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Shire of Wickepin

Water Operating Licence Audit and Asset Management Review

Final Report

August 2009



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Executive Summary

This Operating Licence audit and Asset Management System review was carried out on the water services (sewerage scheme) for the Shire of Wickepin (the Shire) for the period between 1st December 2005 and 30th November 2008 in accordance with the approved Audit Plan and the Economic Regulation Authority Audit Guidelines. This report provides an assessment of the Shire's level of compliance with the conditions of the licence for Non-Potable Water Supply and Sewerage Services.

Wickepin is a small town located approximately 248 kilometres south east of Perth. The town has a population of approximately 250 and 120 Residential Dwellings. The Water Services include the operation, maintenance and management of:

- » Approximately 5.0kms of sewer collection system for the Town of Wickepin including a pump station and pressure main;
- » Wastewater Treatment Plant (WWTP) which collects and treats approximately 25.6ML per annum of the residential and commercial wastewater. Treated wastewater is disinfected and reticulated to the sports oval.

The last audit was completed by SMEC in January 2006 for the period 1 December 2002 to 30 November 2005 where the auditor identified issues and made recommendations on the Shire's compliance with the conditions of its licence. The previous audit was reviewed and some improvement has occurred since the previous audit and review. A summary of the status of the previous audits issues and recommendations are shown in Tables 3 and 4 in Section 2 of this report.

A GHD audit team carried out the audit/review including a field visit and a review of documentation, systems and operations.

The wastewater infrastructure are generally in good condition, operated effectively, are well maintained, performs to an acceptable level and generally performed within the operational requirements.

Operational improvements are being progressively implemented at the main pump station and WWTP over the period. Documentation of the "As Constructed" status of the systems has been captured.

Operations and maintenance manuals are not available for any of the infrastructure. A summary of the operational audit issues and recommendations are shown in Table (i).



Table (i) Operating Licence Requirements - Summary of Current Issues and Recommendations

Licence Condition	Non-Compliance Issue	Recommended Action	Action Plan
<p>Asset management system - Clause 6</p> <p>(a) The Licensee is to:</p> <p>(i) provide for an asset management system in respect of the Licensee's Water Service Assets;</p>	<p>Some components of the required processes are in place and contained in the Asset Management Plan.</p>	<p>Shire to revise the AMP and develop an AMS containing all the processes.</p>	<p>Shire to develop an AMS containing all the processes. By 31 December 2010.</p>
<p>(b) The asset management system is to set out the measures to be taken by the Licensee for the proper maintenance of Assets used in the provision of Water Services and for the undertaking, maintenance and operation of Water Services works.</p>	<p>The general requirements for maintaining the system are documented in the Asset Management Plan (March 2004).</p>	<p>Shire to revise and expand the AMP and document the AMS processes and procedures.</p>	<p>Shire to revise and expand the AMP and document the AMS processes and procedures. By 31 December 2010.</p>
<p>(c) The Licensee is to undertake, maintain and operate its Water Services Works in accordance with the processes set out in the asset management system.</p>	<p>Routine and planned maintenance tasks are performed, without documenting anything.</p>	<p>Shire needs to document operations, repairs and maintenance activities.</p>	<p>Shire needs to document operations, repairs and maintenance activities. By 31 December 2010.</p>
<p>Performance of functions by the Licensee - Clause 15.</p> <p>(a) The Licensee shall comply with the quality and performance standards set out in Schedule 2.</p>	<p>In order, but no records kept to demonstrate compliance.</p>	<p>Shire to keep record of quality and performance.</p>	<p>Shire to implement quality and performance recording system by 31 December 2010.</p>
<p>(c) The Licensee shall implement an emergency telephone system so a Customer can report an emergency and receive advice within one hour of the action to be taken by the Licensee. An emergency is an event, which causes, or threatens to cause, harm to people, the environment or property.</p>	<p>Emergency and after hours phone services are established and published in local phone book, and Customer Charter, but an emergency response policy and procedures have not been prepared.</p>	<p>The Shire to develop, document and implement a policy in order to adhere to the one hour rule.</p>	<p>The Shire to develop, document and implement a policy in order to adhere to the one hour rule. By 31 December 2010.</p>



Licence Condition	Non-Compliance Issue	Recommended Action	Action Plan
<p>(g) The Licensee must make the Customer Service Charter available to its Customers in the following ways:</p> <p>(iii) by advising Customers of the availability of the Customer Service Charter on an annual basis.</p>	Customers not notified of the Customer Service Charter on an annual basis.	Shire to notify customer annually of the CSC.	Shire to notify customers annually of the CSC. Immediately.
<p>Dispute resolution Clause 20.</p> <p>(i) record details of each Customer Complaint and its outcome;</p>	Complaints are entered in a Log Book, but the outcome is not documented.	Shire to create a system for recording the outcome and resolution of complaints.	Shire to create a system to record the outcome of complaints. By 31 December 2010.
<p>(iii) make such arrangements as are necessary to ensure that if possible Complaints can be resolved in the timeframes set out in subclause (a).</p>	The complaint resolution policy and processes have not been documented.	Shire to document complaint resolution policies and procedures.	Shire to document complaint resolution policies and procedures. By 31 December 2010.



The Asset Management System is reasonably basic and understood by the staff and generally suitable for the scheme, however its Asset Management Plan is reasonably comprehensive and includes most of the sections and information required by the Licence.

The Shire does not have an Asset Management Software System and past activities are not recorded in a central repository. The time spent on maintenance and operations of infrastructure components are captured on schedules.

Information, such as, the Levels of Service, asset performance, asset descriptions and condition have been documented and the level of equipment detail for most assets is adequate to good. . A summary of the Asset Management System review issues and recommendations are shown in Table (ii).



Table (ii) Asset Management System Requirements - Summary of Current Issues and Recommendations

Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
Asset planning	Planning process and objectives reflect the needs of all stakeholders and is integrated with business planning	Asset planning not addressed in the AMP. Informally performed.	Create and interment planning process that reflects the needs of the licence stakeholders. Include planning process in AMP.	Shire's Environmental Health Officer to implement by 2010
	Non-asset options (e.g. demand management) are considered	Non-Asset options like demand management not addressed in the AMP.	Identify non-asset options to manage demand and include in AMP.	Shire's Environmental Health Officer to implement by 2010
	Lifecycle costs of owning and operating assets are assessed	Life-cycle costing not in AMP.	Identify and document asset objectives and lifecycle costs for all assets and include in AMP.	Shire's Environmental Health Officer to implement by 2010
	Funding options are evaluated	Grants and income addressed in AMP.	Critically analyse funding options and identify any more advantageous sources and include in AMP.	Shire's Environmental Health Officer to implement by 2010
	Costs are justified and cost drivers identified	Costs to be analysed and addressed in AMP.	Critically analyse costs, identify drivers and include in AMP.	Shire's Environmental Health Officer to implement by 2010
	Likelihood and consequences of asset failure are predicted	Not addressed in the AMP.	Identify and document likelihood and consequences of asset failure in AMP.	Shire's Environmental Health Officer to implement by 2010



Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
	Plans are regularly reviewed and updated	The AMP was reviewed in 2006, but now contained out of date information which needs to be updated and expanded by the Shire.	Update and expand the AMP and review on an annual basis.	Shire's Environmental Health Officer annually.
Asset creation/ acquisition	Evaluations include all life-cycle costs	An evaluation of lifecycle costs is not currently considered. Shire to perform an analysis of the life-cycle costs of the infrastructure components.	Identify and document asset objectives and lifecycle costs for all assets and include in AMP.	Shire's Environmental Health Officer to implement by 2010
	Commissioning tests are documented and complete	Has not been required for projects. Tests results have not been documented for replacement assets. The AMP does not contain details of the commissioning strategy or requirement.	Document commissioning tests for all replacement assets and systems. Develop a commissioning strategy and include in the revised AMP.	Shire's Environmental Health Officer to implement by 2010
	Ongoing legal/environmental/ safety obligations of the asset owner are assigned and understood	Part of Shire's requirements, policies and strategies; however not adequately covered in the AMP.	Document the legal, environmental and safety obligations in the AMP.	Shire's Environmental Health Officer to implement by 2010



Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
Asset disposal	Under-utilised and under-performing assets are identified as part of a regular systematic review process	Informally performed, not documented. As observed during maintenance or repeated repairs.	Create and implement a process for identifying capacity of assets and recording past performance. Include in AMP.	Shire's Environmental Health Officer to implement by 2010
	The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	Informally performed, as and when required – very few assets, not documented.	Create and implement a review process for when under or poor performing assets are identified and include in AMP.	Shire's Environmental Health Officer to implement by 2010
	Disposal alternatives are evaluated	Normally old pumps taken by supplier, not documented.	Include the process of evaluating disposal alternatives in the AMP	Shire's Environmental Health Officer to implement by 2010
	There is a replacement strategy for assets	Shire replace as and when required. Shire to develop and stipulate its strategy, with special reference to mechanical and electrical equipment.	Create and implement replacement strategy for assets and include in AMP.	Shire's Environmental Health Officer to implement by 2010
Environmental analysis	Opportunities and threats in the system environment are assessed	Not addressed in AMP	Identify, document and apply SWOT analysis to opportunities and threats. Include in AMP.	Shire's Environmental Health Officer to implement by 2010



Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
	Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved	Are contained in the AMP, but not monitored or measured.	Identify and document performance requirements for all assets including availability of service and capacity. Include in AMP.	Shire's Environmental Health Officer to implement by 2010
Asset operations	Operational policies and procedures are documented and linked to service levels required	Operating Rules prescribed in AMP. Policies and procedures to be developed and linked.	Create, document and implement operational policies and procedures and link to service levels required. Include in AMP.	Shire's Environmental Health Officer to implement by 2010
	Risk management is applied to prioritise operations tasks	Informally performed, but needs to be documented.	Risk management to be documented in AMP.	Shire's Environmental Health Officer to implement by 2010
Asset maintenance	Maintenance policies and procedures are documented and linked to service levels required	No such policies or procedures – Required to be developed.	Create and document policies linked to maintenance procedures and service levels for assets.	Shire's Environmental Health Officer to implement by 2010
	Failures are analysed and operational/maintenance plans adjusted where necessary	Informally analysed. Perform required corrective work.	Create, document and regularly review a maintenance plan for assets including emergency, corrective and preventative measures.	Shire's Environmental Health Officer to implement by 2010
	Risk management is applied to prioritise maintenance tasks	Informally performed by staff, but not used documented.	Assess risk management of maintenance tasks and include in the AMP.	Shire's Environmental Health Officer to implement by 2010



Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
	Maintenance costs are measured and monitored	Budget vs Actual are recorded in the AMP at a summary level. Regular review/monitoring against the budget is not completed on a regular basis.	Update the maintenance costs information in the AMP.	Shire's Environmental Health Officer to implement by 2010
Asset Management Information System	Adequate system documentation for users and IT operators	No AMIS in place. Maintenance and work reports information is available. Not documentation on system operation.	Purchase / Develop Asset Management software and roll over all asset data to one system.	Shire's Environmental Health Officer to implement by 2010
	Input controls include appropriate verification and validation of data entered into the system	No AMIS in place	Create data verification procedure for updating asset data in Asset Management software.	Shire's Environmental Health Officer to implement by 2010
	Logical security access controls appear adequate, such as passwords	No AMIS in place	Ensure Asset Management Information System can only be accessed by authorised persons.	Shire's Environmental Health Officer to implement by 2010
	Physical security access controls appear adequate	No AMIS in place	Ensure adequate physical security access controls such as swipe cards are implemented.	Shire's Environmental Health Officer to implement by 2010



Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
	Data backup procedures appear adequate	No AMIS in place	Create and implement backup procedure for asset data.	Shire's Environmental Health Officer to implement by 2010
	Key computations related to licensee performance reporting are materially accurate	No AMIS in place	Create and implement procedures for producing regular reports to monitor assets and link to licence obligations.	Shire's Environmental Health Officer to implement by 2010
	Management reports appear adequate for the licensee to monitor licence obligations	Only annual Schedule 3 reporting.	Create and implement procedures for producing regular reports to monitor assets and link to licence obligations.	Shire's Environmental Health Officer to implement by 2010
Risk management	Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system	Risk evaluated - No specific policies or procedures regarding the sewerage system.	Create risk management procedures and policies to be included in AMP. Ensure policy includes risk reviewing procedure.	Shire's Environmental Health Officer to implement by 2010
	Risks are documented in a risk register and treatment plans are actioned and monitored	Risks are documented in the AMP or a Risk Register	Action current risks identified in AMP and create procedure for monitoring.	Shire's Environmental Health Officer to implement by 2010
	The probability and consequences of asset failure are regularly assessed	Completed informally by staff, but not documented.	Create and document risk register including the treatment and consequences of asset failure. Include in AMP.	Shire's Environmental Health Officer to implement by 2010



Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
Contingency Planning	Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks	No Contingency Plans available.	Create and document Contingency Plans for sewer system and include in AMP.	Shire's Environmental Health Officer to implement by 2010
Financial Planning	The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	Some information in AMP, but needs to be expanded and updated.	Expand financial plan to include all requirements of assets and include in AMP.	Shire's Environmental Health Officer to implement by 2010
	Significant variances in actual/budget income and expenses are identified and corrective action taken where necessary	Informally done by staff, but not documented in AMP.	Create and implement procedure for regularly reviewing the budget and take corrective action where necessary.	Shire's Environmental Health Officer to implement by 2010



Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
Review of AMS	A review process is in place to ensure that the asset management plan and the asset management system described therein are kept current	AMP was updated in 2006 and forms part of the AMS. Some components in the AMP are also processes of the AMS. Shire to develop all other processes of an AMS, update the AMP annually and implement a review process/procedure to ensure the AMP and AMS are kept current.	Create asset management review procedure to ensure system is reviewed regularly.	Shire's Environmental Health Officer to implement by 2010
	Independent reviews (eg internal audit) are performed of the asset management system	This is the first review of the AMS, as previous audits recorded that and AMS was not in place. Shire should develop and implement all processes of an AMS and provide for an independent review of the system, once in place.	Shire to develop and implement all processes of an AMS. Shire to provide for an independent review of the system, once in place.	Shire's Environmental Health Officer to implement by 2010



The outcome of the inspection of the water services documentation and interviews with the Shire staff was that the sewerage system is operated effectively, within the current standards and code requirements and present minimal risks to the customers and residents. While, the level of documentation and management systems is very basic, these are generally adequate for the number and complexity of the water services assets.

The Shire has no growth and planned refurbishment/replacement of assets has not been required. Some improvements of the pipeline network are planned to address tree root intrusions.

Overall the Shire's operation of the Water Services Licence is compliant with major or material requirements of the Licence. Recommendations are provided in this audit report to improve the strength of internal controls to maintain compliance. The primary deficiencies with the operation of the Water Services Licence are in the area of asset management plan, recording asset data, availability of the customer service charter and the lack of a dispute resolution procedure.

The primary deficiencies with the Shire's asset management system are in the areas of asset planning risk management, contingency planning, procedures for asset operations and maintenance and the measurement of asset performance.

The AMP requires updating and expansion to be in line with Licence requirements. The Shire also requires a basic AMIS to be implemented to keep track of activities and demonstrate that procedures are followed. The details of the non-compliances are shown in tables in sections 5.1 and 5.2 of the report.



1. Introduction

This Operating Licence audit and Asset Management System review was carried out on the water services (sewerage) for the Shire of Wickepin (the Shire) for the period between 1st December 2005 and 30th November 2008 in accordance with the approved Audit Plan and the Audit Guidelines of the Economic Regulation Authority. The purpose of this audit was to assess the Shire's level of compliance with the conditions of its licence for Non-Potable Water Supply and Sewerage Services.

Wickepin is a small town located approximately 248 kilometres south east of Perth. The town has a population of approximately 250 and 120 Residential Dwellings. The Water Services Include:

- » The operation, maintenance and expansion of approximately 5.0kms of sewer collection system for the Shire of Wickepin including a pump station and pressure main;
- » Wastewater Treatment Plant (WWTP) which collects and treats approximately 25.6ML per annum of the residential and commercial wastewater. Treated wastewater is disinfected and reticulated to the sports oval.

The scope of services and licence compliance requirements are detailed in the Shire's Operating Licence, Licence Registration Number IL/27, Licence Version 4 dated 15 November 2004. This audit and review has been prepared in accordance with "The Economic Regulation Authority, Audit Guidelines: Electricity, Gas and Water Licences September 2006.

1.1 Scope

The Audit covers the period 1 December 2005 to 30 November 2008. As it is impractical to review all relevant documents and data for this period, a sample of documents and services/events were examined in order to establish a thorough appreciation of the performance, and assess compliance.

The methodology, order and content of the audit was:

- » Review of previous audit documentation and results;
- » Review of Licence Documentation, Asset Management systems, plans etc;
- » Interview with relevant personnel; and
- » Preparation of draft and final report.

1.2 Documents Reviewed

The following documents, which relate to the water services operations and asset management, were reviewed during the audit.

- » Previous audit documentation and results – January 2006 - SMEC
- » Operating Licence - IL/27, Licence Version 4 dated 15 November 2004
- » Customer Services Charter – July 2008
- » Asset Management Plan – 2006
- » Relevant correspondence between the Shire and the ERA
- » Reports (Schedules 3 forms)



1.3 Risk Assessment

An Operational Risk Assessment was completed for the audit plan, which identified audit priorities as detailed in Appendix A. They were:

- » Asset Management System
- » Specified information to be provided
- » Customer Service Charter

An Asset Management System Risk Assessment completed for the audit plan identified review priorities as detailed in Appendix B. They were:

- » Asset Management Information System
- » Risk Management
- » Contingency Planning
- » Capital Expenditure Planning
- » Review of AMS

The risk assessment scoring systems are included in Appendix C.

1.4 Audit Team

- » Cecil Hensley Senior Water Engineer
- » James Alexander Civil Engineer

1.5 Personnel Interviewed

The following personnel were interviewed on the management, maintenance and operation of the water systems including:

- » The Shire
 - Environmental Health Officer – Neil Flood
 - Works Manager – Peter Vlahov

1.6 Previous Audit

The Audit report of January 2006, which was for the period 1st December 2002 to 30th November 2005 was reviewed and the recommendations and non-compliance issues discussed in the later sections of this report. The Shire's operational licence has been amended since the 2006 report.

1.7 Assessment and Measurement of Compliance

The licensee's compliance with the licence requirements were assessed using the effectiveness scales in **Error! Reference source not found.** and **Error! Reference source not found.**



Table 1 Operating Licence Assessment Scales

Compliance status	Rating	Description of compliance
Compliant	5	Compliant with no further action required to maintain compliance
Compliant	4	Compliant apart from minor or immaterial recommendations to improve the strength internal controls to maintain compliance
Compliant	3	Compliant with major or material recommendations to improve the strength of internal controls to maintain compliance
Non-Compliant	2	Does not meet minimum requirements
Significantly Non-Compliant	1	Significant weaknesses and/or serious action required

Table 2 Asset Management System Assessment Scales

Effectiveness	Rating	Description
Continuously improving	5	Continuously improving organisation capability and process effectiveness
Quantitatively controlled	4	Measurable performance goals established and monitored
Well-defined	3	Standard processes documented, performed and coordinated
Planned and tracked	2	Performance is planned, supervised, verified and tracked
Performed informally	1	Base practices are performed
Not performed	0	Not performed (indicate if not applicable)

In addition to the above compliance assessment or in absence of a specific grading, observations and comments were made by the auditor with recommendations for improvement when deemed appropriate.

1.8 Audit Time Input

The professional resource requirements for the operations audit and asset management systems review were as follows:

- | | |
|---|--------|
| 1. Preparation of the Audit Plan and Risk Assessments | 10 hrs |
| 2. Conduct the Audit and AM Review (including travel) | 6 hrs |
| 3. Prepare the Draft Report | 10 hrs |
| 4. Review and Amend Draft Report and Prepare Final Report | 24 hrs |
| 5. Total | 50 hrs |



2. Previous Audit

The status of the recommendations from the January 2006 Audit Report by SMEC is shown in the following tables. The status of the recommendations demonstrates that some improvement has occurred since the previous audit and review. The following recommendations were completed under the Economic Regulation Authority's previous guidelines.

2.1 Operational Audit

Table 3 Operational Audit

Previous Audit Recommendation	Progress / Further Action Required
Asset Management System (Clause 6)	
The Asset Management Plan must be updated immediately. As part of this, an Asset Maintenance Plan and Register must be developed, usually by the EHO in conjunction with the Works Manager, and implemented. Once finalised, all appropriate staff should be notified of the existence of the AMP and of the proper procedures for operations, maintenance and administration of the wastewater treatment system.	The AMP was updated during 2006. Maintenance schedules were developed and implemented. Staff were informed of the AMP. Procedure still to be developed. Completed schedules are in paper format and could be captured in an AMIS.
Technical Standards (Clause 8)	
The Shire to update the AMP and to ensure adherence to the appropriate technical standards, as per the clause.	AMP updated as mentioned above. Shire adhere to Technical Standards as per the Government Gazette. Shire to refer to the Government Gazette in their AMP.
Industry Standards (Clause 9)	
The Shire to update the AMP and to ensure adherence to the appropriate technical standards, as per the clause.	AMP was updated during 2006. The Shire adheres to Industry Standards/Codes as required. Shire to refer to the Industry Codes in their AMP.
Specific Information to be Provided (Clause 14)	
The Shire to inform the Authority of spills and should also complete and submit the completed Schedule 3.	Schedule 3 forms have been submitted.
Methods or principles to be applied in the provision of Water Services (Clause 12)	
A regular maintenance program needs to be developed and implemented and the sewerage reserve fund should be increased on an annual basis.	Shire does have a schedule developed and implemented. A reserve fund is in place and maintained to make provision for Capital Expenditures.



Previous Audit Recommendation	Progress / Further Action Required
Performance of functions by Licensee (Clause 15) – Emergency Response	
The emergency contact names in the Customer Charter need updating.	Names were updated, but should be kept up to date all the time, if any staff changes occur.
Consumer Consultation (Clause 18)	
No changes undertaken recently, but public meetings would be held should the need arise.	The Shire will arrange for public consultation, should the need arise, for example in the case of any changes/additions to the sewerage system.
Customer Service Charter (Clause 19)	
The Charter was reviewed in 2005, but needs to be reviewed as some names contained within it are out of date.	The Customer Service Charter has been updated, and should be updated or modified if any changes occur. It is displayed in the Shire office reception area, but customers are not notified as required.

2.2 Asset Management System Review

Table 4 Asset Management System Review

Previous Audit Recommendation	Progress / Further Action Required
Asset Planning/Creation/Acquisition	
The Asset Management Plan needs to be updated immediately and forwarded onto the Authority for approval.	The AMP has been reviewed and updated in 2006 and must be forwarded to the Authority for information.
Environmental Analysis	
The AMP should be updated immediately including undertaking an environmental analysis.	Environmental Analysis is not addressed in the AMP and should be addressed with the next review and updated.
Asset Management System Analysis	
The Asset Management Plan must be updated, including the asset register, and a maintenance schedule and register must be prepared and implemented. The Maintenance Schedule should be developed in conjunction with the Works Manager to ensure that it is appropriate for the system.	The Asset Register is included in the AMP. Maintenance schedules have been developed and implemented.
Risk Analysis and Contingency Planning	
Risk analysis and contingency planning of the wastewater treatment system should be undertaken as part of the AMP review.	Contained in the AMP. Shire to review and update.



Previous Audit Recommendation	Progress / Further Action Required
Financial Planning	
As part of the AMP review, the financial planning needs to be updated.	It has been updated in the AMP and needs to be reviewed and updated annually.
Capital Expenditure Plan	
As part of the AMP review, the capital expenditure planning needs to be updated. A review of existing asset life, capital replacement and asset acquisition needs to be undertaken to determine when future expenditure is likely to be required.	It has been updated in the AMP and needs to be reviewed and updated annually.
Review	
The AMP should be reviewed and updated as soon as possible. The AMP and Charter should be reviewed every 12 months at the same time as the annual budget, and updated as necessary. They should be updated within every 36 months, thus the Charter is due to be updated next year.	The AMP has been reviewed and updated in 2006. CSC was updated.



3. Operating Licence Audit

3.1 Operational Audit

Cecil Hensley carried out the audit/review and the field visit provided an overview of documentation, systems and operations.

The wastewater infrastructure are generally in good condition, operated effectively, are well maintained, perform to an acceptable level and generally performed within operational requirements. The assets included:

- Pump Station and pressure main (728m)
- Reticulation (5025m)
- Wastewater Treatment Plant (WWTP) – Oxidation ponds.
- Disinfection system & pumping system to pump reuse water to the oval and bowling greens.

Operational improvements are being progressively implemented at the main pump station and WWTP over the period. Documentation of the “As Constructed” status of the systems has been captured.

Operations and maintenance manuals are not available for any of the infrastructure.

The Shire completes most of the breakdown and planned works from current staff resources, but has access to licensed plumbers from adjoining towns and contractors when required. The systems have proved very reliable over the past three years with very few breakdowns and very minor blockages. The Shire also has an arrangement with Flygt, the pump supplier, to attend to pump station issues when required.

The following information, evidence and inspections were audited:



Table 5 Operational Audit Checklist

Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
Operating Area Clause 2(b)- Schedule 1	(b) The Licence permits the provision of Water Services within the Operating Areas described in Schedule 1 subject to compliance with the requirements of the Licence.	Drawing OWR-OA-041 (B) in order.	5
General duty to provide services - Clause 4.	The Licensee is to —		
	(a) provide the Water Services; and	Shire is providing an effective and reliable Water Service	5
	(b) undertake, maintain and operate any Water Services Works, specified in the Licence.	Shire undertakes, maintain and operate the Works, as specified in the licence.	5
Regulations prescribing standards of service - Clause 5.	The Licensee shall comply with Regulations prescribing standards of service made under section 61 of the Act.	The Shire complies with all regulations prescribing the standard of service.	5
Asset management system - Clause 6.	(a) The Licensee is to:		
	(i) provide for an asset management system in respect of the Licensee's Water Service Assets;	Some components of the required processes are in place and contained in the Asset Management Plan. Shire to develop an AMS containing all the processes as detailed in Section 3 of this Report.	2



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
	(ii) notify details of the system and any changes to it to the Authority, and	No changes have occurred during the period.	N/A
	(iii) not less than once in every period of 36 months (or such longer period as the Economic Regulation Authority allows), provide the Economic Regulation Authority with a report by an independent expert acceptable to the Economic Regulation Authority as to the effectiveness of the system.	Water Services Audit and Asset Management Review Report January 2006 submitted to the Economic Regulation Authority.	5
	(b) The asset management system is to set out the measures to be taken by the Licensee for the proper maintenance of Assets used in the provision of Water Services and for the undertaking, maintenance and operation of Water Services works.	The requirements for maintaining the system are documented in the Asset Management Plan (2006) and implemented. AMS not yet in place.	2
	(c) The Licensee is to undertake, maintain and operate its Water Services Works in accordance with the processes set out in the asset management system.	Routine and planned maintenance tasks completed in accordance with the AMP. AMS not yet in place.	2
	(d) The scope of the asset management system report under paragraph (a) (iii) will be set by the Economic Regulation Authority.	Noted.	
Operational Audit - Clause 7.	(a) The Licensee is to, not less than once in every period of 36 months (or such longer period as the Economic Regulation Authority allows), provide the Economic Regulation Authority with an Operational Audit conducted by an independent expert acceptable to the Economic Regulation Authority.	The last Water Services audited and Asset Management System reviewed by SMEC for the period 1 December 2002 to 30 November 2005.	5



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
Technical Standards - Clause 8	The Licensee is to comply with the technical standards for the provision of Water Services; and the undertaking, maintenance and operation of Water Services works; published by the Authority in the Government Gazette.	The Shire has access to the Government Gazette online, and need to stipulate it in the AMP and demonstrate it by keeping records.	3
Industry codes Clause 9.	The Licensee shall observe the Sewerage Code of Australia WSA 02 1999 in the design and construction of sewerage systems.	Design of systems complies. Original designs unchanged from Dept of Works Specifications. New works will be in accordance with the code.	3
Accounting records - Clause 10.	Consistent with the accounting requirements of the Local Government Act 1995, the Licensee shall prepare its accounts in a way which enables it to issue an operating statement which accurately describes its income and expenditure in relation to the Water Services provided under the Licence on an accruals basis.	Budgets and Annual reports available	5
Prices or charges- Clause 11.	In setting prices or charges for services to Customers the Licensee shall comply with the relevant provisions and regulations of the Health Act 1911 and the Local Government Act 1995	Prices and Charges are being set in accordance with the requirements of the Local Government Act.	5
Methods or principles to be applied in the provision of Water Services - Clause 12.	(a) Notwithstanding the engagement of any person or persons to provide Water Services on its behalf, the Licensee remains responsible to ensure those services comply with the terms and conditions of the Licence and with the relevant legislation.	Shire staff understand their responsibilities.	5



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
	(b) The Licensee shall ensure that its Water Services are available for Connection on request to any land situated in the Operating Area, subject to the applicant meeting any reasonable conditions the Licensee may determine to ensure safe, reliable and financially viable supply of services to land in the Operating Area in accordance with this Licence and any relevant legislation. Satisfactory compliance with the conditions of Connection are an essential requirement of gaining approval to connect to the Licensee's schemes.	Application forms have not been prepared and included in the Customer Services Charter. Town is so small that personal approach to the Shire is all that is required. The processes are documented in the Customer Services Charter.	5
Amendment, revocation or surrender - Clause 13.	The ERA may determine that the Licence is to be amended, etc.	New Licence issued 6 August 2008, Licence 27.	N/A
Specified information to be provided - Clause 14.	(a) The Licensee shall inform the Authority of the occurrence of the following events within five days of their occurrence:		
	Overflows from wastewater / sewerage infrastructure, including wastewater treatment plants, pumping stations etc.	No occurrences during the period.	N/A
	(b) The ERA may require a detailed report on these events to be provided within 14 days of the request.	Not required during the period.	N/A
	(c) The Licensee shall report the information set out in Schedule 3. The reports are due within 30 days of the end of each financial year.	Submitted.	5
Performance of functions by the Licensee - Clause 15.	(a) The Licensee shall comply with the quality and performance standards set out in Schedule 2.	In order, but no records kept to demonstrate compliance.	2



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
	(b) The Licensee shall provide annual notification to all Customers provided with non-potable water that the water supplied is not suitable for drinking.	The Shire is the only non-potable water user. Parks and ovals have warning signs.	5
	(c) The Licensee shall implement an emergency telephone system so a Customer can report an emergency and receive advice within one hour of the action to be taken by the Licensee. An emergency is an event, which causes, or threatens to cause, harm to people, the environment or property.	Emergency and after hours phone services are established and published in local phone book and Customer Charter, but a policy has not been prepared. The Shire to develop and implement a policy in order to adhere to the one hour rule.	2
	(d) The Licensee shall maintain and operate its sewerage scheme so that sewerage does not overflow on Customers' properties.	No incidents recorded during the period.	5
	(e) The Licensee shall maintain and operate its sewerage scheme so that sewerage blockages are minimised.	Less than one blockage per annum during the period. Target is meaningless for only 4km of main. Active tree root clearing program in place.	5
Terms and conditions of Customer contracts - Clause 16.	(a) The Licensee may enter into agreements with Customers to provide Water Services.	There are no contracts in place.	N/A
	(b) The Licensee may not enter into an agreement with a Customer that excludes, modifies or restricts the terms and conditions of the Licence without the prior written approval of the Economic Regulation Authority.	There are no contracts in place	N/A



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
Obligations to public authorities and other Licensees - Clause 17.	Wastewater treatment plants operated by the Licensee shall have relevant Licences from the Department of Environmental Protection and be operated in compliance with those Licences.	Based on the daily volume, the WWTP is registered with the former DoE, now DEC.	5
Consumer consultation Clause 18.	(a) Prior to making major changes to the operation of a water service, such as the construction of a new wastewater treatment works or significant expansion of the sewerage network, the licensee will;		
	(i) hold a public meeting to obtain the Customers views on the performance and operation of the scheme; or	Major changes have not occurred during the period.	N/A
	(ii) advertise for written submissions on the proposal.	Not Required	N/A
	(b) The Licensee shall allow customers to raise matters of concern regarding the sewerage system at public question time in accordance with the Local Government Act 1995.	Public question time is available at Council Committee Meetings	5
Customer Service Charter Clause 19.	(a) The Licensee must set out in writing the principles, terms and conditions upon which it intends to provide the Water Services to its Customers ('the Customer Service Charter')	Revised Customer Services Charter prepared, provided for comment and issued July 2008.	5
	(b) The Customer Service Charter must be submitted to the Authority for his approval by 1 December 1997. The Authority may require changes to be made to the Charter.	Reviewed CSC submitted for approval to the ERA. Letter dated 5 August 2008. Approved by the ERA on 10 Sep 2008.	5
	(c) The Customer Service Charter:		



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
	(i) should be drafted in 'plain English'; and	Yes, although the ERA comments suggest some on the language to too technical or legalistic.	4
	(ii) should address all of the service issues that are reasonably likely to be of concern to its Customers.	Yes	5
	(d) Different parts of the Customer Service Charter may be expressed to apply to different classes of Customers.	Not considered in the Customer Charter. One class only.	N/A
	(e) The Licensee shall review the Customer Service Charter not less than once in every period of 36 months.	Reviewed and reissued in August 2008. The ERA suggested that the review timeframe was unduly long.	4
	(f) Any proposed amendment to the Customer Service Charter or replacement thereof must also be forwarded to the Authority for approval prior to implementation.	Revised Customer Services Charter was approved by the ERA on 10 Sep 2008.	5
	<p>(g) The Licensee must make the Customer Service Charter available to its Customers in the following ways:</p> <p>(i) by prominently displaying it in those parts of the Licensee's offices to which Customers regularly have access;</p> <p>(ii) by providing a copy, upon request, and at no charge, to a Customer; and</p> <p>(iii) by advising Customers of the availability of the Customer Service Charter on an annual basis.</p>	<p>Copies are available on request at the Reception counter.</p> <p>The Charter is displayed in the reception area.</p> <p>Customers have not been advised of the availability of the Charter. Shire to advise customers annually.</p>	3



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
	(h) It is a condition of the Licence that the Licensee provides services in a way that is materially consistent with its Customer Service Charter.	The Shire does provide services consistent with its CSC.	5
Dispute resolution Clause 20.	(a) The Licensee shall establish a system for recording, managing and resolving within 21 days Complaints by Customers regarding a provided or requested water service, or for matters which must be considered by Council, within 7 days after the first ordinary Council meeting following the expiry of the 21 day period.	Log Book available at Reception, but no formal system in place.	3
	(b) To ensure the effectiveness of such a process the Licensee shall, as a minimum:		
	(i) record details of each Customer Complaint and its outcome;	Complaints in the Log Book, but not the outcome.	3
	(ii) provide an appropriate number of designated officers who are trained to deal with Customer Complaints who are authorised to, or has access to officers who are authorised to make the necessary decisions to settle Customer Complaints or disputes; including where applicable, approving the payment of monetary compensation; and	Staff are available and trained in dispute resolution.	5
	(iii) make such arrangements as are necessary to ensure that if possible Complaints can be resolved in the timeframes set out in subclause (a).	No documented procedures.	2



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
	(c) Where a dispute arises between a Customer and the Licensee regarding a provided or requested water service, the Customer may refer the dispute to the Water Services Planning Branch of the Office of Water.	No complaints during the period.	N/A
	(d) Unless the Complaint or dispute is a matter in relation to which section 3.22 of the Local Government Act 1995 applies, where a dispute has not been resolved within 21 days the Licensee shall inform the Customer of the option of referring their Complaint to the Office of Water Policy.	Not required during the period	N/A
	(e) The Office of Water Policy may: (i) mediate the dispute; or (ii) direct the Licensee and Customer to binding arbitration.	Not required during the period.	N/A
	(f) During the process of investigation and conciliation, the Licensee shall make every endeavour to promptly cooperate with the Office of Water Policy's (or its representative's) requests, which shall include the expeditious release of any information or documents requested by the Office of Water Policy and the availability of the relevant staff of the Licensee.	Not required during the period.	N/A
	(g) The Licensee shall, on request, provide the Office of Water Policy with details of Complaints made and the names and addresses of Customers who have made Complaints.	Not required during the period.	N/A



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
Customer Surveys - Clause 21	(a) Where an issue arises that the Authority considers to be of concern to customers, the Authority may require the Licensee to commission an independent customer survey that shall address and conform to the conditions and parameters set out in writing by the Authority.	Not required during the audit period	N/A
	(b) Such a survey will not be required more frequently than once every 12 months	Not required during the audit period	N/A



3.2 Operational Audit Compliance Summary

Table 6 Operational audit compliance summary

Operating area	Operating Licence reference (CI=clause, Sch.=schedule)	Compliance Rating (Refer to the 5-point rating scale in Table 1 for details)					
		1	2	3	4	5	N/A
Operating Area Schedule 1	CI 2(b)					5	
General duty to provide services	CI 4 (a & b)					5	
Regulations prescribing standards of services	CI 5					5	
Asset Management System	CI 6 (a – d)			3			
Operational Audit	CI 7 (a – c)					5	
Technical Standards	CI 8			3			
Industry Codes	CI 9			3			
Accounting Records	CI 10					5	
Prices or charges	CI 11					5	
Methods or principles to be applied in the provision of Water Services	CI 12 (a – b)					5	
Amendment, revocation or surrender	CI 13						NA
Specified information to be provided	CI 14 (a – c) Schedule 3						X
Performance of functions by the Licensee	CI 15						
Performance Standards – Sewerage Services	Schedule 2				4		
Terms and conditions of Customer Contracts	CI 16 (a –b)						NA
Obligations to public authorities and other Licensees	CI 17					5	
Consumer consultation	CI 18 (a – b)					5	



Operating area	Operating Licence reference (CI=clause, Sch.=schedule)	Compliance Rating (Refer to the 5-point rating scale in Table 1 for details)					
		1	2	3	4	5	N/A
Customer Service Charter	CI 19 (a – h)				4		
Dispute resolution	CI 20 (a – g)			3			
Customer Surveys	CI 21						NA



4. Asset Management System Review

4.1 Asset Management System Review

The Asset Management System is reasonably basic, understood by the staff and generally suitable for the scheme. The Asset Management Plan is reasonably comprehensive and includes most of the sections and information required for compliance to the Licence requirements.

The Shire does not have an Asset Management Software System and past activities are not recorded in a central repository. The time spent on maintenance and operations of infrastructure components are captured on schedules.

While the current components provide a basic maintenance management system, they do not include the predictive capability and historical activities desirable in a sound Asset Management System as described in the International Infrastructure Management Manual.

Information, such as, the Levels of Service, asset performance, asset descriptions and condition have been documented and the level of equipment detail for most assets is adequate to good.

The following information, evidence and inspections were reviewed:

Table 7 Asset Management System Review Checklist

1	Asset Planning – Effectiveness Criteria	Rating	Comments
	Planning process and objectives reflect the needs of all stakeholders and is integrated with business planning	1	Asset planning is not addressed in the AMP. Asset planning is informally performed. Additional information is needed in the AMP.
	Service levels are defined	5	Levels of service are well defined in the AMP and practiced.
	Non-asset options (e.g. demand management) are considered	1	Non-Asset options like demand management is not addressed in the AMP. To be addressed by the Shire.
	Lifecycle costs of owning and operating assets are assessed	1	Life-cycle costing is not in the AMP. To be addressed by the Shire.
	Funding options are evaluated	1	Grants and income are detailed in the AMP.
	Costs are justified and cost drivers identified	1	Justification and drivers are not included in the AMP. Costs to be analysed and addressed in AMP by the Shire.



1 Asset Planning – Effectiveness Criteria	Rating	Comments
Likelihood and consequences of asset failure are predicted	1	Not addressed in the AMP or Risk Register. Shire to address asset failure assessments.
Plans are regularly reviewed and updated	2	The AMP was reviewed in 2006, but now contained out of date information which needs to be updated and expanded by the Shire.

2 Asset Creation and Acquisition – Effectiveness Criteria	Rating	Comments
Full project evaluations are undertaken for new assets, including comparative assessment of non-asset solution	3	No expansion of the scheme is planned and required. The asset renewals (pumps) have been on a like for like basis and non-asset solutions are not currently feasible.
Evaluations include all life-cycle costs	1	An evaluation of lifecycle costs is not currently considered. Shire to perform an analysis of the life-cycle costs of the infrastructure components.
Projects reflect sound engineering and business decisions	N/A	No projects have occurred during the audit period. Consultants would be used. Suppliers approached for equivalent replacement when needed.
Commissioning tests are documented and complete	2	Has not been required for projects. Tests results have not been documented for replacement assets. The AMP does not contain details of the commissioning strategy or requirement.
Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood	2	Part of Shire's requirements, policies and strategies; however not adequately covered in the AMP.



3	Asset Disposal – Effectiveness Criteria	Rating	Comments
	Under-utilised and under-performing assets are identified as part of a regular systematic review process	1	Informally performed, not documented. As observed during maintenance or repeated repairs.
	The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	1	Informally performed, as and when required – very few assets, not documented.
	Disposal alternatives are evaluated	1	Normally old pumps taken by supplier, not documented.
	There is a replacement strategy for assets	1	Shire replace as and when required. Shire to develop and stipulate its strategy, with special reference to mechanical and electrical equipment.

4	Environmental Analysis – Effectiveness Criteria	Rating	Comments
	Opportunities and threats in the system environment are assessed	0	Not addressed in AMP.
	Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved	3	Are contained in the AMP, but not monitored or measured.
	Compliance with statutory and regulatory requirements	5	Detailed in the AMP and compliance confirmed by field review..
	Achievement of customer service levels	5	No complaints, nor non-conformances during the audit period.

5	Asset Operations – Effectiveness Criteria	Rating	Comments
	Operational policies and procedures are documented and linked to service levels required	2	Operating Rules prescribed in AMP. Policies and procedures to be developed and linked.
	Risk management is applied to prioritise operations tasks	1	Informally performed, but needs to be documented.
	Assets are documented in an Asset Register including asset type, location, material, plans of components, an assessment of assets' physical/structural condition and accounting data	3	Documented, but can be improved, eg. Periodic condition assessments.



5	Asset Operations – Effectiveness Criteria	Rating	Comments
	Operational costs are measured and monitored	4	Budget vs Actual is included in the AMP, but needs updating.
	Staff receive training commensurate with their responsibilities	3	Staff are effectively trained in scheme operation, with emphasis on safety – chlorine, hygiene, etc. Additional training is required to improve competence in AMS. Training records and competencies are to be documented.

6	Asset Maintenance – Effectiveness Criteria	Rating	Comments
	Maintenance policies and procedures are documented and linked to service levels required	3	Maintenance rules are prescribed in the AMP. Policies and procedures need to be developed and linked to service levels.
	Regular inspections are undertaken of asset performance and condition	4	Inspect, clean or maintain are completed as applicable and records are kept as per the maintenance schedule.
	Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule	4	Maintain schedule has been created and records kept of completed tasks.
	Failures are analysed and operational/maintenance plans adjusted where necessary	2	Informally analysed in the past and corrective work has been completed when required. Failure analysis has not been completed.
	Risk management is applied to prioritise maintenance tasks	1	Informally performed by staff, but not used documented.
	Maintenance costs are measured and monitored	3	Budget vs Actual are recorded in the AMP at a summary level. Regular review/monitoring against the budget is not completed on a regular basis.



7 Asset Management Information System – Effectiveness Criteria	Rating	Comments
Adequate system documentation for users and IT operators	1	No AMIS in place. Maintenance and work reports information is available. Not documentation on system operation.
Input controls include appropriate verification and validation of data entered into the system	0	No AMIS in place
Logical security access controls appear adequate, such as passwords	0	No AMIS in place
Physical security access controls appear adequate	0	No AMIS in place
Data backup procedures appear adequate	0	No AMIS in place
Key computations related to licensee performance reporting are materially accurate	0	No AMIS in place
Management reports appear adequate for the licensee to monitor licence obligations	1	Only annual Schedule 3 reporting.

8 Risk Management – Effectiveness Criteria	Rating	Comments
Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system	1	Risks are informally evaluated by staff. No specific policies or procedures exist for the sewerage system.
Risks are documented in a risk register and treatment plans are actioned and monitored	0	Risks are not documented in the AMP or risk register.
The probability and consequences of asset failure are regularly assessed	1	Completed informally by staff, but not documented.

9 Contingency Planning – Effectiveness Criteria	Rating	Comments
Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks	0	Contingency Plans are not available.



10 Financial Planning – Effectiveness Criteria	Rating	Comments
The financial plan states the financial objectives and strategies and actions to achieve the objectives	4	Generally well covered in AMP, but could be expanded in the AMP.
The financial plan identifies the source of funds for capital expenditure and recurrent costs	4	Included in budget. Summary information in the AMP could be expanded and updated.
The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets)	5	Included in the budget and the AMP.
The financial plan provide firm predictions on income for the next five years and reasonable indicative predictions beyond this period	4	Covered in adequate detail in the AMP.
The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	2	Some information is included in the AMP, but needs to be expanded and updated.
Significant variances in actual/budget income and expenses are identified and corrective action taken where necessary	1	Informally done by staff, but not documented in the AMP.

11 Capital Expenditure Planning – Effectiveness Criteria	Rating	Comments
There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates	4	Capital plan is adequately detailed in the AMP and Budget documents.
The plan provide reasons for capital expenditure and timing of expenditure	4	Rationale is adequately covered in the AMP and the Budget documents.
The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	4	Adequately addressed in the AMP and the Budget documents.
There is an adequate process to ensure that the capital expenditure plan is regularly updated and actioned	4	Budget document is reviewed annually, including the capital expenditure plan.



12 Review of Asset Management System – Effectiveness Criteria	Rating	Comments
A review process is in place to ensure that the asset management plan and the asset management system described therein are kept current	3	AMP was updated in 2006 and forms part of the AMS. Some components in the AMP are also processes of the AMS. Shire to develop all other processes of an AMS, update the AMP annually and implement a review process/procedure to ensure the AMP and AMS are kept current.
Independent reviews (eg internal audit) are performed of the asset management system	1	This is the first review of the AMS, as previous audits recorded that and AMS was not in place. Shire should develop and implement all processes of an AMS and provide for an independent review of the system, once in place.

4.2 Asset Management System Effectiveness Summary

Table 8 Asset Management System Effectiveness Summary

ASSET MANAGEMENT SYSTEM		Not performed	Performed informally	Planned and tracked	Well defined	Quantitatively controlled	Continuously improving
Process	Effectiveness rating	0	1	2	3	4	5
Asset planning				2			
Asset creation/ acquisition				2			
Asset disposal			1				
Environmental analysis					3		
Asset operations					3		
Asset maintenance					3		
Asset Management Information System		0					
Risk management			1				
Contingency planning		0					



ASSET MANAGEMENT SYSTEM		Not performed	Performed informally	Planned and tracked	Well defined	Quantitatively controlled	Continuously improving
Process	Effectiveness rating	0	1	2	3	4	5
Financial planning					3		
Capital expenditure planning						4	
Review of AMS			1				



5. Recommendations

The outcome of the inspection of the water services documentation and interviews with the Shire staff was that the sewerage system is operated effectively, within the current standards and code requirements and present minimal risks to the customers and residents. While, the level of documentation and management systems is very basic, these are generally adequate for the number and complexity of the water services assets.

The Shire has no growth and planned refurbishment/replacement of assets has not been required. Some improvements of the pipeline network are planned to address tree root intrusions.

Overall the Shire's operation of the Water Services Licence is compliant with major or material requirements of the Licence. The following recommendations have been provided to improve the strength of internal controls to maintain compliance. The primary deficiencies with the operation of the Water Services Licence are in the area of asset management plan, recording asset data, availability of the customer service charter and the lack of a dispute resolution procedure.

The primary deficiencies with the Shire's asset management system are in the areas of asset planning risk management, contingency planning, procedures for asset operations and maintenance and the measurement of asset performance.

The AMP requires updating and expansion to fully comply with the Licence requirements and sound asset management detailed in the International Infrastructure Management Manual. The Shire also requires a basic AMIS to be implemented to keep track of activities and demonstrate that procedures are followed.

5.1 Operational Audit

The following recommendations are provided to improve with the compliance of the Shire's Operating Licence requirements:

Table 9 Operational Audit Recommendations

Licence Condition	Compliance Rating	Non-compliance issue	Recommended action
Asset management system - Clause 6 (a) The Licensee is to: (i) provide for an asset management system in respect of the Licensee's Water Service Assets;	2	Some components of the required processes are not documented in the Asset Management Plan as detailed in Table 10 below.	Shire to revise the AMP and develop an AMS containing all the processes.



Licence Condition	Compliance Rating	Non-compliance issue	Recommended action
(b) The asset management system is to set out the measures to be taken by the Licensee for the proper maintenance of Assets used in the provision of Water Services and for the undertaking, maintenance and operation of Water Services works.	2	The general requirements for maintaining the system are documented in the Asset Management Plan (March 2006). Additional information and updating is needed as detailed in Table 10 below.	Shire to revise and expand the AMP and document the AMS processes and procedures.
(c) The Licensee is to undertake, maintain and operate its Water Services Works in accordance with the processes set out in the asset management system.	2	Routine and planned maintenance tasks are performed, without documenting completed activities and tasks.	Shire needs to document operations, repairs and maintenance activities in an AMIS.
Performance of functions by the Licensee - Clause 15. (a) The Licensee shall comply with the quality and performance standards set out in Schedule 2.	2	In order, but no records kept to demonstrate compliance.	Shire to keep record of quality and performance.
(c) The Licensee shall implement an emergency telephone system so a Customer can report an emergency and receive advice within one hour of the action to be taken by the Licensee. An emergency is an event, which causes, or threatens to cause, harm to people, the environment or property.	2	Emergency and after hours phone services are established, published in local phone book and Customer Charter, but an emergency response policy and procedure have not been prepared.	The Shire to develop, document and implement an emergency response policy and procedure in order to adhere to the one hour rule.
Customer Services Charter - Clause 19 (g) The Licensee must make the Customer Service Charter available to its Customers in the following ways: (iii) by advising Customers of the availability of the Customer Service Charter on an annual basis.	3	Customers are not notified of the availability of the Customer Service Charter on an annual basis.	Shire to notify customers annually of the availability of the Customer Services Charter.
Dispute resolution Clause 20. (i) record details of each Customer Complaint and its outcome;	3	Complaints are entered in a Log Book, but the outcome is not documented.	Shire to create a system for recording the outcome and resolution of complaints.



Licence Condition	Compliance Rating	Non-compliance issue	Recommended action
(iii) make such arrangements as are necessary to ensure that if possible Complaints can be resolved in the timeframes set out in subclause (a).	2	The complaint resolution policy and processes have not been documented.	Shire to document complaint resolution policies and procedures.

5.2 Asset Management System Review

The following improvements are recommended for the Asset Management System:

Table 10 Asset Management System Review Recommendations

Asset Management Process	Effectiveness Criteria	Score	Non-Compliance Issue	Recommended Action
Asset planning	Planning process and objectives reflect the needs of all stakeholders and is integrated with business planning	1	Asset planning is not addressed in the AMP. Informally performed.	Create and interment planning process that reflects the needs of the licence and stakeholders. Include planning process in the AMP.
	Non-asset options (e.g. demand management) are considered	1	Non-Asset options like demand management are not addressed in the AMP.	Identify non-asset options to manage demand and include in AMP.
	Lifecycle costs of owning and operating assets are assessed	1	Life-cycle costing is not in AMP.	Identify and document asset objectives and lifecycle costs for all assets and include in AMP.
	Funding options are evaluated	1	Grants and income addressed in AMP.	Critically analyse funding options and identify any more advantageous sources and include in AMP.
	Costs are justified and cost drivers identified	1	Costs to be analysed and addressed in AMP by the Shire.	Critically analyse costs, identify drivers and include in AMP.
	Likelihood and consequences of asset failure are predicted	1	Not addressed in the AMP.	Identify and document likelihood and consequences of asset failure in AMP.



Asset Management Process	Effectiveness Criteria	Score	Non-Compliance Issue	Recommended Action
	Plans are regularly reviewed and updated	2	The AMP was reviewed in 2006, but now contained out of date information which needs to be updated and expanded by the Shire.	Update and expand the AMP and review on an annual basis.
Asset creation/ acquisition	Evaluations include all life-cycle costs	1	An evaluation of lifecycle costs is not currently considered. Shire to perform an analysis of the life-cycle costs of the infrastructure components.	Identify and document asset objectives and lifecycle costs for all assets and include in AMP.
	Commissioning tests are documented and complete	2	Has not been required for projects. Tests results have not been documented for replacement assets. The AMP does not contain details of the commissioning strategy or requirement.	Document commissioning tests for all replacement assets and systems. Develop a commissioning strategy and include in the revised AMP.
	Ongoing legal/environmental/ safety obligations of the asset owner are assigned and understood	2	Part of Shire's requirements, policies and strategies; however not adequately covered in the AMP.	Document the legal, environmental and safety obligations in the AMP.
Asset disposal	Under-utilised and under-performing assets are identified as part of a regular systematic review process	1	Informally performed, not documented. As observed during maintenance or repeated repairs.	Create and implement a process for identifying capacity of assets and recording past performance. Include in AMP.



Asset Management Process	Effectiveness Criteria	Score	Non-Compliance Issue	Recommended Action
	The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	1	Informally performed, as and when required – very few assets, not documented.	Create and implement a review process for when under or poor performing assets are identified and include in AMP.
	Disposal alternatives are evaluated	1	Normally old pumps taken by supplier, not documented.	Include the process of evaluating disposal alternatives in the AMP
	There is a replacement strategy for assets	1	Shire replace as and when required. Shire to develop and stipulate its strategy, with special reference to mechanical and electrical equipment.	Create and implement replacement strategy for assets and include in AMP.
Environmental analysis	Opportunities and threats in the system environment are assessed	0	Not addressed in AMP	Identify, document and apply SWOT analysis to opportunities and threats. Include in AMP.
	Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved	3	Are contained in the AMP, but not monitored or measured.	Identify and document performance requirements for all assets including availability of service and capacity. Include in AMP.
Asset operations	Operational policies and procedures are documented and linked to service levels required	2	Operating Rules prescribed in AMP. Policies and procedures to be developed and linked.	Create, document and implement operational policies and procedures and link to service levels required. Include in AMP.
	Risk management is applied to prioritise operations tasks	1	Informally performed, but needs to be documented.	Risk management to be documented in AMP.



Asset Management Process	Effectiveness Criteria	Score	Non-Compliance Issue	Recommended Action
Asset maintenance	Maintenance policies and procedures are documented and linked to service levels required	3	Maintenance rules are prescribed in the AMP. Policies and procedures need to be developed and linked to service levels.	Create and document policies linked to maintenance procedures and service levels for assets.
	Failures are analysed and operational/ maintenance plans adjusted where necessary	2	Informally analysed. Perform required corrective work.	Create, document and regularly review a maintenance plan for assets including emergency, corrective and preventative measures.
	Risk management is applied to prioritise maintenance tasks	1	Informally performed by staff, but not used documented.	Assess risk management of maintenance tasks and include in the AMP.
	Maintenance costs are measured and monitored	3	Budget vs Actual are recorded in the AMP at a summary level. Regular review/monitoring against the budget is not completed on a regular basis.	Update the maintenance costs information in the AMP.
Asset Management Information System	Adequate system documentation for users and IT operators	1	No AMIS in place. Maintenance and work reports information is available. Not documentation on system operation.	Purchase / Develop Asset Management software and roll over all asset data to one system.
	Input controls include appropriate verification and validation of data entered into the system	0	No AMIS in place	Create data verification procedure for updating asset data in Asset Management software.
	Logical security access controls appear adequate, such as passwords	0	No AMIS in place	Ensure Asset Management Information System can only be accessed by authorised persons.



Asset Management Process	Effectiveness Criteria	Score	Non-Compliance Issue	Recommended Action
	Physical security access controls appear adequate	0	No AMIS in place	Ensure adequate physical security access controls such as swipe cards are implemented.
	Data backup procedures appear adequate	0	No AMIS in place	Create and implement backup procedure for asset data.
	Key computations related to licensee performance reporting are materially accurate	0	No AMIS in place	Create and implement procedures for producing regular reports to monitor assets and link to licence obligations.
	Management reports appear adequate for the licensee to monitor licence obligations	1	Only annual Schedule 3 reporting.	Create and implement procedures for producing regular reports to monitor assets and link to licence obligations.
Risk management	Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system	1	Risk informally evaluated - No specific policies or procedures regarding the sewerage system.	Create risk management procedures and policies to be included in AMP. Ensure policy includes risk reviewing procedure.
	Risks are documented in a risk register and treatment plans are actioned and monitored	0	Risks are not documented in the AMP or risk register.	Action current risks identified in AMP and create procedure for monitoring.
	The probability and consequences of asset failure are regularly assessed	1	Completed informally by staff, but not documented.	Create and document risk register including the treatment and consequences of asset failure. Include in AMP.
Contingency Planning	Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks	0	No Contingency Plans available.	Create and document Contingency Plans for sewer system and include in AMP.



Asset Management Process	Effectiveness Criteria	Score	Non-Compliance Issue	Recommended Action
Financial Planning	The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	2	Some information is included in the AMP, but needs to be expanded and updated.	Expand financial plan to include all requirements of assets and include in AMP.
	Significant variances in actual/budget income and expenses are identified and corrective action taken where necessary	1	Informally done by staff, but not documented in the AMP.	Create and implement procedure for regularly reviewing the budget and take corrective action where necessary.
Review of AMS	A review process is in place to ensure that the asset management plan and the asset management system described therein are kept current	2	AMP was updated in 2006 and forms part of the AMS. Some components in the AMP are also processes of the AMS. Shire to develop all other processes of an AMS, update the AMP annually and implement a review process/procedure to ensure the AMP and AMS are kept current.	Create asset management review procedure to ensure system is reviewed regularly.
	Independent reviews (eg internal audit) are performed of the asset management system	1	This is the first review of the AMS, as previous audits recorded that and AMS was not in place. Shire should develop and implement all processes of an AMS and provide for an independent review of the system, once in place.	Shire to develop and implement all processes of an AMS. Shire to provide for an independent review of the system, once in place.



5.3 Conclusion

The Shire's wastewater services systems are in reasonable condition and operated effectively by the Shire's staff.

A number of improvements have been implemented to the operation of the scheme and the management systems during the period. The staff's attitude to continuous improvement and their high motivation levels are admirable, and bode well for further improvement in scheme operational efficiency and effectiveness over the next audit period.

The suggested improvements to the operational/performance aspects of the Operating Licence and Asset Management System should provide the Shire with an assurance Licence with remain compliant with the Licence requirements and that the wastewater system can continue to perform effectively. The implementation of Asset Management System software would assist in the recording of works activities and predictive capital and maintenance requirements.

5.4 Compliance Statement

Cecil Hensley has performed this audit/review and prepared this report for the Shire with the assistance of James Alexander.

It is certified that the "Economic Regulation Authority – Audit Guidelines – Electricity, Gas and Water Licences – September 2006" have been followed in conducting the audit and review, making the findings and preparing the report.

The assessment, findings and recommendations contained in this report reflect the professional opinion of the Reviewer.



6. Post-audit Implementation Plan

6.1 Operational Post-Audit Implementation Plan

Clause	Recommended Action	Responsible Position	Date Action To Be Completed
<p>Asset management system - Clause 6</p> <p>(a) The Licensee is to:</p> <p>(i) provide for an asset management system in respect of the Licensee's Water Service Assets;</p>	Shire to revise the AMP and develop an AMS containing all the processes.	Environmental Health Officer	31 December 2010
<p>(b) The asset management system is to set out the measures to be taken by the Licensee for the proper maintenance of Assets used in the provision of Water Services and for the undertaking, maintenance and operation of Water Services works.</p>	Shire to revise and expand the AMP and document the AMS processes and procedures.	Environmental Health Officer	31 December 2010
<p>(c) The Licensee is to undertake, maintain and operate its Water Services Works in accordance with the processes set out in the asset management system.</p>	Shire needs to document operations, repairs and maintenance activities in an AMIS.	Environmental Health Officer	31 December 2010
<p>Performance of functions by the Licensee - Clause 15.</p> <p>(a) The Licensee shall comply with the quality and performance standards set out in Schedule 2.</p>	Shire to keep record of quality and performance.	Environmental Health Officer	31 December 2010
<p>(c) The Licensee shall implement an emergency telephone system so a Customer can report an emergency and receive advice within one hour of the action to be taken by the Licensee. An emergency is an event, which causes, or threatens to cause, harm to people, the environment or property.</p>	The Shire to develop, document and implement an emergency response policy and procedure in order to adhere to the one hour rule.	Environmental Health Officer	31 December 2010



Clause	Recommended Action	Responsible Position	Date Action To Be Completed
<p>(g) The Licensee must make the Customer Service Charter available to its Customers in the following ways:</p> <p>(i) by prominently displaying it in those parts of the Licensee's offices to which Customers regularly have access;</p> <p>(ii) by providing a copy, upon request, and at no charge, to a Customer; and</p> <p>(iii) by advising Customers of the availability of the Customer Service Charter on an annual basis.</p>	Shire to notify customers annually of the availability of the Customer Services Charter.	Environmental Health Officer	Immediately
<p>Dispute resolution Clause 20.</p> <p>(i) record details of each Customer Complaint and its outcome;</p>	Shire to create a system for recording the outcome and resolution of complaints.	Environmental Health Officer	31 December 2010
<p>(iii) make such arrangements as are necessary to ensure that if possible Complaints can be resolved in the timeframes set out in subclause (a).</p>	Shire to document complaint resolution policies and procedures.	Environmental Health Officer	31 December 2010

6.2 Asset Management System Post-Audit Implementation Plan

Asset Management Process	Recommended Action	Responsible Position	Date Action To Be Completed
Asset planning	Create and interment planning process that reflects the needs of the licence and stakeholders. Include planning process in the AMP.	Environmental Health Officer	31 December 2010
	Identify non-asset options to manage demand and include in AMP.	Environmental Health Officer	31 December 2010



Asset Management Process	Recommended Action	Responsible Position	Date Action To Be Completed
	Identify and document asset objectives and lifecycle costs for all assets and include in AMP.	Environmental Health Officer	31 December 2010
	Critically analyse funding options and identify any more advantageous sources and include in AMP.	Environmental Health Officer	31 December 2010
	Critically analyse costs, identify drivers and include in AMP.	Environmental Health Officer	31 December 2010
	Identify and document likelihood and consequences of asset failure in AMP.	Environmental Health Officer	31 December 2010
	Update and expand the AMP and review on an annual basis.	Environmental Health Officer	By 31 December Annually
Asset creation/ acquisition	Identify and document asset objectives and lifecycle costs for all assets and include in AMP.	Environmental Health Officer	31 December 2010
	Document commissioning tests for all replacement assets and systems. Develop a commissioning strategy and include in the revised AMP.	Environmental Health Officer	31 December 2010
	Document the legal, environmental and safety obligations in the AMP.	Environmental Health Officer	31 December 2010
Asset disposal	Create and implement a process for identifying capacity of assets and recording past performance. Include in AMP.	Environmental Health Officer	31 December 2010
	Create and implement a review process for when under or poor performing assets are identified and include in AMP.	Environmental Health Officer	31 December 2010
	Include the process of evaluating disposal alternatives in the AMP	Environmental Health Officer	31 December 2010
	Create and implement replacement strategy for assets and include in AMP.	Environmental Health Officer	31 December 2010



Asset Management Process	Recommended Action	Responsible Position	Date Action To Be Completed
Environmental analysis	Identify, document and apply SWOT analysis to opportunities and threats. Include in AMP.	Environmental Health Officer	31 December 2010
	Identify and document performance requirements for all assets including availability of service and capacity. Include in AMP.	Environmental Health Officer	31 December 2010
Asset operations	Create, document and implement operational policies and procedures and link to service levels required. Include in AMP.	Environmental Health Officer	31 December 2010
	Risk management to be documented in AMP.	Environmental Health Officer	31 December 2010
Asset maintenance	Create and document policies linked to maintenance procedures and service levels for assets.	Environmental Health Officer	31 December 2010
	Create, document and regularly review a maintenance plan for assets including emergency, corrective and preventative measures.	Environmental Health Officer	31 December 2010
	Assess risk management of maintenance tasks and include in the AMP.	Environmental Health Officer	31 December 2010
	Update the maintenance costs information in the AMP.	Environmental Health Officer	31 December 2010
Asset Management Information System	Purchase / Develop Asset Management software and roll over all asset data to one system.	Environmental Health Officer	31 December 2010
	Create data verification procedure for updating asset data in Asset Management software.	Environmental Health Officer	31 December 2010
	Ensure Asset Management Information System can only be accessed by authorised persons.	Environmental Health Officer	31 December 2010
	Ensure adequate physical security access controls such as swipe cards are implemented.	Environmental Health Officer	31 December 2010
	Create and implement backup procedure for asset data.	Environmental Health Officer	31 December 2010



Asset Management Process	Recommended Action	Responsible Position	Date Action To Be Completed
	Create and implement procedures for producing regular reports to monitor assets and link to licence obligations.	Environmental Health Officer	31 December 2010
	Create and implement procedures for producing regular reports to monitor assets and link to licence obligations.	Environmental Health Officer	31 December 2010
Risk management	Create risk management procedures and policies to be included in AMP.	Environmental Health Officer	31 December 2010
	Ensure policy includes risk reviewing procedure.		
	Action current risks identified in AMP and create procedure for monitoring.	Environmental Health Officer	31 December 2010
	Create and document risk register including the treatment and consequences of asset failure. Include in AMP.	Environmental Health Officer	31 December 2010
Contingency Planning	Create and document Contingency Plans for sewer system and include in AMP.	Environmental Health Officer	31 December 2010
Financial Planning	Expand financial plan to include all requirements of assets and include in AMP.	Environmental Health Officer	31 December 2010
	Create and implement procedure for regularly reviewing the budget and take corrective action where necessary.	Environmental Health Officer	31 December 2010
Review of AMS	Create asset management review procedure to ensure system is reviewed regularly.	Environmental Health Officer	31 December 2010
	Shire to develop and implement all processes of an AMS. Shire to provide for an independent review of the system, once in place.	Environmental Health Officer	31 December 2010

The CEO of the Shire is ultimately responsible for the implementation/rectification of applicable clauses/requirements. The CEO must delegate responsibility or instruct an officer of the Shire or appoint a consultant/contractor to ensure all the requirements as set out by the Licence is adhered to.



The Shire shall inform the Authority of its implementation, reviewing, upgrading program and update the Authority 6 monthly (June and December) each year of its progress (difficulties and accomplishments).

6.3 Disagreement between the auditor and licensee

None.

Appendix A
Operational Risk Assessment (Table 9)



Table 11 Operational Risk Assessment

Operating Licence Compliance Element	Operating Licence Reference	Risk Consequence Rating	Likelihood Rating	Inherent Risk Rating	Adequacy of Existing Controls	Audit Priority
Operating Area Schedule 1	CI 2(b)	1	C	Low	Moderate	5
General duty to provide services	CI 4 (a & b)	2	C	Medium	Moderate	4
Regulations prescribing standards of services	CI 5	2	C	Medium	Moderate	4
Asset Management System	CI 6 (a – d)	2	A	High	Weak	1
Operational Audit	CI 7 (a – c)	2	C	Medium	Strong	4
Technical Standards	CI 8	1	C	Low	Weak	5
Industry Codes	CI 9	1	C	Low	Weak	5
Accounting Records	CI 10	2	C	Medium	Strong	4
Prices or charges	CI 11	2	C	Medium	Strong	4
Methods or principles to be applied in the provision of Water Services	CI 12 (a – b)	2	B	Medium	Strong	4
Specified information to be provided	CI 14 (a – c) Schedule 3	2	A	High	Weak	1
Performance of functions by the Licensee Performance Standards – Sewerage Services	CI 15 Schedule 2	2	B	Medium	Strong	4
Terms and conditions of Customer Contracts	CI 16 (a – b)	NA	NA	NA	NA	NA
Obligations to public authorities and other Licensees	CI 17	2	B	Medium	Strong	4
Consumer consultation	CI 18 (a – b)	1	C	Low	Strong	5
Customer Service Charter	CI 19 (a – h)	2	A	High	Moderate	2
Dispute resolution	CI 20 (a – g)	1	C	Low	Strong	5
Customer Surveys	CI 21	NA	NA	NA	NA	NA



Appendix B

Asset Management System Risk Assessment (Table 10)



Table 12 Asset Management System Risk Assessment

Key process	Tested by asking the following questions below. If the answer is no, then ask what the effect would be to determine the Consequence and how often will the answer be no to determine the Likelihood and provide an average for each Key Process.	Consequence Rating	Likelihood Rating	Inherent Risk Rating	Adequacy of Existing Controls	Review Priority
Asset planning	Do the planning process and objectives reflect the needs of all stakeholders and is integrated with business planning Are Service Levels defined Are non-asset options (eg demand management) considered Are lifecycle costs of owning and operating assets assessed Are funding options evaluated Are costs justified and cost drivers identified Are likelihood and consequences of asset failure predicted Are plans regularly reviewed and updated	2	B	Medium	Moderate	4
Asset creation/ acquisition	Are full project evaluations undertaken for new assets, including comparative assessment of non-asset solution Do evaluations include all life-cycle costs Do projects reflect sound engineering and business decisions Are commissioning tests are documented and complete Are ongoing legal/ environmental/ safety obligations of the asset owner assigned and understood	2	B	Medium	Moderate	4
Asset disposal	Are under-utilised and under-performing assets identified as part of a regular systematic review process Are the reasons for under-utilisation or poor performance critically examined and corrective action or disposal undertaken Are disposal alternatives evaluated There is a replacement strategy for assets	1	C	Low	Weak	5
Environmental analysis	Are opportunities and threats in the system environment assessed Are performance standards (availability of service, capacity, continuity, emergency response, etc) measured and achieved Does Shire comply with statutory and regulatory requirements Does Shire achieve customer service levels	1	C	Low	Weak	5
Asset operations	Are operational policies and procedures documented and linked to service levels required Is risk management applied to prioritise operations tasks Are assets documented in an Asset Register including asset type, location, material, plans of components, an assessment of assets' physical/structural condition and accounting data Are operational costs measured and monitored Do staff receive training commensurate with their responsibilities	2	A	High	Moderate	2
Asset maintenance	Are maintenance policies and procedures documented and linked to service levels required Are regular inspections undertaken of asset	2	B	Medium	Moderate	4



Key process	Tested by asking the following questions below. If the answer is no, then ask what the effect would be to determine the Consequence and how often will the answer be no to determine the Likelihood and provide an average for each Key Process.	Consequence Rating	Likelihood Rating	Inherent Risk Rating	Adequacy of Existing Controls	Review Priority
	<p>performance and condition</p> <p>Are maintenance plans (emergency, corrective and preventative) documented and completed on schedule</p> <p>Are failures analysed and operational/maintenance plans adjusted where necessary</p> <p>Is risk management applied to prioritise maintenance tasks</p> <p>Are maintenance costs measured and monitored</p>					
Asset Management Information System	<p>Is system documentation for users and IT operators adequate</p> <p>Are input controls in place, which include appropriate verification and validation of data entered into the system</p> <p>Do logical security access controls appear adequate, such as passwords</p> <p>Do physical security access controls appear adequate</p> <p>Do data backup procedures appear adequate</p> <p>Are key computations related to licensee performance reporting materially accurate</p> <p>Do management reports appear adequate for the licensee to monitor licence obligations</p>	2	A	High	Weak	1
Risk management	<p>Do risk management policies and procedures exist and are they applied to minimise internal and external risks associated with the asset management system</p> <p>Are risks documented in a risk register and treatment plans are actioned and monitored</p> <p>Are the probability and consequences of asset failure regularly assessed</p>	2	A	High	Weak	1
Contingency planning	<p>Are contingency plans documented, understood and tested to confirm their operability and to cover higher risks</p>	3	B	High	Weak	1
Financial planning	<p>Does the financial plan state the financial objectives and strategies and actions to achieve the objectives</p> <p>Does the financial plan identify the source of funds for capital expenditure and recurrent costs</p> <p>Does the financial plan provide projections of operating statements (profit and loss) and statement of financial position (balance sheets)</p> <p>Does the financial plan provide firm predictions on income for the next five years and reasonable indicative predictions beyond this period</p> <p>Does the financial plan provide for the operations and maintenance, administration and capital expenditure requirements of the services</p> <p>Are significant variances in actual/budget income and expenses identified and corrective action taken where necessary</p>	2	B	Medium	Weak	3
Capital expenditure planning	<p>Is there a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates</p> <p>Does the plan provide reasons for capital expenditure and timing of expenditure</p> <p>Is the capital expenditure plan consistent with the</p>	3	B	High	Weak	1



Key process	Tested by asking the following questions below. If the answer is no, then ask what the effect would be to determine the Consequence and how often will the answer be no to determine the Likelihood and provide an average for each Key Process.	Consequence Rating	Likelihood Rating	Inherent Risk Rating	Adequacy of Existing Controls	Review Priority
	asset life and condition identified in the asset management plan Is there an adequate process to ensure that the capital expenditure plan is regularly updated and actioned					
Review of AMS	Is a review process in place to ensure that the asset management plan and the asset management system described therein are kept current Are independent reviews (eg internal audit) performed of the asset management system	2	A	High	Weak	1

The following criteria for the Shire should be used to assess internal controls:

- » Customer focus
- » Regulatory compliance
- » Adequate documents and records
- » Segregation of duties
- » Access controls
- » Validity of data
- » Performance reviews
- » Monitoring



Appendix C
Risk Assessment Tables (Tables 11-16)



As per the ERA's Audit Guidelines – September 2006

Table 13 Consequence Ratings

		Examples of non-compliance			
	Rating	Supply quality	Supply reliability	Consumer Protection	Breaches of legislation or other licence conditions
1	Minor	Minor public health or safety issues. Breach of quality standards minor - minimal impact on customers.	System failure or connection delays affecting only a few customers. Some inconvenience to customers.	Customer complaints procedures not followed in a few instances. Nil or minor costs incurred by customers.	Licence conditions not fully complied with but issues have been promptly resolved.
2	Moderate	Event is restricted in both area and time eg, supply of service to one street is affected for up to one day. Some remedial action is required.	Event is restricted in both area and time eg supply of service to one street is affected for up to one day. Some remedial is required.	Lapse in customer service standards is clearly noticeable but manageable. Some additional cost may be incurred by some customers.	Clear evidence of one or more breaches of legislation or other licence conditions and/or sustained period of breaches.
3	Major	Significant system failure. Life-threatening injuries or widespread health risks. Extensive remedial action required.	Significant system failure. Extensive remedial action required.		

Table 14 Likelihood ratings

Level	Criteria
A Likely	Non-compliance is expected to occur at least once or twice a year
B Probable	Non-compliance is expected to occur once every three years
C Unlikely	Non-compliance is expected to occur once every 10 years or longer



Table 15 Inherent risk rating

Likelihood	Consequence		
	1. Minor	2. Moderate	3. Major
A. Likely	Medium	High	High
B. Probable	Low	Medium	High
C. Unlikely	Low	Medium	High

Table 16 Description of inherent risk ratings

Level	Description
High	Likely to cause major damage, disruption or breach of licence obligations
Medium	Unlikely to cause major damage but may threaten the efficiency and effectiveness of service
Low	Unlikely to occur and consequences are relatively minor

Table 17 Adequacy ratings for existing controls

	Level	Description
3	Strong	Strong controls that are sufficient for the identified risks
2	Moderate	Moderate controls that cover significant risks; improvement possible
1	Weak	Controls are weak or non-existent and have minimal impact on the risks

Table 18 Assessment of audit priority

		Adequacy of existing controls		
		Weak	Moderate	Strong
Inherent Risk	High	Audit priority 1	Audit priority 2	
	Medium	Audit priority 3	Audit priority 4	
	Low	Audit priority 5		



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