



Shire of Gnowangerup

Water Services Operating Licence
(Non-Potable Water Supply and
Sewerage Services)

Asset Management System Review

Final Report

April 2014

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Executive Summary

The Shire of Gnowangerup has a Water Services Operating Licence, issued by the Economic Regulation Authority (the Authority) under the Water Services Act 2012, for the provision of sewerage and non-potable water supplies in the operating area that is centred on the townsite of Ongerup.

The Ongerup sewerage system was originally constructed in 1967 and consists of 2.3 km of sewerage reticulation, a gravity reticulation system and primary and secondary treatment ponds serving approximately 75 properties and 270 people. The volume of wastewater treated is approximately 8,700m³ per annum.

This Asset Management System Review has been conducted in order to assess the effectiveness of the asset management system. The review covered the period from 1st December 2011 to 30th November 2013.

SUMMARY

Since the previous asset management system review, the Asset Management Plan has been fully revised and now includes a detailed assessment of the condition of the assets, maintenance and contingency strategies and financial analysis of the recurrent and renewal costs of the scheme.

The review confirmed that out of the eight recommendations in the previous audit report, six have been implemented and two have been partially implemented. The partially implemented recommendations relate to embedding the planned maintenance schedules and contingency plan test in the Shire's Compliance Schedule to ensure they are completed on an ongoing basis.

The review of the Asset Management System has shown that the assets are generally in good condition apart from the treatment ponds which need major maintenance to clear overgrowth and restore a levee dividing bank and the security fencing. The Shire has planned to complete this work in 2014/15.

The review recommended that the planned major maintenance on the treatment ponds is completed and the Shire's compliance schedule is updated for the maintenance program and the contingency plan testing.

POST REVIEW IMPLEMENTATION PLAN

The Post-Review Implementation Plan in Appendix A provides a summary of the issue and recommendation from this Asset Management System Review with a management response from the Shire of Gnowangerup.

The Post Review Implementation Plan has been developed by the review team in consultation with the licensee and has been approved by the licensee. The Shire has agreed to implement the recommended action.

LIMITATIONS

Our review has been conducted in accordance with applicable Standards on Assurance Engagements (ASAE) 3000 "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" and 3100 "Compliance Engagements".

Our review procedures have been included in Section 1 of this report and have been undertaken to form a conclusion as to whether the Shire has complied in all material respects, with the requirements of an effective asset management system.

This report was prepared for distribution to the Shire and the Authority for the purpose of fulfilling the Shire's reporting obligations under the Water Services Operating Licence. We disclaim any assumption of responsibility for any reliance on this report to any persons or users other than the Shire and the Authority, 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. A review is not designed to detect all instances of non-compliance with the procedures and controls over the performance and quality standards and licence obligations of the Water Services Operating Licence, since we do not examine all evidence and every transaction. The review conclusions expressed in this report have been formed on this basis.

We confirm that the Authority's Audit Guidelines: Electricity, Gas and Water Licences (August 2010) 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 PERTH, WA
DIRECTOR 2 APRIL 2014

1. Background

The Shire of Gnowangerup has a Water Services Operating Licence, issued by the Economic Regulation Authority (the Authority) under the Water Services Act 2012, for the provision of sewerage and non-potable water supplies in the operating area that is centred on the townsite of Ongerup.

The Ongerup sewerage system was originally constructed in 1967 and consists of 2.3 km of sewerage reticulation, a gravity reticulation system and primary and secondary treatment ponds serving approximately 75 properties and 270 people. The volume of wastewater treated is approximately 8,700m³ per annum.

The Shire of Gnowangerup is required to comply with the terms and conditions of their licence, including applicable legislative provisions and performance reporting as set out in their licence and the Water Compliance Reporting Manual (July 2012).

The Shire of Gnowangerup required an asset management system review to comply with the licensing requirements of the Authority. The previous review period was from 1st December 2008 to 30th November 2011 (report issued June 2012). This review covered the period from 1st December 2011 to 30th November 2013.

Our review approach is based on the obligations set out in the licence (Licence WL11 Version OL2 dated 15 May 2009 and Version 4 dated 18 November 2013), applicable legislation and the Audit Guidelines issued by the Authority in August 2010.

2. Methodology

2.1 Objectives and Scope

The objective of the review was to assess the adequacy and effectiveness of the asset management system in place for operation, maintenance and monitoring of the non-potable water supply and sewerage services.

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.

The review also assessed the status of the previous review recommendations and identified any areas where improvement is required.

2.2 Review Period and Timing

This review covered the period from 1st December 2011 to 30th November 2013.

The previous review period was from 1st December 2008 to 30th November 2011.

2.3 Licensee's Representatives Participating in the Review

- Shelley Pike – Chief Executive Officer
- Garry McGraw - Executive Manager Infrastructure
- Ramon Montis – Team Leader, Works.

2.4 Key Documents Examined

- Shire of Gnowangerup Water Services Operating Licence WL11 Version OL2 dated 15 May 2009 and Version 4 dated 18 November 2013.
- Gnowangerup Operating Area (Sewerage and Non-potable water supply services) Plan No. OWR-OA-090 (Ongerup)
- Audit Report - Shire of Gnowangerup 2011 Water Licence Operational Audit and Asset Management Review dated June 2012
- Asset Management Plan for Shire of Gnowangerup Sewerage Scheme Version 1 – November 2013.
- Incident and Emergency Response Plan.
- Asset Management Improvement Strategy – January 2014 to 2016 (draft)
- Asset Register
- Asset Inspection Report – December 2012.
- Risk Management Plan.
- Performance and Compliance Reports to the Authority for the years' ended 30 June 2012 and 30 June 2013
- Shire of Gnowangerup 2013/14 Budget (and Actuals 2012/13).

2.5 Adequacy and Performance Ratings

The adequacy of processes and policies, 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 requires 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) require minor improvements (taking into consideration the assets that are being managed).
C	Requires significant improvement	<ul style="list-style-type: none"> Process and policy documentation is incomplete or requires significant improvement. Processes and policies do not document the required performance of the assets. Processes and policies are significantly out of date. The asset management information system(s) require significant improvements (taking into consideration the assets that are being managed).
D	Inadequate	<ul style="list-style-type: none"> Processes and policies are not documented. The asset management information system(s) is not for purpose (taking into consideration the assets that are being managed).

Asset Management Process - 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 actioned.
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 actioned.
4	Serious 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.

2.6 Review Team and Hours

The review was completed between 27th February 2014 and 31st March 2014 by Geoff White – Director, Quantum Assurance with assistance from David Wills, David Wills and Associates. The budget was 50 hours.

3. Observations and Results

The effectiveness of the Shire's asset management system was assessed using the asset management system process and policy definitions ratings and the performance ratings (refer section 2.5) as provided by the Authority in the Audit Guidelines.

The review has assessed and rated the key processes as shown in Section 3.1.

Section 3.2 provides details of the current status of recommendations from the previous review.

Section 3.3 provides further details of the systems and the effectiveness rating for each process in the asset management system.

3.1 Summary of Asset Management System Ratings

The review's assessment of the asset management system process and policy definitions and their effectiveness is shown in the table below.

ASSET MANAGEMENT SYSTEM	Process and policy definition rating			Performance rating					
	Inadequate (D)	Requires significant improvement (C)	Requires some improvement (B)	Adequately defined (A)	Serious action required (4)	Corrective action required (3)	Opportunity for improvement (2)	Performing effectively (1)	Not Rated
Key Processes									
1. Asset planning				√				√	
2. Asset creation/ acquisition				√				√	
3. Asset disposal				√			√		
4. Environmental analysis				√				√	
5. Asset operations				√				√	
6. Asset maintenance				√		√			
7. Asset management information system				√				√	
8. Risk management				√				√	
9. Contingency planning				√			√		
10. Financial planning				√				√	
11. Capital expenditure planning				√				√	
12. Review of asset management system				√				√	

3.2 Previous Review Recommendations

The status of the recommendations in the previous asset management system review report issued in June 2012 is summarised below.

Item	Previous Review Finding	Recommended Corrective Actions	Action Update by Licensee	Review Observations	Status
1	<p>Asset Planning – Lifecycle Costs</p> <p>Lifecycle costs of owning and operating assets should be assessed.</p> <p>The AMP states the overall replacement cost of the scheme as \$682,984. However, there is no detailed financial data on the income and expenditure for the next 5 years, and the required transfer to reserves for the future replacement of the assets. There is no indication as to whether the current sewerage reserve of \$76,516 at 30 June 2011 is adequate to cover future replacement costs.</p> <p>There is no detailed costing showing the complete lifecycle costs (capital, operating and maintenance cost) to enable the income and expenditure to be budgeted, and the level of the sewerage reserve to be determined.</p>	<p>Update the Asset Management Plan to show a detailed lifecycle costing of the scheme, the transfer to reserves required to meet future replacement costs; and the annual income and operating and maintenance costs for the next 5 years.)</p>	<p>As per the recommendation, will update the Asset Management Plan. This will coincide with Council's Integrated Planning and Forward Capital Works Program.</p>	<p>The Asset Management Plan was revised in May 2013. It includes an assessment of the lifecycles of the assets and a costing of the maintenance, operations and capital renewal costs.</p>	COMPLETED
2	<p>Asset Planning</p> <p>The Asset Management Plan has not been reviewed or updated since it was issued in October 2010.</p> <p>Various parts of the Plan have not been completed, such as the risk assessment, financial plan and capital expenditure plan. Although the Ongerup scheme is a</p>	<p>a) Revise the AMP and implement a procedure to review/update the Plan on an annual basis or if major changes occur, and full revision and re-issue every 5 years.</p> <p>b) Complete the risk assessment in the AMP.</p>	<p>As per the recommendation, will revise and implement a procedure.</p>	<p>The revised AMP includes a section on Review, with an annual review of performance and any significant changes, full review every three years and independent audit reviews as required by the</p>	COMPLETED

Item	Previous Review Finding	Recommended Corrective Actions	Action Update by Licensee	Review Observations	Status
	<p>small and relatively simple scheme to operate, the licence requires at least a basic Asset Management Plan to be developed and maintained.</p>	<p>c) Complete the Financial Plan in the AMP.</p> <p>d) Complete the Capital Expenditure Plan in the AMP.</p> <p>e) Modify the "Document Status" table to include a brief description of changes to the document from the previous version.</p>		<p>Authority.</p>	
3	<p>Asset Disposal and Maintenance</p> <p>Under-utilised and under-performing assets should be identified as part of a regular systematic review process.</p> <p>This is a small system with only the essential assets to enable it to function. No disposals are anticipated.</p> <p>The AMP requires an annual inspection of assets to be undertaken in February each year and the condition recorded in the Asset Condition and Performance Spreadsheet. There is no available documentation of any inspections since the plan was developed in October 2010.</p>	<p>Implement the procedure for annual review in February of the condition of all assets for the scheme and record this information in the Asset Register for the scheme.</p>	<p>As per the recommendation, will implement the procedure to review the condition of all assets</p>	<p>The revised AMP includes ad hoc/reactive inspections, and a programmed/condition inspection annually. A full inspection of the assets was completed in October 2013.</p> <p>The annual programmed/condition inspection per the AMP needs to be implemented into the Shire's planned work programme and the condition updated in the Asset Register.</p> <p><i>(Post Review Implementation Plan 2.1)</i></p>	<p>PARTIALLY COMPLETED</p>

Item	Previous Review Finding	Recommended Corrective Actions	Action Update by Licensee	Review Observations	Status
4	<p>Environmental Analysis</p> <p>Opportunities and threats for the system are not documented in the AMP.</p>	<p>Update the AMP to include a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis for the assets and operation of the scheme, including meeting the service and performance standards per the operating licence from the Authority.</p>	<p>As per the recommendation, will update the AMP.</p>	<p>The revised AMP includes a SWOT analysis of the scheme.</p>	<p>COMPLETED</p>
5	<p>Risk Management</p> <p>Risk management policies and procedures should exist and be applied to minimise internal and external risks associated with the asset management system.</p> <p>The Risk Management Methodology is outlined in the AMP. The Risk Assessment spreadsheet does not appear to have been completed.</p>	<p>Complete a risk assessment following the risk management methodology in the AMP and document the risks, risk assessments and any treatment plans in the Risk Assessment spreadsheet (for asset failure and potential events relating to non-compliance with the operating licence).</p>	<p>As per the recommendation, will complete a risk assessment.</p>	<p>The revised AMP includes a detailed risk assessment methodology that has been applied to identify and evaluate asset failure and other risks to the continued operation of the scheme. The risks are documented in a risk register in the AMP.</p>	<p>COMPLETED</p>
6	<p>Contingency Planning</p> <p>Contingency plans should be documented, understood and tested to confirm their operability and to cover higher risks.</p> <p>Key staff have an understanding of unwritten procedures, such as the calling of a plumber in the case of a pipe blockage. The contingency planning section of the AMP has not been completed.</p>	<p>a) Following the risk assessment, a set of contingency plans and emergency procedures should be developed by the Shire to cover situations identified in the risk assessment as being a major or significant risk.</p> <p>The contingency plans</p>	<p>Will complete a set of contingency plans and review annually thereafter.</p>	<p>The revised AMP includes a detailed Incident and Emergency Response Plan. Mitigation strategies for asset failures are also included in the risk register in the AMP.</p> <p>The Shire plans to conduct an annual</p>	<p>PARTIALLY COMPLETED</p>

Item	Previous Review Finding	Recommended Corrective Actions	Action Update by Licensee	Review Observations	Status
		<p>should include:</p> <ul style="list-style-type: none"> ○ Detailed procedures; ○ Key local contact details – name, number and location; ○ Communication protocols; ○ Specifications, location and availability of emergency equipment; and ○ Authorities that need to be contacted and when. <p>b) The contingency plans should be reviewed/tested on an annual basis such as a meeting of participants to confirm the plans are still current.</p>		<p>review and test of the plan which may comprise a tabletop exercise, functional exercises or a full scale drill. The annual review and testing of the Incident and Emergency Response Plan (in the AMP) needs to be included in the Shire's Compliance Schedule.</p> <p><i>(Post Review Implementation Plan 2.3)</i></p>	
7	<p>Financial Planning</p> <p>The financial plan should provide projections of operating statements (profit and loss) and statement of financial position (balance sheets).</p> <p>The AMP states the overall replacement cost of the scheme as \$682,984.</p>	<p>As per recommendation 1 above, update the Asset Management Plan to show a detailed lifecycle costing of the scheme, the transfer to reserves required to meet future replacement costs; and the annual income and operating and maintenance</p>	<p>As per the recommendation, will update the Asset Management Plan. This will coincide with Council's Integrated Planning and</p>	<p>The revised AMP includes an assessment of the lifecycles of the assets and a costing of the maintenance, operations and capital renewal costs.</p>	COMPLETED

Item	Previous Review Finding	Recommended Corrective Actions	Action Update by Licensee	Review Observations	Status
	<p>However, there is no detailed financial data on the income and expenditure for the next 5 years, and the required transfer to reserves for the future replacement of the assets. There is no indication as to whether the current sewerage reserve of \$76,516 at 30 June 2011 is adequate to cover future replacement costs.</p> <p>There is no detailed costing showing the complete lifecycle costs (capital, operating and maintenance cost) to enable the income and expenditure to be budgeted, and the level of the sewerage reserve to be determined.</p>	costs for the next 5 years.).	Forward Capital Works Program.		
8	<p>Capital Expenditure Planning</p> <p>The capital expenditure plan should show the capital expenditure and timing consistent with the replacement of assets over their lifecycle.</p> <p>The AMP states the overall replacement cost of the scheme as \$682,984. However, there is no detailed financial data on the income and expenditure for the next 5 years, and the required transfer to reserves for the future replacement of the assets. There is no indication as to whether the current sewerage reserve of \$76,516 at 30 June 2011 is adequate to cover future replacement costs.</p> <p>There is no detailed costing showing the complete lifecycle costs (capital, operating and maintenance cost) to enable the</p>	As per recommendation 1 above, update the AMP to show a detailed lifecycle costing of the scheme, the transfer to reserves required to meet future replacement costs; and the annual income and operating and maintenance costs for the next 5 years.).	As per the recommendation, will update the AMP. This will coincide with Council's Integrated Planning and Forward Capital Works Program.	<p>The revised AMP includes an assessment of the lifecycles of the assets and the renewal or replacement costs for the next 20 years.</p> <p>The capital expenditure budget requires an estimated \$13,159 per annum to be set aside in a reserve for the future replacement of assets at the end of their economic life.</p>	COMPLETED

Item	Previous Review Finding	Recommended Corrective Actions	Action Update by Licensee	Review Observations	Status
	income and expenditure to be budgeted, and the level of the sewerage reserve to be determined.				

3.3 Review Results and Recommendations

Item no.	Criteria (refer criteria in Audit Guidelines)	Observations and results (including any potential improvements)			
		Process Rating ¹	A	Performance Rating ²	1
1	ASSET PLANNING				
1.1	Planning process and objectives reflect the needs of all stakeholders and is integrated with business planning.	<p>The Shire of Gnowangerup Asset Management Plan (AMP) issued in November 2013 was sighted. The Plan was first adopted in May 2013. The service commitment stated in the AMP is:</p> <p><i>“The Shire of Gnowangerup will provide its services in a manner which is fair, courteous and timely with a focus on consultation with our customers respecting your rights and meeting your reasonable expectations.”</i></p> <p>The Plan aligns with the Asset Management Plan format set out in the Institute of Public Works Engineering Australia’s (IPWEA) International Infrastructure Management Manual (IIMM).</p>			
1.2	Service levels are defined.	<p>The Levels of Service requirements for customers are detailed in the Customer Service Charter.</p> <p>Additionally, the levels of service and performance parameters have been defined in the AMP. Performance is measured in performance reports to the Authority.</p>			
1.3	Non-asset options (e.g. demand management) are considered.	<p>The assets are considered appropriate for the current levels of demand. The population of Ongerup is predicted to either continue to decline at a rate of 1% to 3% per year or plateau at 2011 levels.</p>			
1.4	Lifecycle costs of owning and operating assets are assessed.	<p>The AMP states the current replacement cost of the scheme as \$911,680. The lifecycle costs of owning and operating the assets have been assessed in the Plan.</p>			
1.5	Funding options are evaluated.	<p>The Shire maintains a Sewerage Reserve. The funds in the reserve can only be used for the purposes of replacing and upgrading of capital facilities for the Ongerup Sewerage Scheme.</p>			

¹ Process ratings: A=adequately defined, B=requires some improvement, C=requires significant improvement, D=inadequate.

² Performance ratings: 1=performing effectively, 2=opportunity for improvement, 3=corrective action required, 4=serious action required

Item no.	Criteria (refer criteria in Audit Guidelines)	Observations and results (including any potential improvements)			
1.6	Costs are justified and cost drivers identified.	The operating costs and renewal costs have been justified in the AMP. The cost drivers are the condition of the assets and the maintenance regime which will impact the life of the assets.			
1.7	Likelihood and consequences of asset failure are predicted.	The AMP includes a detailed risk assessment with the likelihood and consequences of each risk.			
1.8	Plans are regularly reviewed and updated.	The AMP was fully revised in May 2013. The AMP includes annual review and update and a major review every three years.			
2	ASSET CREATION/ACQUISITION	Process Rating	A	Performance Rating	1
2.1	Full project evaluations are undertaken for new assets, including comparative assessment of non-asset solutions.	No new assets are planned for the scheme, only ongoing repairs and maintenance, and replacements of existing infrastructure as required.			
2.2	Evaluations include all life-cycle costs.	The Asset Management Plan was fully revised in May 2013. It includes an assessment of the lifecycles of the assets and a costing of the maintenance, operations and capital renewal costs.			
2.3	Projects reflect sound engineering and business decisions.	Projects are undertaken using the Shire's normal project planning and management processes.			
2.4	Commissioning tests are documented and completed.	No new assets acquired or planned.			
2.5	Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood.	Section 2.3 of the AMP outlines the legislative, environmental and safety requirements. These are monitored by the Executive Manager Infrastructure.			
3	ASSET DISPOSAL	Process Rating	A	Performance Rating	2
3.1	Under-utilised and under-performing assets are identified as part of a regular systematic review process.	<p>This is a small system with only the essential assets to enable it to function. No disposals are anticipated.</p> <p>The revised AMP includes ad hoc/reactive inspections, and a programmed/condition inspection annually. A full inspection of the assets was completed in October 2013. A CCTV inspection is also planned for 2014/15.</p> <p>The annual programmed/condition inspection per the AMP needs to be implemented into the Shire's planned work programme and the condition updated in the Asset Register.</p> <p>Recommendation:</p>			

Item no.	Criteria (refer criteria in Audit Guidelines)	Observations and results (including any potential improvements)			
		<ul style="list-style-type: none"> The Shire should implement the annual programmed and condition assessment of assets in the Shire's planned work schedule and update the Asset Register with the condition assessment at each inspection. <p><i>(Post Review Implementation Plan item 2.1)</i></p>			
3.2	The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken.	A full inspection of assets was completed in 2013. This examined the performance of assets and was used to develop a replacement and renewal strategy. This will continue in the annual condition assessment. Refer recommendation in 3.1 above.			
3.3	Disposal alternatives are evaluated.	This is a small system with only the essential assets to enable it to function. No disposals are anticipated.			
3.4	There is a replacement strategy for assets.	The revised AMP includes a detailed replacement and renewal strategy.			
4	ENVIRONMENTAL ANALYSIS	Process Rating	A	Performance Rating	1
4.1	Opportunities and threats in the system environment are assessed.	Opportunities and threats are documented in the SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis for the assets and operation of the scheme, including meeting the service and performance standards per the operating licence from the Authority.			
4.2	Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved.	Annual Compliance Report sighted for 2012/13. Performance standards are being met.			
4.3	Compliance with statutory and regulatory requirements.	<p>The Asset Management Plan identifies the following regulatory requirements:</p> <ul style="list-style-type: none"> Water Services Licensing Act 1995 Water Services Act 2012 Local Government Act 1995 Environmental Protection Act 1986 Occupational Safety and Health Act 1984 Occupational Safety and Health Regulations 1996. <p>The AMP also requires compliance with the Operating Licence for Sewerage Services under the Water Services Licencing Act 1995, revised in May 2009.</p> <p>Compliance is monitored by the Executive Manager Infrastructure.</p>			

Item no.	Criteria (refer criteria in Audit Guidelines)	Observations and results (including any potential improvements)			
4.4	Achievement of customer service levels.	The levels of service and performance parameters are defined in the AMP. They include availability, capacity, continuity, odour control, and emergency response. Performance standards are being met. There were no customer complaints noted during the audit period.			
5	ASSET OPERATIONS	Process Rating	A	Performance Rating	1
5.1	Operational policies and procedures are documented and linked to service levels required.	The Asset Management Plan includes an overview of the operations of the system. As this is a simple gravity fed effluent disposal system, there are no special practices that require documentation.			
5.2	Risk management is applied to prioritise operations tasks.	As this is a simple gravity fed effluent disposal system, there are no special practices that require risk assessment or documentation.			
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 and accounting data.	The current Asset Register includes details on: <ul style="list-style-type: none"> ▪ Asset Number; ▪ Description; ▪ Dimensions/ type; ▪ Construction materials/ model; ▪ Construction date; and ▪ Replacement Value for access chambers and pipes. It does not include the condition assessment. Refer recommendation in Section 3.1. The assets' location is documented on maps.			
5.4	Operational costs are measured and monitored.	All asset expenditure is captured in the Shire's Financial Management Information System (FMIS). The historical capital, operating and maintenance costs of the assets are in the FMIS.			
5.5	Staff receive training commensurate with their responsibilities.	The wastewater scheme is a simple system, which requires a basic level of asset management to maintain it in an effective condition. The AMP outlines the current human resources required to support the plan as follows: <ul style="list-style-type: none"> ▪ CEO ▪ Works Manager/Supervisor ▪ Depot Administrative Officer. Shire staff undertake health and safety training. There are no other specific training requirements for the scheme.			
6	ASSET MAINTENANCE	Process Rating	A	Performance Rating	3

Item no.	Criteria (refer criteria in Audit Guidelines)	Observations and results (including any potential improvements)
6.1	Maintenance policies and procedures are documented and linked to service levels required.	<p>The wastewater scheme is a simple system, which requires a basic level of asset management to maintain it in an effective condition. The assets are mostly in good condition or major maintenance has been planned.</p> <p>The revised AMP includes a detailed programmed maintenance schedule for individual assets. Some assets such as the treatment ponds require major maintenance and this has been budgeted for in the Shire's budget for 2014/15.</p>
6.2	Regular inspections are undertaken of asset performance and condition.	<p>A full inspection of the assets was completed in October 2013. A CCTV inspection is planned for 2014/15. Future inspections are planned to be completed at least annually.</p> <p>From physical inspection of the treatment ponds during the audit, it was noted that the ponds require desludging to remove the build-up of nutrients. The ponds do not appear to be progressively cleaning the water due to the build-up. Also, the levy bank between treatment ponds 3 and 4 has been breached which whilst not impacting the continued operation of the scheme it will affect the progressive cleaning of the incoming water once the ponds are cleaned. There is also overgrown vegetation around the ponds that is reducing the capacity of the ponds.</p> <p>Also, from physical inspection of the treatment ponds, it was noted that entry can easily be obtained to the ponds due to the low height of the fencing (basically farm height fencing) and the wire being damaged in some sections.</p> <p>There is a risk of unauthorised or accidental entry to the treatment ponds and water that could be harmful to people or stock.</p> <p>The Shire has budgeted \$50,000 to complete major maintenance of the treatment ponds in 2014/15.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> • As planned, the Shire should complete the planned major maintenance to clean and refurbish the treatment ponds. The system used to convey the flows between the ponds can be reviewed when it is cleaned. The breach wall should be rebuilt and a "tee" collection pipe rebuilt between the ponds 3 and 4. There may be a need to ensure there are better baffles between the ponds to help prevent the sludge flowing through. • The treatment ponds should have adequate security fencing around the perimeter to prevent unauthorised or accidental entry to the ponds. <p><i>(Post Review Implementation Plan item 2.2)</i></p>
6.3	Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule.	<p>The Asset Management Plan includes detailed maintenance plans – emergency, reactive and programmed maintenance. As noted in section 3.1, the planned maintenance needs to be implemented in the Shire's work programme. <i>(Post Review Implementation Plan item 2.1)</i></p> <p>Repairs are instigated by a telephone call-out system to the Shire Work's Manager, who attends the site, assesses the requirements and arranges the immediate and follow-up actions and activities.</p>

Item no.	Criteria (refer criteria in Audit Guidelines)	Observations and results (including any potential improvements)			
6.4	Failures are analysed and operational/maintenance plans adjusted where necessary.	The risk of asset failures has been analysed in the revised AMP. Any asset failures are also considered in the Shire's annual budget preparation.			
6.5	Risk management is applied to prioritise maintenance tasks.	The revised AMP includes a risk assessment of the failure of the assets and analysis of the required level of maintenance to renew the assets, or the life before replacement is due.			
6.6	Maintenance costs are measured and monitored.	The AMP has analysed the current maintenance cost and formulated new estimates based on the 'best practice' for maintenance. Maintenance costs are tracked through the FMIS and actual/budget reporting each month.			
7	ASSET MANAGEMENT INFORMATION SYSTEM	Process Rating	A	Performance Rating	1
7.1	Adequate system documentation for users and IT operators.	There is no AMIS apart from the Asset Register. This is considered adequate for the simple nature of the scheme.			
7.2	Input controls include appropriate verification and validation of data entered into the system.	Data entry to the Asset Register is checked by the staff member inputting data.			
7.3	Logical security access controls appear adequate, such as passwords.	The Asset Register and other data relating to the system is saved on the Shire's server. There is a password access to the Shire's system and the Executive Manager Infrastructure's PC which restricts access to authorised Shire officers.			
7.4	Physical security access controls appear adequate.	The Shire offices are locked and alarmed outside of hours.			
7.5	Data backup procedures appear adequate.	The system is regularly backed up as part of the standard IT maintenance procedures on daily basis. The back up copy goes offsite for safekeeping.			
7.6	Key computations related to licensee performance reporting are materially accurate.	There are simple computations in the Asset Register. Audit review confirms the calculations are materially accurate.			
7.7	Management reports appear adequate for the licensee to monitor licence obligations.	There is no ability to create management reports. Reporting to the Authority on performance is based on the Excel spreadsheets supplied by the Authority and manual records kept.			
8	RISK MANAGEMENT	Process Rating	A	Performance Rating	1
8.1	Risk management policies and procedures exist and are being applied to minimise internal and	The revised AMP includes a detailed risk assessment methodology that has been applied to identify and evaluate asset failure and other risks to the continued operation of the scheme. The risks are documented in a risk register in			

Item no.	Criteria (refer criteria in Audit Guidelines)	Observations and results (including any potential improvements)			
	external risks associated with the asset management system.	the AMP.			
8.2	Risks are documented in a risk register and treatment plans are actioned and monitored.	The revised AMP includes a detailed risk assessment methodology that has been applied to identify and evaluate asset failure and other risks to the continued operation of the scheme. The risks are documented in a risk register in the AMP.			
8.3	The probability and consequences of asset failure are regularly assessed.	.The probability and consequences of asset failure are included in the risk register in the AMP.			
9	CONTINGENCY PLANNING	Process Rating	A	Performance Rating	2
9.1	Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks.	<p>The revised AMP includes a detailed Incident and Emergency Response Plan. Mitigation strategies for asset failures are also included in the risk register in the AMP.</p> <p>The Shire plans to conduct an annual review and test of the plan which may comprise a tabletop exercise, functional exercises or a full scale drill. The annual review and testing of the Incident and Emergency Response Plan (in the AMP) needs to be included in the Shire's Compliance Schedule.</p> <p>Recommendation:</p> <ul style="list-style-type: none"> The Shire's Compliance Schedule should include the planned annual review and testing of the Incident and Emergency Response Plan in the AMP. <p><i>(Post Review Implementation Plan 2.3)</i></p>			
10	FINANCIAL PLANNING	Process Rating	A	Performance Rating	1
10.1	The financial plan states the financial objectives and strategies and actions to achieve the objectives.	The revised AMP states the financial objectives as being the ongoing operation of the scheme and the replacement of assets at the end of their economic life, including renewal to extend the asset life for some assets.			
10.2	The financial plan identifies the source of funds for capital expenditure and recurrent costs.	<p>The Shire maintains a Sewerage Reserve. The funds in the reserve can only be used for the purposes of replacing and upgrading of capital facilities for the Gnowangerup Sewerage Scheme.</p> <p>The reserve had a balance of \$86,968 at 30 June 2013 and is budgeted to be increased by \$12,500 in 2013/14. The AMP financial analysis estimates that a capital renewal allowance of \$13,159 per annum over the next 20 years which is similar to the amount budgeted in 2013/14.</p> <p>The recurrent operations and maintenance costs estimated in the AMP are \$6,710 per annum compared with the specified area rates for the scheme of \$4,050. The shortfall is covered by general operating revenue of the Shire.</p>			

Item no.	Criteria (refer criteria in Audit Guidelines)	Observations and results (including any potential improvements)			
10.3	The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets).	The Annual Budget document is completed for each coming financial year for the Shire which includes the Sewerage System. Actual/budget income and expenditure is monitored. Sighted the Shire of Gnowangerup Annual Budget 2013/14.			
10.4	The financial plan provides firm predictions on income for the next five years and reasonable indicative predictions beyond this period.	The revised AMP includes an assessment of the lifecycles of the assets and a costing of the maintenance, operations and capital renewal costs. The forecast costs for the next 20 years are noted in the AMP.			
10.5	The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services.	The revised AMP includes an assessment of the lifecycles of the assets and a costing of the maintenance, operations and capital renewal costs. The forecast costs for the next 20 years are noted in the AMP.			
10.6	Significant variances in actual/budget income and expenses are identified and corrective action taken where necessary.	Variations in actual and budget income and expenses are identified in monthly reports to the Council and corrective action is taken where necessary.			
11	CAPITAL EXPENDITURE PLANNING	Process Rating	A	Performance Rating	1
11.1	There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates.	The capital replacement strategy is included in the AMP but not the underlying capital expenditure data. Refer section 11.2.			
11.2	The plan provides reasons for capital expenditure and timing of expenditure.	The revised AMP includes an assessment of the lifecycles of the assets and the renewal or replacement costs for the next 20 years. The capital expenditure budget requires an estimated \$13,159 per annum to be set aside in a reserve for the future replacement of assets at the end of their economic life.			
11.3	The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan.	The AMP financial analysis estimates that a capital renewal allowance of \$13,159 per annum over the next 20 years which is similar to the amount budgeted in 2013/14. The Ongerup Effluent Reserve had a balance of \$86,968 at 30 June 2013 and is budgeted to be increased by \$12,500 in 2013/14.			
11.4	There is an adequate process to ensure that the capital expenditure	The capital replacement strategy is included in the AMP including the underlying capital expenditure data. The AMP will be reviewed on an annual basis as per the Review section in the AMP.			

Item no.	Criteria (refer criteria in Audit Guidelines)	Observations and results (including any potential improvements)			
	plan is regularly updated and actioned.				
12	REVIEW OF ASSET MANAGEMENT SYSTEM	Process Rating	A	Performance Rating	1
12.1	A review process is in place to ensure that the asset management plan and the asset management system described therein are kept current.	The revised AMP includes a section on review with an annual review of performance and any significant changes, full review every three years and independent audit reviews as required by the Authority..			
12.2	Independent reviews (e.g. internal audit) are performed of the asset management system.	An independent review is performed every 3 years as required by the licence.			

3.4 Conclusion

Since the previous asset management system review, the Asset Management Plan has been fully revised and now includes a detailed assessment of the condition of the assets, maintenance and contingency strategies and financial analysis of the recurrent and renewal costs of the scheme.

The review confirmed that out of the eight recommendations in the previous audit report, six have been implemented and two have been partially implemented. The partially implemented recommendations relate to embedding the planned maintenance schedules and contingency plan test in the Shire's Compliance Schedule to ensure they are completed on an ongoing basis.

The review of the Asset Management System has shown that the assets are generally in good condition apart from the treatment ponds which need major maintenance to clear overgrowth and restore a levee dividing bank and the security fencing. The Shire has planned to complete this work in 2014/15.

The review recommended that the planned major maintenance on the treatment ponds is completed and the Shire's compliance schedule is updated for the maintenance program and the contingency plan testing.

The Post Review Implementation Plan in Appendix A provides a summary of the issue and recommendation from the asset management system review with a response from the Shire of Gnowangerup.

Appendix A: Post Review Implementation Plan

No.	Issue	Priority (High Medium Low)	Recommendation	Licensee's Response	Responsibility & Completion Date
2.1	<p>Asset Disposal and Maintenance</p> <p>Under-utilised and under-performing assets should be identified as part of a regular systematic review process.</p> <p>The revised AMP includes ad hoc/reactive inspections, and a programmed/condition inspection annually. A full inspection of the assets was completed in October 2013.</p> <p>The annual programmed/condition inspection per the AMP needs to be implemented into the Shire's planned work programme and the condition updated in the Asset Register.</p>	Medium	The Shire should implement the annual programmed and condition assessment of assets in the Shire's planned work schedule and update the Asset Register with the condition assessment at each inspection.	Agreed, planned and will action in accordance with schedule.	Garry McGraw Next Inspection, Conditions Inspection and Asset Register Update Due October 2014
2.2	<p>Asset Maintenance – Treatment Ponds</p> <p>Regular inspections should be undertaken of asset performance and condition.</p> <p>Future inspections are planned to be completed at least annually.</p> <p>A full inspection of the assets was completed in October 2013. A CCTV inspection is planned for 2014/15. Future inspections are planned to be completed at least annually.</p> <p>From physical inspection of the treatment ponds during the audit, it was noted that the ponds require desludging to remove the build-up of nutrients. The ponds do not appear to be progressively cleaning the water due to the build-up. Also, the levy bank between treatment ponds 3 and 4 has been breached which whilst not</p>	High	As planned, the Shire should complete the planned major maintenance to clean and refurbish the treatment ponds. The system used to convey the flows between the ponds can be reviewed when it is cleaned. The breach wall should be rebuilt and a "tee" collection pipe rebuilt between the ponds 3 and 4. There may be a need to ensure there are better baffles between the ponds to help prevent the sludge flowing through. The treatment ponds should have adequate security fencing around the perimeter to prevent unauthorised or accidental entry to the ponds.	Agreed, planned and will action in accordance with schedule.	Garry McGraw Work scheduled for completion by December 2014

No.	Issue	Priority (High Medium Low)	Recommendation	Licensee's Response	Responsibility & Completion Date
	<p>impacting the continued operation of the scheme it will affect the progressive cleaning of the incoming water once the ponds are cleaned. There is also overgrown vegetation around the ponds that is reducing the capacity of the ponds.</p> <p>The Shire has budgeted \$50,000 to complete major maintenance of the treatment ponds in 2014/15.</p>				
2.3	<p>Contingency Planning</p> <p>Contingency plans should be documented, understood and tested to confirm their operability and to cover higher risks.</p> <p>The revised AMP includes a detailed Incident and Emergency Response Plan. Mitigation strategies for asset failures are also included in the risk register in the AMP.</p> <p>The Shire plans to conduct an annual review and test of the plan which may comprise a tabletop exercise, functional exercises or a full scale drill. The annual review and testing of the Incident and Emergency Response Plan (in the AMP) needs to be included in the Shire's Compliance Schedule.</p>	Medium	The Shire's Compliance Schedule should include the planned annual review and testing of the Incident and Emergency Response Plan in the AMP.	Agreed, planned and will action in accordance with schedule.	<p>Garry McGraw</p> <p>Next testing of incident and Emergency Response Plan planned for August 2014</p> <p>Annual review of the Emergency Response Plan due October 2014</p>

END OF REPORT