047	100932	102455	102878	102878	12793
Total for GWL203255 (Thompsons)														115946

City of Cockburn Reserve Name	1 Jul 23	1 Aug 23	1 Sep 23	1 Oct 23	1 Nov 23	1 Dec 23	1 Jan 24	1 Feb 24	1 Mar 24	1 Apr 24	1 May 24	1 Jun 24	1 Jul 24	Total
Banjup (GWL203204)														
Banjup Community Centre	6660	6667	6680	6709	6825	6947	7056	7198	7304	7420	7491	7563	7563	903
Banjup Fire Station	10134	10214	10215	10354	10535	10535	10885	11125	11240	11342	11485	11638	11661	1527
Banjup Trotting Track	44007	44156	44385	44716	45247	45947	46699	47561	48176	48977	49547	50017	50166	6159
Gibbs	95185	95185	95185	95316	95664	96129	96626	96883	97926	98941	99373	99493	99493	4308
Kurrajong Reserve	123072	123072	123072	123463	124412	125923	127783	129682	131632	133786	135034	135329	135342	12270
											Total for GWL203204 (Banjup)			25167

Appendix 4: Groundwater salinity levels

Salinity level	TDS (total dissolved solids)
Fresh	0 – 500 mg/L
Fresh to marginal	500 – 1500 mg/L
Brackish	1500 – 3000 mg/L
Saline	<3000 mg/L

Davidson and Yu (2008)

Appendix 5: Water quality of selected bores.

	pH	EC µS/cm	TDS mg/L	NO2 mg/L	NO3-N mg/L	NH4-N mg/L	TN mg/L	PO4-P mg/L	TP mg/L
Bibra Lake Picnic Area									
1 Sep 11	6.6	1300							
8 Mar 12	6.9	1100							
3 Sep 12	6.6	1400							
13 Mar 13	7	490							
12 Sep 13	6.9	470							
17 Apr 14	6.6	3160							
11 Sep 14	6.8	1330							
17 Mar 15	6.7	1440							
9 Sep 15	7	1450							
3 Mar 16	6.6	1460							
1 Sep 16	6.9	1470							
13 Mar 17	7.1	1420							
15 Sep 17	6.7	1510	830	<0.02	<0.1	14	12	0.06	0.09
15 Mar 18	6.7	1470	810	<0.02	<0.1	10	9.3	0.05	0.09
4 Sep 18	6.4	1510	830		<0.1	13	11	0.07	0.1
4 Apr 19	6.7	1470	810		<0.1	12	11	0.04	0.11
3 Sep 19	6.7	1510	830		<0.1	14	12	0.07	0.1
8 Apr 20	6.6	1490	820		<0.1	11	9.4	0.06	0.07
7 Sep 20	6.5	1530	840		<0.5	14	11	0.03	0.07
16 Apr 21	6.8	1490	820		<0.5	11	9.7	0.08	0.1
8 Sep 21	6.7	1470	810		<0.1	8.53	9.7	0.02	0.09
7 Apr 22	7.5	1190	650		<0.1	5.81	8.15	0.03	0.1
1 Sep 22	6.6	1430	790		<0.1	12.48	13	0.06	0.07
6 Apr 23	6.7	1270	700		<0.1	7.60	8.9	0.09	0.1
8 Sep 23	6.7	1480	810		<0.1	11.00	13	0.06	0.06
13 Jun 24	6.6	1580	870		0.95	10.00	11	0.04	0.08
Durango Park									
9 Sep 15	7.2	690							
3 Mar 16	6.9	620							
1 Sep 16	6.7	460							
13 Mar 17	6.9	680							
15 Sep 17	6.5	540	300	<0.02	<0.1	0.3	0.6	0.04	0.04
15 Mar 18	6.9	650	360	<0.02	<0.1	0.1	0.8	0.06	0.06
4 Sep 18	6.8	720	400		<0.01	0.2	0.3	<0.01	0.07
4 Apr 19	6.9	670	370		0	0.4	0.5	0.09	0.09
3 Sep 19	7.1	700	390		<0.1	0.3	0.9	<0.01	0.09
8 Apr 20	6	460	250		<0.1	0.2	0.4	0.01	0.01
7 Sep 20	6.8	720	400		<0.5	0.3	0.5	0.1	0.01
16 Apr 21	7	670	970		<0.5	0.4	0.5	0.09	0.1
8 Sep 21	6.9	720	400		<0.1	0.23	0.6	0.02	0.08
7 Apr 22	7.1	640	350		<0.1	0.23	0.4	0.08	0.11
1 Sep 22	6.9	710	390		<0.1	0.16	<0.1	<0.01	0.09
6 Apr 23	6.8	610	340		<0.1	0.20	0.4	0.06	0.08
8 Sep 23	6.6	650	360		0.11	0.30	0.8	0.04	0.04
13 Jun 24	6.8	700	390		<0.1	0.20	0.2	<0.01	0.06

	pH	EC µS/cm	TDS mg/L	NO2 mg/L	NO3-N mg/L	NH4-N mg/L	TN mg/L	PO4-P mg/L	TP mg/L
Success Sports Complex 1									
8 Mar 12	6.9	1100							
3 Sep 12	7.9	1300							
13 Mar 13	7.2	1200							
12 Sep 13	7	1300							
17 Apr 14	7.6	1270							
11 Sep 14	7.1	1280							
17 Mar 15	7.3	1330							
9 Sep 15	7.4	1280							
3 Mar 16	7.1	1270							
1 Sep 16	7.2	1300							
13 Mar 17	7.2	1270							
15 Sep 17	7	1210	670	<0.02	<0.1	0.7	1.3	<0.01	0.12
15 Mar 18	7.6	1300	720	<0.02	<0.1	0.7	1.6	0.12	0.13
4 Sep 18	7.2	1290	710		<0.1	0.4	0.8	0.09	0.12
4 Apr 19	7	1160	640		<0.1	0.9	1.95	0.05	0.1
3 Sep 19	7.7	1280	700		<0.1	0.7	1.4	0.11	0.12
8 Apr 20	7.2	1260	690		<0.1	0.6	1.4	0.12	0.12
7 Sep 20	6.7	1060	580		<0.5	0.7	1.6	0.09	0.1
16 Apr 21	7.4	1250	690		<0.5	0.7	1.3	0.12	0.13
8 Sep 21	7.3	1270	700		<0.1	0.78	6.6	0.13	0.21
7 Apr 22	7.2	1250	690		0.25	0.62	1.25	0.11	0.14
1 Sep 22	7.3	1180	350		<0.1	0.47	0.5	0.01	0.1
6 Apr 23	6.9	1150	630		0.48	0.50	1.1	0.13	0.13
8 Sep 23	7.1	1180	650		0.43	0.40	1	0.13	0.14
13 Jun 24	7.3	1190	660		0.70	0.50	1.2	0.12	0.13
Success Sports Complex 2									
8 Mar 12	6.9	1100							
3 Sep 12	7.8	140							
13 Mar 13	7.2	1400							
12 Sep 13	7.3	1370							
17 Apr 14	7.1	1320							
11 Sep 14	7.3	1370							
17 Mar 15	7.1	1330							
9 Sep 15	7.4	1380							
3 Mar 16	7.2	1340							
1 Sep 16	7.4	1420							
13 Mar 17	7.1	1350							
15 Sep 17	7.5	1400	770	<0.02	<0.1	0.7	1.1	0.1	0.12
15 Mar 18	7.3	1370	750	<0.02	<0.1	0.6	1.6	0.08	0.13
4 Sep 18	7.4	1400	770		<0.1	0.4	0.8	0.12	0.12
4 Apr 19	7.2	1350	740		<0.1	0.7	1.5	0.05	0.12
3 Sep 19	7.6	1410	780		<0.1	0.7	1.1	0.12	0.13
8 Apr 20	7.2	1370	750		<0.1	0.7	1.2	0.1	0.1
7 Sep 20	7.4	1450	800		<0.5	0.6	1.1	0.12	0.14
16 Apr 21	7.3	1300	715		<0.5	0.6	1	0.12	0.15
8 Sep 21	7.3	1270	700		<0.1	0.47	1.2	0.09	0.11
7 Apr 22	7.3	1340	740		<0.1	0.47	1.1	0.07	0.12
1 Sep 22	7.7	1380	760		<0.1	0.31	0.8	0.1	0.1
6 Apr 23	7.1	1300	720		<0.1	0.50	1	0.09	0.1

	pH	EC µS/cm	TDS mg/L	NO2 mg/L	NO3-N mg/L	NH4-N mg/L	TN mg/L	PO4-P mg/L	TP mg/L
8 Sep 23	7.3	1410	780		0.34	0.40	1	0.11	0.12
13 Jun 24	7.2	1350	740		0.70	0.30	1	0.07	0.1
Success Sports Complex 3									
8 Mar 12	7.1	1200							
3 Sep 12	7.7	1200							
13 Mar 13	7.4	1100							
12 Sep 13	7	1160							
17 Apr 14	7.1	940							
11 Sep 14	7.1	1100							
17 Mar 15	7.1	1190							
9 Sep 15	7.3	1050							
3 Mar 16	7	930							
1 Sep 16	6.9	870							
13 Mar 17	6.6	720							
15 Sep 17	7.1	980	540	<0.02	<0.1	0.6	1.1	<0.01	0.14
15 Mar 18	7.3	1100	610	<0.02	<0.1	0.7	1.4	0.14	0.15
4 Sep 18	7	990	550		<0.1	0.3	0.9	0.07	0.15
4 Apr 19	7.4	1120	620		<0.1	0.7	1.2	0.13	0.16
3 Sep 19	7.3	1100	610		<0.1	0.6	1.3	0.16	0.16
8 Apr 20	7.4	1160	640		<0.1	0.7	1.3	0.13	0.13
7 Sep 20	6.9	670	370		<0.5	0.5	1.3	0.1	0.12
16 Apr 21	7.3	1150	630		<0.5	0.7	1.1	0.14	0.16
8 Sep 21	7.2	1090	600		<0.1	0.39	1.2	0.13	0.17
7 Apr 22	7.2	1260	690		<0.1	0.54	1.04	0.1	0.16
1 Sep 22	7.5	1050	580		<0.1	0.39	0.4	0.2	0.1
6 Apr 23	6.8	640	840		0.2	0.30	0.9	0.09	0.12
8 Sep 23	7.3	1030	570		0.36	0.40	0.9	0.14	0.15
13 Jun 24	7.3	1140	630		0.70	0.50	1.2	0.12	0.15
Success Sports Complex 4									
8 Mar 12	7	1000							
3 Sep 12	7.9	1500							
13 Mar 13	7.9	1600							
12 Sep 13	7.3	1560							
17 Apr 14	7.5	1470							
11 Sep 14	7.4	1580							
17 Mar 15	7.3	1420							
9 Sep 15	7.6	1570							
3 Mar 16	7.5	1490							
1 Sep 16	7.7	1440							
13 Mar 17	7.2	1340							
15 Sep 17	7.5	1600	880	<0.02	<0.1	0.8	1.3	0.14	0.16
15 Mar 18	7.4	1480	810	<0.02	0.1	0.6	1.8	0.1	0.1
4 Sep 18	7.4	1620	890		<0.1	0.5	1	0.09	0.14
4 Apr 19	7.3	1160	640		<0.1	0.7	1.2	0.12	0.15
3 Sep 19	7.4	1100	610		<0.1	0.7	1.5	0.13	0.16
8 Apr 20	7.5	1490	820		<0.1	0.7	1	0.12	0.12
7 Sep 20	7.4	1520	840		<0.5	0.6	1.1	0.14	0.16
16 Apr 21	7.4	1330	730		<0.5	0.7	1.1	0.12	0.14
8 Sep 21	7.4	1470	810		<0.1	0.39	1.1	0.12	0.14

	pH	EC µS/cm	TDS mg/L	NO2 mg/L	NO3-N mg/L	NH4-N mg/L	TN mg/L	PO4-P mg/L	TP mg/L
7 Apr 22	7.6	1490	820		<0.1	0.62	1.16	0.12	0.16
1 Sep 22	7.7	1600	880		<0.1	0.31	0.5	0.1	0.2
6 Apr 23	7.4	1520	840		0.5	0.60	1.1	0.11	0.13
8 Sep 23	7.4	1610	890		0.38	0.60	1	0.14	0.15
13 Jun 24	7.2	1160	640		0.70	0.50	1.2	0.12	0.15
Kevin Bowman									
1 Sep 11	7.1	1100							
8 Mar 12	7.2	1400							
3 Sep 12	7.5	1500							
13 Mar 13	7.8	1600							
12 Sep 13	7.1	1460							
17 Apr 14	7.4	2540							
11 Sep 14	7.7	1430							
17 Mar 15	7.4	1560							
9 Sep 15	7.6	1380							
3 Mar 16	7.2	1560							
1 Sep 16	7.4	1500							
13 Mar 17	7.3	1460							
15 Sep 17	7.4	1380	760	<0.02	0.8	<0.1	0.8	<0.01	0.02
15 Mar 18	7.3	1430	790	0.22	0.7	<0.1	0.9	0.01	0.02
4 Sep 18	7.2	1400	770		1	<0.1	1	0.03	0.03
4 Apr 19	7.4	1480	810		0.7	0.22	1.6	0.02	0.04
3 Sep 19	7.4	1420	780		3.1	<0.1	1	<0.01	0.03
8 Apr 20	7.3	1500	830		0.2	<0.1	0.4	0.01	0.01
7 Sep 20	7.3	1510	830		<0.5	<0.1	0.5	0.02	0.03
16 Apr 21	7.3	1260	695		<0.5	<0.1	<0.1	0.03	0.05
8 Sep 21	7.3	1350	740		0.43	<0.1	0.6	0.04	0.07
7 Apr 22	7.8	1290	710		0.79	<0.1	0.8	0.03	0.03
1 Sep 22	7.7	1270	700		0.79	<0.1	0.83	0.03	0.04
6 Apr 23	7.2	1240	680		0.20	0.10	0.5	0.01	0.02
8 Sep 23	7.3	1280	700		0.43	<0.1	0.7	0.02	0.02
13 Jun 24	7.2	1220	670		0.84	<0.1	0.8	0.01	0.04
Kurrajong Reserve									
1 Sep 11	6.8	2600							
8 Mar 12	7	2500							
3 Sep 12	7.8	3100							
13 Mar 13	8	2900							
12 Sep 13	7.5	1700							
17 Apr 14	7.6	2960							
11 Sep 14	7.8	3150							
17 Mar 15	7.4	2890							
9 Sep 15	7.4	2860							
3 Mar 16	7.5	2850							
1 Sep 16	7.7	1500							
13 Mar 17	7.5	2790							
15 Sep 17	7.6	2730	1500	<0.02	<0.1	0.7	2.2	0.01	0.2
15 Mar 18	7.6	2550	1400	<0.02	<0.1	0.7	2.2	0.22	0.22
4 Sep 18	7.3	2850	1600		<0.1	0.6	1.6	0.21	0.21
4 Apr 19	7.5	2730	1500		<0.1	0.7	1.8	0.18	0.2

	pH	EC μS/cm	TDS mg/L	NO2 mg/L	NO3-N mg/L	NH4-N mg/L	TN mg/L	PO4-P mg/L	TP mg/L
3 Sep 19	7.5	2950	1620		<0.1	0.7	2.4	0.16	0.16
8 Apr 20	7.4	2600	1430		<0.1	0.7	2.1	0.18	0.18
7 Sep 20	7.5	3040	1670		<0.5	0.8	2.2	0.2	0.2
16 Apr 21	7.3	1160	640		2.1	<0.1	2.1	0.03	0.03
8 Sep 21	7.5	2700	1490		<0.1	0.54	1.9	0.14	0.17
7 Apr 22	7.7	2600	1430		<0.1	0.39	2	0.23	0.23
1 Sep 22	7.9	2960	1630		<0.1	0.62	1.6	0.02	0.2
6 Apr 23	7.3	2430	1350		1.5	0.60	2.1	0.21	0.21
8 Sep 23	7.4	2680	1470		<0.1	0.50	2.5	0.17	0.17
13 Jun 24	7.3	2540	1400		1.4	0.60	2	0.18	0.19
Manning Park Azelia									
1 Sep 11	6.7	5000							
8 Mar 12	7	1600							
3 Sep 12	7.4	5700							
13 Mar 13	7.7	1000							
12 Sep 13	7.1	6540							
17 Apr 14	7.2	6130							
11 Sep 14	7.6	1620							
17 Mar 15	7.2	1410							
9 Sep 15	7.6	5700							
3 Mar 16	7.1	6180							
1 Sep 16	7.8	3600							
13 Mar 17	7.2	1760							
15 Sep 17	7.1	3040	1700	<0.02	3.2	<0.1	3.4	<0.01	0.02
15 Mar 18	7.3	5330	2900	<0.02	3.9	0.3	4.1	<0.01	<0.01
4 Sep 18	7	4810	2600		3.6	<0.1	3.8	0.01	0.02
4 Apr 19	7.4	4620	2500		4	<0.1	4.2	<0.01	<0.01
3 Sep 19	7.2	4430	2440		2.8	<0.1	3.1	0.01	0.01
8 Apr 20	7.2	4570	2510		2.7	0.3	2.8	<0.01	<0.01
7 Sep 20	7.2	2710	1490		2.7	<0.1	2.8	0.01	0.02
16 Apr 21	7.3	4730	2600		2.9	<0.1	3	0.02	0.02
8 Sep 21	7.2	1440	790		2.5	<0.1	2.6	0.02	0.02
7 Apr 22	7.3	4300	2370		2.7	<0.1	2.7	0.03	<0.05
1 Sep 22	7.1	4000	2200		1.7	<0.1	2.2	0.02	0.02
6 Apr 23	7.3	2710	1500		1.9	0.10	2.5	0.02	0.02
8 Sep 23	7.4	3520	1940		1.5	0.10	1.7	0.02	0.02
13 Jun 24	7.3	4040	2220		2.5	0.20	2.7	0.01	0.01
Manning Park Glennister									
1 Sep 11	7	830							
8 Mar 12	7	850							
3 Sep 12	7.7	890							
13 Mar 13	7.8	1000							
12 Sep 13	7.6	980							
17 Apr 14	7.4	970							
11 Sep 14	7.4	1020							
17 Mar 15	7.3	990							
9 Sep 15	7.6	970							
3 Mar 16	7.3	980							
1 Sep 16	7.9	980							

	pH	EC µS/cm	TDS mg/L	NO2 mg/L	NO3-N mg/L	NH4-N mg/L	TN mg/L	PO4-P mg/L	TP mg/L
13 Mar 17	7.3	980							
15 Sep 17	7.4	960	530	<0.02	4.8	<0.1	4.8	<0.01	0.03
15 Mar 18	7.3	980	540	<0.02	4.5	<0.1	4.7	<0.01	0.01
4 Sep 18	7.2	1000	550		4.2	<0.1	4.2	<0.01	<0.01
4 Apr 19	7.4	990	550		4.3	<0.1	4.5	<0.01	0.02
3 Sep 19	7.7	1010	560		4.3	<0.1	5.7	<0.01	0.02
8 Apr 20	7.2	970	530		4.3	<0.1	4.4	0.01	0.01
7 Sep 20	7.4	950	520		4.5	<0.1	4.6	<0.01	0.01
16 Apr 21	7.3	980	540		3.8	<0.1	4	0.02	0.01
8 Sep 21	7.3	990	540		3.8	<0.1	3.9	0.01	0.01
7 Apr 22	7.5	940	520		3.7	<0.1	3.8	0.02	<0.05
1 Sep 22	7.5	970	530		3.8	<0.1	3.8	0.02	0.01
6 Apr 23	7.4	920	510		3.2	<0.1	3.3	0.01	0.01
8 Sep 23	7.5	980	540		3.2	<0.1	3.4	<0.01	0.01
13 Jun 24	7.3	940	520		3.4	0.10	3.5	0.01	0.01
Manning Park Janson									
1 Sep 11	7.1	770							
8 Mar 12	7	800							
3 Sep 12	7.9	830							
13 Mar 13	7.8	1000							
12 Sep 13	7.2	1020							
17 Apr 14	7.3	1020							
11 Sep 14	7.7	980							
17 Mar 15	7.5	1040							
9 Sep 15	7.6	1020							
3 Mar 16	7.3	1000							
1 Sep 16	7.8	1010							
13 Mar 17	7.4	990							
15 Sep 17	7.2	1010	560	<0.02	6.3	<0.1	6.3	<0.01	0.03
15 Mar 18	7.4	990	550	<0.02	6.5	<0.1	6.5	<0.01	<0.01
4 Sep 18	7.2	980	540		5.7	<0.1	5.9	<0.01	<0.01
4 Apr 19	7.4	1000	550		6	<0.1	6.3	<0.01	<0.01
3 Sep 19	7.5	990	540		5.0	<0.1	5.2	<0.1	0.02
8 Apr 20	7.3	970	530		5.9	<0.1	5.9	<0.01	<0.01
7 Sep 20	7.4	950	520		5.2	<0.1	5.1	<0.01	0.01
16 Apr 21	7.3	970	535		5.7	<0.1	5.8	0.01	0.02
8 Sep 21	7.5	970	530		4.8	<0.1	4.9	<0.01	<0.01
7 Apr 22	7.4	970	530		5.4	<0.1	5.4	0.02	<0.01
1 Sep 22	7.5	960	530		5.0	<0.1	5	0.01	0.02
6 Apr 23	7.4	910	500		4.5	<0.1	5	0.04	0.03
8 Sep 23	7.5	950	520		4.1	<0.1	4.8	0.01	0.01
13 Jun 24	7.1	930	510		4.3	0.20	4.5	<0.01	<0.01
Waterbuttons Park									
1 Sep 11	7.1	1100							
8 Mar 12	7.5	1000							
3 Sep 12	7.4	1300							
13 Mar 13	7.8	1300							
12 Sep 13	7.5	1240							
17 Apr 14	7.4	1260							

	pH	EC µS/cm	TDS mg/L	NO2 mg/L	NO3-N mg/L	NH4-N mg/L	TN mg/L	PO4-P mg/L	TP mg/L
11 Sep 14	7.6	1240							
17 Mar 15	7.3	1230							
9 Sep 15	7.2	1230							
3 Mar 16	7.3	1260							
1 Sep 16	7.6	1210							
13 Mar 17	7.4	1240							
15 Sep 17	7.5	1210	670	<0.02	<0.1	0.8	1.2	0.11	0.13
15 Mar 18	7.6	1240	680	<0.02	<0.1	0.8	1.3	0.11	0.12
4 Sep 18	7.3	1220	670		<0.1	0.5	1	0.07	0.11
4 Apr 19	7.5	1230	680		<0.1	0.9	1.6	0.08	0.13
3 Sep 19	7.7	1210	670		<0.1	0.8	1.5	0.12	0.12
8 Apr 20	7.3	1160	640		<0.1	0.8	1.3	0.11	0.11
7 Sep 20	7.3	1140	630		<0.5	0.6	1.3	0.12	0.13
16 Apr 21	7.4	1200	660		<0.5	0.8	1.2	0.11	0.14
8 Sep 21	7.3	1120	620		<0.1	0.54	1.4	0.09	0.11
7 Apr 22	6.7	1570	860		<0.1	<0.1	1.47	0.11	0.16
1 Sep 22	7.6	1190	650		<0.1		0.6	0.1	0.1
6 Apr 23	7.3	1130	620		0.3	0.6	1.2	0.13	0.14
8 Sep 23	7.4	1170	640		<0.1	0.7	1.3	0.12	0.12
13 Jun 24	7.3	1100	610		0.68	0.7	1.4	0.12	0.12
Dixon									
8 Sep 23	7.5	890	490		4.3	0	4.5	0.02	0.02
13 Jun 24	7.3	790	440		2.1	0.5	26	<0.01	0.01
Lakelands									
8 Sep 23	7.9	390	220		<0.1	0	0.4	0.06	0.06
13 Jun 24	7.6	430	240		0.76923077	0.3	1.1	0.04	0.06

Appendix 6: Comprehensive water analysis of selected bores September 2015

	pH	EC µS/cm	TDS mg/L	Total Alkalinity (CaCO3) mg/L	Bicarbonate mg/L	Hardness (CaCO3) mg/L	Fe mg/L	Dissolved CO2 mg/L
Bibra Lake Picnic	6.8	1330	740	180	220	225	0.87	55
Success Sports Complex								
Bore 1	7.1	1280	710	215	260	265	0.32	33
Bore 2	7.3	1370	760	210	255	285	2.5	20
Bore 3	7.1	1100	610	220	270	220	1.1	34
Bore 4	7.4	1580	870	260	315	310	0.3	20
Kevin Bowman	7.7	1430	790	280	340	350	0.02	11
Kurrajong	7.8	3150	1700	330	405	510	0.67	10
Manning Azelia	7.6	2620	1400	295	360	500	0.19	14
Janson	7.4	1020	620	235	285	290	0.05	18
Glenister	7.7	980	590	235	285	290	0.11	9
Waterbuttons	7.6	1240	690	250	305	295	0.56	12

Appendix 7: Laboratory certificates 2023 - 2024



ANALYSIS REPORT

PROJECT ID:	WI230904
DATE SUBMITTED:	5 September 2023
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	WD#B89680, City of Cockburn, PO B172738

Sample number		1	2	3	4	5
Parameter	Units	Manning, Jansen, Bore 1	Dixon Reserve, Bore 1	Manning Glenister, Bore 1	Durango Park, Bore 1	Kurrajong Res, Bore 1
Appearance	-	Colourless Odourless	Colourless Odourless	Colourless Odourless	Faint pale yellow, slightly turbid	Brown (tannins)
pH	-	7.5	7.5	7.5	6.6	7.4
Electrical Conductivity	mS/cm	0.95	0.89	0.98	0.65	2.68
Total Dissolved Solids	mg/L	520	490	540	360	1470
Nitrate (as NO ₃)	mg/L	18	19	14	0.5	<0.5
Ammonium (as N)	mg/L	<0.1	<0.1	<0.1	0.3	0.5
Total Nitrogen	mg/L	4.8	4.5	3.4	0.8	2.5
Orthophosphate (as P)	mg/L	0.01	0.02	<0.01	0.04	0.17
Total Phosphorus	mg/L	0.01	0.02	0.01	0.04	0.17

Sample number		6	7	8	9
Parameter	Units	Bibra Lake Picnic, Bore 1	Kevin Bowman, Bore 1	Waterbuttons Park, Bore 1	Lakelands Reserve, Bore 1
Appearance	-	Faint pale yellow	Colourless Odourless	Pale yellow	Colourless Odourless
pH	-	6.7	7.3	7.4	7.9
Electrical Conductivity	mS/cm	1.48	1.28	1.17	0.39
Total Dissolved Solids	mg/L	810	700	640	220
Nitrate (as NO ₃)	mg/L	<0.5	1.9	<0.5	<0.5
Ammonium (as N)	mg/L	11	<0.1	0.7	0.2
Total Nitrogen	mg/L	13	0.7	1.3	0.4
Orthophosphate (as P)	mg/L	0.06	0.02	0.12	0.06
Total Phosphorus	mg/L	0.06	0.02	0.12	0.06

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.



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ABN: 345 3677 1642



Comments:

pH data indicates the waters range from slightly acid to slightly alkaline in reaction.

Electrical conductivity and total dissolved solids data show the salinity of the waters is within the moderate range, with the exception of Kurrajong Res, which is slightly elevated.

Nutrients data shows nitrate levels range from moderate to negligible, all being below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Ammonium nitrogen is high in sample Bibra Lake Picnic, and it constitutes majority of the total nitrogen content. Kurrajong Res contains organically bound nitrogen forms. The rest of the samples contain nitrate as the main total nitrogen constituent.

Reactive and total phosphorus are somewhat elevated in samples Kurrajong Res and Waterbuttons Park, and marginally elevated in Bibra Lake Picnic and Lakelands Reserve, exceeding the long term irrigation water phosphorus trigger value (0.05 mg/L, Australian and New Zealand Environment and Conservation Council, October 2000).

Nutrient levels in these samples may be sufficient to support algal populations if other environmental factors remain favourable.

Regards,

A handwritten signature in black ink, appearing to read "Mario Horvat".

Mario Horvat *MRACI CChem*

Chartered Chemist

14 September 2023

Analysis and data interpretation is representative of the sample as received. The information contained herewith has been provided by Horvat Analytical for information and general guidance purposes only. This information does not constitute legal, commercial or authoritative advice. While every care has been taken to ensure that the content is useful and accurate, Horvat Analytical gives no guarantees, undertakings or warranties in this regard, and does not accept any legal liability or responsibility for any loss or damage caused arising directly or indirectly in connection with reliance on the use of such information. Any errors or omissions brought to the attention of Horvat Analytical will be corrected as soon as possible.



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ANALYSIS REPORT

PROJECT ID:	WI230908
DATE SUBMITTED:	8 September 2023
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	WD#B89680, City of Cockburn, Success Sports Complex, PO B172835

Sample number		1	2	3	4
Parameter	Units	Bore 1	Bore 2	Bore 3	Bore 4
Appearance	-	Pale yellow	Pale yellow	Pale yellow	Pale yellow
pH	-	7.1	7.3	7.3	7.4
Electrical Conductivity	mS/cm	1.18	1.41	1.03	1.61
Total Dissolved Solids	mg/L	650	780	570	890
Nitrate (as NO ₃)	mg/L	1.9	1.5	1.6	1.7
Ammonium (as N)	mg/L	0.4	0.4	0.4	0.6
Total Nitrogen	mg/L	1.0	1.0	0.9	1.0
Orthophosphate (as P)	mg/L	0.13	0.11	0.14	0.14
Total Phosphorus	mg/L	0.14	0.12	0.15	0.15

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.

Comments:

pH data indicates the waters are neutral to slightly alkaline in reaction.

Electrical conductivity and total dissolved solids data show the salinity of the waters is within the moderate range.

Nutrients data shows low nitrate levels in all four samples, below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Ammonium is at a moderate level in these samples, although within the normal range encountered in ground water. Total nitrogen level is below the long term irrigation water nitrogen trigger value (5.0 mg/L, Australian and New Zealand Environment and Conservation Council, October 2000).

Reactive and total phosphorus are slightly elevated in these samples. Total phosphorus is above the long term irrigation water phosphorus trigger value (0.05 mg/L, Australian and New Zealand Environment and Conservation Council, October 2000).



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ABN: 345 3677 1642



Regards,

A handwritten signature in black ink, appearing to be "MH".

Mario Horvat *MRACI CChem*

Chartered Chemist

20 September 2023

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ANALYSIS REPORT

PROJECT ID:	WI240607
DATE SUBMITTED:	13 June 2024
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	WD#B89680, Client Name: City of Cockburn, PO B180435

WATER ANALYSIS				
	Units	Manning Reserve Glenister	Lakelands Reserve	Kevin Bowman
Appearance	-	Colourless, Odourless	Colourless, Odourless	Pale yellow, slightly turbid
pH	-	7.3	7.6	7.2
Electrical Conductivity	mS/cm	0.94	0.43	1.22
Total Dissolved Solids	mg/L	520	240	670
Nitrate (as NO ₃)	mg/L	15	3.4	3.7
Ammonium (as N)	mg/L	0.1	0.3	<0.1
Total Nitrogen	mg/L	3.5	1.1	0.8
Orthophosphate (as P)	mg/L	0.01	0.04	<0.01
Total Phosphorus	mg/L	0.01	0.06	0.04

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.

Comments:

pH data indicates the waters range from neutral to slightly alkaline in reaction.

Electrical conductivity and total dissolved solids data show the salinity of the waters ranges from low to moderate.

Nutrients data shows moderate nitrate level in sample Manning Reserve Glenister and low levels in Lakelands Reserve and Kevin Bowman, however all are below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Nitrate constitutes majority of total nitrogen content in these samples. Total phosphorus is just marginally elevated in sample Lakelands Reserve, just above the long term irrigation water phosphorus trigger value (0.05 mg/L, Australian and New Zealand Environment and Conservation Council, October 2000). Ammonium is within the normal range.

Regards,

Mario Horvat MRACI CChem

Chartered Chemist

21 June 2024

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ANALYSIS REPORT

PROJECT ID:	WI240608
DATE SUBMITTED:	14 June 2024
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	WD#B89680, Client Name: City of Cockburn, PO B180458

WATER ANALYSIS				
	Units	Manning Reserve - Janson Rd	Dixon Reserve	Bibra Lake Picnic
Appearance	-	Colourless, Odourless	Colourless, Odourless	Faint pale yellow
pH	-	7.1	7.3	6.6
Electrical Conductivity	mS/cm	0.93	0.79	1.58
Total Dissolved Solids	mg/L	510	440	870
Nitrate (as NO ₃)	mg/L	19	9.1	4.2
Ammonium (as N)	mg/L	0.2	0.5	10
Total Nitrogen	mg/L	4.5	2.6	11
Orthophosphate (as P)	mg/L	<0.01	<0.01	0.04
Total Phosphorus	mg/L	<0.01	0.01	0.08

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.

Comments:

pH data indicates the waters range from slightly acid to neutral in reaction.

Electrical conductivity and total dissolved solids data show the salinity of the waters is within the moderate range.

Nutrients data shows moderate nitrate level in samples Janson Rd and Dixon Reserve, and low level in Bibra Lake Picnic, however all are below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Bibra Lake Picnic sample contains high levels of ammonium nitrogen. Total phosphorus is slightly elevated in Bibra Lake Picnic, above the long term irrigation water phosphorus trigger value (0.05 mg/L, Australian and New Zealand Environment and Conservation Council, October 2000).

Regards,



Mario Horvat MRACI CChem

Chartered Chemist

21 June 2024

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ANALYSIS REPORT

PROJECT ID:	WI240609
DATE SUBMITTED:	14 June 2024
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	WD#B89680, Client Name: City of Cockburn, PO B180480

WATER ANALYSIS				
	Units	Durango Park	Kurrajong	Waterbuttons Park
Appearance	-	Pale yellow, turbid, iron precipitate	Pale brown	Pale yellow
pH	-	6.8	7.3	7.3
Electrical Conductivity	mS/cm	0.70	2.54	1.10
Total Dissolved Solids	mg/L	390	1400	610
Nitrate (as NO ₃)	mg/L	<1.0	6.4	3.0
Ammonium (as N)	mg/L	0.2	0.6	0.7
Total Nitrogen	mg/L	0.2	2.0	1.4
Orthophosphate (as P)	mg/L	<0.01	0.18	0.12
Total Phosphorus	mg/L	0.06	0.19	0.12

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.

WATER ANALYSIS					
	Units	Success Sports Complex - Bore 1	Success Sports Complex - Bore 2	Success Sports Complex - Bore 3	Success Sports Complex - Bore 4
Appearance	-	Pale yellow	Pale yellow	Pale yellow	Pale yellow
pH	-	7.3	7.2	7.3	7.2
Electrical Conductivity	mS/cm	1.19	1.35	1.14	1.16
Total Dissolved Solids	mg/L	660	740	630	640
Nitrate (as NO ₃)	mg/L	3.1	3.1	3.1	3.1
Ammonium (as N)	mg/L	0.5	0.3	0.5	0.5
Total Nitrogen	mg/L	1.2	1.0	1.2	1.2
Orthophosphate (as P)	mg/L	0.12	0.07	0.12	0.12
Total Phosphorus	mg/L	0.13	0.10	0.15	0.15

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.



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ANALYSIS REPORT

Comments:

pH data indicates the waters are neutral in reaction.

Electrical conductivity and total dissolved solids data show the salinity of the waters is within the moderate range, with the exception of Kurrajong sample which has a marginally elevated salinity.

Nutrients data shows low nitrate levels, all below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Ammonium is at moderate levels in quite a few of these samples. Phosphorus is slightly elevated in most of these samples, exceeding the long term irrigation water phosphorus trigger value (0.05 mg/L, Australian and New Zealand Environment and Conservation Council, October 2000).

Regards,

A handwritten signature in black ink, appearing to read "Mario Horvat".

Mario Horvat MRACI CChem

Chartered Chemist

21 June 2024

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ANALYSIS REPORT

PROJECT ID:	WI230729
DATE SUBMITTED:	28 July 2023
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	City of Cockburn, Manning Reserve, WD#B93517, PO B171734

Parameter	Units	Azelia Road Bore
Appearance	-	Colourless, Odourless
pH	-	7.1
Electrical Conductivity	mS/cm	3.69
Total Dissolved Solids	mg/L	2030
Nitrate (as NO ₃)	mg/L	6.8
Ammonium (as N)	mg/L	<0.1
Total Nitrogen	mg/L	1.5
Orthophosphate (as P)	mg/L	0.01
Total Phosphorus	mg/L	0.01

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.

Comments:

pH data indicates the water is neutral in reaction.

Electrical conductivity and total dissolved solids data show the water has a moderate to somewhat elevated salinity and may be suitable for irrigation of moderately salt tolerant plants. Use on salt sensitive plant species should be limited or avoided.

Nutrients data shows moderate nitrate level, however below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Nitrate constitutes the entire total nitrogen content. Reactive and total phosphorus are at trace levels. Ammonium nitrogen is negligible.



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Regards,

A handwritten signature in black ink, appearing to be "Mario Horvat".

Mario Horvat *MRACI CChem*

Chartered Chemist

4 August 2023

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ANALYSIS REPORT

PROJECT ID:	WI230807
DATE SUBMITTED:	9 August 2023
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	City of Cockburn, Manning Reserve, WD#B92517, PO B172010

Parameter	Units	Azelia Road Bore
Appearance	-	Colourless, Odourless
pH	-	7.4
Electrical Conductivity	mS/cm	3.61
Total Dissolved Solids	mg/L	1990
Nitrate (as NO ₃)	mg/L	6.5
Ammonium (as N)	mg/L	<0.1
Total Nitrogen	mg/L	1.5
Orthophosphate (as P)	mg/L	0.02
Total Phosphorus	mg/L	0.03

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.

Comments:

pH data indicates the water is neutral to slightly alkaline in reaction.

Electrical conductivity and total dissolved solids data show the water has a moderate to somewhat elevated salinity and may be suitable for irrigation of moderately salt tolerant plants. Use on salt sensitive plant species should be limited or avoided.

Nutrients data shows moderate nitrate level, however below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Nitrate constitutes the entire total nitrogen content. Reactive and total phosphorus are at low levels.



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Regards,

A handwritten signature in black ink, appearing to be "MH".

Mario Horvat *MRACI CChem*

Chartered Chemist

11 August 2023

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ANALYSIS REPORT

PROJECT ID:	WI230901
DATE SUBMITTED:	1 September 2023
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	City of Cockburn, Manning Reserve, WD#B93517, PO B172601

Parameter	Units	Azelia Road Bore
Appearance	-	Colourless, Odourless
pH	-	7.4
Electrical Conductivity	mS/cm	3.52
Total Dissolved Solids	mg/L	1940
Nitrate (as NO ₃)	mg/L	6.6
Ammonium (as N)	mg/L	0.1
Total Nitrogen	mg/L	1.7
Orthophosphate (as P)	mg/L	0.02
Total Phosphorus	mg/L	0.02

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.

Comments:

pH data indicates the water is slightly alkaline in reaction.

Electrical conductivity and total dissolved solids data show the water has a moderate to somewhat elevated salinity and may be suitable for irrigation of moderately salt tolerant plants. Use on salt sensitive plant species should be limited or avoided.

Nutrients data shows moderate nitrate level, however below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Nitrate constitutes majority of the total nitrogen content. Reactive phosphorus and total phosphorus are within the normal range. Ammonium is at trace level.



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Regards,

A handwritten signature in black ink, appearing to read "Mario Horvat".

Mario Horvat *MRACI CChem*

Chartered Chemist

12 September 2023

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ANALYSIS REPORT

PROJECT ID:	WI231009
DATE SUBMITTED:	6 October 2023
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	WD#B93517, City of Cockburn, Manning Reserve, PO B173576

Parameter	Units	Azelia Rd Bore
Appearance	-	Colourless, Odourless
pH	-	7.2
Electrical Conductivity	mS/cm	3.52
Total Dissolved Solids	mg/L	1940
Nitrate (as NO ₃)	mg/L	6.2
Ammonium (as N)	mg/L	<0.1
Total Nitrogen	mg/L	1.5
Orthophosphate (as P)	mg/L	0.01
Total Phosphorus	mg/L	0.01

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.

Comments:

pH data indicates the water is neutral to slightly alkaline in reaction.

Electrical conductivity and total dissolved solids data show the water has a moderate to somewhat elevated salinity and may be suitable for irrigation of moderately salt tolerant plants. Use on salt sensitive plant species should be limited or avoided.

Nutrients data shows moderate nitrate level, however below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Nitrate constitutes the entire total nitrogen content. Reactive and total phosphorus are at trace levels. Ammonium is negligible.



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Regards,

A handwritten signature in black ink, appearing to be "MH".

Mario Horvat *MRACI CChem*

Chartered Chemist

11 October 2023

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ANALYSIS REPORT

PROJECT ID:	WI231104
DATE SUBMITTED:	9 November 2023
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	WD#B93517, City of Cockburn, Manning Reserve, PO B174547

ANALYSIS		
	Units	Manning Reserve – Azelia Rd Bore
Appearance	-	Colourless, Odourless
pH	-	7.4
Electrical Conductivity	mS/cm	3.47
Total Dissolved Solids	mg/L	1910
Nitrate (as NO ₃)	mg/L	6.9
Ammonium (as N)	mg/L	0.1
Total Nitrogen	mg/L	1.7
Orthophosphate (as P)	mg/L	0.01
Total Phosphorus	mg/L	0.01

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.

Comments:

pH data indicates the water is slightly alkaline in reaction.

Electrical conductivity and total dissolved solids data show the water has a moderate to slightly elevated salinity and may be suitable for irrigation of moderately salt tolerant plants. Use on salt sensitive plant species should be limited or avoided.

Nutrients data shows moderate nitrate level, however below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Nitrate constitutes the majority of total nitrogen content. Reactive and total phosphorus are at trace levels. Ammonium is at a trace level.

Regards,



Mario Horvat *MRACI CChem*

Chartered Chemist

17 November 2023



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ANALYSIS REPORT

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ANALYSIS REPORT

PROJECT ID:	WI231203
DATE SUBMITTED:	5 December 2023
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	WD#B93517, City of Cockburn, Manning Reserve, PO B175432

ANALYSIS		
	Units	Manning Reserve – Azelia Rd Bore
Appearance	-	Colourless, Odourless
pH	-	7.2
Electrical Conductivity	mS/cm	3.67
Total Dissolved Solids	mg/L	2020
Nitrate (as NO ₃)	mg/L	6.9
Ammonium (as N)	mg/L	0.1
Total Nitrogen	mg/L	1.6
Orthophosphate (as P)	mg/L	0.03
Total Phosphorus	mg/L	0.03

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.

Comments:

pH data indicates the water is neutral in reaction.

Electrical conductivity and total dissolved solids data show the water has a moderate to slightly elevated salinity and may be suitable for irrigation of moderately salt tolerant plants. Use on salt sensitive plant species should be limited or avoided.

Nutrients data shows moderate nitrate level, however below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Nitrate constitutes the majority of total nitrogen content. Ammonium nitrogen is at a trace level. Reactive and total phosphorus are at low to moderate levels.

Regards,



Mario Horvat MRACI CChem

Chartered Chemist

7 December 2023

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ANALYSIS REPORT

PROJECT ID:	WI240111
DATE SUBMITTED:	11 January 2024
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	WD#B93517, City of Cockburn, Manning Reserve, PO B176281

ANALYSIS		
	Units	Manning Reserve – Azelia Rd Bore
Appearance	-	Colourless, Odourless
pH	-	7.2
Electrical Conductivity	mS/cm	3.45
Total Dissolved Solids	mg/L	1900
Nitrate (as NO ₃)	mg/L	7.4
Ammonium (as N)	mg/L	0.1
Total Nitrogen	mg/L	1.8
Orthophosphate (as P)	mg/L	0.03
Total Phosphorus	mg/L	0.03

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.

Comments:

pH data indicates the water is neutral in reaction.

Electrical conductivity and total dissolved solids data show the water has a moderate to slightly elevated salinity and may be suitable for irrigation of moderately salt tolerant plants. Use on salt sensitive plant species should be limited or avoided.

Nutrients data shows moderate nitrate level, however below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Nitrate constitutes the majority of total nitrogen content. Reactive and total phosphorus are at low levels. Ammonium is at a trace level.

Regards,



Mario Horvat MRACI CChem

Chartered Chemist

18 January 2024

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ANALYSIS REPORT

PROJECT ID:	WI240207
DATE SUBMITTED:	13 February 2024
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	WD#B93517, City of Cockburn, Manning Reserve, PO B177257

WATER ANALYSIS		
	Units	Manning Reserve – Azelia Rd Bore
Appearance	-	Colourless, Odourless
pH	-	7.2
Electrical Conductivity	mS/cm	3.38
Total Dissolved Solids	mg/L	1860
Nitrate (as NO ₃)	mg/L	7.4
Ammonium (as N)	mg/L	0.1
Total Nitrogen	mg/L	1.8
Orthophosphate (as P)	mg/L	0.02
Total Phosphorus	mg/L	0.02

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.

Comments:

pH data indicates the water is neutral in reaction.

Electrical conductivity and total dissolved solids data show the water has a moderate to slightly elevated salinity and may be suitable for irrigation of moderately salt tolerant plants. Use on salt sensitive plant species should be limited or avoided.

Nutrients data shows moderate nitrate level, however below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Nitrate constitutes the majority of total nitrogen content. Reactive and total phosphorus are at low levels. Ammonium is at a trace level.

Regards,

Mario Horvat MRACI CChem

Chartered Chemist

21 February 2024

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ANALYSIS REPORT

PROJECT ID:	WI240304
DATE SUBMITTED:	11 March 2024
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	WD#B93517, City of Cockburn, Manning Reserve, PO B178000

ANALYSIS		
	Units	Manning Reserve – Azelia Rd Bore
Appearance	-	Colourless, Odourless
pH	-	7.5
Electrical Conductivity	mS/cm	2.91
Total Dissolved Solids	mg/L	1600
Nitrate (as NO ₃)	mg/L	9.1
Ammonium (as N)	mg/L	0.1
Total Nitrogen	mg/L	2.1
Orthophosphate (as P)	mg/L	<0.01
Total Phosphorus	mg/L	0.01

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.

Comments:

pH data indicates the water is slightly alkaline in reaction.

Electrical conductivity and total dissolved solids data show the water has a moderate to slightly elevated salinity and may be suitable for irrigation of moderately salt tolerant plants. Use on salt sensitive plant species should be limited or avoided.

Nutrients data shows moderate nitrate level, however below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Nitrate constitutes the majority of total nitrogen content. Reactive phosphorus is negligible and total phosphorus is at a trace level. Ammonium is at a trace level.

Regards,



Mario Horvat MRACI CChem

Chartered Chemist

21 March 2024

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ANALYSIS REPORT

PROJECT ID:	W1240405
DATE SUBMITTED:	4 April 2024
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	WD#B93517, Client Name: City of Cockburn, Site: Manning Reserve, PO B178598

ANALYSIS		
	Units	Azelia Road Bore
Appearance	-	Colourless, Odourless
pH	-	7.1
Electrical Conductivity	mS/cm	3.49
Total Dissolved Solids	mg/L	1920
Nitrate (as NO ₃)	mg/L	7.9
Ammonium (as N)	mg/L	0.2
Total Nitrogen	mg/L	2.0
Orthophosphate (as P)	mg/L	0.02
Total Phosphorus	mg/L	0.02

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.

Comments:

pH data indicates the water is neutral in reaction.

Electrical conductivity and total dissolved solids data show the water has a moderate to slightly elevated salinity and may be suitable for irrigation of moderately salt tolerant plants. Use on salt sensitive plant species should be limited or avoided.

Nutrients data shows moderate nitrate level, however below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Nitrate constitutes the majority of total nitrogen content. Reactive and total phosphorus are within the normal range. Ammonium is at a low level.

Regards,



Mario Horvat MRACI CChem

Chartered Chemist

12 April 2024

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ANALYSIS REPORT

PROJECT ID:	WI240508
DATE SUBMITTED:	9 May 2024
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	WD#B93517, Client Name: City of Cockburn, Site: Manning Reserve, PO B179574

ANALYSIS		
	Units	Azelia Road Bore
Appearance	-	Colourless, Odourless
pH	-	7.3
Electrical Conductivity	mS/cm	4.18
Total Dissolved Solids	mg/L	2300
Nitrate (as NO ₃)	mg/L	6.1
Ammonium (as N)	mg/L	0.1
Total Nitrogen	mg/L	1.5
Orthophosphate (as P)	mg/L	0.02
Total Phosphorus	mg/L	0.02

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.

Comments:

pH data indicates the water is neutral in reaction.

Electrical conductivity and total dissolved solids data show the water has slightly elevated salinity and may be suitable for irrigation of moderately to highly salt tolerant plants. Use on salt sensitive plant species should be limited or avoided.

Nutrients data shows moderate nitrate level, however below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Nitrate constitutes the majority of total nitrogen content. Reactive and total phosphorus are at low levels. Ammonium is at a trace level.

Regards,



Mario Horvat MRACI CChem

Chartered Chemist

20 May 2024

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ANALYSIS REPORT

PROJECT ID:	WI240605
DATE SUBMITTED:	13 June 2024
CLIENT DETAILS:	Western Irrigation, 211 Barrington St, Bibra Lake
YOUR REFERENCE:	WD#B93517, Client Name: City of Cockburn, Site: Manning Reserve, PO B180398

WATER ANALYSIS		
	Units	Azelia Road Bore
Appearance	-	Colourless, Odourless
pH	-	7.3
Electrical Conductivity	mS/cm	4.04
Total Dissolved Solids	mg/L	2220
Nitrate (as NO ₃)	mg/L	11
Ammonium (as N)	mg/L	0.2
Total Nitrogen	mg/L	2.7
Orthophosphate (as P)	mg/L	0.01
Total Phosphorus	mg/L	0.01

Analysis performed in accordance with APHA Standard Methods for the Examination of Water and Wastewater.

Comments:

pH data indicates the water is neutral in reaction.

Electrical conductivity and total dissolved solids data show the water has a moderate to slightly elevated salinity and may be suitable for irrigation of moderately salt tolerant plants. Use on salt sensitive plant species should be limited or avoided.

Nutrients data shows moderate nitrate level, however below the maximum recommended ADWG health guideline (50 mg/L, Australian Drinking Water Guidelines 2011). Nitrate constitutes the majority of total nitrogen content. Reactive and total phosphorus are at low levels. Ammonium is within the normal range.

Regards,

Mario Horvat MRACI CChem

Chartered Chemist

21 June 2024

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11.3 Office of the CEO

11.3.1 Office of Auditor General Performance Audit - Exit Controls at Large Local Government Entities, Reports 25: 2023-24, 28 June 2024; and the City of Cockburn's Response

Responsible Executive Chief Executive Officer

Author(s) Head of People, Culture and Safety

Attachments

1. Office of the Auditor General List of Audits and Reports 1 July 2023 to 30 June 2024 [↓](#)
2. OAG Report 25- 2023-24, 28 June 2024 Staff Exit Controls at Large Local Government Entities [↓](#)

RECOMMENDATION

The Committee recommends Council RECEIVES the Office of Auditor General Performance Audit – Exit Controls at Large Local Government Entities, Report 25: 2023-24, 28 June 2024, as attached to the Agenda.

Background

Responsibility for the financial audits of all local governments sits with the Office of the Auditor General (OAG).

In accordance with legislative requirements, the OAG presents a report to Parliament each year on the results of the local government financial audits, including issues that are significant enough to bring to the attention of the Parliament.

The Auditor General encourages local governments to review these audit findings and consider the recommendations made to support continuous improvement of their operating environments and governance frameworks.

This report is brought to the Audit, Risk and Compliance Committee for review and to address the recommendations made by the OAG.

These reports are listed (refer Attachment 1).

Submission

N/A

Report

Purpose of the OAG Performance Report

On 13 September 2023, the OAG published the Audit Report 'Staff Exit Controls for Government Trading Enterprises', Report 4: 2023-24'.

This report found that staff exit controls in state government entities and government trading enterprises (GTE) were not consistently cancelled immediately, and exit controls were not assessed for risk and were not adjusted for high integrity positions.

Attachment 2 to this report is the OAG Performance Audit - Exit Controls at Large Local Government Entities, Report 25: 2023-24, 28 June 2024.

This Audit assessed whether seven large metropolitan local governments effectively and efficiently manage the exit of staff to minimise security, asset, and financial risks.

The audit considered if these local governments had appropriate policies and procedures, and whether these are complied with to effectively manage staff exits.

As appropriate, the learnings from this audit can be applied to the City of Cockburn, as the risks relating to staff exit are common to all public sector entities and the local government sector.

Significant Matters Identified by the OAG

The OAG report identified the matters summarised below:

Local Governments need to ensure that when a staff member leaves, premises and information are protected, and all public assets recovered.

Ineffective controls increase the risk of security breaches and loss of information, physical assets, and public money.

When staff leave by resignation, retirement, end of contract or through dismissal, the local government should:

- Immediately cancel access to information systems, premises, and confidential information
- Revoke all physical controls such as identity cards, security access passes (fobs or cards) and keys
- Collect all local government owned property
- Offer exit interviews and analyse associated data to ensure that risks highlighted by ceasing employees can be effectively managed
- Issue a reminder of the individual's ongoing obligations not to disclose confidential or commercially sensitive information.

Implication(s) for the City

The OAG report has implications for the City and recommends the following:

- Local governments should consider and assess risks presented by staff leaving high integrity positions or who are terminated for misconduct or other adverse reasons.

Risk assessments help entities identify and understand security implications and reduce risks to information, assets, and finances.

The OAG report has included information to assist local governments to manage these risks in Appendix 1 of the OAG report.

- Risk assessments are better managed by adopting a systematic approach that is documented in exit procedures and checklists used by local governments.

This includes considering post-employment integrity risks and making clear the ongoing requirement for staff to maintain security of information and return all IT assets when the person's employment ends.

- To manage staff exits effectively local governments require policies and procedures that coordinate activities across multiple business units (these can include human resources, payroll, finance, security, IT, and fleet).

Local governments also need to monitor staff exits to ensure compliance with their policies and procedures and reduce risk.

City Response to OAG Report

Below are responses provided by the City to findings contained in the OAG report:

No.	OAG finding and recommendation	City of Cockburn response
1	<p>Access to buildings and IT was not consistently removed on a timely basis when staff left.</p> <p>Cancelling access to buildings often took more than a day risking unauthorised access to premises.</p> <p>Recommendation - entities should:</p> <ul style="list-style-type: none"> Ensure access to IT systems, buildings and banking delegations are removed or disabled within 24 hours of the exit date. 	<p>No additional action required.</p> <p>People Experience send an offboarding email to all relevant internal stakeholders with cessation date as part of resignation acknowledgement process.</p> <p>All access to buildings is removed from close of business of the last day of employment. As part of cessation checklist, leaders are required to collect any building access cards, keys, fuel cards, credit cards and authorisation cards from ceasing Employee prior to them ceasing with the organisation.</p>

2	<p>Access to buildings and IT was not consistently removed on a timely basis when staff left.</p> <p>Access to IT was not always cancelled within 24 hours.</p> <p>Recommendation - entities should:</p> <ul style="list-style-type: none"> • Ensure access to IT systems, buildings and banking delegations are removed or disabled within 24 hours of the exit date. 	<p>No additional action required.</p> <p>People Experience send an offboarding email to all relevant internal stakeholders with cessation date as part of resignation acknowledgement process. All IT access is cancelled within 24 hours of ceasing employment. In instances where an Employee is ceased with no notice, the Head of Information Management is notified, and immediate cessation of access is requested. Such requests are typically actioned no more than 30 minutes after the request, subject to date and time of request being made.</p>
3	<p>The return of assets was not always actioned or documented effectively.</p> <p>The return was not always effectively documented.</p> <p>Recommendation - entities should:</p> <ul style="list-style-type: none"> • Ensure all assets are returned on or prior to the day of exit. 	<p>Further education to People Leaders on the importance of timely completion of documentation is required. A review of this process is due to take place as part of the People Experience Program in FY25.</p> <p>Whilst leaders collect all assets prior to cessation of employment, the termination checklist is, on occasion, not completed at the time of cessation. On occasion a delay of several business days is experienced in completing this documentation even though the leader has collected all assets.</p>
4	<p>The return of assets was not always actioned or documented effectively.</p> <p>Controls over final payments need to be consistently implemented at two entities.</p> <p>Recommendation - entities should:</p> <ul style="list-style-type: none"> • Settle amounts payable to entities by exiting employees should be settled during final payment or repayment plans should be put in place prior to employees exiting; • Perform and review final payment calculations in a timely manner, with evidence retained. 	<p>No additional action required.</p> <p>Any monetary balances owing to the Employer are communicated to the ceasing Employee prior to cessation of employment.</p> <p>In instances in which the payment can be recouped from the final payroll, approval is sought from the ceasing Employee. In instances where this is not possible, relevant information is sent to accounts receivable and a debtor raised.</p> <p>Examples where this occurs is where an Employee has opted to purchase a portable device provided for under their contract of employment.</p>

5	<p>Process for monitoring the timely completion of exit activities vary in their effectiveness.</p> <p>There are gaps in entities' monitoring of whether exit processes have been completed.</p> <p>Recommendation - entities should:</p> <ul style="list-style-type: none"> • Review and where required document end-to-end policies and procedures for employee terminations; • Regularly review staff exit information allowing effective oversight and monitoring of end-to-end processes and ensure compliance with policies and procedure. 	<p>Undertake a review of current documented process to ensure continuous improvement and fit for purpose processes are not just in place but are appropriately embedded and understood. A review of this process is due to take place as part of the People Experience Program in FY25.</p> <p>Termination processes are documented to ensure consistency for all cessations. The end-to-end process is commenced by People Experience upon receipt of a cessation and all relevant internal stakeholders are notified of the last date of employment. This triggers the cessation process within the relevant service units (i.e.: cancel access cards, IT system access, remove ARC membership, reallocation of emails etc).</p> <p>The only time there is a deviation from the documented end to end process is when the cessation is effective immediately, and documentation is completed retrospectively.</p> <p>All exiting Employees, including casuals, are provided the opportunity to undertake a confidential exit survey. Survey data is analysed and presented to the Executive Leadership Team monthly to ensure that key themes are identified, and action plans put in place to ensure future controls.</p>
6	<p>Process for monitoring the timely completion of exit activities vary in their effectiveness.</p> <p>Entities' data for monitoring exit controls was limited.</p>	<p>To ensure consistent monitoring occurs, the City needs to undertake process mapping activities to ensure all steps are captured. This is due to take place as part of the People Experience Program in FY25.</p> <p>Leaders are required to complete cessation checklists in all instances, and these are monitored by the People Experience team. However, there is no record as to what checklists are outstanding at any given time.</p>

7	<p>Exit controls are not responsive to the risks with exits from high integrity positions and are not effectively documented.</p> <p>Exit controls are not adjusted to reflect high integrity positions and are not effectively documented.</p> <p>Recommendation – all entities should:</p> <p>Evaluate risk posed by different positions and termination types, develop and document procedures to manage the risks effectively and efficiently.</p>	<p>There is currently no process in place for risk assessing high integrity positions and the risks associated with off boarding. As a minimum an establishment of positions should be documented to ensure a documented process is in place for those roles identified as high integrity. This will form part of the review that is due to take place as part of the People Experience Program in FY25.</p> <p>There is a process associated with those cessation processes that are deemed high risk (i.e.: termination by City or immediate resignation).</p>
8	<p>Exit controls are not responsive to the risks with exits from high integrity positions and are not effectively documented.</p> <p>Exiting staff were not consistently reminded of their post-employment confidentiality obligations.</p>	<p>While there are processes in place for onboarding and during employment, there is no established process of post-employment confidentiality obligations. This should be investigated further to determine if the cessation confirmation letter issued to Employees should include such a reminder. This will form part of the review that is due to take place as part of the People Experience Program in FY25.</p> <p>It must be noted that any cessation that is attributed to a Deed of Settlement does contain confidentiality provisions.</p>
9	<p>Exit surveys and interviews are not frequently completed, and there is limited analysis of feedback.</p> <p>There were gaps in the documentation of exit processes at all the entities.</p> <p>Recommendation - entities should:</p> <ul style="list-style-type: none"> • Offer interviews to and/or survey all exiting staff; • Asses exit survey feedback processes to increase feedback received and perform analysis of feedback received to identify improvement opportunities. 	<p>No additional action required.</p> <p>All exiting Employees, including casuals, are provided the opportunity to undertake a confidential exit survey. Survey data is analysed and presented to the Executive Leadership Team monthly to ensure that key themes are identified, and action plans put in place to ensure future controls.</p>

Strategic Plans/Policy ImplicationsListening and Leading

A community focused, sustainable, accountable, and progressive organisation.

- Best practice Governance, partnerships and value for money.

Budget/Financial Implications

N/A

Legal Implications

Sections 7.1, 7.12(3) and 7.12AJ of the *Local Government Act 1995*.

Community Consultation

N/A

Risk Management Implications

OAG performance audits constitute the fourth line of defence in the OAG's 'Four Lines of Defence Assurance Model' which the City has adapted in the *City of Cockburn Enterprise Risk Management Framework*.

The OAG has identified risks in its performance audit report of other local governments and makes recommendations to manage these risks.

The City needs to consider these recommendations and, where relevant, implement appropriate control measures as appropriate.

Advice to Proponent(s)/Submitters

N/A

Implications of Section 3.18(3) *Local Government Act 1995*

Nil

Attachment 1: Office of Auditor General List of Audits and Reports 1 July 2023 to 30 June 2024

1. Requisitioning of COVID-19 Hotels, Report 1: 2023-24, 09 August 2023;
2. Electricity Generation and Retail Corporation (Synergy), Report 2: 2023-24, 09 August 2023;
3. Financial Audit Results – Local Government 2021-22, Report 3: 2023-24, 23 August 2023;
4. Staff Exit Controls for Government Trading Enterprises, Report 4: 2023-24, 13 September 2023;
5. Triple Zero, Report 5: 2023-24, 12 September 2023;
6. Annual Report 2022-2023, 27 September 2023;
7. 2023 Transparency Report: Major Projects, Report 6: 2023-24, 02 October 2023;
8. Management of the Road Trauma Trust Account, Report 7: 2023-24, 17 October 2023;
9. Electricity Generation and Retail Corporation (Synergy), Report 8: 2023-24, 08 November 2023;
10. Implementation of the Essential Eight Cyber Security Controls, Report 9: 2023-24, 06 December 2023;
11. State Government 2022-23 – Financial Audit Results, Report 10: 2023-24, 20 December 2023;
12. Funding for Community Sport and Recreation, Report 11: 2023-24, 21 March 2024;
13. Digital Identity and Access Management – Better Practice Guide, Report 12: 2023-24, 28 March 2024;
14. Provision of Supplementary Information to the Standing Committee on Estimates and Financial Operations – Opinions on Ministerial Notifications, Report 13: 2023-24, 05 April 2024;
15. State Government 2022-23 – Information Systems Audit, Report 14: 2023-24, 12 April 2024;
16. Government Campaign advertising, Report 15: 2023-24, 15 May 2024
17. Local Government 2022-23 – Information Systems Audit Results, Report 16: 2023-24, May 2024;
18. Local Government IT Disaster Recovery Planning, Report 17: 2023-24, 31 May 2024;
19. Local Government 2022-23 – Financial Audit Results, Report 18: 2023-24, 06 June 2024;
20. Local Government Management of Purchasing Cards, Report 19: 2023-24, 12 June 2024;
21. Local Government Physical Security of Server Assets, Report 20: 2023-24, 24 June 2024;

- 22. Electricity Generation and Retail Corporation (Synergy), Report 21: 2023-24, 24 June 2024;
- 23. Fraud Risks in the Management of Client Funds by the Public Trustee, Report 22: 2023-24, 26 June 2024;
- 24. Legal Services Provided to the State Solicitor's Office – Opinions on Ministerial Notifications, Report 23: 2023-24, 27 June 2024;
- 25. Implementation of the Earlier Intervention and Family Support Strategy, Report 24: 2023-24, June 2024;
- 26. Staff Exit Controls at Large Local Government Entities, Report 25: 2023-24, 28 June 2024;
- 27. Controls Over Agency Special Purpose Accounts, Report 26: 2023-24, 28 June 2024.

Attachment 2: Office of Auditor General Performance Audit - Exit Controls at Large Local Government Entities, Report 25: 2023-24, 28 June 2024 (pdf file)



Report 25: 2023-24 | 28 June 2024

PERFORMANCE AUDIT

Staff Exit Controls at Large Local Government Entities



**Office of the Auditor General
for Western Australia**

Audit team:

This audit was conducted by Paxon Group engaged under section 29 of the *Auditor General Act 2006*.

The audit was conducted under the direction of Nayna Raniga and Andrew Harris.

National Relay Service TTY: 133 677
(to assist people with hearing and voice impairment)

We can deliver this report in an alternative format for those with visual impairment.

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The Office of the Auditor General acknowledges the traditional custodians throughout Western Australia and their continuing connection to the land, waters and community. We pay our respects to all members of the Aboriginal communities and their cultures, and to Elders both past and present.

Image credit: shutterstock.com/iLixe48

WESTERN AUSTRALIAN AUDITOR GENERAL'S REPORT

**Staff Exit Controls at Large Local Government
Entities**

Report 25: 2023-24
28 June 2024

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**THE PRESIDENT
LEGISLATIVE COUNCIL**

**THE SPEAKER
LEGISLATIVE ASSEMBLY**

STAFF EXIT CONTROLS AT LARGE LOCAL GOVERNMENT ENTITIES

This report has been prepared for submission to Parliament under the provisions of sections 24 and 25 of the *Auditor General Act 2006*.

Performance audits are an integral part of my Office's overall program of audit and assurance for Parliament. They seek to provide Parliament and the people of WA with assessments of the effectiveness and efficiency of public sector programs and activities, and identify opportunities for improved performance.

This audit assessed whether eight large metropolitan local government entities effectively and efficiently manage the exit of staff to minimise security, asset and financial risks.

I wish to acknowledge the entities' staff for their cooperation with this audit.

A handwritten signature in black ink, appearing to read 'Caroline Spencer'.

Caroline Spencer
Auditor General
28 June 2024

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Auditor General's overview

This audit assessed the effectiveness of staff exit controls at eight large metropolitan local government entities. It follows similar audits in both State government entities and government trading enterprises (GTE). The eight entities employ a large number of staff, often across multiple locations, many of whom are casual and temporary employees. In our audit period they also incurred significant staff turnover.



Overall we found that payroll and finance controls were largely effective, but physical security and information technology risks were not always minimised and there were gaps in the documentation of the return of assets. Although this exposes the entities to increased risk, I am pleased that we did not find any instances where information systems had been accessed inappropriately or where assets had been lost or stolen.

All the entities had processes in place for staff exits but their maturity and design varied. Similar to State government entities and GTEs we found that they did not effectively document the assessment of risk and adjust controls to take account of staff leaving high integrity positions.

The risks and challenges identified in my report are not confined to the eight entities we audited. I encourage all public sector entities to look at the findings and recommendations in this report, and draw on the better practice guidance provided in Appendix 1. These should be applied by entities to meet their operational requirements to ensure they have effective staff exit controls in place.

Executive summary

Introduction

Our Office regularly conducts audits to ensure that controls are effective and working as intended. Our recent audits of staff exit controls in State government entities and government trading enterprises (GTE) found access to work premises and information technology (IT) were not consistently cancelled immediately, and exit controls were not assessed for risk and were not adjusted for high integrity positions.

This audit assessed whether eight large metropolitan local government entities (entities) effectively and efficiently manage the exit of staff to minimise security, asset and financial risks. We considered if these entities have appropriate policies and procedures, and whether these are complied with to effectively manage staff exits. This report names local government entities in highlighting good practice and areas to improve. These learnings can be applied more broadly across local government entities and the public sector. Entities have not been named where financial controls are applicable.

Background

The risks relating to staff exits are common to all public sector entities. The local government sector is no exception. It employs a large number of staff, often across multiple locations, many of whom are casual and temporary employees. Entities often see large movements in staff. Our audit covered staff exits during the period 1 January 2023 to 31 December 2023 (Table 1).

City	Headcount	Total staff exits	Casual and temporary staff exits	Permanent staff exits
Armadale	701	213	100	113
Canning	813	270	125	145
Gosnells	671	112	47	65
Joondalup	1,014	207	134	73
Rockingham	725	194	88	106
Stirling	1,490	289	169	120
Swan	1,118	235	67	168
Wanneroo	957	187	43	144
Total	7,489	1,707	773	934

Source: OAG using audited entity information

Table 1: Headcount and the number of staff exits at the eight local government entities in 2023

Entities need to ensure when a staff member leaves that premises and information are protected, and all public assets recovered. Ineffective controls increase the risk of security breaches and the loss of information, physical assets and public money.

When staff leave by resignation, retirement, end of contract or through dismissal the entity should:

- immediately cancel access to information systems, premises and confidential information

- revoke all physical controls such as identity cards, security access passes (fobs or cards) and keys
- collect all entity owned property
- offer exit interviews
- issue a reminder of the individual's ongoing obligations not to disclose entity information.

Entities should also consider and assess risks presented by staff leaving high integrity positions, or are terminated for misconduct or other adverse reasons. Risk assessments help entities to identify and understand security implications and reduce risks to information, assets and finances. Information to assist entities to manage these risks is included in Appendix 1.

Risk assessments are better managed by adopting a systematic approach that is documented in exit procedures and checklists used by entities. This includes considering post-employment integrity risks and making clear the ongoing requirement for staff to maintain security of information and return all IT assets when the person's employment ends.¹

To manage staff exits effectively entities require policies and procedures that coordinate activities across multiple business units (these can include human resources, payroll, finance, security, IT and fleet). Entities also need to monitor staff exits to ensure compliance with their policies and procedures, and reduce risk.



Source: OAG using audited entity process maps and information

Note: The business unit names and configurations may vary at different entities.

Figure 1: Five key business units generally involved in the staff exit management process

¹ Office of the Auditor General, [Local Government 2022-23 – Information Systems Audit Results](#), OAG, 27 May 2024.

Conclusion

The entities we audited were partly effective in managing staff exits to minimise security, asset and financial risks. Payroll and finance controls in all eight entities were largely effective, but physical security and IT risks were not always minimised and there were gaps in the documentation of the return of assets. Although this exposes the entities to increased risk, we did not find any instances where information systems had been accessed inappropriately or where assets had been lost or stolen.

All the entities had processes in place for staff exits but their maturity and design varied. Entities' monitoring and oversight of the completion and effectiveness of exit controls was limited. Documentation of end-to-end processes varied across the eight entities, and only two entities had processes in place which enabled them to monitor that all exit activities have been completed. Data to check whether IT and security access had been cancelled was inadequate in most entities, mainly because the ageing systems in use at these entities lacked effective reporting functionality.

Similar to State government entities and GTEs, local government entities are not yet mature in assessing risk and adjusting staff exit controls to take account of high integrity positions. Factors such as access to confidential information and/or critical systems are not subject to risk assessment and exit controls are not adjusted accordingly. Although exit interviews or surveys were offered, completion rates were low restricting analysis of results. We did find some entities do not review outcomes of exit interviews and surveys. This reduces opportunities to improve business processes and staff retention, which is a key challenge for many entities.

Findings

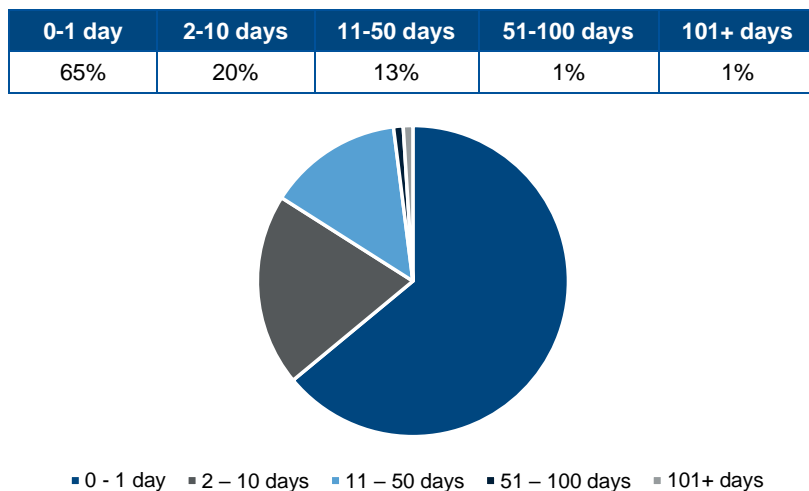
Access to buildings and IT was not consistently removed on a timely basis when staff left

Cancelling access to buildings often took more than a day risking unauthorised access to premises

Physical access cancellation at all eight entities was not always performed on a timely basis, specifically within a day of the employee exit. This exposes the entities to increased risk in terms of unauthorised access to buildings, misappropriation of assets and possible damage to premises.

Almost one third of the staff exits we examined showed access was not cancelled within a day after the employee's last day of employment. We tested 15 exits at each entity.

Across the three entities where data analysis could be performed for the population of exits (Table 2), access was cancelled on a timely basis in 65% of cases, with 35% between two and 101 plus days (Figure 2).



Source: OAG based on exit data provided by three local government entities

Figure 2: Days taken to remove physical access

We were able to determine from our sample exits that security cards had been disabled. Processes were also in place for the return of security access cards but we were unable to evidence the return or destruction of these at all eight entities.

In addition to building access cards, some employees also received staff identify cards. At most entities, it was not possible to determine the date of return of identity cards as the cards are destroyed and no documentation is kept. Identity cards allow the holder to exercise powers, such as performing inspections and if they have not been returned and destroyed it increases the risk of them being used inappropriately after someone leaves. This risk is relatively low as there are processes in place to prompt the return of identity cards on staff exit.

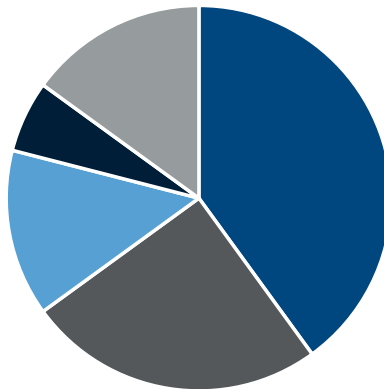
Access to IT was not always cancelled within 24 hours

IT access cancellation was not performed on a timely basis at seven of the eight entities, with 38% of the samples tested not cancelled within 24 hours of staff exit. This increases the risk of inappropriate or unauthorised access being obtained to the entity's information and data. The City of Wanneroo was the only entity where all the exits we tested showed timely cancellation of less than one day.

There were no instances of unauthorised access by an employee after their exit date. We found a very low number of instances of activity on user accounts after exits, but this was approved IT department activity, rather than inappropriate user activity.

Across the six entities where the data allowed us to perform analysis (Table 2), 43% of the total number of exits were timely cancellations but 57% were not, with 4% over 101 days (Figure 3).

0-1 day	2-10 days	11-50 days	51-100 days	101+ days
43%	34%	16%	3%	4%



■ 0 - 1 day ■ 2 – 10 days ■ 11 – 50 days ■ 51 – 100 days ■ 101+ days

Source: OAG based on exit data provided by six local government entities

Figure 3: Days taken to remove IT access

Of the eight entities only the City of Rockingham had defined target timeframes for the cancellation of access to IT and security access cards. It also performed significantly better than the other entities where we were able to analyse the data across the entire population of staff exits.

The return of assets was not always actioned or documented effectively

The return of assets was not always effectively documented

While we did not find any instances where assets had been lost or stolen, it was not possible to confirm that assets allocated to exiting staff were returned at the point of exit.

Although all eight entities have processes to administer the return of assets we found that forms were not always in place or completed to identify which assets had been allocated to which staff, and when they were returned.

IT assets issued to staff are generally not physically returned to IT centrally but provided directly to the replacing employee or to the line manager. IT asset registers were either in place or in development at all eight entities, but there is no clear audit trail of the details of assets being allocated, transferred and returned at most entities leaving uncertainty as to who has the asset at any point in time.

There were instances where exited employees were still included as the custodians of assets within the registers. Where this did occur, entities were able to demonstrate assets had been returned and were still being used within the respective entity.

Although fleet assets could be evidenced as returned at six entities, fleet asset documentation was not always completed for the return of vehicles and related assets such as fuel cards. Limited documentation was available at the cities of Gosnells and Armadale, as vehicle return forms are not used by these entities. The return of vehicles and the related fuel card was identified through the allocation of the vehicle to a different employee, but due to the absence or lack of completed forms we could not always determine the timeliness of their return.

Controls over final payments need to be consistently implemented at two entities

Although most entities had effective controls over financial payments, we found:

- at one entity the final payment for 10 exits, considered to be standard exits, was calculated by the system with no further checks occurring
- one person within our sample owed money to an entity, but the value was not established until after they had exited and the final salary payment had been made. This exposes the entity to an increased risk of non-payment, though in this instance the value was not considered high.

Entities need to ensure that their controls over final payments to exiting employees are consistently implemented. Making errors in final payments risks either underpaying exiting employees which is not acceptable or overpaying and then having to recover funds from staff who have left the entity.

Processes for monitoring the timely completion of exit activities vary in their effectiveness

There are gaps in entities' monitoring of whether exit processes have been completed

Exit controls work across multiple business units that don't always interact on a regular basis. Because of this, entities need to have processes in place to make sure these controls are performed. We found limited monitoring had been performed by the entities to confirm all exit activities had been completed contributing to the findings within this report.

At six entities processes were in place to initiate the required exit activities and notify the relevant business unit of the exit of an employee, but there was no reporting of completed actions by the relevant business unit:

- at the cities of Swan and Canning there were no exit checklists to confirm the completion of exit activities by the line manager
- at four other entities checklists were used and completed by the line manager of the exiting member of staff but testing identified that they were not always fully completed. At the City of Armadale use of the checklist was noted as being optional. The City of

Rockingham was the only entity able to demonstrate completion of exit checklists for all exiting staff tested

- only two entities, the cities of Joondalup and Gosnells, had the capability to monitor the completion of all exit activities (Case study 1). However, this is limited to statements of completion that could not always be evidenced.

Case study 1: Effectively designed exit processes

On notification and acceptance of a staff exit, an entry is created in a database containing the employee's details, last day of employment and through a workflow system, tasks are assigned to the different business units involved in performing exit activities. The process to this point is common for all eight entities.

At the cities of Joondalup and Gosnells, these tasks remain open until they are noted in the database as completed, along with a comment to identify the action taken. Human resources can monitor these responses. Any actions that have not yet been performed can be clearly identified to help assess the timeliness and completeness of exit activity. The other entities do not have this degree of confirmation and accountability.

There is also a step related to post-exit confidentiality with the departing employee informed or required to formally acknowledge these requirements.

These entities with better designed processes may require less effort to ensure that their controls are operating effectively due to the effort already expended on their design.

Entities' data for monitoring exit controls was limited

As part of the audit we compared the date of exit to the IT and physical security access cancellation data for all exits in our audit period. However, limitations in entities systems and reporting capabilities meant that we could not do this for all the entities (Table 2). The lack of data and reporting, often due to a lack of functionality in the systems used, limits the entities' ability to effectively monitor the operation of exit processes.

The lack of timely cancellation of IT and security access increases the risk of unauthorised access to premises and information post-employment or provides a loophole for others to exploit.

City	Security access data analysis	IT access data analysis
Armadale	Data not available	Performed
Canning	Data not available	Data not available
Gosnells	Data not available	Performed
Joondalup	Data not available	Performed
Rockingham	Performed	Performed
Stirling	Performed	Performed
Swan	Performed	Performed
Wanneroo	Data not available	Data not available

Source: OAG based on entity data

Table 2: Summary of data analysis performed

Security access cancellation dates were not available for the total number of exits as information is administered in basic systems with limited reporting functionality. Only three entities could provide this information.

Information relating to security cancellation for individuals was available, however at the City of Canning it was not possible to obtain complete information on individual exit security cancellation dates as they were manually recorded on spreadsheets or information was missing.

At two entities IT access cancellation dates were only available by individual and not for all exits due to system reporting limitations. Improvements in the availability of this data would enable entities' to implement more effective oversight of these areas and perform comparison of the cancellation dates to assess their completeness and timeliness.

Exit controls are not responsive to the risks with exits from high integrity positions and are not effectively documented

Exit controls are not adjusted to reflect high integrity positions and are not effectively documented

None of the entities had a documented process for assessing risk when someone is leaving a high integrity position or could demonstrate additional measures that might be required to manage their exit. For example, controls may need to be adjusted to manage risks or security concerns of staff who are in high integrity positions where they have access to things like confidential information or payroll systems or bank accounts. Measures were in place for higher risk exits where there were performance or disciplinary issues.

Risks are most effectively identified and managed with a systematic approach to assessing them. Risk assessments assist entities to identify security implications and tailor approaches to minimise risks to information, assets and finances. An understanding of the risks and having documented procedures to mitigate them allows adjustments of controls to be made in the staff exit process to match the circumstances. High integrity positions are not always senior positions and risk assessments need to take account of access to information, systems and resources.

At one entity an employee who left was not removed from the bank authorised signatory listing until 105 days after exiting, which increases the risk of unauthorised transactions or access occurring. This may have been mitigated if the increased risk had been considered. In this instance there were mitigating controls with dual signatories required for all administrative changes to bank accounts and the employee did not have access to the banks online system to make transactions. However, this type of delay greatly increases the risk to the entity if the exiting staff member had greater banking access.

Exiting staff were not consistently reminded of their post-employment confidentiality obligations

There was no confidentiality obligation acknowledgement for employees post-exit at six entities. Processes on entry and during employment through the Code of Conduct were in place, but there was no reminder or agreement signed on exit except for the cities of Joondalup and Gosnells.

Entities should ensure that all exiting staff especially those with access to sensitive or classified information are advised and acknowledge their obligation not to disclose entity information even after they leave. This helps safeguard entity resources and limit potential for the integrity, availability and confidentiality of sensitive information to be compromised.

There were gaps in the documentation of exit processes at all the entities

Exit controls are distributed across multiple business units who need to work together to be effective. However, none of the entities had end-to-end documented processes to facilitate

the consistency, completeness and timeliness of the operation of exit controls and processes.

High level process documents or team specific documents were in place across the entities, but none of these were comprehensive. The key gaps include:

- exit checklists and completion of process confirmation were not in place at the cities of Swan and Canning
- no specific guidance on the timeliness for performance of activities such as disablement of IT and security access at seven of the eight entities
- lack of information or records for the return or transfer of IT and other assets to evidence what is being transferred, when and to whom, at seven of the eight entities
- no confirmation to exiting employees of resignation acceptance, departure timing and terms at the cities of Swan and Gosnells.

Policy and procedure documents help guide and direct entity staff. They provide a structure for consistency and ensure compliance with regulations and standards. Having incomplete policy and procedure documents makes it hard for entities to align practice with their strategic values and comply with regulations and standards.

Exit surveys and interviews are not frequently completed and there is limited analysis of feedback

Processes for exit interviews and surveys were in place at all entities and were generally offered to all exiting employees, with feedback mechanisms including online surveys and internal forms sent out by email. Only 14 of the 120 exits tested completed the survey and provided feedback, which is a low response rate, although we acknowledge that this is in part because it is a voluntary process. The forms viewed varied in length from 14 to 79 questions, but there was no correlation between length and response.

At seven entities, there were limited or no documented processes to show systematic analysis of results from exit interviews and surveys completed by staff and reported to management to identify improvements. Information from exit interviews and surveys can help entities to assess strengths and vulnerabilities, and focus workforce management strategies to drive talent attraction and retention.

Recommendations

These recommendations are based on the eight entities we audited but are relevant for all local government entities and should be read in conjunction with the staff exit better practice guide at Appendix 1.

1. All entities should:

- a. review and where required document end-to-end policies and procedures for employee terminations
- b. regularly review staff exit information allowing effective oversight and monitoring of end-to-end processes and ensure compliance with policies and procedures.

Implementation timeframe: December 2024

Entity response: Supported by local government entities.

2. All entities should evaluate risk posed by different positions and termination types, develop and document procedures to manage the risks effectively and efficiently.

Implementation timeframe: Ongoing

Entity response: Supported by local government entities.

3. To minimise the risk of property and information loss all entities should:

- a. ensure access to IT systems, buildings and banking delegations are removed or disabled within 24 hours of the exit date
- b. ensure all assets are returned on or prior to the day of exit
- c. put in place and complete a documented process for the allocation, return and transfer of identifiable assets between custodians to maintain a clear audit trail in asset registers
- d. amounts payable to entities by exiting employees should be settled during final payment or repayment plans should be put in place prior to employees exiting
- e. final payment calculations should be performed and reviewed in a timely manner, with evidence retained.

Implementation timeframe: Ongoing

Entity response: Supported by local government entities.

4. All entities should:

- a. offer interviews to and/or survey all exiting staff
- b. assess exit survey feedback processes in an attempt to increase feedback received and perform analysis of feedback received to identify improvement opportunities
- c. develop post-employment confidentiality requirement confirmation processes in-line with better practice.

Implementation timeframe: December 2024

Entity response: Supported by local government entities.

Appendix 2 outlines individual local government entity responses to the recommendations above.

In accordance with section 7.12A of the *Local Government Act 1995*, the eight audited local government entities should prepare a report on any matters identified as significant to them for submission to the Minister for Local Government within three months of this report being tabled in Parliament, and within 14 days of submission publish it on their website.

Summary of recommendations applicable to audited entity

■ Not effective process in place
 ■ Partly effective process in place
 ■ Effective process in place

Recommendation	Armadale	Canning	Gosnells	Joondalup	Rockingham	Stirling	Swan	Wanneroo
1a. Review and where required document end-to-end policies and procedures for employee terminations								
1b. Regularly review staff exit information allowing effective oversight and monitoring of end-to-end processes and ensure compliance with policies and procedures								
2. Evaluate risk posed by different positions and termination types, develop and document procedures to manage the risks effectively and efficiently								
3a. Ensure access to IT systems, buildings and banking delegations are removed or disabled within 24 hours of the exit date								
3b. Ensure all assets are returned on or prior to the day of exit								
3c. Put in place and complete a documented process for the allocation, return and transfer of identifiable assets between custodians to maintain a clear audit trail in asset registers								
3d. Amounts payable to entities by exiting employees should be settled during final payment or repayment plans should be put in place prior to employees exiting								
3e. Final payment calculations should be performed and reviewed in a timely manner, with evidence retained								
4a. Offer interviews to and/or survey all exiting staff								
4b. Assess exit survey feedback processes in an attempt to increase feedback received and perform analysis of feedback received to identify improvement opportunities								
4c. Develop post-employment confidentiality requirement confirmation processes in-line with better practice								

Source: OAG

Response from local governments entities

City of Armadale

Thank you for the opportunity to review and comment.

Recommendation 1:

The City agrees and supports the findings of the Audit. Whilst the City has procedures documented and some processes mapped, there is a gap in the mapping of the end-to-end process. The mapping will assist the City identify opportunities for seamlessly integrating the process and optimising the City's corporate business system.

Recommendation 2:

The City agrees with this finding and will facilitate a risk review with the relevant business units, reporting to the Audit Committee.

Recommendation 3:

- a. The findings are agreed and the City will implement an automated workflow to disable access, programmed ahead of time, where notice is provided.
- b & c. The findings are agreed and the City will review its process controls to confirm receipt, custody and allocation of assets. The process, which exists presently is manual paper based will be systemised through the IT ServiceDesk application software. It is also intended to utilise the City's new integrated Enterprise Resource Planning (ERP) system once functionality for transitioning staff is implemented.
- d. The City's business systems cater for final pay processing, including any payables. The City generally does not incur reimbursable costs attributable to employees.
- e. The City's integrated Enterprise Resource Planning (ERP) system calculates final payments and there is a check completed outside the system to confirm.

Recommendation 4:

The City agrees with the findings and has a process in place for exit interviews. The requirement for post-employment confidentiality requirement confirmation processes will be built in the system for certain staff. The City does not agree with the implementation timeframe and the due date proposed to be set by the City is March 2025 to align with the implementation of the City's new ERP and the introduction of additional functionality for transitioning staff.

City of Canning

The City of Canning accepts the findings and welcomes the recommendations contained in the Summary of Findings report. It is pleasing that there was no evidence of loss or misuse and the City values the opportunity to focus on systemising practices to ensure risk is controlled.

City of Gosnells

It is very pleasing to note the audit found no instances where information systems were accessed inappropriately or where assets were lost or stolen. This would indicate that the controls in place are broadly effective and, consequently, the risk is low.

It is acknowledged that further work can be undertaken to tighten controls, and this will be done in areas where risk can be mitigated cost effectively. However, the City is always mindful about investing monies in internal processes where the risks are low as this detracts from the City's ability to provide much needed services and facilities to the community.

Recommendation 1:

Agreed. The City will consolidate its processes into a single corporate document.

Recommendation 2:

The City currently evaluates risk for different termination types and for staff in higher risk positions based on the circumstance at the time of termination. These circumstances will be formally documented.

Recommendation 3:

The City acknowledges the need to improve record keeping around the timely revocation of building access and the return of identifiable assets.

The City is satisfied that IT access is revoked in a timely manner, however due to limitations in the system this is difficult to evidence. It is noted that there were no specific findings for the City in relation to amounts payable to exiting employees and final payment calculations.

Recommendation 4:

The City is satisfied with its current process for exit interviews. Exit interviews are offered to all staff who resign and are given the choice of a face to face or online interview. Adequate review of feedback is undertaken from a City perspective. It is noted that the City already issues a post-employment confidentiality reminder.

City of Joondalup

The City of Joondalup appreciates the opportunity to participate in the Office of the Auditor General performance audit on staff exit controls within local government entities.

The City has a strong focus on strengthening integrity and conduct controls to assist in mitigating risk exposures including financial loss, breaches of legislation and law and significant reputational damage. The City takes both proactive and reactive measures as required to ensure systems of control are subject to regular review, with corrective action being taken, and control improvements made in a timely manner. Improvements relating to the area under audit have been implemented over the past 12 months.

The City accepts all the recommendations made and will prioritise their implementation, to ensure they are completed by the timeframes included in the report.

City of Rockingham

The City does not agree with the significant finding that there are no effective processes in place to "regularly review staff exit information allowing effective oversight and monitoring of end to end processes and ensure compliance with policies and procedures" (recommendation 1B). The City is of the view that the Office of the Auditor General (OAG) has not taken into consideration that the City undertakes a periodic review of our staff exit information via our internal audit team, against better practice. The City's 2023 staff exit internal audit report and findings were provided to the OAG as evidence of this control. Similarly, the OAG appear not to have considered that the City's Customer Relationship

Management System is effectively able to track completed requests to cease building and IT access (as a monitoring control) for staff who are ceasing employment.

The City does however agree that the overall Summary of Findings recommendations made for the local government sector are reflective of good practice.

OAG note:

We note the City of Rockingham's response. We have considered all the evidence that was provided to us both during and after the audit conduct and procedural fairness processes. The findings of this report and the specific findings reported to the entity reflect our final assessment against the audit criteria and relative to other entities in this audit, and our previous audits in other public sector segments.

City of Stirling

The City of Stirling thanks the OAG for the review and welcomes the findings contained in the report. The City recognises the importance of an effective staff exit process and is fully committed to implementing the OAG recommendations to strengthen controls over the exit process to minimise security, asset and financial risks.

The City agrees with the summary of recommendations of the report.

City of Swan

The City welcomes the findings and recommendations detailed in the report and acknowledges its staff exit controls were rated to be partly effective. All recommended improvements will be implemented as a priority to ensure the City's staff exit processes are effective and in line with industry best practice. This includes the implementation of an overriding checklist of the end-to-end staff exit process to ensure all actions are appropriately documented and signed off.

Recommendation 1:

End-to-end policies and procedures for employee terminations will be compiled and annual reviews will be conducted by management to monitor compliance and timing of action.

Recommendation 2:

A process for identifying positions that may pose a higher risk at time of separation is being considered to ensure appropriate actions are taken to mitigate the risk exposure associated with that position. The different risk profiles of these positions does not facilitate a standard approach. Each separation involving a position identified as high risk will be addressed according to the specific risk exposure (IT access / \$ authority / Access to confidential data / Asset allocation etc.).

Recommendation 3:

Processes to address 3.(d) and (e) will be reviewed and adjusted to meet the recommendation.

Recommendation 4:

Adjustment to existing processes to address the recommendation will be considered for implementation where applicable.

The City thanks the OAG for this review.

City of Wanneroo

The City of Wanneroo thanks the OAG for their review and welcomes the findings and recommendations. The City is fully committed to implementing recommendations that will support and strengthen the existing exit process, and appreciates that some processes were found to be effective. The City considers that implementation will further reduce the risks associated with staff that leave the organisation, particularly where they hold roles of additional authority. The recommendations will be progressed within the committed timeframes.

The City supports the summary of recommendations of the report.

Audit focus and scope

The audit assessed whether eight large metropolitan local government entities effectively and efficiently manage the exit of staff to minimise security, asset and financial risks.

The criteria assessed were:

- Do large local government entities have appropriate policies and procedures to effectively manage staff exits?
- Do large local government entities comply with staff exit policies and procedures?

The audit included the following entities:

- City of Armadale
- City of Canning
- City of Gosnells
- City of Joondalup
- City of Rockingham
- City of Stirling
- City of Swan
- City of Wanneroo.

The audit covered the period 1 January 2023 to 31 December 2023.

In conducting the audit we performed the following:

- held entrance meetings with the entities
- met with the Department of Local Government, Sport and Cultural Industries and local government sector bodies (Western Australian Local Government Association and Local Government Professionals WA)
- reviewed policy and procedure documents and supporting templates
- held meetings with key staff from human resources, payroll, finance, IT and security to gain an understanding of processes and perform walkthroughs
- tested a sample of 15 exits at each entity that covered positions of high level of responsibility or data access, field operatives and casual staff. This included 101, or 10% of, permanent staff and 19 casual staff
- sought evidence of exit processes:
 - termination checklists had been completed before or on the staff exit date and signed by the relevant authority
 - building access cards had been de-activated and/or keys had been collected prior to staff leaving
 - assets issued to staff (computers, tablets, mobile phones, vehicles) were returned
 - credit cards were returned and cancelled
 - access to the entity's IT systems was revoked within 24 hours of their departure

- an exit interview was offered or conducted
 - final payments reviewed and money owed to the entity was identified and paid at the time of leaving
 - risks posed by departing staff and circumstances of their exit were assessed
- sought data on all exits to perform data analysis to assess the timeliness of the cancellation of IT and physical security access.

We did not assess termination decisions and whether they complied with the relevant legislation.

This was an independent performance audit, conducted under section 18 of the *Auditor General Act 2006*, in accordance with Australian Standard on Assurance Engagements ASAE 3500 *Performance Engagements*. We complied with the independence and other ethical requirements related to assurance engagements. Performance audits focus primarily on the effective management and operations of entity programs and activities. The approximate cost of undertaking the audit and reporting was \$285,000.

Appendix 1: Staff exit better practice guide

Key requirements	
Assess and mitigate risks posed by exiting staff	<p>Entities should assess the security implication and other risks posed by the exiting staff member. Exiting staff can include those leaving voluntarily or terminated for misconduct or other adverse reasons.</p> <p>Below is a checklist of actions to be considered in a risk assessment:</p> <ul style="list-style-type: none"> • assigning a risk level by considering the reason for leaving (resignation, retirement, termination for corruption or misconduct) • reducing level of access to IT systems • limiting access to entity premises • monitoring accrued leave balance to reduce overpayments • identifying assigned assets (vehicles, mobile phones, laptops etc.) and assess need for immediate collection • removing access to confidential or secret information • consider position within the entity and level of delegated authority over staff • existing financial delegations and purchasing card limit • existing conflicts with staff.
Collect all entity owned property	<p>Entities should maintain an updated register of all assets issued to staff when they start and during their employment. Using information on the register ensures that all entity owned property is returned when staff leave. These include but not limited to:</p> <ul style="list-style-type: none"> • identification badges and name tags • office, cabinet and safe keys • access security passes and swipe cards • computer and other IT equipment - laptops, tablets, storage devices, headsets, mouse and keyboards • mobile phone and charger • vehicle keys, fuel cards and logbooks. <p>Where access security passes and keys are not returned entities should take immediate action to cancel access cards, reprogram or change locks.</p>

Key requirements	
Cancel all access to premises and IT systems	<p>Entities should ensure that exiting staff have their access to entity premises and information systems withdrawn or cancelled immediately when staff leave. These include but are not limited to:</p> <ul style="list-style-type: none"> • building (including carpark) access • computer login and network access • changing passwords or access to shared or high privileged accounts • email address • voicemail • remote access • corporate memberships • customer accounts with external organisations. <p>Where physical exit date and formal termination date differ, risks should be mitigated by removing access on the physical exit date.</p>
Issue reminder of ongoing obligations	<p>Entities should ensure that all exiting staff especially those with access to sensitive or classified information are advised and acknowledge their obligation not to disclose entity information. This helps safeguard entity assets and limit potential for the integrity, availability and confidentiality of sensitive information to be compromised.</p>
Offer exit interview	<p>Entities should offer staff exiting the option of an exit interview. This can be a structured discussion or survey to gauge their perception of working in the entity.</p> <p>Entities should also collate the data, report internally and where relevant act on the findings. Information from exit interviews can help entities assess organisational strengths and vulnerabilities, and target workforce management strategies to drive attraction, retention and performance.</p>
Prevent overpayments and recover debt owed	<p>Entities should ensure that they meet their responsibility to recover overpayments and rectify underpayments, while considering the needs and special circumstances of employees.</p> <p>Timely review of payroll information will reduce the likelihood of errors. Overpayments can also be prevented by checking employee leave balances before approving leave and avoiding late changes to booked leave or working arrangements where possible. Where overpayments occur entities need to make timely payment arrangements in-line with section 17D of the <i>Minimum Conditions of Employment Act 1993</i>.</p>
Regularly monitor and review staff exit processes	<p>Entities should periodically review staff exits to ensure that they comply with:</p> <ul style="list-style-type: none"> • entity policies and procedures • better practice.

Source: OAG, using policies from the Australian Government Protective Security Policy Framework

Auditor General's 2023-24 reports

Number	Title	Date tabled
25	Staff Exit Controls at Large Local Government Entities	28 June 2024
24	Implementation of the Earlier Intervention and Family Support Strategy	27 June 2024
23	Legal Services Provided to the State Solicitor's Office - Opinions on Ministerial Notifications	27 June 2024
22	Fraud Risks in the Management of Client Funds by the Public Trustee	26 June 2024
21	Electricity Generation and Retail Corporation (Synergy)	24 June 2024
20	Local Government Physical Security of Server Room Assets	24 June 2024
19	Local Government Management of Purchasing Cards	12 June 2024
18	Local Government 2022-23 – Financial Audit Results	6 June 2024
17	Local Government IT Disaster Recovery Planning	31 May 2024
16	Local Government 2022-23 – Information Systems Audit Results	27 May 2024
15	Government Campaign Advertising	15 May 2024
14	State Government 2022-23 – Information Systems Audit	12 April 2024
13	Provision of Supplementary Information to the Standing Committee on Estimates and Financial Operations – Opinions on Ministerial Notifications	5 April 2024
12	Digital Identity and Access Management – Better Practice Guide	28 March 2024
11	Funding for Community Sport and Recreation	21 March 2024
10	State Government 2022-23 – Financial Audit Results	20 December 2023
9	Implementation of the Essential Eight Cyber Security Controls	6 December 2023
8	Electricity Generation and Retail Corporation (Synergy)	8 November 2023
7	Management of the Road Trauma Trust Account	17 October 2023
6	2023 Transparency Report: Major Projects	2 October 2023
5	Triple Zero	22 September 2023

Number	Title	Date tabled
4	Staff Exit Controls for Government Trading Enterprises	13 September 2023
3	Local Government 2021-22 – Financial Audit Results	23 August 2023
2	Electricity Generation and Retail Corporation (Synergy)	9 August 2023
1	Requisitioning of COVID-19 Hotels	9 August 2023

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11.3.2 Quarterly Risk Register Update

Executive	Chief Executive Officer
Author	Risk Advisor
Attachments	<ol style="list-style-type: none">1. City of Cockburn Risk Matrix ↓2. Strategic Risks ↓3. Risks Rated Substantial and Higher ↓

RECOMMENDATION

The Committee recommends Council RECEIVES the Quarterly Risk Register Update.

Background

This report provides an update to the Audit, Risk and Compliance Committee (ARC) on the City of Cockburn (the City) Risk Register, for the period July 2024 to August 2024 (the reporting period).

A previous report was considered by the ARC on 16 July 2024.

Submission

N/A

Report

RMSS

The City's Enterprise Risk Register and Workplace Health and Safety (WHS) events were stored in RMSS, the City's cloud-based online Enterprise Risk Management (ERM) solution, licensed to the City until 30 June 2025.

From Thursday 8 August 2024 onwards, City officers have been unable to access RMSS.

The supplier has been unresponsive since the outage and the City has been unable to make contact with the supplier.

The City is considering the options available under the contract with the supplier.

The City has developed and is refining interim solutions to collate available data, rebuild registers and manage ongoing risk and Work, Health and Safety reporting.

The risk of a cloud-based supplier becoming insolvent whilst trading has not been previously identified by the City.

The situation with RMSS is that City-owned data cannot be retrieved because, despite the City making numerous attempts to contact the supplier, there has been no response.

It is proposed a risk assessment be completed with the City's Procurement Services, Information and Technology Business Unit and Legal and Compliance Service to mitigate recurrence of another similar event.

Strategic Risks and Risks Rated Substantial and Higher

The risk level cited in this report to the ARC is the Residual Risk, which is the risk remaining after management has taken action to alter its severity by implementing risk treatment measures.

The City currently has seven strategic risks and 11 risks rated Substantial and higher.

The City's highest ranked risk is ranked High and is climate change related. The elevated ranking of climate related risks is replicated across Australian local governments, with Disaster, Catastrophic Events and Climate Change and Adaptation ranked in the top 10 risks [JLT Public Sector Risk Report, JLT Risk Solutions Pty Ltd].

Attachment 1 to this report is the current City of Cockburn Enterprise Risk Management - risk assessment matrix and acceptance criteria.

The Risk Assessment Matrix is used for risk analysis and evaluation, comprehending the nature of the risk, and determining the level of risk exposure (likelihood and consequence).

There has been no adjustment to the risk assessment and acceptance criteria since the last report to the ARC.

Attachment 2 to this report is the Strategic Risks - Update as of 04 September 2024. Strategic risks reflect the internal and external forces capable of threatening the City's ability to achieve its strategic objectives or affect its long-term positioning and performance.

This attachment outlines each strategic risk and provides progress and notes on the management of each risk.

There are currently 7 identified strategic risks, all ranked Moderate Risk, and there has been no change in this number the last report to the ARC.

Attachment 3 to this report is the Risks Rated Substantial and Higher - Update as of 04 September 2024.

This attachment outlines each risk rated Substantial and higher and provides progress and notes on the management of each risk.

The City's risk register currently contains 10 risks rated Substantial and higher, including one (1) risk rated High - all are operational risks.

Strategic Plans/Policy Implications

Listening and Leading

A community focused, sustainable, accountable, and progressive organisation.

- Best practice Governance, partnerships and value for money.
- Employer of choice focusing on equity, innovation and technology.

Budget/Financial Implications

N/A

Legal Implications

Local Government (Audit) Regulations 1996 r17 CEO to review certain systems and procedures.

Community Consultation

N/A

Risk Management Implications

Risk management oversight and review is a function of the ARC.

The ARC is required to review the City's Strategic and Operational Risk as part of the City's risk management practices.

The ARCs oversight of the risk register review report supports continuous improvement of risk management processes.

Failure to adopt this report will result in a Substantial risk to the City in its ability to support an integrated and effective approach to risk management and continually improve its risk management processes.Advice to Proponent(s)/Submitters

N/A

Implications of Section 3.18(3) *Local Government Act 1995*

Nil

City of Cockburn Enterprise Risk Management - risk assessment and acceptance criteria

Risk Assessment Matrix																		
Consequence / Severity	Risk Category												Likelihood / Probability					
	Brand Reputation	Compliance	Cyber Security	Environmental Health	Finance	Fraud	Injury	Operations / Delivery Disruptions	Project			Psychosocial safety	Rare 1	Unlikely 2	Possible 3	Likely 4	Almost certain 5	
									Quality	Cost	Time		Theoretically such an event is possible but not expected to occur during an operation / asset life / project.	Possible that such an event may occur once during operation / asset life / project.	Such an event may occur more than twice during an operation / asset life / project.	Such events may occur frequently during an operation / asset life / project.	Such events are expected to occur routinely during an operation / asset life / project.	
Insignificant 1	Low impact. Low profile. No complaint.	Minor breach of policy / process requiring some response with little impact on other criteria.	Scanning or reconnaissance. Negligible effect on organisation.	An insignificant environmental event that can be immediately corrected under the control of the City.	< \$50,000 or < 5% of OP. Little or no impact on asset.	Single opportunistic dishonest activity or asset misappropriation. Internal or external.	Minor first aid.	Little impact. Business as usual. < 5% variation against KPI.	Majority of milestones and objectives being achieved with minor variation to scope and/or quality reported. Minor impact absorbed through project.	< 5% of Project Budget or < \$50,000, whichever is lower.	< 5% of Project Timeline or < 30 days, whichever is lower.	Activation of HR, WHS or Mental Health First Aider process.	Low 1	Low 2	Low 3	Low 4	Moderate 5	
Minor 2	Low impact. Low profile. Low media attention. Possible complaint.	Compliance breach of policy / process requiring additional work or minimal damage control.	Low-level malicious attack, targeted reconnaissance, phishing, non-sensitive data loss. Causes spurious real time systems slowing for organisation.	A minor environmental event that can be corrected through system improvements within the City.	\$50k ≤ < \$250k, or 5% ≤ < 10% of OP. Minor loss or damage.	Theft of confidential or personal information, or intellectual property. Repetitive dishonest activity or asset misappropriation. Internal or external.	Medical treatment. No Lost Time Injury (LTI).	Minor impact. Easily dealt with. Still business as usual. 5 ≤ < 10% variation against KPI.	Minor impact on milestones and objectives being achieved with minor variation to scope and/or quality reported. Disruptive impact on project deliverables expected.	5% ≤ < 10% of Project Budget or \$50k ≤ < \$250k, whichever is lower.	5% ≤ < 10% of Project Timeline or 30 ≤ < 60 days, whichever is lower.	Unplanned absence of < 2 weeks.	Low 2	Low 4	Moderate 6	Moderate 8	Substantial 10	
Major 3	Moderate impact. Moderate media attention. Public complaint.	Compliance breach requiring investigation, mediation or restitution and breach of legislation or regulations.	Malware, beaconing or other active network intrusion; temporary system / service disruption. Loss of confidentiality, integrity, or availability causes limited effect on organisation.	A moderate environmental event that can be remediated but requires multiple stakeholder input.	\$250k ≤ < \$1m or 10% ≤ < 25% of OP. Major damage to asset.	Falsifying financial or procurement records to obtain an improper or financial benefit. Internal or external.	Medical treatment with LTI and / or work restriction > 2 weeks.	Some objectives affected. Can continue business as usual, with minor controls executed. 10 ≤ < 25% variation against KPI.	Major impact on milestones and objectives being achieved with minor variation to scope and/or quality reported. Serious impact on project deliverables expected.	10% ≤ < 25% of Project Budget or \$250k ≤ < \$1m, whichever is lower.	10% ≤ < 25% of Project Timeline or 60 ≤ < 90 days, whichever is lower.	Unplanned absence of > 2 weeks, or Workers' Compensation case.	Low 3	Moderate 6	Moderate 9	Substantial 12	High 15	
Critical 4	Damage to reputation. Public embarrassment. High media attention. Several public complaints. Third party legal action.	Compliance breach involving external investigation or third party actions resulting in tangible loss or reputation damage to the City and breach of legislation or regulations.	Exfiltration or deletion / damage of key sensitive data or intellectual property. Loss of confidentiality, integrity, or availability causes some adverse effect on organisation.	A significant environmental event where rehabilitation involves multiple stakeholders and various levels of the community and government.	\$1m ≤ < \$5m or 25% ≤ < 50% of OP. Significant loss of asset.	Persistent planned or systematic dishonest activity or asset misappropriation. Internal or external.	Partial disablement or severe injury, or reportable to WorkSafe.	Some major objectives cannot be achieved. Business can still deliver, but not to expected level. 25 ≤ < 50% variation against KPI.	Major impact on milestones and objectives being achieved with significant variation to scope and/or quality reported. Critical impact on project deliverables expected.	25% ≤ < 50% of Project Budget or \$1m ≤ < \$5m, whichever is lower.	25% ≤ < 50% of Project Timeline or 90 ≤ < 120 days, whichever is lower.	Extended leave from chronic unmanaged work related issues.	Low 4	Moderate 8	Substantial 12	High 16	Extreme 20	
Catastrophic 5	Irreversible damage to reputation. Very high level of public embarrassment. Very high media attention. Many public complaints.	Compliance breach involving regulatory investigation and / or third party actions resulting in tangible loss or significant reputation damage to the organisation and breach of legislation or regulations.	Sustained disruption of essential systems and associated services. Loss of confidentiality, integrity or availability causes serious adverse effect on organisation.	A severe environmental event requiring multiple stakeholders, all levels of the community and government to remediate.	≥ \$5 million or ≥ 50% of OP. Complete loss of asset.	Irrecoverable losses of significant assets or resources through dishonesty, deception or corrupt use of powers causing significant damage to the financial position of the organisation.	Death or permanent disablement.	Most objectives cannot be achieved. Business cannot operate. ≥ 50% variation against KPI.	Catastrophic impact on milestones resulting in the failure to achieve one or more objectives of the project.	≥ 50% of Project Budget or ≥ \$5 million, whichever is lower.	≥ 50% of Project Timeline or ≥ 120 days, whichever is lower.	Self-harm. Death. Employee resignation leading to loss of experience and expertise to the organisation.	Moderate 5	Substantial 10	High 15	Extreme 20	Extreme 25	

Risk Acceptance Criteria					Existing Control Ratings		
Risk Level	Criteria	Treatment	Responsibility		Rating	Foreseeable	Description
Low	Risk acceptable with adequate controls, managed by routine procedures. Subject to annual monitoring or continuous review throughout project lifecycle.	Management through routine operations/project. Risk Registers to be updated.	Head of Business Unit / Manager of Service Unit / Project Manager		Effective	Doing more than what is reasonable under the circumstances.	1. Existing controls exceed current legislated, regulatory and compliance requirements, and surpass relevant and current standards, codes of practice, guidelines and industry benchmarks expected of this organisation; 2. Subject to continuous monitoring and regular testing; and 3. Any control improvements that can be implemented have minimal impact on operations.
Moderate	Risk acceptable with adequate controls, managed by specific procedures. Subject to semi-annual monitoring or continuous review throughout project lifecycle.	Communication and awareness of increasing risk provided to Head of Business Unit / Manager of Service Unit. Risk Registers to be updated.	Head of Business Unit / Manager of Service Unit / Project Manager			Doing what is reasonable under the circumstances.	1. Existing controls are in accordance with current legislated, regulatory and compliance requirements, and are aligned with relevant and current standards, codes of practice, guidelines and industry benchmarks expected of this organisation; 2. Subject to continuous monitoring and regular testing; and 3. Control improvements may be implemented.
Substantial	Accepted with detailed review and assessment. Action Plan prepared and continuous review.	Assess impact of competing Business Unit / Service Unit Projects. Potential redirect of Business Unit / Service Unit resources. Risk registers to be updated.	Director / Steering Committee		Adequate	Doing what is reasonable under the circumstances.	1. Existing controls do not provide confidence that they meet current legislated, regulatory and compliance requirements, and may not be aligned with relevant and current standards, codes of practice, guidelines and industry benchmarks expected of this organisation; 2. Subject to continuous monitoring and regular testing; and 3. Control improvements may be implemented.
High	Risk acceptable with effective controls, managed by Senior Leadership Team Member. Subject to quarterly monitoring or continuous review throughout project lifecycle.	Escalate to CEO, report prepared for Audit, Risk and Compliance Committee (ARC). Quarterly monitoring and review required. Risk Registers to be updated.	Director / Steering Committee / Project Sponsor			Not doing some or all things reasonable under the circumstances.	1. Existing controls do not provide confidence that they meet current legislated, regulatory and compliance requirements, and may not be aligned with relevant and current standards, codes of practice, guidelines and industry benchmarks expected of this organisation; 2. Controls not operating as intended and have not been reviewed and tested; and 3. Existing controls need to be improved.
Extreme	Risk only acceptable with effective controls and all treatment plans to be explored and implemented where possible, managed by highest level of authority and subject to continuous monitoring.	Escalate to CEO, report prepared for ARC. Monthly monitoring and review required. Risk Registers to be updated.	CEO / Council / Project Sponsor		Inadequate	Not doing some or all things reasonable under the circumstances.	

WHS / Injury / Wellbeing Hierarchy of Control		
Effectiveness	Control methodology	Impact on unwanted event (hazard), and examples
<div>100% Effective</div> <div>↑</div> <div>Increasing Effectiveness</div> <div>≤ 20% Effective</div>	Elimination	Remove the hazard, or unwanted event, completely or discontinue the process or practice. For example, if the electric cable from a stage microphone is a trip hazard, use a wireless microphone instead.
	Substitution	Replace a hazardous or vulnerable system, material, practice or process with one that presents a lower risk. For example, if an outdoors event is conducted during a summer day, use of market umbrellas could be substituted by providing marquees or shade sails.
	Isolation	Use lockable barriers to restrict unauthorised access and separate people from hazard, practice or process. For example, install guards on machines where there is a risk of a person being trapped in a machine.
	Engineering	Change the physical characteristics of the practice or process through engineering redesign. For example, provide ramps if patrons in wheelchairs will be attending an event.
	Administrative	Establish appropriate policies, practices, procedures, guidelines and operating instructions to control exposures to unwanted events. For example, if an event requires serving of alcohol, ensure that bar employees have been trained in 'Responsible Service of Alcohol'. Provide appropriate safety equipment. For example, traffic controllers need to be provided with long sleeves, long trousers, wide brimmed sunhats and high visibility safety vests.
	Personal Protective Equipment	

Table 2: Status of Strategic risks

RMSS Risk ID	Risk name	Risk description	Consequence	Likelihood	Residual risk	Risk owner
1	Business continuity and crisis management	Failure to provide business continuity of the City's core services in the event of a major crisis / emergency.	Major 3	Possible 3	Moderate 9	Chief Executive Officer
Progress and Notes <ol style="list-style-type: none"> 1. The draft document City of Cockburn Business Continuity Response Plan has been updated, and reviewed by the Legal and Compliance Service Unit. 2. The document will be presented to the ELT on 21 August 2024, then the SLT on 29 August 2024, before being presented to the Audit, Risk and Compliance Committee. It is proposed to test this document with a cyber related exercise at end of September 2024. 						
4	Stakeholder relationships	Failure to develop and maintain strategic partnerships and relationships with government agencies and other key stakeholders.	Major 3	Possible 3	Moderate 9	A/Director Corporate and System Services
Progress and Notes <ol style="list-style-type: none"> 1. EMs and Officers participated in locally relevant Advocacy (through WALGA and ALGA AGMs.) 2. External communications and key contacts with Ministers & Local Members ahead of election preparations. 3. Lobbying communications strategies through letters to Ministers and MPs. 4. Joint Initiatives Zone meeting and National Growth Areas Alliance activities. 5. Direct engagement with a range of State and Commonwealth agencies to resolve operations issues swiftly. 						
5	Built and natural environment	Failure to maintain the City's natural environment and resources in a sustainable manner.	Major 3	Possible 3	Moderate 9	Director Planning and Sustainability

RMSS Risk ID	Risk name	Risk description	Consequence	Likelihood	Residual risk	Risk owner
Progress and Notes <ol style="list-style-type: none"> 1. Waterwise Council Action Plan implementation - Ongoing. 2. Vegetation condition mapping and regular fauna surveys - Ongoing. 3. Plant species lists are updated as new information become available about species suitable to a changing climate. 4. Landowner Biodiversity Conservation Grants continues. 5. rebates for residents. 6. Waterwise Verge Grants continues. 						
2	Strategic direction	Lack of clear and aligned strategic vision, direction and implementation.	Critical 4	Unlikely 2	Moderate 8	A/Director Corporate and System Services
Progress and Notes <ol style="list-style-type: none"> 1. Corporate Business Plan - CBP was adopted at SCM on 25 June 2024. 2. Strategic Community Plan - SCP major review has commenced and is integrated with corporate planning process. Community engagement is scheduled for Q3. 3. Strategy consolidation - draft strategic framework has been developed. Engagement with council on the strategic framework will be included in the corporate planning process. 4. FY25 service plans were adopted at SCM on 25 June 2024. service review priorities presented to OPCo in August 2024. 5. integrated process for corporate planning under development 						
3	Project management planning	Failure to consistently plan for capital works projects	Critical 4	Unlikely 2	Moderate 8	A/Director Infrastructure Services
Progress and Notes <ol style="list-style-type: none"> 1. Continued transition towards an Industry standard centralised project delivery model for infrastructure capital projects, with 17 CBP projects being delivered by the Infrastructure Services Directorate. 2. Year two of the Investment, Prioritisation and Optimisation Process (IPO2425) establishing further governance and control, ensuring effective planning is completed prior to Project Delivery hand over. 3. Project Governance Groups for all Major projects (and minor as required) enable an all of organisational approach to ensure effective Infrastructure Planning and Project lifecycle objectives and vision align. 						

RMSS Risk ID	Risk name	Risk description	Consequence	Likelihood	Residual risk	Risk owner
4. The Project Services Business Unit will report the performance for CBP projects and all 24/25 capital programs and projects monthly to the Executive Leadership Group. 5. A Portfolio Gantt Schedule has been developed ensuring projects are appropriately scheduled in line with internal delivery resources and capacity across the financial (delivery) year.						
6	Technology use and change	Failure to identify, manage and capitalise on the effective and efficient use of changing technology.	Critical 4	Unlikely 2	Moderate 8	A/Director Corporate and System Services
Progress and Notes 1. I&T Strategy development planning commenced. 2. Privacy and Responsible Information Sharing (PRIS) project is continuing, legislation anticipated in 2025. 3. Cyber Security Framework now includes Australian Signals Directorate (ASD) Essential Eight controls - maturity level one is currently being developed and scheduled for December 2024 completion. 4. Roll out of staff IT desktop computers and laptops currently underway, to be completed Q2 FY25. 5. Upgrade ERP to TechnologyOne SaaS currently underway, to be completed Q2 FY25.						
7	Financial sustainability	Erosion of Council's financial sustainability.	Critical 4	Unlikely 2	Moderate 8	A/Director Corporate and System Services
Progress and Notes 1. 1. City of Cockburn Long Term Financial Plan: LTFP FY25 - FY34 was adopted at SCM 25 June 2024. The LTFP will be reviewed annually in future. 2. Procurement planning - improved contract management governance (contract variations, Clarifications, delegations) 3. Project management reviews (Strategic Risk 3) 4. Carry forward projects subjected to extra scrutiny						

Attachment 3: Status of risks rated Substantial and higher

RMSS Risk ID	Risk name	Risk description	Consequence	Likelihood	Residual risk	Risk owner
9	Public health decline from climate change [Environmental Health risk]	Reduced public safety, health and wellbeing caused by climate change impacts (changes to rainfall and increased bushfires, temperatures, and extreme weather events).	Catastrophic 5	Possible 3	High 15	Head of Development and Compliance [ELT Member Director Planning and Sustainability]
Progress and Notes <ol style="list-style-type: none"> 1. A climate change health vulnerability assessment and map of vulnerable residents and areas is complete. This knowledge already exists and programs are already aligned to benefit vulnerable areas of the community. 2. Existing warning systems and identified potential gaps and opportunities from improvement is complete. The Australian Warning System is a nationally-consistent three-level scaled system to provide information and action statements to the public on local hazards or expected hazards. https://dfes.wa.gov.au/hazard-information/warning-systems/australian-warning-system . The City of Cockburn maintains a Crisis Communications Plan to support the distribution of information to the community and staff. 3. The City's Public Health Plan is under review to align with the Department of Health advice published on 4 June 2024 updating the direction of the State Public Health Plan with which the City will be required to align. Legally required to be published before 4 June 2026, it is anticipated that the updated plan will be published by the end of 2024. 4. The Bushfire Risk Management Plan has been reviewed and adopted. The City is seeking funding to commence the review of the Emergency Risk Management Plan. Expected to be completed by end of FY26. 						
8	Community infrastructure damage from climate change impacts [Environmental Health risk]	Reduced public safety, health and wellbeing caused by climate change impacts (changes to rainfall and increased bushfires, temperatures and extreme weather events).	Critical 4	Possible 3	Substantial 12	Head of Sustainability and Environment [ELT Member Director Planning and Sustainability]

RMSS Risk ID	Risk name	Risk description	Consequence	Likelihood	Residual risk	Risk owner
Progress and Notes <ol style="list-style-type: none"> 1. All City assets within Bushfire Prone Areas (that don't fall under low hazard exclusions, such as single area smaller than 1ha, low threat vegetation, or non-vegetated areas) had risk assessments conducted as a part of the development of the Bushfire Risk Management Plan 2023-2028 (BRMP). A DFES online bushfire risk management system is used to perform risk assessments. Identified risks are required to be validated, treated and re-assessed during the lifetime of the BRMP. 2. City buildings comply with the BCA as per year of construction. No existing measure for 'more extreme storms'. Potential to engage with the Insurance industry to highlight possible high-risk facilities - e.g. bush fire prone areas, storm, etc. 3. The Bushfire Risk Management Plan has been reviewed and adopted. The City is seeking funding to commence the review of the Emergency Risk Management Plan. Expected to be completed by end of FY26. 						
10	Biodiversity loss from climate change impacts [Compliance risk]	Damage to or loss of biodiversity and natural habitat, caused by climate change impacts (decreased rainfall and increased bushfires, temperatures, and extreme weather events).	Critical 4	Possible 3	Substantial 12	Head of Sustainability and Environment [ELT Member Director Planning and Sustainability]
Progress and Notes <ol style="list-style-type: none"> 1. Waterwise Council Action Plan implementation - Ongoing. 2. Vegetation condition mapping and regular fauna surveys - Ongoing. 3. Plant species lists are updated as new information become available about species suitable to a changing climate. 4. Landowner Biodiversity Conservation Grants continues. 5. Waterwise Verge Grants continues. 						
11	Coastal impacts from sea level rise [Environmental Health risk]	Legal liability and damage to or loss of natural environment, infrastructure, and coastal land, caused by sea level rise.	Major 3	Likely 4	Substantial 12	Head of Sustainability and Environment [ELT Member Director Planning and Sustainability]

RMSS Risk ID	Risk name	Risk description	Consequence	Likelihood	Residual risk	Risk owner
Progress and Notes <ol style="list-style-type: none"> 1. Consultants GHD appointed to develop the CHRMAP. Expected to be completed by mid-2025. 2. Coastal monitoring completed annually. City has received the 2023 coastal monitoring report and O2 Marine appointed to undertake monitoring for the next 3 years. 3. WALGA's paper 'Legal Response to the Local government Coastal hazard Planning Issues Paper' provides guidance. City has 2016 Coastal Adaptation Plan which shows due diligence. CHRMAP to further investigate liabilities. 4. Final CHRMAP will identify locations where individual foreshore management plans will be required. 						
12	Community support [Financial risk]	Failure to obtain community support for strategic planning functions.	Critical 4	Possible 3	Substantial 12	Head of Planning [ELT Member Director Planning and Sustainability]
Progress and Notes <ol style="list-style-type: none"> 1. Outcome of the City's Local Planning Strategy will be communicated with the public once final sign off has been received from the Western Australian Planning Commission (imminent). 2. Phase 1 Engagement for Coogee Beach Land Use Masterplan Project recently completed. Consultation Outcomes Report has been reviewed internally, shared with Elected Members and will be released to the public (as an informing document) as part of the Phase 2 (Draft Masterplan) advertising currently scheduled for late 2024 / early 2025. 3. Community Engagement Plan currently being prepared by Community Engagement Team for Phase 1 of the City's Public Open Space Strategy Review. Consultation will be undertaken in coordination with the Strategic Community Plan and will focus on the verifying the findings of the initial POS Audit, the hierarchy and function of existing reserves, typical facilities and existing gaps in provision. 4. Roe 8 (West) and Roe 9 Planning study webpage will be updated once MRS Amendment is complete (currently in Parliament waiting disallowance - 12th Sitting Day is 22 August 2024) and/or Minister for Planning grants Consent to Advertise associated Local Scheme Amendment #166 in City initiated for alternative form. The City's proposal and request to proceed has been with the State Government since late December 2023. 5. Coordinator of Strategic Planning provided an update on the planning processes associated with the removal of the Roe Highway Primary Regional Road Reservation at Sustainability and Environmental Reference Group held on 28 August 2024. 6. Jandakot/Treeby Urban Expansion Area webpage will be updated once the District Structure Plan is presented to the Western Australian Planning Commission's Statutory Planning Committee for 'consent to advertise' (expected late 2024). The Department for Planning Lands and Heritage are responsible for managing the subsequent advertising process. 						

RMSS Risk ID	Risk name	Risk description	Consequence	Likelihood	Residual risk	Risk owner
7. Glen Iris webpage will be updated (and submitters advised of the outcome) once Final Approval of the Local Structure Plan is received from the Western Australian Planning Commission (imminent).						
152	Tree canopy decline [Operational risk]	Decline in the extent of canopy cover across the City as a consequence of poor maintenance or the impact of pests and diseases.	Critical 4	Possible 3	Substantial 12	Head of Operations and Maintenance [ELT Member Director of Infrastructure Services]
Progress and Notes <ol style="list-style-type: none"> 1. Not planting reproductive host species as part of our ongoing planting program. 2. Since we became aware of (Polyphagous Shot-Hole Borer [PSHB]) infestations occurring in our local government area we have created a data layer in ESRI that identifies susceptible species in our street tree City wide. 3. Presentations made ELT and EMs (25/06/2024) 4. We have engaged Department of Primary Industries and Regional Development (DPIRD) to train our employees in how to identify and report (PSHB) symptoms and signs. 5. We have engaged contractors to conduct proactive aerial inspections of 496 trees on our northern border to identify any possible street tree impact to our susceptible tree species. 6. We are engaging in ongoing DPIRD, LGA and WALGA and CEO working groups to share information. 						
15	Landfill capping [Financial risk]	Failure to fund the capping of existing exposed landfill cells.	Catastrophic 5	Unlikely 2	Substantial 10	Head of Operations and Maintenance [ELT Member Director of Infrastructure Services]
Progress and Notes <ol style="list-style-type: none"> 1. A decision was made to defer Cell 7 Capping to FY26 and there is no further update at this time. 						

RMSS Risk ID	Risk name	Risk description	Consequence	Likelihood	Residual risk	Risk owner
16	Reduced water availability from decreased rainfall [Compliance risk]	Decreased liveability, reduced water availability, loss of urban vegetation and biodiversity caused by climate change impacts (decreased rainfall).	Minor 2	Almost certain 5	Substantial 10	Head of Sustainability and Environment [ELT Member Director Planning and Sustainability]
Progress and Notes <ol style="list-style-type: none"> 5 year plan updated in 2021. Implementation ongoing. The City remains a Gold Waterwise Council. No initiatives implemented this past year. Coogee Surf Club water audit complete in 2024 by HFM consulting. Leaks detected on site visit were reported and fixed. The Surf Club not using unusual amounts of water. Public toilets and showers are high consumers. Implementation of recommendations ongoing. The City continues to receive notifications from Water Corporation regarding Lake Yangebup reaching its control level, and the required transfer of excess water from the Lake to Cockburn Sound. This is in accordance with the approved Environmental Management Plan for the South Jandakot Drainage Scheme. 						
17	Urban forest decline from climate change [Compliance risk]	Urban forest decline caused by climate change impacts (increased temperatures and decreased rainfall).	Minor 2	Almost certain 5	Substantial 10	Head of Sustainability and Environment [ELT Member Director Planning and Sustainability]
Progress and Notes <ol style="list-style-type: none"> UFP is being implemented in a limited capacity. There is no SU responsible for overseeing the plan and no dedicated budgets. Have been advised that tree planting budgets for 2024-25 have been cut, therefore no trees will be planted in parks this year. Only street trees will go ahead. PSHB is being monitored by the City with DPIRD as the leading organisation for management. 						
288	Child safe organisation [Injury risk]	Failure by the City of Cockburn to resource for, and anticipate legislative requirements, to comply with the National Principles for	Catastrophic 5	Unlikely 2	Substantial 10	Head of Library and Cultural Services [ELT Member A/Director Community and

RMSS Risk ID	Risk name	Risk description	Consequence	Likelihood	Residual risk	Risk owner
		Child Safe Organisations				Place]
Progress and Notes 1. City self-assessment complete with rating returned at high level of engagement with children and young people. Next meeting hosted by City of Cockburn on 25 September 2024 with draft policy for circulation to working group.						
289	Workplace psychosocial hazards [Psychosocial Safety risk]	Inability to provide for workers a safe work place free from exposure to bullying and harassment	Catastrophic 5	Unlikely 2	Substantial 10	Head of People, Culture and Safety
Progress and Notes 1. Development of inductions for onboarding of all new starters in relations to Employee Relations, covering the mechanisms for reporting issues and acceptable workplace behaviours. 2. Ongoing review and continuous improvement of elements of the People Experience Management Framework to ensure Employees and People Leaders and appropriately informed and educated on reasonable and respectful workplace behaviours.						

12. Motions of Which Previous Notice Has Been Given

Nil

13. Notices Of Motion Given At The Meeting For Consideration At Next Meeting

14. New Business of an Urgent Nature Introduced by Members or Officers

15. Matters to be Noted for Investigation, Without Debate

Nil

16. Confidential Business

Nil

17. Closure of Meeting