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Shire of Dumbleyung

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 Dumbleyung (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.

Dumbleyung is a small town located approximately 267 kilometres south east of Perth. The town has a population of approximately 250 with 130 properties, 133 Residential Dwellings and 32 Commercial/ Industrial Buildings connected to the scheme. The Water Services include the operation and maintenance of:

- » Approximately 4kms of gravity collection mains,
- » Two pump stations,
- » Pressure main;
- » Wastewater Treatment Plant (WWTP) which collects and treats approximately 28.9ML per annum of the residential and commercial wastewater.
- » Effluent reuse scheme which treats wastewater by disinfection and disposal by reticulated to the sports oval.

The last audit was completed in January 2006 for the period 1 December 2002 to 30 November 2005. 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 during this audit period. 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 is generally in good condition, operated effectively, is well maintained. The system performs to an acceptable level and within operational requirements of the Licence.

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) Summary of Current Issues and Recommendations – Operating Licence

Licence Condition	Non-Compliance Issue	Recommended Action	Action Plan
Asset management system - Clause 6	No record of advice to the Authority on the new AMP.	Update the AMP and notify the Authority.	Environmental Health Officer
(a) The Licensee is to:			30 September 2010
(ii) notify details of the system and any changes to it to the Authority,;			



Licence Condition	Non-Compliance Issue	Recommended Action	Action Plan
(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 and operating the system are documented in the Asset Management Plan (December 2007), however does not include or link to maintenance and operational manuals.	Develop and implement manuals, policies and procedures for sewer system and include in AMP.	Environmental Health Officer 30 September 2010
Performance of functions by the Licensee - Clause 15. (a) The Licensee shall comply with the quality and performance standards set out in Schedule 2.	The Shire has not been able to document without flow metering on inflows to WWTP.	Install flow meters on the WWTP inlet , complete Schedule 5 (new Licence) compliance reporting and forward to the Authority annually.	Environmental Health Officer 30 June 2010
Customer Service Charter - Clause 19			
g) The Licensee must make the Customer Service Charter available to its Customers in the following ways:	Copies have not been available on request.	Ensure the customer service charter is available at request, prominently displayed at reception and customers are advised of the availability of the charter at least once a year.	Environmental Health Officer 30 June 2010
(i) by prominently displaying it in those parts of the Licensee's offices to which Customers regularly have access;	The Charter is not displayed in the Shire reception area.		
(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.	Customers are not advised of the availability of the Charter.		

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 simple manual documentation process, which is 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. Extracting sewerage scheme historical costs is difficult and cumbersome from the timesheet system.

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) Summary of Current Issues and Recommendations – Asset Management System Requirements

Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
Asset planning	Lifecycle costs of owning and operating assets are assessed	Lifecycle Management is summarised in Section 4 of the AMP, but not detailed to the asset level.	Identify and document lifecycle costs for all assets and include in AMP.	Environmental Health Officer 30 September 2010
Environmental analysis	Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved	Performance standards are set in Section 2 of the AMP, but not measured and evaluated in a systemic way.	Implement a measurement and monitoring systems to verify asset performance. Include in AMP.	Environmental Health Officer 30 September 2010
Asset operations	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	Asset Register (Appendix D of the AMP) has required asset attributes for most assets. Limited information has been provided on the gravity and pressure mains pipe networks.	Expand the asset attribute information in the asset register for the gravity and pressure mains pipe network.	Environmental Health Officer 30 September 2010
Asset maintenance	Regular inspections are undertaken of asset performance and condition	Inspections are scheduled and completed as detailed in the Section 4.2 of the AMP. Records of completed tasks and activities are not kept.	Implement a system (AMIS) for recording completion of inspections and asset performance and condition.	Environmental Health Officer 30 September 2010
	Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule	Plans are included in Section 4.2 of the AMP. Maintenance Worksheets (Appendix G) have not been completed to verify activities and tasks have been completed.	Identify and document maintenance requirements (emergency, corrective and preventative) for assets and create and implement maintenance plans. Include in AMP.	Environmental Health Officer 30 September 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, but performed informally	Purchase / Develop Asset Management software and roll over all asset data to one system.	Environmental Health Officer 30 September 2010
	Input controls include appropriate verification and validation of data entered into the system	No AMIS in place, but performed informally	Create data verification procedure for updating asset data in Asset Management software.	Environmental Health Officer 30 September 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.	Environmental Health Officer 30 September 2010
	Physical security access controls appear adequate	No AMIS in place	Ensure adequate physical security access controls such as swipe cards are implemented.	Environmental Health Officer 30 September 2010
	Data backup procedures appear adequate	No AMIS in place	Create and implement backup procedure for asset data.	Environmental Health Officer 30 September 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.	Environmental Health Officer 30 September 2010



Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
	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.	Environmental Health Officer 30 September 2010
Capital Expenditure Planning	There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates	Documented in Section 5.5 the AMP. Shire to revise and expand to provide actions, responsibilities and dates.	Expand the Capital Investment plan and include actions, responsibilities and dates in AMP.	Environmental Health Officer 30 September 2010
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	The AMS is detailed in the AMP, albeit more about the assets than systems. While current for the audit period, the review process detailed in the AMP had not commenced and is unlikely to be completed in time.	Create asset management review procedure to ensure system is reviewed regularly.	



The outcome of the inspection of the water services and 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 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 availability of the customer service charter, asset management systems, historical activities documentation, system performance monitoring and annual review of AMP. The current AMP is adequate, but a basic AMIS needs be implemented to keep track of activities and demonstrate that procedures are followed.



1. Introduction

This Operating Licence audit and Asset Management System review was carried out on the water services (sewerage) for the Shire of Dumbleyung (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.

Dumbleyung is a small town located approximately 267 kilometres south east of Perth. The town has a population of approximately 250 and 130 connected properties. The town of Dumbleyung has 133 Residential Dwellings and 32 Commercial/Industrial Buildings. The Shire provides operations and maintenance of:

- » Approximately 4kms of sewer collection system for the Shire of Dumbleyung
- » Two pump stations
- » Pressure main
- » Wastewater Treatment Plant (WWTP) which collects and treats approximately 28.9ML per annum of the residential and commercial wastewater.
- » Effluent reuse scheme which treats wastewater by disinfection and reticulates to the sports oval.

The scope of services and licence compliance requirements are detailed in the Shire of Dumbleyung's Operating Licence, Licence Registration Number IL/16, Licence Version 4 dated 28th September 2004. While the Licence was amended on 6 August 2006, the older version of the Licence was used as the basis of this audit and review because the new version had not been implemented by the Shire and applied for the minority of the audit period. 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 - GHD
- » Operating Licence – IL/16, Licence Version 4 dated 28th September 2004
- » Customer Services Charter – June 2006
- » Asset Management Plan – December 2007
- » Relevant correspondence between the Shire and the ERA
- » Reports - Schedules 3

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 Services Charter
- » Asset Management System Risk Assessment

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
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 | 28 hrs |
| 5. Total | 54 hrs |



2. Previous Audit

The status of the recommendations from the January 2006 Audit Report for the period 1 December 2002 to 30 November 2005 are shown in the following tables. The status of the recommendations demonstrates that some improvement has occurred since the previous audit and review, particularly in the asset management systems area. 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)	
Contact the ERA on the requirements of Clause 6 (a) (ii).	The Shire has developed an AMP (System) since the last audit. There was no evidence that the Shire has advised the Authority.
Specific Information to be Provided (Clause 14)	
Complete and forward Schedule 3 for 2005 as a matter of urgency. Establish milestone trigger system to ensure the reports are prepared and forwarded on time.	Schedule 3 forms were forwarded to the Authority. This requirement is not covered by Schedule 5 in the new Licence and a report is required annually.
Performance of functions by Licensee (Clause 15)	
The Shire needs to implement measurement processes to capture and report the information requirements of Schedule 2.	Shire is not able to provide all of the information required by Schedule 2 without flow measurement at the WWTP.
Customer Service Charter (Clause 19)	
Either include a copy of the document on the Shire's website or display it on the noticeboard.	No progress. Customers need to be notified about the Customer Service Charter and a copy is to be prominently displayed.
Dispute Resolution (Clause 20)	
An electronic records system should be implemented and procedures laid down.	No progress. A Policy and Procedure needs to be developed and implemented.



2.2 Asset Management System Review

Table 4 Asset Management System Review

Previous audit recommendation	Progress / Further action required
Asset Planning/Creation/Acquisition	
<p>Establish the strategic objectives of assets, Document life cycle costs for all assets, Implement a system of full project evaluation for new assets, and Document asset details to component level.</p>	<p>Complete. Asset Planning, Creation and Acquisition is addressed in AMP</p>
Environmental Analysis	
<p>Document the performance requirements for all assets (availability of service, capacity, continuity, and emergency response), Document the asset system objectives, and Prepare opportunities and threats assessment for each system.</p>	<p>Complete. Asset performance, capability, continuity, emergency response and objectives are addressed in AMP</p>
Asset Management System Analysis	
<p>Document the asset system components, Assess the asset performance and condition, Update asset register and plans to system components level, Record the asset type, location, material and an assessment of assets' physical/structural condition, Instigate a system to assess asset efficiency, including performance capacity and deficiencies, Document the outcomes in an Asset Management Plan, and Update asset life, predictive failure modes and maintenance requirements.</p>	<p>Generally complete. The documentation of the asset system, performance, condition, asset register, performance and capability, outcomes, predictive failures and maintenance requirements are addressed in AMP. The asset register information for the piping network has not been fully documented.</p>
Risk Analysis and Contingency Planning	
<p>Assess the probability and consequences of asset failures, Prepare appropriate contingency plans for high risk failures, and Identify unacceptable risks and prepare risk control measures.</p>	<p>Generally complete. The AMP includes risk assessment and management processes at a good level of detail. Contingency plans have been considered for the assets in the operational plans. Contingency plans have not included response plans for failure in the system components.</p>



Previous audit recommendation	Progress / Further action required
Review	
Instigate a process for the periodic review of the asset management systems.	Partially complete. The AMS was reviewed in Dec 2007. The Plan has not been reviewed during 2008 and is now due.



3. Operating Licence Audit

The wastewater infrastructure are generally in good condition, operated effectively, are well maintained. The system performs to an acceptable level and within the operational requirements of the Licence. The assets included:

- » Pump Stations at Bartram Road (Main);
- » Reticulation and pressure mains;
- » Wastewater Treatment Plant (WWTP); and
- » Effluent re-use lagoons, chlorination system, and irrigation system.

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 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 WWTP has adequate capacity to meet the town’s requirements. The main pump station appears to have greater capacity than currently needed, having been designed and built in the 1960s when the town had a larger population. The length of the gravity sewer reticulation is a modest 4km in length and the rising main is approximately 1km long.

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 very few breakdowns and very minor blockages.

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-035 (B)	5
General duty to provide services - Clause 4.	The Licensee is to —		
	(a) provide the Water Services; and	Yes, services are provided in accord with the Licence requirements	5
	(b) undertake, maintain and operate any Water Services Works, specified in the Licence.	Yes, system is operated and maintained effectively.	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.	Yes, AMP details the levels of service are references the relevant 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 sound Asset Management Plan and asset register system. The system does not include or link to manuals or policies.	4
	(ii) notify details of the system and any changes to it to the Authority, and	No record of advice to the Authority on the new AMP.	1



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
	(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 of December 2005 provided to the 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 and operating the system are documented in the Asset Management Plan (December 2007), however does not include or link to maintenance and operational manuals.	3
	(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 AMP.	5
	(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 Operational Audit and and Asset Management Review was completed 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.	The AMP incudes reference to the relevant technical standards and the site inspection confirmed compliance. This clause is not included in the new Licence	5



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
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. This clause is not included in the new Licence	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.	The Shire prepares annual budgets and Annual Reports which comply with the requirements of the Local Government Act 1995.	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 1995.	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. Where a contractor is appointed the staff ensures that work are executed in accordance with the Shire's policies.	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 are an essential requirement of gaining approval to connect to the Licensee's schemes.	Application forms have not been prepared and are included in Customer Services Charter. The Town is so small that customers approach to the Shire directly if anything is needed. The processes are documented in the Customer Services Charter.	5



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
Amendment, revocation or surrender - Clause 13.	The ERA may determine that the Licence is to be amended..	A New Licence was issued 6 August 2008, Licence 16.	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 within the required timeframe.	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.	The Shire has not been able to document without flow metering on inflows to WWTP.	3
	(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 established and published in local phone book, and Customer Charter. A policy to ensure the one hour rule is adhered to has been implemented.	5



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
	(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.	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.	Based on volume of flows the WWTP has been registered with DEC, however a Licence is not required.	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;	Has not been required during the audit period.	N/A
	(i) hold a public meeting to obtain the Customers views on the performance and operation of the scheme; or		
	(ii) advertise for written submissions on the proposal.		
	(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



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
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 2006.	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.	Revised Charter forwarded to the Authority for approval in June 2006.	5
	(c) The Customer Service Charter:		
	(i) should be drafted in 'plain English'; and	Yes, Customer Services Charter June 2006.	5
	(ii) should address all of the service issues that are reasonably likely to be of concern to its Customers.	Yes, Customer Services Charter June 2006.	5
	(d) Different parts of the Customer Service Charter may be expressed to apply to different classes of Customers.	Not included in the Customer Charter, but not required for this Licence.	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 June 2006. Next revision is due June 2009.	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 dated June 2006.	5
(g) The Licensee must make the Customer Service Charter available to its Customers in the following ways:	Copies have not been available on request.	2	
(i) by prominently displaying it in those parts of the Licensee's offices to which Customers regularly have access;	The Charter is not displayed in the Shire reception area.		
(ii) by providing a copy, upon request, and at no charge, to a Customer; and			



Licence Clause or Schedule	The Licence Obligation	System established by the Licensee to comply with obligations of Licence	Compliance Scale
	(iii) by advising Customers of the availability of the Customer Service Charter on an annual basis.	Customers are not advised of the availability of the Charter.	
	(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.	Yes, assessed during the site inspection and interviews. The Charter accurately describes the delivery of services to the customer	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.	System for recording an managing complaints is detailed in the Charter and is practiced.	4
	(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;	General complaints Log Book. No complaints during the period.	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 have been adequately trained, although have not been required to exercise their skills during the audit period.	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).	Complaints are dealt with informally. Complaints procedures are generally covered in the Charter.	4



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 disputes 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



3.1 Operational Audit Compliance Summary

Table 6 Operational Audit Compliance Summary

Operating area	Operating Licence reference (Cl.=clause, Sch.=schedule)	Compliance Rating (Refer to the 5-point rating scale in Table 1 for details)					
		1	2	3	4	5	NA
Operating Area Schedule 1	Cl 2(b)					5	
General duty to provide services	Cl 4 (a & b)					5	
Regulations prescribing standards of services	Cl 5					5	
Asset Management System	Cl 6 (a – d)				4		
Operational Audit	Cl 7 (a – c)					5	
Technical Standards	Cl 8			3			
Industry Codes	Cl 9					5	
Accounting Records	Cl 10					5	
Prices or charges	Cl 11					5	
Methods or principles to be applied in the provision of Water Services	Cl 12 (a – b)					5	
Amendment, revocation or surrender	Cl 13						NA
Specified information to be provided	Cl 14 (a – c) Schedule 3					5	



Operating area	Operating Licence reference (Cl.=clause, Sch.=schedule)	Compliance Rating (Refer to the 5-point rating scale in Table 1 for details)					
		1	2	3	4	5	NA
Performance of functions by the Licensee	Cl 15 Schedule 2				4		
Performance Standards – Sewerage Services							
Terms and conditions of Customer Contracts	Cl 16 (a – b)						NA
Obligations to public authorities and other Licensees	Cl 17					5	
Consumer consultation	Cl 18 (a – b)					5	
Customer Service Charter	Cl 19 (a – h)				4		
Dispute resolution	Cl 20 (a – g)				4		
Customer Surveys	Cl 21						NA



4. Asset Management System Review

The Asset Management System comprises the Asset Management Plan, asset registers and as constructed drawings which are reasonably comprehensive and includes most of the sections and information required by the Licence. The Asset Management System is reasonably complete 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 asset schedules.

While the current components provide a basic maintenance management system, they do not include the predictive capability or records history 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. The asset attributes information on the piping network has not been captured in the asset register.

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	4	Adequately covered in the AMP for a small town with no growth.
	Service levels are defined	5	Adequately covered in Section 2 of the AMP.
	Non-asset options (e.g. demand management) are considered	4	Considered in the Section 4.1 of the AMP. Very limited opportunity for a small town sewerage scheme.
	Lifecycle costs of owning and operating assets are assessed	2	Lifecycle Management is summarised in Section 4 of the AMP, but not detailed to the asset level.
	Funding options are evaluated	4	Rates income is detailed in Section 4 of the AMP.
	Costs are justified and cost drivers identified	4	Explanatory notes in Section 4 provide adequate detail.
	Likelihood and consequences of asset failure are predicted	4	Covered at the asset type level in Section 3 of the AMP.



1 Asset Planning	Rating	Comments
Plans are regularly reviewed and updated	4	The plan was reviewed in 2007 and is still current as system demand and asset environment factors have not changed

2 Asset Creation and Acquisition	Rating	Comments
Full project evaluations are undertaken for new assets, including comparative assessment of non-asset solution	4	Adequately covered in included in Section 4 of the AMP
Evaluations include all life-cycle costs	4	Adequately covered in Section 4 of the AMP.
Projects reflect sound engineering and business decisions	N/A	Has not been required during the audit period and not forecast for the future..
Commissioning tests are documented and complete	3	System has been operational since 1969 and original tests would have been documented by the PWC. Shire does not have records, extremely unlikely to find and very limited benefit.
Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood	4	Included in Section 2, 3 and 4 of the AMP. Compliance confirmed by site inspections.

3 Asset Disposal	Rating	Comments
Under-utilised and under-performing assets are identified as part of a regular systematic review process	4	Capability of assets has been detailed in Section 4 and 6 of the AMP. Regular review included in Section 7.
The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	4	Well covered in Section 4 of the AMP.
Disposal alternatives are evaluated	4	Documented in Section 4.4 of the AMP. Normally old pumps are refurbished by the supplier.
There is a replacement strategy for assets	4	Documented in table 3 of Section 4 of the AMP. .



4 Environmental Analysis	Rating	Comments
Opportunities and threats in the system environment are assessed	4	A SWOT (strengths, weaknesses, opportunities and threats) analysis has been completed and is included in Section 3.2 of the AMP.
Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved	2	Performance standards are set in Section 2 of the AMP, but not measured and evaluated in a systemic way.
Compliance with statutory and regulatory requirements	4	Well documented in Section 2.1 of the AMP and included in the review process in Section 7. Verified by site inspection and staff interviews
Achievement of customer service levels	4	The Shire has received very few complaints and operates the scheme to the KPIs detailed in Section 2.1 of the AMP.

5 Asset Operations	Rating	Comments
Operational policies and procedures are documented and linked to service levels required	4	Adequately addressed in Section 4.2 of the AMP
Risk management is applied to prioritise operations tasks	4	Risk management is well documented in Section 3.3 of the 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	Asset Register (Appendix D of the AMP) has required asset attributes for most assets. Limited information has been provided on the gravity and pressure mains pipe networks.
Operational costs are measured and monitored	4	Operational costs (budget vs actual) are adequately documented in Section 5.4 of the AMP
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	Maintenance is adequately covered in Section 4.2 of the AMP.
Regular inspections are undertaken of asset performance and condition	3	Inspections are scheduled and completed as detailed in the Section 4.2 of the AMP. Records of completed tasks and activities are not kept.
Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule	3	Plans are included in Section 4.2 of the AMP. Maintenance Worksheets (Appendix G) have not been completed to verify activities and tasks have been completed.
Failures are analysed and operational/maintenance plans adjusted where necessary	NA	Has not been required during the audit period..
Risk management is applied to prioritise maintenance tasks	4	Well documented in Section 2.1 of the AMP and assessments used in practice.
Maintenance costs are measured and monitored	4	Maintenance costs (Budget vs Actual) are adequately documented in Section 5.4 of the AMP.

7 Asset Management Information System (AMIS)	Rating	Comments
Adequate system documentation for users and IT operators	0	No AMIS in place, but performed informally
Input controls include appropriate verification and validation of data entered into the system	0	No AMIS in place, but performed informally
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	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	Adequately addressed in Section 3 of the AMP.
Risks are documented in a risk register and treatment plans are actioned and monitored	5	Risks are well documented in the Section 3 of the AMP.
The probability and consequences of asset failure are regularly assessed	3	The risk assessment was completed for the 2007 AMP, but has not been revised and a regular review system has not been implemented.

9 Contingency Planning	Rating	Comments
Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks	4	“Emergency Procedures” and “Trouble Shooting” are documented in AMP. These provide an adequate coverage of contingency planning on a small rural town scheme.

10 Financial Planning	Rating	Comments
The financial plan states the financial objectives and strategies and actions to achieve the objectives	5	Well documented in Section 5 and Appendix C of the AMP.
The financial plan identifies the source of funds for capital expenditure and recurrent costs	5	Well documented in Section 5 of the AMP.
The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets)	5	Financial projections are well detailed in table 7 and the commentary in Section 5 of the AMP.
The financial plan provide firm predictions on income for the next five years and reasonable indicative predictions beyond this period	5	Table 7 in Section 5 of the AMP includes projections of income and expenditure till 2016/17.
The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	5	Documented in the good level of detail in Section 5 of the AMP.



10 Financial Planning	Rating	Comments
Significant variances in actual/budget income and expenses are identified and corrective action taken where necessary	4	Variances are noted in section 5 of the AMP, but not discussed. A significant jump in income from 2006/07 actual to 2007/08 actuals have not been explained. Notes on expenditure variations are clear.

11 Capital Expenditure Planning	Rating	Comments
There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates	4	Documented in Section 5.5 the AMP. Shire to revise and expand to provide actions, responsibilities and dates.
The plan provide reasons for capital expenditure and timing of expenditure	4	Well documented in Section 4 and clearly linked to table 8 in the AMP..
The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	4	Well documented are supported in the AMP.
There is an adequate process to ensure that the capital expenditure plan is regularly updated and actioned	4	The capital plan is to be reviewed annually when the AMP is reviewed. The next review is just outside this audit period, but had not commenced and is unlikely to be completed on time.

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	4	The AMS is detailed in the AMP, albeit more about the assets than systems. While current for the audit period, the review process detailed in the AMP had not commenced and is unlikely to be completed in time.
Independent reviews (eg internal audit) are performed of the asset management system	5	Asset management system is independently reviewed and documented in the AMP in 2007.



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					4	
Asset creation/ acquisition					4	
Asset disposal					4	
Environmental analysis				3		
Asset operations					4	
Asset maintenance				3		
Asset Management Information System	0					
Risk management					4	
Contingency planning					4	
Financial planning						5
Capital expenditure planning					4	
Review of AMS					4	



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. 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 availability of the customer service charter, asset management systems and reviewing of AMP. The current AMP is adequate, but a basic AMIS needs 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: (ii) notify details of the system and any changes to it to the Authority,;	2	No record of advice to the Authority on the new AMP.	Update the AMP and notify the Authority.
(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.	3	The general requirements for maintaining and operating the system are documented in the Asset Management Plan (December 2007), however does not include or link to maintenance and operational manuals.	Develop and implement manuals, policies and procedures for sewer system and include in AMP.
Performance of functions by the Licensee - Clause 15. (a) The Licensee shall comply with the quality and performance standards set out in Schedule 2.	3	The Shire has not been able to document without flow metering on inflows to WWTP.	Install flow meters on the WWTP inlet , complete Schedule 5 (new Licence) compliance reporting and forward to the Authority annually.



Licence Condition	Compliance Rating	Non-compliance issue	Recommended action
<p>Customer Service Charter</p> <p>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>	2	<p>Copies have not been available on request.</p> <p>The Charter is not displayed in the Shire reception area.</p> <p>Customers are not advised of the availability of the Charter.</p>	<p>Ensure the customer service charter is available at request, prominently displayed at reception and customers are advised of the availability of the charter at least once a year.</p>



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	Lifecycle costs of owning and operating assets are assessed	2	Lifecycle Management is summarised in Section 4 of the AMP, but not detailed to the asset level.	Identify and document lifecycle costs for all assets and include in AMP.
Environmental analysis	Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved	2	Performance standards are set in Section 2 of the AMP, but not measured and evaluated in a systemic way.	Implement a measurement and monitoring systems to verify asset performance. Include in AMP.
Asset operations	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	Asset Register (Appendix D of the AMP) has required asset attributes for most assets. Limited information has been provided on the gravity and pressure mains pipe networks.	Expand the asset attribute information in the asset register for the gravity and pressure mains pipe network.
Asset maintenance	Regular inspections are undertaken of asset performance and condition	3	Inspections are scheduled and completed as detailed in the Section 4.2 of the AMP. Records of completed tasks and activities are not kept.	Implement a system (AMIS) for recording completion of inspections and asset performance and condition.



Asset Management Process	Effectiveness Criteria	Compliance Rating	Non-Compliance Issue	Recommended Action
	Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule	3	Plans are included in Section 4.2 of the AMP. Maintenance Worksheets (Appendix G) have not been completed to verify activities and tasks have been completed.	Identify and document maintenance requirements (emergency, corrective and preventative) for assets and create and implement maintenance plans. Include in AMP.
Asset Management Information System	Adequate system documentation for users and IT operators	0	No AMIS in place, but performed informally	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, but performed informally	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.



Asset Management Process	Effectiveness Criteria	Compliance Rating	Non-Compliance Issue	Recommended Action
	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.
Capital Expenditure Planning	There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates	4	Documented in Section 5.5 the AMP. Shire to revise and expand to provide actions, responsibilities and dates.	Expand the Capital Investment plan and include actions, responsibilities and dates in AMP.
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	4	The AMS is detailed in the AMP, albeit more about the assets than systems. While current for the audit period, the review process detailed in the AMP had not commenced and is unlikely to be completed in time.	Create asset management review procedure to ensure system is reviewed regularly.



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 of 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 and implementation of an Asset Management System software (AMIS) would assist in the recording of works activities and prediction of 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 Implementation Plan

Table 9 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;	Update the AMP and notify the Authority.	Environmental Health Officer	30 September 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.	Develop and implement manuals, policies and procedures for sewer system and include in AMP.	Environmental Health Officer	30 September 2010
Performance of functions by the Licensee - Clause 15. (a) The Licensee shall comply with the quality and performance standards set out in Schedule 2.	Install flow meters on the WWTP inlet , complete Schedule 5 (new Licence) compliance reporting and forward to the Authority annually.	Environmental Health Officer	30 June 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.	Ensure the customer service charter is available at request, prominently displayed at reception and customers are advised of the availability of the charter at least once a year.	Environmental Health Officer	30 June 2010



Table 10 Asset Management System Post-Audit Implementation Plan

Asset Management Process	Recommended Action	Responsible position	Date action to be completed
Asset Planning	Identify and document lifecycle costs for all assets and include in AMP.	Environmental Health Officer	30 September 2010
Environmental Analysis	Implement a measurement and monitoring systems to verify asset performance. Include in AMP.	Environmental Health Officer	30 September 2010
Asset Operations	Expand the asset attribute information in the asset register for the gravity and pressure mains pipe network.	Environmental Health Officer	30 September 2010
Asset Maintenance	Implement a system (AMIS) for recording completion of inspections and asset performance and condition.	Environmental Health Officer	30 September 2010
	Identify and document maintenance requirements (emergency, corrective and preventative) for assets and create and implement maintenance plans. Include in AMP.		
Asset Management Information System	Purchase / develop Asset Management software and roll over all asset data to one system.	Environmental Health Officer	30 September 2010
	Create data verification procedure for updating asset data in Asset Management software.		
	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.		



Asset Management Process	Recommended Action	Responsible position	Date action to be completed
Capital Expenditure Planning	Expand the Capital Investment plan and include actions, responsibilities and dates in AMP.	Environmental Health Officer	30 September 2010
Review of AMS	Create asset management review procedure to ensure system is reviewed regularly.	Environmental Health Officer	30 September 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)

6.2 Disagreement between the auditor and licensee

None.



Appendix A

Operational Risk Assessment



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	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
Amendment, revocation or surrender	CI 13	NA	NA	NA	NA	NA
Specified information to be provided	CI 14 (a – c) Schedule 3	2	A	High	Weak	1
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



Operating Licence Compliance Element	Operating Licence Reference	Risk Consequence Rating	Likelihood Rating	Inherent Risk Rating	Adequacy of Existing Controls	Audit Priority
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 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	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 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



As per the ERA's Audit Guidelines – September 2006

Table 13 Consequence Ratings

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

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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2	J Alexander	M Bourhill	<i>M Bourhill</i>	S Henderson	<i>S Henderson</i>	21/08/09
3	K Patel	M Bourhill	<i>M Bourhill</i>	M Bourhill	<i>M Bourhill</i>	5/10/09