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Shire of Lake Grace

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) for the Shire of Lake Grace (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.

Lake Grace is a small town located approximately 268 kilometres south east of Perth. The town has a population of approximately 630, 200 Residential Dwellings and 36 Commercial/Industrial Buildings. The water services include:

- » The operation, maintenance and expansion of approximately 6.1kms of sewer collection system for the Shire of Lake Grace including pump stations and pressure mains; and
- » Wastewater Treatment Plant (WWTP) which collects and treats approximately 33.7ML 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 made recommendations with regard to the Shire's compliance with the conditions of its licence. The previous audit was reviewed and it was found that the status of the recommendations demonstrates that 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 and perform to an acceptable level and generally performed within operational requirements.

Operational improvements were progressively implemented over the period. Documentation of the "As Constructed" status of the systems has been captured.

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

The town's sewage demand profile has been stable in recent years. Growth is not predicted during the next five year period. 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>Basics are in place with a simple Asset Management Plan and asset register system.</p>	<p>Revise the AMP to include the additional information detailed in Section 6.2.</p>	<p>Environmental Health Officer to revise the AMP by 31 January 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 (January 2007).</p>	<p>Revise the AMP to include the additional information detailed in Section 6.2.</p>	<p>Environmental Health Officer to revise the AMP by 31 January 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 completed in accordance with the schedule in the AMP. Documentation required.</p>	<p>Shire needs to document operations, repairs and maintenance activities.</p>	<p>Environmental Health Officer to revise the AMP by 31 January 2010</p>
<p>Customer Service Charter Clause 19</p> <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 available on request at the Reception counter.</p> <p>Customers not advised of the availability and not displayed prominently.</p>	<p>Ensure the customer service charter is available at request and displayed at reception and advised customers of the availability of the charter such as through newsletters at least once per year.</p>	<p>Environmental Health Officer to advise the customers of the availability of the CSC revise the AMP by 30 September 2009 and on an annual basis thereafter</p>

The Asset Management System comprises the Asset Management Plan, which is reasonably comprehensive and includes most of the sections and information required by the ERA. The Asset Management System is reasonably basic and understood by the staff and generally suitable for the scheme. 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 timesheets, not specific sewerage schedules.

While the current components provide a basic maintenance management system, they do not include the predictive and records history capabilities desirable in an Asset Management System as detailed 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. 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	The AMP does not adequately address the asset planning processes.	Amend the AMP to include additional information on the asset planning process.	Environmental Health Officer to amend the AMP by 31 January 2010
	Non-asset options (e.g. demand management) are considered	Although there are very limited opportunities in a small town scheme, consideration should be included in the AMP	Identify the potential for non-asset options to manage demand and include in AMP.	Environmental Health Officer to amend the AMP by 31 January 2010
	Lifecycle costs of owning and operating assets are assessed	The AMP does not include the lifecycle costs of the pipe network.	Identify and document asset lifecycle costs for all assets and include in AMP.	Environmental Health Officer to amend the AMP by 31 January 2010
	Plans are regularly reviewed and updated	Plans have been reviewed approximately every 3 years, but should be reviewed annually.	Revise the AMP (January 2009 version) and include deficiencies in asset planning, creation/acquisition and disposal.	Environmental Health Officer to amend the AMP by 31 January 2010
Asset creation/ acquisition	Evaluations include all life-cycle costs	The AMP does not adequately address the process of developing or evaluating lifecycle costs.	Document the process of establishing the asset lifecycle costs and evaluation of options.	Environmental Health Officer to amend the AMP by 31 January 2010
	Commissioning tests are documented and complete	Commissioning tests are not addressed in the AMP.		Environmental Health Officer to amend the AMP by 31 January 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	The AMP includes discussion on the Pumps and Treatment assets, but little information on the pipe network and no information on regular performance reviews.	Create and implement a process for identifying the capacity of all assets, performance monitoring process and record past performance. Include in the AMP.	Environmental Health Officer to amend the AMP by 31 January 2010
	The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	The AMP includes some discussion on replacement options for the current assets, but limited information on performance.	Create and implement a review process for when under or poor performing assets are identified and include in AMP.	
	There is a replacement strategy for assets	A replacement strategy for all assets has not been developed. The AMP includes some discussion on forecasting replacement of the older assets.	Create and implement a replacement strategy for all assets and include in AMP.	
Asset maintenance	Failures are analysed and operational/maintenance plans adjusted where necessary	Failures are informally analysed, but no records kept of the outcomes or further corrective actions/work.	Document and regularly review a maintenance plan for assets including emergency, corrective and preventative measures.	Works Manager to review maintenance plan and record failure analysis by 31 January 2010.



Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
Asset Management Information System	Adequate system documentation for users and IT operators	No AMIS in place	Purchase / Develop Asset Management software and roll over all asset data to one system.	Environmental Health Officer to implement the ERA AMIS tools by 31 December 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.	
	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.	
	Physical security access controls appear adequate	No AMIS in place	Ensure adequate physical security access controls such as swipe cards are implemented.	
	Data backup procedures appear adequate	No AMIS in place	Create and implement backup procedure for asset data.	
	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.	
Risk management	Management reports appear adequate for the licensee to monitor licence obligations	No AMIS in place	Create and implement procedures for producing regular reports to monitor assets and link to licence obligations.	Environmental Health Officer to amend the AMP by 31 January 2010
	The probability and consequences of asset failure are regularly assessed	Included in the AMP review, but should have a risk register that is reviewed on a more regular basis than once a year.	Create and document risk register including the treatment and consequences of asset failure. Include in AMP.	



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 has been updated (Revision 3) recently. However, some information still lacking and past reviews have been sporadic.	Create an asset management review procedure to ensure system is reviewed regularly.	Environmental Health Officer to review the AMP by 31 January 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. The level of documentation and management systems is very basic, but 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 License. The audit recommendations are aimed at improving the strength of internal controls to maintain compliance.

The primary deficiencies with the operation of the Water Services Licence are in the area of availability of the customer service charter, asset management systems and planning, creation, disposal and reviewing of assets performance. The AMP also requires additional policies and procedures for asset operations and maintenance. The current AMP is adequate, but a basic AMIS needs 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 Lake Grace (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.

Lake Grace is a small town located approximately 268 kilometres south east of Perth. The town has a population of approximately 630, 200 Residential Dwellings and 36 Commercial/Industrial Buildings. The Water Services Include:

- » The operation, maintenance and expansion of approximately 6.1kms of sewer collection system for the Shire of Lake Grace including pump stations and pressure mains; and
- » Wastewater Treatment Plant (WWTP) which collects and treats approximately 33.7ML 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/22, 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 were:

- » 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/22, Licence Version 4 dated 15 November 2004;
- » Customer Services Charter – Revised July 2006;
- » Asset Management Plan – Revised January 2007;
- » Relevant correspondence between the Shire and the ERA; and



- » 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

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

- » Contingency Planning
- » Capital Expenditure Planning
- » Review AMS

The risk assessment scoring systems are included in Appendix C.

1.4 Audit Team

The Audit Team was made up of fulltime employees of GHD. No subconsultants were engaged to assist in the audits.

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 – Maurice Walsh

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 Table 1 and Table 2.

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



Compliance status	Rating	Description of 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 | 16 hrs |
| 5. Total | 42 hrs |



2. Previous Audit

The status of the recommendations from the November 2005 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 has been reviewed – January 2007. Maintenance Schedule created, working schedules to be implemented. Other components of the AMS to be developed and implemented and if possible, an Asset Management Information System to be purchased/developed.
Technical Standards (Clause 8)	
Before embarking on major works on the system, the relevant departments, such as Water Corporation, Department of Environment, Health Department, etc, be consulted to ensure the latest standards are complied with. Periodically check, via on-line access to the Government Gazette, to ensure that the latest technical standards are available for the provision of and the undertaking, maintenance and operation of Water Services.	No new works in the foreseeable future, but will develop and implement Technical Standards as applicable.
Industry Standards (Clause 9)	
The Shire to update the AMP and to ensure adherence to the appropriate technical standards, as per the clause.	No further action is required as this is no longer a requirement of the license.
Specific Information to be Provided (Clause 14)	
There have been no overflows since the last audit, so it is presumed that notification would occur within the specified time, should an overflow occur.	No further action is required as this is no longer a requirement of the license.



Previous audit recommendation	Progress / Further action required
Performance of functions by Licensee (Clause 15)	
There have been no complaints since the last audit, so it is presumed that complaints would be dealt with within the specified time.	No further action needed. Included in the revised Customer Services Charter.
Consumer Consultation (Clause 18)	
No changes undertaken recently, but public meetings would be held should the need arise.	No further action required as no new works are planned.
Customer Service Charter (Clause 19)	
The Charter was reviewed in 2003, so is due for a review and update in 2006.	The Customer Service Charter was reviewed in July 2006.
Dispute Resolution (Clause 20)	
As part of the Charter upgrade, a more detailed reference to alternative dispute resolution options should be included.	No further action needed. Dispute resolution has been included in Section 2.9 of the Customer Services Charter.

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, in particular the Asset Register, needs to be updated immediately and forwarded onto the Authority for approval.	No further action needed. The AMP was updated (January 2007) and the ERA to be notified.
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 Principal Works Supervisor to ensure that it is appropriate for the system.	The revised AMP includes Maintenance Schedules. The Asset Register needs to be include additional information on the pipe network.
Risk Analysis and Contingency Planning	
There is a sewerage reserve fund which appears in the annual budget and gets regular inputs of cash and there is a local plumber available on call.	No further action needed. Risk Analysis and Contingency Planning have been included in the revised AMP.



Previous audit recommendation	Progress / Further action required
Financial Planning	
As part of the AMP review, the financial planning needs to be updated.	No further action needed. Financial Planning has been included in the revised AMP.
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.	No further action needed. Capital Expenditure Plan has been included in the revised AMP.
Review	
The AMP should be reviewed and updated as soon as possible. The AMP and Customer Service Charter (CRC) 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.	No further action needed. The AMP and CSC were reviewed and updated.



3. Operating Licence Audit

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

- » 4 Pump Stations and pressure mains;
- » 6150m Reticulation Network;
- » Wastewater Treatment Plant (WWTP) – Including Imhoff Tank, Primary pond, 2 lagoons;
- » Effluent re-use lagoon, chlorination system; and
- » Irrigation of the oval.

Operational improvements were progressively implemented over the period. Documentation of the “As Constructed” status of the systems has been captured.

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

The town’s sewage demand profile has been stable in recent years. Growth is not predicted during the next five year period.

The Shire completes most of the breakdown and planned works from current staff resources, but has access to licensed plumbers from adjoining towns when required. The systems have proved very reliable over the past three years with hardly any breakdowns and very minor blockages.

3.1 Operational Audit

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.	Yes - Drawing OWR-OA-037 (B)	5
General duty to provide services - Clause 4.	The Licensee is to —		5
	(a) provide the Water Services; and	The Shire is providing an effective and reliable wastewater service.	5
	(b) undertake, maintain and operate any Water Services Works, specified in the Licence.	The Shire undertakes, maintains and operates the system 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 is compliant with the Regulations	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;	The Shire has a simple Asset Management Plan and asset register system, but lacks a system to record and document maintenance and operational activities.	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 (dated Jan 2006) provided to 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 general requirements for maintaining the system are documented in the Asset Management Plan (January 2007), however a system is not available to record activities and tasks, nor monitor the performance of the assets.	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 are completed in accordance with the schedule in the AMP. Documentation of the completed activities is required.	2
	(d) The scope of the asset management system report under paragraph (a) (iii) will be set by the Economic Regulation Authority.	Noted.	



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
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
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.	This is no longer a requirement of the Licence.	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. No new work has been completed during the audit period.	5
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 are up to date and third party audited.	5
Prices or charges- Clause 11.	In setting process 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



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
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.	The use of subcontractors is limited and under the direct control of Shire staff. The Shire's personnel understand their responsibilities.	5
	(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 is an essential requirement of gaining approval to connect to the Licensee's schemes.	Application forms have not been prepared. 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 12.	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



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
Performance of functions by the Licensee - Clause 15.	(a) The Licensee shall comply with the quality and performance standards set out in Schedule 2.	No problems. Well maintained and operated.	4
	(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, published in local phone book, and included in section 2.9 of the Customer Charter.	5
	(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.	Well maintained and operated.	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
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.	The scheme has been registered with DEC.	5



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
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 2003.	5
	(b) The Customer Service Charter must be submitted to the Authority for his approval by 1 July 1997. The Authority may require changes to be made to the Charter.	Submitted for approval and approved with comments by ERA on 4 November 2004.	5
	(c) The Customer Service Charter:		
	(i) should be drafted in 'plain English'; and	Yes	5
	(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.	One class only.	N/A



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
	(e) The Licensee shall review the Customer Service Charter not less than once in every period of 36 months.	Yes – reviewed and reissued in July 2003.	5
	(f) Any proposed amendment to the Customer Service Charter or replacement thereof must also be forwarded to the Authority for approval prior to implementation.	Submitted for approval and approved by ERA on 4 November 2004.	5
	(g) The Licensee must make the Customer Service Charter available to its Customers in the following ways: (i) by prominently displaying it in those parts of the Licensee's offices to which Customers regularly have access; (ii) by providing a copy, upon request, and at no charge, to a Customer; and (iii) by advising Customers of the availability of the Customer Service Charter on an annual basis.	Copies available on request at the Reception counter. Customers not advised of the availability and not displayed prominently.	1
	(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.	Services are provided in accordance with the Customer Service Charter	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.	Customer Services Charter documents the procedures, processes and responsibilities in accordance with the Licence timeframes. A log book is available in Reception to record complaints.	4
	(b) To ensure the effectiveness of such a process the Licensee shall, as a minimum:		



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
	(i) record details of each Customer Complaint and its outcome;	Included in the Log Book.	4
	(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 available and trained in dispute customer complaints. CEO to attend to disputes should any arise.	4
	(iii) make such arrangements as are necessary to ensure that if possible Complaints can be resolved in the timeframes set out in subclause (a).	CEO to handle.	4
	(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:	Not required during the period.	N/A
	(i) mediate the dispute; or		
	(ii) direct the Licensee and Customer to binding arbitration.		



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
	(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
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 (Cl.=clause, Sch.=schedule)	Consequence (1=minor, 2=moderate, 3=major)	Likelihood (A=likely, B=probable, C=unlikely)	Inherent Risk (L=Low, M=Medium, H=High)	Adequacy of existing controls (S=strong, M=moderate, W=weak)	Compliance Rating (Refer to the 5-point rating scale in Table 1 for details)				
						1	2	3	4	5
Operating Area Schedule 1	Cl 2(b)	1	C	L	S					X
General duty to provide services	Cl 4 (a & b)	2	C	M	S					X
Regulations prescribing standards of services	Cl 5	2	C	M	S					X
Asset Management System	Cl 6 (a – d)	2	A	H	W		X			
Operational Audit	Cl 7 (a – c)	2	C	M	S					X
Technical Standards	Cl 8	1	C	L	W			X		
Industry Codes	Cl 9	1	C	L	W					X
Accounting Records	Cl 10	2	C	M	S					X
Prices or charges	Cl 11	2	C	M	S					X
Methods or principles to be applied in the provision of Water Services	Cl 12 (a – b)	2	B	M	S					X
Amendment, revocation or surrender	Cl 13	NA	NA	NA	NA	NA	NA	NA	NA	NA
Specified information to be provided	Cl 14 (a – c) Schedule 3	2	B	M	S					X



Operating area	Operating Licence reference (Cl.=clause, Sch.=schedule)	Consequence (1=minor, 2=moderate, 3=major)	Likelihood (A=likely, B=probable, C=unlikely)	Inherent Risk (L=Low, M=Medium, H=High)	Adequacy of existing controls (S=strong, M=moderate, W=weak)	Compliance Rating (Refer to the 5-point rating scale in Table 1 for details)				
						1	2	3	4	5
Performance of functions by the Licensee Performance Standards – Sewerage Services	CI 15 Schedule 2	2	B	M	S					X
Terms and conditions of Customer Contracts	CI 16 (a – b)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Obligations to public authorities and other Licensees	CI 17	2	B	M	S					X
Consumer consultation	CI 18 (a – b)	1	C	L	S					X
Customer Service Charter	CI 19 (a – h)								X	
Dispute resolution	CI 20 (a – g)	2	B	M	M				X	
Customer Surveys	CI 21	1	C	L	NA	NA	NA	NA	NA	NA



4. Asset Management System Review

The Asset Management System comprises the Asset Management Plan, which is reasonably comprehensive and includes most of the sections and information required by the ERA. The Asset Management System is reasonably basic and understood by the staff and generally suitable for the scheme. 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 timesheets, not specific sewerage schedules.

While the current components provide a basic maintenance management system, they do not include the predictive and records history capabilities desirable in an Asset Management System as detailed 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.

4.1 Asset Management System Review

The following information, evidence and inspections were reviewed:

Table 7 Asset Management System Review Checklist

1	Asset Planning	Rating	Comments
	Planning process and objectives reflect the needs of all stakeholders and is integrated with business planning	1	The AMP contains minimal information on the asset planning process or linkages to the business planning processes.
	Service levels are defined	3	Service levels are defined at the scheme level, however not at the asset level.
	Non-asset options (e.g. demand management) are considered	1	While not currently addressed in the AMP, there are limited opportunities within a small country scheme.
	Lifecycle costs of owning and operating assets are assessed	1	Lifecycle costs are included in the AMP at a summary level in Section 9. However there is no detail on how these have been derived or calculated as an asset level.
	Funding options are evaluated	3	The only viable funding options are grants and rates income.
	Costs are justified and cost drivers identified	3	The AMP contains summary costs information. Justification and drivers are not detailed..



1	Asset Planning	Rating	Comments
	Likelihood and consequences of asset failure are predicted	4	Typical failure modes and assessments have been included in Section 6 of the AMP
	Plans are regularly reviewed and updated	1	Plans have been reviewed approximately every 3 years.

2	Asset Creation and Acquisition	Rating	Comments
	Full project evaluations are undertaken for new assets, including comparative assessment of non-asset solution	3	Adequate - No expansion, renewal as and when required, e.g. pumps.
	Evaluations include all life-cycle costs	1	The AMP does not adequately address the process of asset lifecycle cost evaluation.
	Projects reflect sound engineering and business decisions	N/A	Has not been required during the audit period.
	Commissioning tests are documented and complete	N/A	Has not been required during the audit period.
	Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood	3	Included in the AMP and is part of Shire's corporate requirements, policies and strategies.

3	Asset Disposal	Rating	Comments
	Under-utilised and under-performing assets are identified as part of a regular systematic review process	1	The performance of assets is observed during maintenance or repairs, but not recorded and not on a regular systematic basis.
	The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	1	The AMP includes comments on performance of the treatment and pump station assets, but no performance monitoring has been conducted.
	Disposal alternatives are evaluated	3	Only asset disposed are pumps, which are normally taken by supplier.
	There is a replacement strategy for assets	1	Strategy has not been documented in the AMP. Past replacements have been on an "as and when" required basis.



4 Environmental Analysis	Rating	Comments
Opportunities and threats in the system environment are assessed	5	Opportunities and threats are including in Section 2.2 of the AMP.
Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved	3	While the system works well, performance is not measured or evaluated.
Compliance with statutory and regulatory requirements	4	Regulatory requirements are documented in Section 5 of the AMP. Periodic confirmation of compliance has not been completed.
Achievement of customer service levels	5	The Shire has hardly any complaints and the system has performed within the defined service levels.

5 Asset Operations	Rating	Comments
Operational policies and procedures are documented and linked to service levels required	4	The operational policies and procedures are detailed in Section 7 of the AMP and are generally related to the service levels.
Risk management is applied to prioritise operations tasks	5	Risk management of operations is well covered in Section 6 of AMP.
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	The AMP includes a good level of detail on the pump stations and treatment plant assets, but very limited information on the gravity and pressure mains network.
Operational costs are measured and monitored	5	Budget vs Actual operation costs are adequately detailed in Section 9.4 of the AMP and recorded in the financial management system.
Staff receive training commensurate with their responsibilities	4	Staff have adequate training on operating the system, with additional training on safety (chlorine, hygiene, etc).



6	Asset Maintenance	Rating	Comments
	Maintenance policies and procedures are documented and linked to service levels required	4	The maintenance plan is detailed in Section 8 of the AMP, however not linked to the service levels. The plan does not cover policy, but is aimed at preserving the system capability.
	Regular inspections are undertaken of asset performance and condition	3	Regular inspections are completed and detailed in the plans. Inspections are not recorded or outcomes documented.
	Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule	4	Documented in the AMP. Maintenance schedule has been created and is implemented.
	Failures are analysed and operational/maintenance plans adjusted where necessary	2	Failures are informally analysed, but not documented and plans not amended..
	Risk management is applied to prioritise maintenance tasks	4	Risk management is well prepared and translated into the maintenance plan and schedules.
	Maintenance costs are measured and monitored	4	Maintenance costs are captured in the financial management system. Budget and Actual have been recorded in the AMP.

7	Asset Management Information System (AMIS)	Rating	Comments
	Adequate system documentation for users and IT operators	0	No AMIS in place
	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	0	No AMIS in place



8 Risk Management	Rating	Comments
Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system	4	Risk are evaluated and included in Section 6 of the AMP. Specific policies or procedures have not been developed for the sewerage system.
Risks are documented in a risk register and treatment plans are actioned and monitored	3	Risks are documented in the AMP. Treatment plans and actions have not been actioned.
The probability and consequences of asset failure are regularly assessed	2	While the assessment has been completed in the AMP, the application of risk management to asset failures has not been practiced.

9 Contingency Planning	Rating	Comments
Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks	5	Well covered in Section 7 of the AMP.

10 Financial Planning	Rating	Comments
The financial plan states the financial objectives and strategies and actions to achieve the objectives	4	Generally good statement of the philosophy and objectives is included in Section 9.1 of the AMP.
The financial plan identifies the source of funds for capital expenditure and recurrent costs	5	Indicated in budget and detailed in Section 9.4.2 of the AMP.
The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets)	5	Indicated in budget and detailed in Section 9.4..1 of the AMP.
The financial plan provide firm predictions on income for the next five years and reasonable indicative predictions beyond this period	4	Table 5 in Section 9.4.4 of the AMP provides a projection to 2011/12, but not beyond.
The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	4	Costs have been detailed in Table 5 of the AMP.
Significant variances in actual/budget income and expenses are identified and corrective action taken where necessary	4	Variances indicated, mainly grants to make up for funding shortages.



11 Capital Expenditure Planning	Rating	Comments
There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates	4	Section 10 (Table 6) of the AMP includes the CAPEX Plan at a summary level.
The plan provide reasons for capital expenditure and timing of expenditure	4	Adequately covered in Table 7 of the AMP
The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	4	Recommended CAPEX is based on condition, reliability and performance issues.
There is an adequate process to ensure that the capital expenditure plan is regularly updated and actioned	4	The CAPEX is reviewed annually as detailed in Section 12.2 of the AMP.

12 Review of Asset Management System	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	The AMP has been updated in January 2009, however some information still lacking.
Independent reviews (eg internal audit) are performed of the asset management system	5	Completed in 2006 and again in 2009.

4.2 Asset Management System Review 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			X			
Asset creation/ acquisition			X			
Asset disposal		X				
Environmental analysis					X	
Asset operations					X	
Asset maintenance				X		



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 Management Information System	X					
Risk management				X		
Contingency planning						X
Financial planning					X	
Capital expenditure planning					X	
Review of AMS					X	



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.

Overall the Shire's operation of the Water Services Licence is compliant with major or material requirements of the License. The audit recommendations are aimed at improving the strength of internal controls to maintain compliance.

The primary deficiencies with the operation of the Water Services Licence are in the area of availability of the customer service charter, asset management systems and planning, creation, disposal and reviewing of assets performance. The AMP also requires additional policies and procedures for asset operations and maintenance. The current AMP is adequate, but a basic AMIS needs be implemented to keep track of activities and demonstrate that procedures are followed.

The primary deficiencies with the operation of the Water Services Licence are in the area of asset management plan, and availability of the customer service charter. The AMP requires updating and expanding to include additional information as detailed in Section 5.2 below and in line with guidance 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:

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	Basics are in place with a simple Asset Management Plan and asset register system.	Develop and implement manuals, policies and procedures for sewer system and include in AMP. Review the AMP annually.
(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 (January 2007).	



Licence Condition	Compliance Rating	Non-compliance issue	Recommended action
(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 completed in accordance with the schedule in the AMP. Documentation required.	
<p>Customer Service Charter Clause 19</p> <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>	1	<p>Copies available on request at the Reception counter.</p> <p>Customers not advised of the availability and not displayed prominently.</p>	Ensure the customer service charter is available at request and displayed at reception and advised customers of the availability of the charter such as through newsletters at least once per year.



5.2 Asset Management System Review

The following improvements are recommended for the Asset Management System:

Asset Management Process	Effectiveness Criteria	Compliance Rating	Non-Compliance Issue	Recommended Action
Asset planning	Planning process and objectives reflect the needs of all stakeholders and is integrated with business planning	1	The AMP does not adequately address the asset planning processes.	Amend the AMP to include additional information on the asset planning process.
	Non-asset options (e.g. demand management) are considered	1	Although there are very limited opportunities in a small town scheme, consideration should be included in the AMP	Identify the potential for non-asset options to manage demand and include in AMP.
	Lifecycle costs of owning and operating assets are assessed	1	The AMP does not include the lifecycle costs of the pipe network.	Identify and document asset lifecycle costs for all assets and include in AMP.
	Plans are regularly reviewed and updated	2	Plans have been reviewed approximately every 3 years, but should be reviewed annually.	Revise the AMP (January 2009 version) and include deficiencies in asset planning, creation/acquisition and disposal.
Asset creation/ acquisition	Evaluations include all life-cycle costs	1	The AMP does not adequately address the process of developing or evaluating lifecycle costs.	Document the process of establishing the asset lifecycle costs and evaluation of options.



Asset Management Process	Effectiveness Criteria	Compliance Rating	Non-Compliance Issue	Recommended Action
Asset disposal	Under-utilised and under-performing assets are identified as part of a regular systematic review process	1	The AMP includes discussion on the Pumps and Treatment assets, but little information on the pipe network and no information on regular performance reviews.	Create and implement a process for identifying the capacity of all assets, performance monitoring process and record past performance. Include in the AMP.
	The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	1	The AMP includes some discussion on replacement options for the current assets, but limited information on performance.	Create and implement a review process for when under or poor performing assets are identified and include in AMP.
	There is a replacement strategy for assets	1	A replacement strategy for all assets has not been developed. The AMP includes some discussion on forecasting replacement of the older assets.	Create and implement a replacement strategy for all assets and include in AMP.
Asset maintenance	Failures are analysed and operational/maintenance plans adjusted where necessary	2	Failures are informally analysed, but no records kept of the outcomes or further corrective actions/work.	Document and regularly review a maintenance plan for assets including emergency, corrective and preventative measures.



Asset Management Process	Effectiveness Criteria	Compliance Rating	Non-Compliance Issue	Recommended Action
Asset Management Information System	Adequate system documentation for users and IT operators	0	No AMIS in place	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.
	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	0	No AMIS in place	Create and implement procedures for producing regular reports to monitor assets and link to licence obligations.
Risk management	The probability and consequences of asset failure are regularly assessed	2	Included in the AMP review, but should have a risk register that is reviewed on a more regular basis than once a year.	Create and document risk register including the treatment and consequences of asset failure. Include in AMP.



Asset Management Process	Effectiveness Criteria	Compliance Rating	Non-Compliance Issue	Recommended Action
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 has been updated (Revision 3) recently. However, some information still lacking and past reviews have been sporadic.	Create asset management review procedure to ensure system is reviewed regularly and deficiencies are addressed.



5.3 Conclusion

The Shire's wastewater services systems are generally 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 with regard to the Operating Licence and Asset Management System should provide the Shire with an assurance that the wastewater system can continue to perform effectively. The purchase 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 by 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
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;	Revise the AMP to include the additional information detailed in Section 6.2.	Environmental Health Officer	31 January 2010
(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.	Revise the AMP to include the additional information detailed in Section 6.2.	Environmental Health Officer	31 January 2010
(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.	Shire needs to document operations, repairs and maintenance activities.	Environmental Health Officer	31 January 2010
Customer Service Charter – Clause 19 (g) The Licensee must make the Customer Service Charter available to its Customers in the following ways: (i) by prominently displaying it in those parts of the Licensee's offices to which Customers regularly have access; (ii) by providing a copy, upon request, and at no charge, to a Customer; and (iii) by advising Customers of the availability of the Customer Service Charter on an annual basis.	Shire to advise the customers of the availability of the CSC on an annual Basis. Note: A notice was included with the Rates Notices in July 2009.	Environmental Health Officer	30 July 2009



6.2 Asset Management System Post-Audit Implementation Plan

Asset Management Process	Recommended Action	Responsible position	Date action to be completed
Asset Planning	Amend the AMP to include additional information on the asset planning process.	Environmental Health Officer	31 January 2010
	Identify the potential for non-asset options to manage demand and include in AMP.		
	Identify and document asset lifecycle costs for all assets and include in AMP.		
	Revise the AMP (January 2009 version) and include deficiencies in asset planning, creation/acquisition and disposal.		
Asset Creation/Acquisition	Document the process of establishing the asset lifecycle costs and evaluation of options.	Environmental Health Officer	31 January 2010
Asset Disposal	Create and implement a process for identifying the capacity of all assets, performance monitoring process and record past performance. Include in the AMP.	Environmental Health Officer	31 January 2010
	Create and implement a review process for when under or poor performing assets are identified and include in AMP.		
	Create and implement a replacement strategy for all assets and include in AMP.		
Asset Maintenance	Document and regularly review a maintenance plan for assets including emergency, corrective and preventative measures.	Works Manager	31 January 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.		



Asset Management Process	Recommended Action	Responsible position	Date action to be completed
	Ensure Asset Management Information System can only be accessed by authorised persons.		
	Ensure adequate physical security access controls such as swipe cards are implemented.		
	Create and implement backup procedure for asset data.		
	Create and implement procedures for producing regular reports to monitor assets and link to licence obligations.		
	Create and implement procedures for producing regular reports to monitor assets and link to licence obligations.		
Risk Management	Create and document risk register including the treatment and consequences of asset failure. Include in AMP.	Environmental Health Officer	31 January 2010
Review of AMS	Create an asset management review procedure to ensure system is reviewed regularly.	Environmental Health Officer	31 January 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.

All matters listed should be attended to. Implement those which don't comply at all, review and upgrade those which are partially implemented and review and keep those which are in place, up to date.

All matters listed, should be fully implemented, in accordance with the Licence requirements by 30 November 2010.

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 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	Strong	5
General duty to provide services	CI 4 (a & b)	2	C	Medium	Strong	4
Regulations prescribing standards of services	CI 5	2	C	Medium	Strong	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	B	Medium	Moderate	4
Performance of functions by the Licensee	CI 15	2	B	Medium	Strong	4
Performance Standards – Sewerage Services	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	B	Medium	Moderate	4



Operating Licence Compliance Element	Operating Licence Reference	Risk Consequence Rating	Likelihood Rating	Inherent Risk Rating	Adequacy of Existing Controls	Audit Priority
Dispute resolution	CI 20 (a – g)	1	C	Low	Moderate	5
Customer Surveys	CI 21	NA	NA	NA	NA	NA



Appendix B

Asset Management System Risk Assessment



Table 10 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	Weak	3
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	Weak	3



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 disposal	<p>Are under-utilised and under-performing assets identified as part of a regular systematic review process</p> <p>Are the reasons for under-utilisation or poor performance critically examined and corrective action or disposal undertaken</p> <p>Are disposal alternatives evaluated</p> <p>There is a replacement strategy for assets</p>	1	C	Low	Weak	5
Environmental analysis	<p>Are opportunities and threats in the system environment assessed</p> <p>Are performance standards (availability of service, capacity, continuity, emergency response, etc) measured and achieved</p> <p>Does Shire comply with statutory and regulatory requirements</p> <p>Does Shire achieve customer service levels</p>	1	C	Low	Weak	5
Asset operations	<p>Are operational policies and procedures documented and linked to service levels required</p> <p>Is risk management applied to prioritise operations tasks</p> <p>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</p> <p>Are operational costs measured and monitored</p> <p>Do staff receive training commensurate with their responsibilities</p>	2	B	Medium	Weak	3



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 maintenance	<p>Are maintenance policies and procedures documented and linked to service levels required</p> <p>Are regular inspections undertaken of asset 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>	2	B	Medium	Weak	3
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	B	Medium	Weak	3



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
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	B	Medium	Weak	3
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



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
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 asset life and condition identified in the asset management plan</p> <p>Is there an adequate process to ensure that the capital expenditure plan is regularly updated and actioned</p>	3	B	High	Weak	1
Review of AMS	<p>Is a review process in place to ensure that the asset management plan and the asset management system described therein are kept current</p> <p>Are independent reviews (eg internal audit) performed of the asset management system</p>	2	A	High	Weak	1



The following criteria were 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



As per the ERA's Audit Guidelines – September 2006

Table 11 Consequence Ratings

Rating	Supply quality	Examples of Non-Compliance		
		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 12 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 13 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 14 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 15 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 16 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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2	J Alexander	M Bourhill	<i>M Bourhill</i>	S Henderson	<i>S Henderson</i>	21/08/2009
3	M Bourhill	M Bourhill		S Henderson		