



Quantum
Assurance



Shire of Gnowangerup

**2022 Asset Management System Review
Water Services Licence WL11**

Report

**Economic Regulation Authority
January 2023**



TABLE OF CONTENTS

1. Executive Summary	2
1.1 Background	2
1.2 Summary	2
1.3 Conclusion.....	3
2. Asset Management System Review.....	4
2.1 Description of Infrastructure	4
2.2 Objectives and Scope	4
2.3 Asset Management Process and Performance Rating Scales	4
2.4 Summary of Asset Management System Effectiveness Ratings	6
2.5 Status of Previous Review Recommendations	11
2.6 Detailed Review Observations	18
2.7 Review Recommendations.....	30
Appendix A - Methodology	32
A1. Review Approach	32
A2. Key Documents Reviewed	33
A3. Key Contacts	33
A4. Consultants.....	33

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Limitations of this Report

This report was prepared for distribution to the Economic Regulation Authority and the Shire of Gnowangerup for the purpose of fulfilling the Shire of Gnowangerup's asset management system review under its Water Services Licence. We disclaim any assumption of responsibility for any reliance on this report to any persons or users other than the Economic Regulation Authority and the Shire of Gnowangerup, or for any purpose other than that for which it was prepared.

Because of the inherent limitations of any internal control environment, it is possible that fraud, error or non-compliance may occur and not be detected. An audit/review is not designed to detect all instances of non-compliance with the procedures and controls over the licence obligations of the Water Services Licence, since we do not examine all evidence and every transaction. The review conclusions expressed in this report have been formed on this basis.



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1. Executive Summary

1.1 Background

The Shire of Gnowangerup ('the Shire') has a Water Services Licence, issued by the Economic Regulation Authority ('ERA') under the *Water Services Act 2012* ('Act'), for the provision of non-potable water supply and sewerage services in the Ongerup townsite.

The town of Ongerup is approximately 400 kilometres southeast of Perth. The scheme was constructed in 1967 and comprises rectangular concrete manholes connecting a 2.3 km gravity pipe system and primary and secondary settling ponds. The volume of wastewater treated is approximately 9,000 m³ per annum serving 94 properties and approximately 230 people.

Under the Act, water services licensees are required to provide a report on an asset management system review ('review') once every 24 months, or another period that has been specified by the ERA.

The ERA engaged Quantum Management Consulting and Assurance ('Quantum') to undertake the asset management system review of the Shire's non-potable water supply services and sewerage services, to comply with the licensing requirements of the ERA.

This review covered the period from 1 December 2020 to 30 November 2022. The previous review period was from 1 December 2017 to 30 November 2020.

There were two versions of the Licence in the review period:

- Version 6 (from 1 May 2020 to 18 March 2021) - Changes from the ERA's 2019 Water Licence Review.
- Version 7 (from 19 March 2021 to date) – Licence renewed for 25 years.

The review approach is based on the compliance obligations set out in the Licence, applicable legislation, regulatory guidelines (Water Compliance Reporting Manual 2021 and previous versions 2020 and 2018) and the 2019 Audit and Review Guidelines: Water Licences (updated July 2022).

1.2 Summary

This review has been conducted to assess the effectiveness of the Licensee's asset management system.

The assessment of the 12 asset management components prescribed in the ERA's 2019 Audit and Review Guidelines: Water Licences found that:

- 8 components were rated A1 (documentation adequately defined, performing effectively).
- 1 component was rated A2 (documentation adequately defined, performance requires some improvement).
- 2 components were rated B2 (documentation requires some improvement, performance requires some improvement).
- 1 component was rated B3 (documentation requires some improvement, corrective action required).

The review made one recommendation for the Environmental Analysis component as follows:

- The correspondence with the Department of Health and the Department of Water and Environmental Regulation should be located and referenced in the Asset Management Plan to demonstrate an understanding of obligations with respect to managing public health and environmental impact of any discharge from the wastewater ponds.

Through the performance of the Review Plan and assessment and testing of the control environment, the information system, control procedures and compliance attitude, the review team members have gained reasonable assurance that the Shire has maintained an adequate control environment for ongoing compliance in respect of the asset management system.



There were some opportunities for improvement for the Asset Creation/Acquisition, Environmental Analysis, Asset Operations and Contingency Planning processes.

1.3 Conclusion

For the review period from 1 December 2020 to 30 November 2022, the non-potable water and sewerage services provided under Water Services Licence WL11 are considered to be operated with a professional and effective approach. There have been significant improvements in the asset management system, including the planning, operations and maintenance of the facilities since the previous review.

Overall, the provision of non-potable water supply and sewerage services at Ongerup are assessed as being well established, well maintained and in good working order.

We confirm that the ERA's 2019 Audit and Review Guidelines: Water Licenses have been complied with in the conduct of this review and the preparation of the report, and that the review findings reflect our professional opinion.

Quantum Management Consulting & Assurance



Geoff White
Director

20 February 2023



2. Asset Management System Review

2.1 Description of Infrastructure

The Shire of Gnowangerup ('the Shire') has a Water Services Licence, issued by the Economic Regulation Authority ('ERA') under the *Water Services Act 2012* ('Act'), for the provision of non-potable water supply and sewerage services in the Ongerup townsite.

The town of Ongerup is approximately 400 kilometres southeast of Perth. The scheme was constructed in 1967 and comprises rectangular concrete manholes connecting a 2.3 km gravity pipe system and primary and secondary settling ponds. The volume of wastewater treated is approximately 9,000 m³ per annum serving 94 properties and approximately 230 people.

2.2 Objectives and Scope

The objective of the review was to assess the adequacy and effectiveness of the asset management system for the performance, maintenance and monitoring of the licensee's assets.

The scope of the review included an assessment of the adequacy and effectiveness of the asset management system by evaluating the key processes of:

- Asset planning
- Asset creation/acquisition
- Asset disposal
- Environmental analysis
- Asset operations
- Asset maintenance
- Asset management information system
- Risk management
- Contingency planning
- Financial planning
- Capital expenditure planning
- Review of the asset management system.

An initial risk assessment was performed to enable the review to be focused upon the higher risk areas by determining the audit priority from 1 to 5 of each area, as per the table below. Priority 1 and 2 audit areas require more in-depth testing than priority 4 and 5 audit areas.

Assessment of Review Priority

		Control Risk		
		High (weak controls)	Moderate	Low (strong controls)
Inherent Risk	High	Audit priority 1	Audit priority 2	
	Medium	Audit priority 3	Audit priority 4	
	Low	Audit priority 5		

The highest priority asset components for review were:

Priority 1

- Asset Planning (*High inherent risk and previous review findings*)
- Environmental Analysis (*High inherent risk and previous review findings*)
- Contingency Planning (*High inherent risk and previous review findings*).

Priority 3

- Asset Management Information System (*Moderate inherent risk and previous review findings*)
- Risk Management (*Moderate inherent risk and previous review findings*).



- Review of Asset Management System (*Moderate inherent risk and previous review findings*).

2.3 Asset Management Process and Performance Rating Scales

The adequacy of process policy and definition and the performance of the key processes were assessed using the scales described in the tables below. The overall effectiveness rating for each asset management process is based on a combination of the process and policy adequacy rating and the performance rating.

Asset Management Process and Policy Definition - Adequacy ratings

RATING	DESCRIPTION	CRITERIA
A	Adequately defined	<ul style="list-style-type: none"> • Processes and policies are documented. • Processes and policies adequately document the required performance of the assets. • Processes and policies are subject to regular reviews, and updated where necessary. • The asset management information system(s) are adequate in relation to the assets that are being managed.
B	Requires some improvement	<ul style="list-style-type: none"> • Process and policy documentation require improvement. • Processes and policies do not adequately document the required performance of the assets. • Reviews of processes and policies are not conducted regularly enough. • The asset management information system(s) requires minor improvements (taking into consideration the assets being managed).
C	Requires significant improvement	<ul style="list-style-type: none"> • Process and policies are incomplete or require substantial improvement. • Processes and policies do not document the required performance of the assets. • Processes and policies are considerably out of date. • The asset management information system(s) requires substantial improvement (taking into consideration the assets being managed).
D	Inadequate	<ul style="list-style-type: none"> • Processes and policies are not documented. • The asset management information system(s) is not fit for purpose (taking into consideration the assets being managed).

Asset Management Performance Ratings

RATING	DESCRIPTION	CRITERIA
1	Performing effectively	<ul style="list-style-type: none"> • The performance of the process meets or exceeds the required levels of performance. • Process effectiveness is regularly assessed, and corrective action taken where necessary.
2	Opportunity for improvement	<ul style="list-style-type: none"> • The performance of the process requires some improvement to meet the required level. • Process effectiveness reviews are not performed regularly enough. • Process improvement opportunities are not implemented.
3	Corrective action required	<ul style="list-style-type: none"> • The performance of the process requires significant improvement to meet the required level. • Process effectiveness reviews are performed irregularly, or not at all. • Process improvement opportunities are not implemented.
4	Some action required	<ul style="list-style-type: none"> • Process is not performed, or the performance is so poor that the process is considered to be ineffective.



2.4 Summary of Asset Management System Effectiveness Ratings

The review’s assessment of the asset management system process and policy definitions and their effectiveness, based on the ratings scale in Section 2.3, is shown in the table below.

Section 2.6 provides further details of the current rating results for each process in the asset management system.

Summary of Asset Management Performance Ratings

Process and Policy Definition – Adequacy Rating	Performance Rating for Effectiveness Criteria						
	Rating	1 Performing effectively	2 Opportunity for improvement	3 Corrective action required	4 Some action required	Not Rated (no activity)	Total
	A -Adequately defined	48	1	-	-	5	54
	B – Requires some improvement	-	3	1	-	-	4
	C – Requires significant improvement	-	-	-	-	-	-
	D – Inadequate	-	-	-	-	-	-
Total	48	4	1	-	5	58	

Asset Management System Performance Ratings

ASSET MANAGEMENT SYSTEM COMPONENT & EFFECTIVENESS CRITERIA	Process and Policy rating				Performance rating				
	Adequately defined	Requires some improvement	Requires significant improvement	Inadequate	Performing effectively	Opportunity for improvement	Corrective action required	Serious action required	Not Rated
1. Asset planning	A				1				
1.1 Asset management plan covers the processes in this table.	✓				✓				
1.2 Planning process and objectives reflect the needs of all stakeholders and are integrated with business planning.	✓				✓				
1.3 Service levels are defined in the asset management plan.	✓				✓				
1.4 Non-asset options (e.g. demand management) are considered.	✓				✓				
1.5 Lifecycle costs of owning and operating assets are assessed.	✓				✓				
1.6 Funding options are evaluated.	✓				✓				



ASSET MANAGEMENT SYSTEM COMPONENT & EFFECTIVENESS CRITERIA	Process and Policy rating				Performance rating				
	Adequately defined	Requires some improvement	Requires significant improvement	Inadequate	Performing effectively	Opportunity for improvement	Corrective action required	Serious action required	Not Rated
	A	B	C	D	1	2	3	4	NR
1.7 Costs are justified and cost drivers identified.	✓				✓				
1.8 Likelihood and consequences of asset failure are predicted.	✓				✓				
1.9 Asset management plan are regularly reviewed and updated.	✓				✓				
2. Asset creation/ acquisition		B				2			
2.1 Full project evaluations are undertaken for new assets, including comparative assessment of non-asset solutions.	✓								✓
2.2 Evaluations include all life-cycle costs.	✓								✓
2.3 Projects reflect sound engineering and business decisions.		✓				✓			
2.4 Commissioning tests are documented and completed.	✓								✓
2.5 Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood.		✓				✓			
3. Asset disposal	A				1				
3.1 Under-utilised and under-performing assets are identified as part of a regular systematic review process.	✓				✓				
3.2 The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken.	✓								✓
3.3 Disposal alternatives are evaluated.	✓								✓
3.4 There is a replacement strategy for assets.	✓				✓				
4. Environmental analysis		B					3		
4.1 Opportunities and threats in the asset management system environment are assessed.	✓				✓				
4.2 Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved.	✓				✓				
4.3 Compliance with statutory and regulatory requirements.		✓					✓		
4.4 Achievement of customer service levels.	✓				✓				



ASSET MANAGEMENT SYSTEM COMPONENT & EFFECTIVENESS CRITERIA	Process and Policy rating				Performance rating				
	Adequately defined	Requires some improvement	Requires significant improvement	Inadequate	Performing effectively	Opportunity for improvement	Corrective action required	Serious action required	Not Rated
	A	B	C	D	1	2	3	4	NR
5. Asset operations		B				2			
5.1 Operational policies and procedures are documented and linked to service levels required.	✓				✓				
5.2 Risk management is applied to prioritise operations tasks.	✓				✓				
5.3 Assets are documented in an Asset Register including asset type, location, material, plans of components, and an assessment of assets' physical/structural condition.		✓				✓			
5.4 Accounting data is documented for assets.	✓				✓				
5.5 Operational costs are measured and monitored.	✓				✓				
5.6 Staff resources are adequate and staff receive training commensurate with their responsibilities.	✓				✓				
6. Asset maintenance	A				1				
6.1 Maintenance policies and procedures are documented and linked to service levels required.	✓				✓				
6.2 Regular inspections are undertaken of asset performance and condition.	✓				✓				
6.3 Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule.	✓				✓				
6.4 Failures are analysed and operational/maintenance plans adjusted where necessary.	✓				✓				
6.5 Risk management is applied to prioritise maintenance tasks.	✓				✓				
6.6 Maintenance costs are measured and monitored.	✓				✓				
7. Asset Management Information System	A				1				
7.1 Adequate system documentation for users and IT operators.	✓				✓				
7.2 Input controls include appropriate verification and validation of data entered into the system.	✓				✓				
7.3 Security access controls appear adequate, such as passwords.	✓				✓				
7.4 Physical security access controls appear adequate.	✓				✓				



ASSET MANAGEMENT SYSTEM COMPONENT & EFFECTIVENESS CRITERIA	Process and Policy rating				Performance rating				
	Adequately defined	Requires some improvement	Requires significant improvement	Inadequate	Performing effectively	Opportunity for improvement	Corrective action required	Serious action required	Not Rated
	A	B	C	D	1	2	3	4	NR
7.5 Data backup procedures appear adequate and backups are tested.	✓				✓				
7.6 Computations for licensee performance reporting are accurate.	✓				✓				
7.7 Management reports appear adequate for the licensee to monitor licence obligations.	✓				✓				
7.8 Adequate measures to protect asset management data from unauthorised access or theft by persons outside the organisation.	✓				✓				
8. Risk management	A				1				
8.1 Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system.	✓				✓				
8.2 Risks are documented in a risk register and treatment plans are actioned and monitored.	✓				✓				
8.3 The probability and consequences of asset failure are regularly assessed.	✓				✓				
9. Contingency planning	A					2			
9.1 Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks.	✓					✓			
10. Financial planning	A				1				
10.1 The financial plan states the financial objectives and identifies strategies and actions to achieve those.	✓				✓				
10.2 The financial plan identifies the source of funds for capital expenditure and recurrent costs.	✓				✓				
10.3 The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets).	✓				✓				
10.4 The financial plan provides firm predictions on income for the next five years and reasonable indicative predictions beyond this period.	✓				✓				



ASSET MANAGEMENT SYSTEM COMPONENT & EFFECTIVENESS CRITERIA	Process and Policy rating				Performance rating				
	Adequately defined	Requires some improvement	Requires significant improvement	Inadequate	Performing effectively	Opportunity for improvement	Corrective action required	Serious action required	Not Rated
	A	B	C	D	1	2	3	4	NR
10.5 The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services.	✓				✓				
10.6 Large variances in actual/budget income and expenses are identified and corrective action taken where necessary.	✓				✓				
11. Capital expenditure planning	A				1				
11.1 There is a capital expenditure plan covering works to be undertaken, actions proposed, responsibilities and dates.	✓				✓				
11.2 The capital expenditure plan provides reasons for capital expenditure and timing of expenditure.	✓				✓				
11.3 The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan.	✓				✓				
11.4 There is an adequate process to ensure that the capital expenditure plan is regularly updated and implemented.	✓				✓				
12. Review of asset management system	A				1				
12.1 A review process is in place to ensure that the asset management plan and the asset management system described in it remain current.	✓				✓				
12.2 Independent reviews (e.g., internal audit) are performed of the asset management system.	✓				✓				



2.5 Status of Previous Review Recommendations

The previous review covered the period from 1 December 2017 to 30 November 2020 and was reported in February 2021. Recommendations from the previous review are listed in the following table together with the current status of actions to address the recommendations.

Reference (no./year)	Previously Assessed Process and Policy Deficiency (Rating, Asset management process, Details)	Previous Auditor's Recommendation and <i>Action Taken</i>	Date Resolved	Further action required
A. Resolved before end of previous review				
	Nil			
B. Resolved during current review period				
5/2020	<p>C3</p> <p>Asset Planning</p> <p>The 2013 AMP covers the key requirements but as noted in the previous review, is overly complex for the small scale of the scheme and is outdated. The Assets and Waste Management Coordinator (AWMC) who commenced with the Shire in July 2019 was unable to locate any update of the AMP.</p> <p>The 2013 AMP refers to the outdated <i>Water Services Licencing Act 1995</i>. As noted in the 2017 Review, this should refer to the updated requirements as listed in the <i>Shire of Gnowangerup Water Services Manual – Ongerup Sewerage and Effluent Reuse Scheme – January 2019</i>.</p> <p>The <i>Shire of Gnowangerup's Ongerup Effluent System Long Term Financial Plan 2019/20 to 2039/40</i> (LTFP) has been developed as part of the Shire's strategic long-term planning. This LTFP has the overall objective to fund the operations of the effluent system, including the replacement and renewal of associated infrastructure assets.</p> <p>The updated AMP should be linked with this process.</p>	<p>The Shire should prepare a replacement AMP specifically for the Ongerup sewerage scheme which includes documentation relevant to other recommendations of this Report. This includes:</p> <ul style="list-style-type: none"> Update references to the current legislation (<i>Water Services Act 2012</i>) and the obligations stated in the <i>Shire of Gnowangerup Water Services Manual – Ongerup Sewerage and Effluent Reuse Scheme – January 2019</i>. Linking the AMP to the Shire of Gnowangerup's <i>Ongerup Effluent System Long Term Financial Plan 2019/20 to 2039/40</i>. Further details of the lifecycle costing approach, including the costs and their justification. Review and update of the risk assessment of asset failure. <p>Status: Completed</p> <p><i>The Ongerup Effluent Scheme - Asset Management Plan (Concise) has been developed and includes the expected information and link to the Scheme's Long-Term Financial Plan over a 20 year period.</i></p>	January 2022	No further action required.



Reference (no./year)	Previously Assessed Process and Policy Deficiency (Rating, Asset management process, Details)	Previous Auditor's Recommendation and <i>Action Taken</i>	Date Resolved	Further action required
7/2020	<p>C2</p> <p>Asset Operations</p> <p>A basic checklist is in place for the local operator at Ongerup to perform daily checks. The operator marks the tasks complete every day. This should be supported with a more detailed procedure to be used as a guide to what is being checked, and also provide a resource to anyone temporarily undertaking the duties. On review of the treatment performance, the checklist should also be expanded to capture water sampling requirements and visual assessment noting the state of each pond and the discharge to the environment.</p> <p>The 2013 AMP section 5.2.3 provides a risk assessment for the sewerage scheme. Inspections and maintenance are listed as controls for many of the identified risks. In a number of cases the controls were assessed as having no impact on the level of risk which does not appear to be correct as these should reduce the event likelihood. This is recommended for review. <i>Refer criteria 8.1 below.</i></p> <p>The Shire provided a plan of the sewers and access chambers and advised that an asset register was in development using the Synergy software. An asset register in a spreadsheet was located from the previous review undertaken by Quantum Assurance in 2015. This Asset Register dated December 2014 includes sewers and access chambers and provides asset ID, location, materials, date of construction and replacement value. Asset condition information is not included. Provision is made in the register for the wastewater treatment ponds but no information has been included. Given the simplicity of the scheme the spreadsheet-based asset register would be adequate if updated and the condition assessment added.</p>	<p>a) The daily checklist for the Ongerup system should be supported with a more detailed procedure(s) to be used as a guide to what is being checked, and also provide a training resource for anyone temporarily undertaking the duties.</p> <p>b) The daily checklist should also be expanded to capture water sampling requirements and visual assessment noting the state of each pond, overgrowth and the discharge to the environment.</p> <p>c) There should be some brief documentation to formalise the process of condition assessments and decision making.</p> <p>d) The Asset Register dated December 2014 (Excel) should be updated to include the asset condition information and the wastewater treatment ponds. The financial data should be agreed monthly with the financial asset register in the Synergy system.</p> <p>e) An update of the external resources able to be called upon to assist in responding to any incidents should be incorporated into the AMP / Operating Procedures.</p> <p>Status: Completed</p> <p><i>The Ongerup Effluent Scheme - Asset Management Plan (Concise) includes Appendix C – Maintenance and Action Workbook with the action's workbook, inspection procedure and checklists.</i></p> <p><i>The Asset Register is maintained in the Synergy finance system. The asset condition per the CCTV assessment is recorded in the Asset Management Plan – Appendix C – Asset condition and action plan.</i></p> <p><i>3 staff trained to carry out checks as required. External resources (plumbing and electrical) are available to</i></p>	January 2022	No further action required.



Reference (no./year)	Previously Assessed Process and Policy Deficiency (Rating, Asset management process, Details)	Previous Auditor's Recommendation and <i>Action Taken</i>	Date Resolved	Further action required
	<p>The Asset Register should also be agreed monthly with the financial asset register in the Synergy system.</p> <p>A local Shire officer based in Ongerup has limited duties associated with daily checks of the system according to a checklist. He has trained a backup who undertook the role during a period of leave. The daily checklist should be supported with a more detailed procedure(s) to be used as a guide to what is being checked, and also provide a training resource for anyone temporarily undertaking the duties.</p>	<p><i>support the operations and maintenance of the scheme. The Shire has enough plant and equipment to handle major failure.</i></p>		
8/2020	<p>C2</p> <p>Asset Maintenance</p> <p>A basic checklist is in place for the local operator at Ongerup to perform daily checks. The operator marks the tasks complete every day. This should be supported with a more detailed procedure to be used as a guide to what is being checked, and how specific maintenance tasks are prioritised if beyond the capability of the local operator (e.g., managing the substantial growth in vegetation outside of the WWTP boundary caused by the plant discharge and the pond erosion issues). In addition to the daily checks, CCTV inspections are budgeted for, but the AMP needs to provide direction for the survey activity - how the survey will be assessed and actioned. Performance monitoring of the scheme should include monitoring of the discharged water quality from the ponds and any change in wet weather flows.</p> <p>At a high level, the operational and maintenance costs are budgeted and annual expenditure against budget is reported in the Shire's annual report. A more meaningful assessment of operating and maintenance costs would be made against a more detailed breakdown that could be reviewed on a monthly basis by the Assets and Waste Management Coordinator.</p>	<p>a) In addition to the daily checks, CCTV inspections are budgeted for, but the replacement AMP needs to provide direction for the survey activity - how the survey will be assessed and actioned. Performance monitoring of the scheme should include monitoring of the discharged water quality from the ponds and any change in wet weather flows.</p> <p>b) A monthly list of the above should be prepared to allow the tasks to be ticked off and filed.</p> <p>c) A procedure for assembling and review of maintenance plans beyond the capability of the daily operator tasks should be developed.</p> <p>d) The replacement AMP should include a brief procedure outlining who and how failure events are analysed and learnings put in place (including adjustment of Operational and Maintenance Plans).</p> <p>Status: Completed</p> <p><i>The Ongerup Effluent Scheme - Asset Management Plan (Concise) includes the inspection, maintenance and incident response procedures and checklists.</i></p>	January 2022	No further action required.



Reference (no./year)	Previously Assessed Process and Policy Deficiency (Rating, Asset management process, Details)	Previous Auditor's Recommendation and Action Taken	Date Resolved	Further action required
9/2020	<p>C2</p> <p>Asset Management Information System</p> <p>The Shire's Asset Management system is manually operated and based on the Synergy finance system for financial data and budgeting. There is an Asset Register maintained on Excel that requires updating as noted in criteria 5.3 above. The system has generally adequate system documentation.</p> <p>As a general observation, the inability to locate the 2019 Asset Management Plan indicates that the record-keeping for the sewerage scheme requires improvement. The Shire advised that a records management project is currently in progress to improve the recordkeeping generally.</p>	<p>As planned, the Shire should improve their record-keeping for the sewerage scheme including setting up a separate directory for staff to access on the network. This should include copies of the AMP, operating procedures, correspondence and reports provided to the ERA.</p> <p>Status: Completed</p> <p><i>The Asset and Waste Management Coordinator (AWMC) ensures that all correspondence and reports are filed in accordance with the recommendation and the Shire's recordkeeping policy.</i></p>	February 2021	No further action required.
10/2020	<p>C2</p> <p>Risk Management</p> <p>The Shire has a Risk Management Policy in the Council Manual that was reviewed in 2019.</p> <p>The 2013 AMP section 5.2.3 provides a risk assessment for the sewerage scheme. This requires review and update.</p> <p>Inspections and maintenance are listed as controls for many of the identified risks. In a number of cases the controls were assessed as having no impact on the level of risk which does not appear to be correct as these should reduce the event likelihood. This is recommended for review. The probability and consequences of asset failure also require review and update.</p>	<p>The risk assessment in the 2013 AMP should be reviewed and updated. Inspections and maintenance are listed as controls for many of the identified risks. In a number of cases the controls were assessed as having no impact on the level of risk which does not appear to be correct as these should reduce the event likelihood.</p> <p>Status: Completed</p> <p><i>The Ongerup Effluent Scheme - Asset Management Plan (Concise) includes a revised risk assessment and risk management plan.</i></p>	January 2022	No further action required.
11/2020	<p>C2</p> <p>Contingency Planning</p> <p>The Asset and Waste Management Coordinator provided a copy of the Incident and Emergency Response Plan from</p>	<p>a) The Incident and Emergency Response Plan from the 2013 AMP provides allocation of roles in an emergency, listing of external resources to assist and a general framework for incident</p>	January 2022	No further action required.



Reference (no./year)	Previously Assessed Process and Policy Deficiency (Rating, Asset management process, Details)	Previous Auditor's Recommendation and <i>Action Taken</i>	Date Resolved	Further action required
	the 2013 AMP. This provides allocation of roles in an emergency, provides some listing of external resources to assist and a general framework for incident management, however further development of a more specific contingency plan is required to manage an overflow event.	<p>management. However, further development of a more specific contingency plan is required to manage an overflow event.</p> <p>b) This should also include an annual desktop scenario training session for key participants and that any perceived improvements in the procedures are inserted in the plans as amendments.</p> <p>The availability and location of the Department of Health Wastewater Overflows Procedure should be included in the plan.</p> <p>Status: Completed</p> <p><i>The Ongerup Effluent Scheme - Asset Management Plan (Concise) includes Appendix D – Emergency and Incident Response Plan updated in November 2022. The Plan includes orientation sessions, desktop workshops, functional exercises and full-scale drills.</i></p>		
12/2020	<p>C2</p> <p>Capital Expenditure Planning</p> <p>There is not an adequate process to review and update the capital expenditure plan in the AMP. However, there is a process to review the capital expenditure plan as part of the Long-Term Financial Plan for the Ongerup system and an annual budgeting process of the Shire.</p>	<p>The replacement Asset Management Plan should include:</p> <ul style="list-style-type: none"> • The capital expenditure replacement schedule estimated costs and justification to align with the Long-Term Financial Plan for the Ongerup system. • The approach to future renewal/ refurbishment project evaluations and commissioning tests. • A brief description of the Shire's purchasing policy, together with the procedures for evaluating replacement /maintenance options, their inclusion in budgets and approval of expenditure. <p>Status: Completed</p>	January 2022	No further action required.



Reference (no./year)	Previously Assessed Process and Policy Deficiency (Rating, Asset management process, Details)	Previous Auditor's Recommendation and Action Taken	Date Resolved	Further action required
		<i>The Ongerup Effluent Scheme - Asset Management Plan (Concise) includes the capital expenditure planning approach and long term financial plan for the scheme. It takes into consideration the Shire's asset replacement planning and purchasing policies.</i>		
13/2020	<p>C3 Review of Asset Management System</p> <p>The AMP provided was prepared in 2013 and requires replacement with a simplified AMP more suited to the small scale of the Ongerup effluent system. The replacement AMP should have a review process to review the AMP annually and if any major changes occur in the effluent system.</p>	<p>The replacement AMP should contain a requirement for an overall annual desktop review including an upgrade of on-going plans e.g., the financial and capital expenditure plans. The date of each review and the reviewer's name together with details of any changes made should be noted on a table inside the front cover of the document. If substantial changes are made to the AMP, a new copy should be forwarded to the ERA as required by the licence.</p> <p>Status: Completed</p> <p><i>The Ongerup Effluent Scheme - Asset Management Plan (Concise) includes annual review and update and review during the Shire's annual budget planning process. The latest review and update was in July 2022.</i></p>	January 2022	No further action required.
C. Unresolved in current review period				
6/2020	<p>C3 Environmental Analysis</p> <p>There is no Memorandum of Understanding (MOU) with Department of Health (DoH) for the scheme. The discharge from the wastewater ponds to the environment has a potential for health and safety risks if public access to this area occurs. It is also a potential mosquito breeding area that the Shire has recognised as a potential hot spot. There is likely no need for formal licensing of the WWTP discharge due to the low scheme capacity but the requirements of the</p>	<p>The replacement AMP should include:</p> <ul style="list-style-type: none"> References to the <i>Water Services Act 2012</i>, the current ERA licence, <i>Water Services Regulations 2013</i> and the <i>Water Services Code of Conduct (Customer Service Standards) 2013</i> (now 2018) as listed in the <i>Shire of Gnowangerup Water Services Manual – Ongerup Sewerage and Effluent Reuse Scheme – January 2019</i>. 	January 2022 (partially complete)	The correspondence with the Department of Health and the Department of Water and Environmental Regulation should be located and referenced in the Asset Management Plan to demonstrate an understanding of



Reference (no./year)	Previously Assessed Process and Policy Deficiency (Rating, Asset management process, Details)	Previous Auditor's Recommendation and <i>Action Taken</i>	Date Resolved	Further action required
	<p>Department of Water and Environmental Regulation (DWER) for this discharge were not known by the staff interviewed.</p> <p>The 2013 AMP refers to the outdated <i>Water Services Licencing Act 1995</i>. As noted in the 2017 Review, this should refer to the updated requirements as listed in the <i>Shire of Gnowangerup Water Services Manual – Ongerup Sewerage and Effluent Reuse Scheme – January 2019</i>.</p>	<ul style="list-style-type: none"> • Any requirements of the DoH or the DWER in respect of discharge from the scheme. • A statement to the effect that due to health issues, disposal of assets previously in contact with sewage should be left in the ground or be disposed of to land fill. • The customer service levels for the sewerage assets should be clearly documented. • The latest dates of all reporting obligations should be listed and issued to responsible officers. <p>Status: Partially Completed</p> <p><i>The Ongerup Effluent Scheme - Asset Management Plan (Concise) has been developed and includes the expected information. The reporting obligations are included in the Corporate Compliance Calendar.</i></p> <p><i>With respect to the WWTP discharge, the Shire has included a plan in the AMP showing the discharge occurs to Shire owned land.</i></p> <p><i>The Shire also reported that the Environmental Health Officer (EHO) contacted the Department of Health (DoH) and Department of Water & Environmental Regulation (DWER) about the WWTP discharge requirements. At the time of the audit, the Shire was not able to provide copies of any of the correspondence with DoH or DWER (as the EHO was on leave) but advised on the basis of the contact, they concluded the current discharge was acceptable.</i></p> <p><i>The Shire plans to make improvements to the discharge to address the Mosquito breeding due to surface ponding of the discharge. The proposal is to increase infiltration of the discharge using subsoil drainage to reduce the surface ponding.</i></p>		<p>obligations with respect to managing public health and environmental impact of any discharge from the wastewater ponds.</p> <p>Refer recommendation 1/2022.</p>



2.6 Detailed Review Observations

The review period is two years from 1 December 2020 to 30 November 2022¹.

Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
1	1	ASSET PLANNING		A	1
1.1	1	Asset management plan covers the processes in this table.	The Ongerup Effluent Scheme - Asset Management Plan (Concise) ('AMP') has been developed and includes the expected information and reference to the Scheme's Long-Term Financial Plan over a 20-year period. The AMP was reviewed and updated in July 2022.	A	1
1.2	3	Planning processes and objectives reflect the needs of all stakeholders and are integrated with business planning.	The <i>Shire of Gnowangerup's Ongerup Effluent System Long Term Financial Plan 2019/20 to 2039/40</i> (LTFP) has been developed as part of the Shire's strategic long-term planning. This LTFP has the overall objective to fund the operations of the effluent system, including the replacement and renewal of associated infrastructure assets.	A	1
1.3	4	Service levels are defined in the asset management plan.	Section 3 of the AMP defines the customer service levels and technical service levels to provide an agreed level of service to the community over a 10 year period.	A	1
1.4	4	Non-asset options (e.g., demand management) are considered.	The AMP includes consideration of non-asset options including demand management. From the long-term financial planning, no major changes are expected in the demand for the scheme or its operations. The population of Ongerup is expected to further decline or plateau.	A	1
1.5	4	Lifecycle costs of owning and operating assets are assessed.	Section 5 of the AMP includes a Lifecycle Management Plan. The life cycle costs over a 20 year period have been assessed in the AMP and are supported by the Long-Term Financial Plan.	A	1
1.6	4	Funding options are evaluated.	The AMP (Section 7) includes a Financial Summary with a funding strategy and is supported by the LTFP. The LTFP has the overall objective to fund the	A	1

¹ Note: As per the Audit and Review Guidelines, recommendations are included for criteria rated as process C or D and/or effectiveness of 3 or 4 in the following table. Recommendations for improvements at higher ratings are no longer required to be reported.



Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			operations of the effluent system, including the replacement and renewal of associated infrastructure assets over the next 20 years.		
1.7	4	Costs are justified and cost drivers identified.	The AMP (Section 5) includes the justification of costs and the cost drivers, over the lifecycle of the assets.	A	1
1.8	4	Likelihood and consequences of asset failure are predicted.	The AMP (Section 6) includes a Risk Management Plan with the likelihood and consequences of asset failure.	A	1
1.9	3	Asset management plan is regularly reviewed and updated.	The current AMP was developed in October 2021 and has been reviewed and updated in July 2022. Section 8 includes review and update of the AMP annually in conjunction with the Shire's annual budget planning process.	A	1
2	4	ASSET CREATION/ ACQUISITION		B	2
2.1	4	Full project evaluations are undertaken for new assets, including comparative assessment of non-asset solutions.	Since the previous review in 2020, there have been no new assets. The scheme is not expected to grow and remains in the maintain and operate phase. Future renewal/refurbish projects may need the evaluation of options to demonstrate the best value solution to proceed with. Any replacement of assets would apply the Shire's project evaluation approach.	A	NR
2.2	4	Evaluations include all life-cycle costs.	Not applicable for the period since the last review – no new assets created. The evaluations would include the impact on life-cycle costs as set out in the AMP (Section 5).	A	NR
2.3	4	Projects reflect sound engineering and business decisions.	There have not been any asset creation projects in the review period. With no growth expected the AMP foresees future capital expenditure on asset renewal. Desludging of the ponds occurred prior to the previous Asset Management Review in 2020 and it was previously commented that "this has resulted in improvement to the site, given the overgrown conditions which previously existed, however many of the embankments to the ponds are steep which is resulting in their erosion into the ponds." Ongoing bank erosion especially on the 2 ponds furthest from the road was observed during the Jan 2023 site visit. This will require works to re-excavate	B	2



Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			<p>the ponds and stabilise the banks (using suitable materials and/or by flattening the embankments). This was discussed during the site visit and acknowledged by the Shire, although not yet programmed to be undertaken.</p> <p><i>Improvement suggestion - when next undertaking work on the treatment ponds a review of the arrangement of the ponds should be undertaken to understand the treatment performance required (process modelling) to incorporate this in reforming of ponds. A review of the embankment construction should also occur to minimise erosion and maximise asset life.</i></p>		
2.4	4	Commissioning tests are documented and completed.	Not applicable for the period since the last review – no new assets created. The commissioning process would apply the Shire’s approach to commissioning new assets.	A	NR
2.5	4	Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood.	The ongoing legal/environmental/safety obligations of the Shire are detailed in the AMP (section 3.3 – Legislative Requirements) assigned. The site visit and interviews confirmed the obligations are assigned and understood apart from the obligations re the treatment pond discharge. Refer section 4.3 below.	B	2
3	4	ASSET DISPOSAL		A	1
3.1	4	Under-utilised and under-performing assets are identified as part of a regular systematic review process.	There has been no evidence of any under-performing or under-utilised assets during the review period. Future operations and maintenance budgets make provision for CCTV surveys of sewers. Weekly site visits are completed, including regular checks of access chambers to monitor their condition.	A	1
3.2	4	The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken.	The AMP (Appendix C – Asset Condition and Action Plan) includes the assessment of asset condition and further action to be completed. There has been no opportunity for this in the review period.	A	NR
3.3	4	Disposal alternatives are evaluated.	There have been no asset disposal projects in the review period.	A	NR



Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			The wastewater assets at Ongerup (sewer pipes and access chambers) are not of a type which have residual value and the options for disposal are disposal to land fill or remaining in ground. Health and safety are the prime considerations for asset disposal.		
3.4	4	There is a replacement strategy for assets.	The AMP (Section 1.5 and 1.6) includes the projected outlays for renewal and upgrade of the existing assets over the long term (20 year) planning period. Funding is set aside each year for this future replacement/refurbishment of assets. This is included in the LTFFP.	A	1
4	1	ENVIRONMENTAL ANALYSIS		B	3
4.1	1	Opportunities and threats in the system environment are assessed.	The Ongerup Effluent Scheme - Asset Management Plan (Concise) has been developed and includes the expected information. The Plan includes reference to a Discharge concept plan to improve output dispersion. The reporting obligations are included in the Corporate Compliance Calendar.	A	1
4.2	4	Performance standards (availability of service, capacity, continuity, emergency response, etc.) are measured and achieved.	The AMP (Section 3.4 and 3.5) includes the customer levels of service (quality, function and capacity & use) and technical levels of service (operations, maintenance and renewal) including how they are monitored and achieved. This includes weekly site checks and annual review and update of the results in the AMP. The site visit and discussions confirmed the performance standards are being achieved.	A	1
4.3	3	Compliance with statutory and regulatory requirements.	There is no MOU with Department of Health for the scheme. The Shire advised their Environmental Health Officer had contacted the Department of Health (DoH) and Department of Water & Environmental Regulation (DWER) to determine any requirements for management of the wastewater treatment pond discharge. Based on this enquiry, the Shire advised that the current discharge arrangement is acceptable. A copy of the correspondence with DoH and DWER could not be located at the time of the audit as the EHO was on leave. As this also relates to a partially resolved issues from the previous review, the following action is recommended.	B	3



Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			<p><u>Recommendation 1/2022</u></p> <p><i>The correspondence with the Department of Health and the Department of Water and Environmental Regulation should be located and referenced in the Asset Management Plan to demonstrate an understanding of obligations with respect to managing public health and environmental impact of any discharge from the wastewater ponds.</i></p>		
4.4	4	Achievement of customer service levels.	<p>The AMP discusses the level of service the scheme is to provide, which is generally about the reliability of the effluent disposal system to remove discharge from properties.</p> <p>The review visit to Ongerup with the local operator indicated the sewers are reliably operating and overflow events are rare, providing a good level of service to the community.</p> <p>The AMP (Appendix C - Asset Condition and Action Plan) includes a weekly site checklist and supporting procedure for the local operator to follow. The operator marks the tasks completed each week and this was confirmed in the onsite visit.</p>	A	1
5	4	ASSET OPERATIONS		B	2
5.1	3	Operational policies and procedures are documented and linked to service levels required.	The AMP (Appendix C – Maintenance and Action Workbook) includes a weekly site inspection checklist and supporting procedures for the local operator to follow. The operator marks the tasks completed each week and this was confirmed in the onsite visit.	A	1
5.2	4	Risk management is applied to prioritise operations tasks.	The AMP (Section 6) includes a Risk Management Plan that has been applied to develop the operations and maintenance procedures. The site visit confirmed the weekly checklist and inspections are being completed.	A	1
5.3	4	Assets are documented in an Asset Register including asset type, location, material, plans of	The Asset Register is maintained in the Synergy finance system. A spreadsheet output was provided showing the assets (ponds, sewers and access chambers),	B	2



Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
		components, and an assessment of assets' physical/structural condition and accounting data.	<p>an asset code, asset name and date acquired. The date acquired is appears to be the date entered/recorded (all assets show the date 30/06/2015).</p> <p>The AMP includes a site map with the location of the assets.</p> <p>Asset condition information is recorded in the Maintenance Plan spreadsheet on a separate tab (Appendix C to the AMP). This includes assessment for pipe sections based on a recent CCTV survey. Assessment of the access chambers is not included and there is no assessment of the ponds although the spreadsheet is set up to enter condition assessment of the banks, sludge and connecting pipework. The AMP section 5.1.3 shows a summarised view of asset condition by asset type. The asset condition grading used in 5.1.3 is different to the condition rating used in the spreadsheet – a consistent condition rating should be used.</p> <p>Given the simplicity of the scheme the spreadsheet-based asset register is adequate.</p> <p><i>Improvement suggested - The Asset Register to include the condition assessment information (from the CCTV inspections and any observations identified from the weekly checklist of inspections) together with the date of the assessment, material of construction and pipe size. Any lining/repair or sewer replacement works including date undertaken should also be recorded so future assessment of particularly lining/repair methods can be assessed. It is recognised that the Synergy system is used for all of the Shire's assets (over 1300 line items included) and if this cannot accommodate the above asset information, the AMP will need to manage the information that is additional to Synergy.</i></p> <p><i>During the site visit it was noted that the access chamber number should be displayed on the access chamber for easier identification and so any condition assessment information can be more easily recorded against the asset.</i></p>		
5.4	4	Accounting data is documented for assets.	The Shire's Asset Management system is manually operated and based on the Synergy finance system for financial data and budgeting. The accounting data for the scheme is recorded in the Synergy finance system. There is a financial asset register in the Synergy system.	A	1



Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
5.5	4	Operational costs are measured and monitored.	The operational and maintenance costs are budgeted annually and actual expenditure is reported in the Shire's Annual Report. Monthly actual to budget costs for the scheme are monitored monthly as part of the Finance procedures. Any significant variances are investigated.	A	1
5.6	4	Staff resources are adequate and staff receive training commensurate with their responsibilities.	A local Shire officer based in Ongerup completes a weekly checklist of the system. The checklist is supported by a written procedure. These form part of the AMP and are reviewed annually. Three staff are trained to carry out checks as required. External resources (plumbing) are available to support the operations and maintenance of the scheme. The Shire has enough plant and equipment to handle major failure.	A	1
6	4	ASSET MAINTENANCE		A	1
6.1	4	Maintenance policies and procedures are documented and linked to service levels required.	The AMP (Appendix C) includes a Maintenance and Action Workbook with a weekly inspection checklist for the local operator at Ongerup to perform weekly checks. The operator marks the tasks completed. This is supported with a more detailed procedure to be used as a guide to what is being checked.	A	1
6.2	3	Regular inspections are undertaken of asset performance and condition.	In addition to the weekly checks carried out, CCTV inspections of the sewers are programmed in the maintenance plan to be undertaken bi-annually. Refer item 5.3 for comments about condition assessment information. During the site visit in January 2023, access chamber covers were lifted for inspection at MH11 (one of the last chambers before the ponds) and MH25 and MH24 (at the start of the system). The observations correlated with the CCTV survey identifying a very clear sewer at MH11 but sediment at MH24 and MH25 requiring jetting. It is noted that quotes were being requested to jet the sewer at 5 access chambers as a result of the CCTV survey. The Shire also advised the CCTV survey identified a location where a star picket had pierced the section of sewer leading to the ponds and they were awaiting the area to dry out further before organising repair works. The scheme is a septic tank effluent discharge system which relies on septic tanks for sludge digestion. This requires regular pump out of septic tanks which	A	1



Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
			<p>is generally the homeowners' responsibility. If this is not occurring, this may be contributing to performance of the pond treatment.</p> <p><i>Performance monitoring of the scheme could include monitoring of the discharged water quality from the ponds. Contact with DWER was previously recommended to establish the discharge requirements. Refer item 4.3.</i></p>		
6.3	3	Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule.	<p>Annual maintenance plans were provided in a spreadsheet as part of the AMP Appendix C. These covered 2021/22 and 2022/23. They include weekly and quarterly checks, the bi-annual CCTV survey (2021/22) and the response plans resulting from the survey (in 2022/23).</p> <p>Records of the weekly checks were reviewed at the Ongerup depot confirming these were being undertaken. The CCTV survey was also shared with the reviewer together with the survey findings and planned responses.</p> <p>Since the previous review, the procedure for the weekly checks has been documented improving the purpose of this activity (refer AMP Appendix C).</p> <p>The AMP ((Appendix D) includes an Emergency Response Plan. This provides allocation of roles in an emergency, provides listing of external resources to assist and a general framework for incident management</p>	A	1
6.4	4	Failures are analysed and operational/maintenance plans adjusted where necessary.	There have been no recent failures. The AMP considers critical failures in the risk management approach and identifies the mitigation practices in place.	A	1
6.5	4	Risk management is applied to prioritise maintenance tasks.	The AMP (Section 6) includes a Risk Management Plan that has been applied to develop the operations and maintenance procedures. The site visit confirmed the weekly checklist and inspections are being completed.	A	1
6.6	4	Maintenance costs are measured and monitored.	The operational and maintenance costs are budgeted annually and actual expenditure is reported in the Shire's Annual Report. Monthly actual to budget costs for the scheme are monitored monthly as part of the Finance procedures. Any significant variances are investigated.	A	1



Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
7	3	ASSET MANAGEMENT INFORMATION SYSTEM		A	1
7.1	3	Adequate system documentation for users and IT operators.	The Shire's Asset Management system is manually operated and based on the Synergy finance system for financial data and budgeting. There is an Asset Register maintained on Excel. The system has generally adequate system documentation.	A	1
7.2	4	Input controls include appropriate verification and validation of data entered into the system.	The input controls for the Synergy finance system require appropriate verification and validation of data entered into the system.	A	1
7.3	4	Security access controls appear adequate, such as passwords.	Access to the sewerage system data and the Synergy finance requires approved user access levels and passwords.	A	1
7.4	4	Physical security access controls appear adequate.	The Shire has a contract with an external provider to maintain the Shire's server at an external location.	A	1
7.5	4	Data backup procedures appear adequate and backups are tested.	Data is backed up by the external service provider and tested on a weekly basis.	A	1
7.6	3	Computations for licensee performance reporting are accurate.	The reviewer confirmed by review of the performance data on the ERA's website that the Performance Reports to the ERA for 2020/21 and 2021/22 had been submitted and are accurate.	A	1
7.7	4	Management reports appear adequate for the licensee to monitor licence obligations.	From review of the AMP and supporting reports provided, the reviewer confirmed the management reports appear adequate for the licensee to monitor licence obligations. There is also a detailed Water Services Manual with the licence obligations.	A	1
7.8	4	Adequate measures to protect asset management data from unauthorised access or theft by persons outside the organisation.	The reviewer confirmed there were generally adequate controls in place to protect asset management data from unauthorised access or theft by persons outside the Shire, including fencing of the wastewater treatment plant. Other assets are below surface.	A	1



Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
8	3	RISK MANAGEMENT		A	1
8.1	4	Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system.	The Shire has an overall Risk Management Policy in the Shire's corporate manual. The AMP (Section 6) includes a Risk Management Plan that has been applied to develop the operations and maintenance procedures.	A	1
8.2	3	Risks are documented in a risk register and treatment plans are actioned and monitored.	The AMP (Section 6) includes a Risk Management Plan with the risks documented for the wastewater treatment scheme. The weekly site inspections and maintenance are listed as controls for many of the identified risks.	A	1
8.3	4	The probability and consequences of asset failure are regularly assessed.	The AMP (Section 6) includes a Risk Management Plan with the likelihood and consequences of asset failure. This is reviewed annually as part of the review and update of the AMP.	A	1
9	1	CONTINGENCY PLANNING		A	2
9.1	1	Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks.	The AMP (Appendix D) includes the Emergency and Incident Response Plan and was updated in November 2022. The Plan includes orientation sessions, desktop workshops, functional exercises and full-scale drills. <i>An improvement is to ensure that the planned orientation sessions, desktop workshops, functional exercises and full-scale drills are listed in the Shire's Compliance Calendar and are completed in accordance with the planned cycle to ensure staff are prepared for any incident.</i>	A	2
10	4	FINANCIAL PLANNING		A	1
10.1	4	The financial plan states the financial objectives and strategies and actions to achieve the objectives.	The Shire of Gnowangerup's Ongerup Effluent System Long Term Financial Plan 2019/20 to 2039/40 (LTFP) has been developed as part of the Shire's strategic long term planning. This LTFP has the overall objective to fund the operations of the effluent system, including the replacement and renewal of associated infrastructure assets.	A	1



Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating
10.2	4	The financial plan identifies the source of funds for capital expenditure and recurrent costs.	<p>This LTFP demonstrates the Shire's ability to fund the operations of the effluent system, including the replacement and renewal of associated infrastructure assets from the annual sewerage charges in the rates income and the accumulation of a sewerage replacement reserve to fund the capital replacements over the next 20 years.</p> <p>The LTFP concludes that the Shire will be able to fund all effluent system operational and maintenance costs and set aside monies in the effluent reserve account to fund asset renewals and replacements due over the planning period.</p>	A	1
10.3	4	The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets).	The LTFP includes annual projections of operating statements and the financial position of financial accounts relevant to the effluent system. It will also form the basis for the preparation of the Shire's annual budgets. These projections are reviewed annually as part of the budgeting process and are reported in the Shire's annual audited financial statements.	A	1
10.4	4	The financial plan provides firm predictions on income for the next five years and reasonable indicative predictions beyond this period.	The Long Term Financial Plan covers a 20 year planning period, from 2019-20 to 2039-40. Projections contained in the schedules attached to this Plan reveal that over the next 20 years the Shire will require revenue from sanitary rates to grow at an average of 1.5% per annum over the life of the Plan.	A	1
10.5	4	The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services.	The LTFP includes annual projections of operating statements and the financial position of financial accounts relevant to the effluent system. This includes operations and maintenance, administration and capital replacement expenditure for the effluent system.	A	1
10.6	4	Large variances in actual/budget income and expenses are identified and corrective action taken where necessary.	The LTFP projections are reviewed annually as part of the budgeting process and variances of actual to budget income and expenses are identified, reviewed and reported as part of the monthly financial statements and in the Shire's annual audited financial statements.	A	1



Item no.	Review Priority (1 High to 5 Low)	Component and Effectiveness Criteria (per Audit Guidelines)	Observations and results (including any potential improvements)	Process and Policy Rating	Performance Rating												
11	4	CAPITAL EXPENDITURE PLANNING		A	1												
11.1	4	There is a capital expenditure plan covering works to be undertaken, actions proposed, responsibilities and dates.	The AMP includes the capital expenditure planning approach and long term financial plan for the scheme. It takes into consideration the Shire's asset replacement planning and purchasing policies. The AMP (Section 5.3) includes a Renewal/Replacement Plan for capital expenditure over the next 20 years, based on modelling of renewal and replacement of assets. This is detailed in the LTFP.	A	1												
11.2	4	The capital expenditure plan provides reasons for capital expenditure and timing of expenditure.	The LTFP provides for the following projects over the next 20 years: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Project</th> <th style="text-align: left;">Year</th> <th style="text-align: left;">\$</th> <th style="text-align: left;">Status</th> </tr> </thead> <tbody> <tr> <td>Replace vitreous clay pipes and clean ponds</td> <td>2033</td> <td>\$276,000</td> <td>Not due</td> </tr> <tr> <td>Replace 25 access chambers</td> <td>2035</td> <td>\$100,000</td> <td>Not due</td> </tr> </tbody> </table>	Project	Year	\$	Status	Replace vitreous clay pipes and clean ponds	2033	\$276,000	Not due	Replace 25 access chambers	2035	\$100,000	Not due	A	1
Project	Year	\$	Status														
Replace vitreous clay pipes and clean ponds	2033	\$276,000	Not due														
Replace 25 access chambers	2035	\$100,000	Not due														
11.3	3	The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan.	Refer criteria 11.1 and 11.2 above.	A	1												
11.4	4	There is an adequate process to ensure that the capital expenditure plan is regularly updated and implemented.	There is an adequate process to review and update the capital expenditure plan in the AMP and the LTFP on an annual basis as part of the Shire's annual budget planning process.	A	1												
12	3	REVIEW OF ASSET MANAGEMENT SYSTEM		A	1												
12.1	3	A review process is in place to ensure that the asset management plan and the asset management system described therein remain current.	The current AMP was developed in October 2021 and has been reviewed and updated in July 2022. Section 8 includes review and update of the AMP annually in conjunction with the Shire's annual budget planning process.	A	1												
12.2	4	Independent reviews (e.g., internal audit) are performed of the asset management system.	This review is performed every 3 years or as required by the ERA. This is considered adequate for the small scale of the asset management system.	A	1												



2.7 Review Recommendations

Note: As per the Audit and Review Guidelines, only recommendations with a Policy or Process Rating of C or D and/or Performance Rating of 3 or 4 are included in this report. Other improvement opportunities are provided direct to the Licensee.

Table of Current Review Asset System Deficiencies and Recommendations

A. Resolved during current review period			
Reference (no./year) Compliance rating	Asset System Deficiency (AMS Component/Effectiveness Criteria/Details)	Auditor's Recommendation	Management Action taken by end of review period
	Nil		

B. Unresolved during current review period			
Reference (no./year) Compliance rating	Asset System Deficiency (AMS Component/Effectiveness Criteria/Details)	Auditor's Recommendation	Management Action taken by end of audit period
1/2022 B3	Environmental Analysis <i>Compliance with statutory and regulatory requirements.</i> The previous review noted there is no Memorandum of Understanding (MOU) with the Department of Health (DoH) for the scheme. The discharge from the wastewater ponds to the environment has a potential for health and safety risks if public access to this area occurs. It is also a potential mosquito breeding area that the Shire has recognised as a potential hot spot. There is likely no need for formal licensing of the WWTP discharge due to the low scheme capacity but the requirements of the Department of Water and Environmental Regulation (DWER) for this discharge were not known by the staff interviewed.	The correspondence with the Department of Health and the Department of Water and Environmental Regulation should be located and referenced in the Asset Management Plan to demonstrate an understanding of obligations with respect to managing public health and environmental impact of any discharge from the wastewater ponds.	None



B. Unresolved during current review period			
Reference (no./year) Compliance rating	Asset System Deficiency (AMS Component/Effectiveness Criteria/Details)	Auditor's Recommendation	Management Action taken by end of audit period
	<p>Most of the recommendations made in the previous Asset Management Review against these criteria have been addressed.</p> <p>However, the recommendation to determine any requirements of the DoH or the DWER in respect of discharge from the scheme has not been completely closed out.</p> <p>The Shire indicated DoH and DWER had been contacted and it was determined that the current discharge arrangement is acceptable. However, the Shire's Environmental Health Officer who had made the contact was on leave and the correspondence was unable to be located in their absence.</p> <p>The Shire plans to make improvements to the discharge to address the Mosquito breeding due to surface ponding of the discharge. The proposal is to increase infiltration of the discharge using subsoil drainage to reduce the surface ponding.</p>		



3. Appendix A - Methodology

A1. Review Approach

Our approach to meeting the requirements for the asset management system review is set out below.

Review Planning

- Conduct an initial meeting with the ERA to confirm the review approach and timing for the review, if required.
- Contact the licensee to gain an understanding of the business, relevant management plans and systems that may affect the risk assessment for planning purposes.
- Prepare a risk assessment including any specific factors or changes relevant to the licensee (in tabular form against each asset management system component).
- Submit a draft Review Plan, including the risk assessment and proposed approach, to the ERA for review and approval.
- Send a Pre-Visit Checklist of information and documentation to the licensee to enable staff to prepare for the visit (and where possible, send us information prior to the site visit).

Fieldwork

- Undertake a visit to the licensee and conduct various meetings with stakeholders, including corporate services and works/facilities management personnel, to determine the effectiveness of systems and procedures in place and to compare actual performance against the licence standards. The on-site visit included our Senior Engineer.
- Obtain copies of the latest asset management plans, performance reporting statistics and relevant correspondence between the licensee and the ERA for the audit period.
- The activities in the Asset Management System Review include:
 - analyse the documented procedures and processes for the planning, construction, operation and maintenance of assets to assess whether they are consistent with regulatory requirements under the licence;
 - interview key personnel to assess whether they understand and comply with the documented processes and procedures;
 - physically inspect the key assets and infrastructure; and
 - assess the effectiveness of the processes and system in place.

Review Reporting

- Prior to the conclusion of the visit, the lead auditor will discuss any observations and recommendations with the licensee's management to confirm our understanding of the issues and to discuss the action to be taken.
- Provide a draft report to the ERA for review no later than two weeks before the final report is due and make any revisions necessary.
- Provide the updated draft report to the ERA for review and feedback prior to finalising the report.
- Issue the final report to the ERA.
- The ERA will arrange responses to the proposed actions in the Post Audit Implementation Plan.



A2. Key Documents Reviewed

Regulatory Documents and Reports

- *Water Services Act 2012*
- *Water Services Code of Conduct (Customer Service Standards) 2018*
- *Water Services Regulations 2013*
- 2019 Audit and Review Guidelines: Water Licences
- Water Compliance Reporting Manual – October 2021
- Water Services Operating Licence WL11 Version 6 (from 1 May 2020 to 18 March 2021) and Version 7 (from 19 March 2021 to date)
- Map of Licence Operating Area OWR-OA-090
- 2020 Audit and Review Report – WL11 (February 2021)
- Post Audit and Review Implementation Plan (Response Plan)
- Compliance reports to ERA for 2020/21 and 2021/22
- Performance reports to ERA for 2020/21 and 2021/22
- Water, Sewerage and Irrigation Licence Performance Reporting Handbook (March 2022).

Asset Management System Review

- Ongerup Effluent System - Asset Management Plan (Concise) 2021-2031
- Ongerup Effluent System Emergency Plan
- Shire of Gnowangerup - Effluent System Long Term Financial Plan 2019-20 to 2039-40
- Relevant correspondence between the Licensee and the ERA
- Shire of Gnowangerup Water Services Manual – Ongerup Sewerage and Effluent Reuse Scheme
- Ongerup Site – Depot Staff Weekly Checklist (examples)

A3. Key Contacts

The licensee's representatives participating in the audit were:

- David Nicholson – CEO
- Damon Lukins – Manager of Works
- Geoff Carberry – Asset and Waste Management Coordinator

A4. Consultants

NAME AND POSITION	BUDGET HOURS
Geoff White - Director	15
Geoff Hughes – Principal Planning Engineer	25
TOTAL	40

END OF REPORT