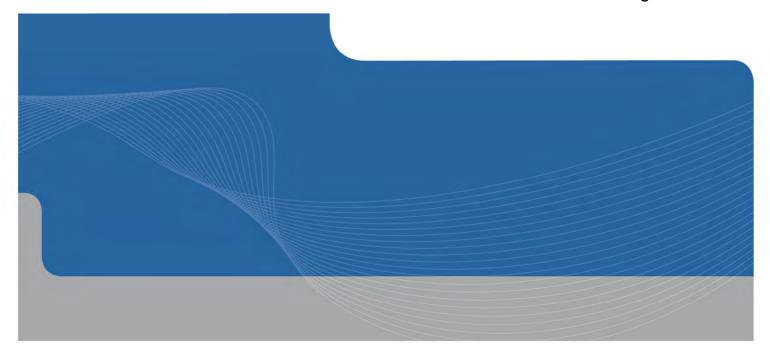


## **Shire of Brookton**

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 Brookton (the Shire) for the period between 1<sup>st</sup> December 2005 and 30<sup>th</sup> 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.

Brookton is a small town located inland, 146km south-east of Perth. The town has 213 properties (176 residential and 27 Business) and provides the following Water Services:

- ▶ The operation, maintenance and expansion of approximately 4.7kms of sewer collection system for the Shire of Brookton including a pump station and pressure main; and
- Wastewater Treatment Plant (WWTP) which collects and treats approximately 40ML per annum of the residential and commercial wastewater. Treated wastewater is disinfected and reticulated to the sports oval.

The Shire has only undertaken operational and maintenance tasks during the audit period and no capital expansion or upgraded has been completed.

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 Table 3 and Table 4 in Section 2 of this report.

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

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

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

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



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

Licence Condition	Non-Compliance Issue	Recommended Action	Action Plan
Asset management system - Clause 6 (a) The Licensee is to: (i) provide for an asset management system in respect of the Licensee's Water Service Assets;	Some components of the required processes are in place and contained in the Asset Management Plan.	Shire to develop an AMS containing all the processes.	Shire to develop an AMS containing all the processes. By 31 December 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.	The general requirements for maintaining the system are documented in the Asset Management Plan (March 2004).	Schedules and registers need to be implemented by the Shire.	Schedules and registers need to be implemented by the Shire. By 31 December 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.	Routine and planned maintenance tasks are performed, without documenting anything.	Shire needs to document operations, repairs and maintenance activities.	Shire needs to document operations, repairs and maintenance activities. By 31 December 2010.
Technical Standards - Clause 8  The Licensee is to comply with the technical standards for the provision of Water Services; and the undertaking, maintenance and operation of Water Services works; published by the Authority in the Government Gazette	The Shire has access to the Government Gazette online, but it is not mentioned anywhere.	Shire need to stipulated it in the AMP and demonstrate it by keeping records.	Shire need to stipulated it in the AMP and demonstrate it by keeping records. By 31 December 2010.



Licence Condition	Non-Compliance Issue	Recommended Action	Action Plan
Performance of functions by the Licensee - Clause 15.  (c) The Licensee shall implement an emergency telephone system so a Customer can report an emergency and receive advice within one hour of the action to be taken by the Licensee. An emergency is an event, which causes, or threatens to cause, harm to people, the environment or property.	Emergency and after hours phone services are established and published in local phone book, and Customer Charter, but no policy regarding the matter exist.	The Shire to develop and implement a policy in order to adhere to the one hour rule.	The Shire to develop and implement a policy in order to adhere to the one hour rule. By 31 December 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.	Copies are available on request at the Reception counter.  Customers not advised of the availability and not displayed prominently.  Customers not notified of the Customer Service Charter on an annual basis.	Shire to: Prominently display the CSC; And notify customer annually of the CSC.	Shire to:  Prominently display the CSC;  And notify customers annually of the CSC. Immediately.
(e) The Licensee shall review the Customer Service Charter not less than once in every period of 36 months.	A CSC review was not carried out within the stated timeframe of 36 months. Revised CSC approved by ERA on 12 Feb 09.	Create and implement a review policy and procedure for the Customer Service Charter.	Shire's Environmental Health Officer to implement by Feb 2012



Licence Condition	Non-Compliance Issue	Recommended Action	Action Plan
Dispute resolution - Clause 20 (iii) make such arrangements as are necessary to ensure that if possible Complaints can be resolved in the timeframes set out in subclause (a).	The Shire is required to develop and adopt a policy and develop a procedure in this regard and implement it.	Shire to create and implement dispute resolution policy with the aim to resolve complaints within the timeframe set out in Clause 20(a).	Shire's Environmental Health Officer to implement by 2010

The Shire's Asset Management System is reasonably basic and understood by the staff and generally suitable for the scheme, however its Asset Management Plan is quite comprehensive including the asset register, drawings, maintenance plans and schedule.

The Shire does not have an Asset Management Software System and past activities are not recorded in the central repository. The works depot records the in-house staff time used on operations and maintenance of the scheme.

Information, such as, the Levels of Service, asset performance, asset descriptions and condition have not been comprehensively documented and the level of equipment detail for most assets is limited. 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	Planning process and objectives reflect the needs of all stakeholders and is integrated with business planning	Informally performed. Asset planning not addressed in the AMP.	Create and interment planning process that reflects the needs of the licence stakeholders. Include planning process in AMP.	Shire's Environmental Health Officer to implement by 2010
	Non-asset options (e.g. demand management) are considered	Non-Asset options like demand management not addressed in the AMP. To be addressed by the Shire.	Identify non-asset options to manage demand and include in AMP.	Shire's Environmental Health Officer to implement by 2010
	Lifecycle costs of owning and operating assets are assessed	Life-cycle costing not in AMP.	Identify and document asset objectives and lifecycle costs for all assets and include in AMP.	Shire's Environmental Health Officer to implement by 2010
	Costs are justified and cost drivers identified	Costs to be analysed and addressed in AMP by the Shire.	Critically analyse costs, identify drivers and include in AMP.	Shire's Environmental Health Officer to implement by 2010
	Plans are regularly reviewed and updated	The AMP needs to be updated by the Shire to contain the required information.	Create and document a review procedure for the AMP.	Shire's Environmental Health Officer to implement by 2010
Asset Creation/ Acquisition	Evaluations include all life-cycle costs	Shire to perform an analysis as part of the process to provide life-cycle costs of various infrastructure components.	Identify and document asset objectives and lifecycle costs for all assets and include in AMP.	Shire's Environmental Health Officer to implement by 2010



Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
	Projects reflect sound engineering and business decisions	Consultants would be used. Suppliers approached for equivalent replacement.	Create and document a project review process to ensure projects are reviewed by an appropriate employee or professional before initiating.	Shire's Environmental Health Officer to implement by 2010
	Commissioning tests are documented and complete	Will be, when required, to be documented as strategy/requirement.	Create and interment commissioning process for assets and include in the AMP.	Shire's Environmental Health Officer to implement by 2010
	Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood	Part of Shire's requirements, policies, strategies.	Identify and document the legal/environmental/safety obligations that apply to the licence and assign processes for each obligation. Include in AMP.	Shire's Environmental Health Officer to implement by 2010
Asset Disposal	Under-utilised and under- performing assets are identified as part of a regular systematic review process	As observed during maintenance or repeated repairs – hardly any at this stage. The Shire to develop and implement a process (recording info) towards optimisation.	Create and implement a process for identifying capacity of assets and recording past performance. Include in AMP.	Shire's Environmental Health Officer to implement by 2010
	The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	As and when required – very few assets.	Create and implement a review process for when under or poor performing assets are identified and include in AMP.	Shire's Environmental Health Officer to implement by 2010



Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
	Disposal alternatives are evaluated	Normally old pumps taken by supplier.	Create and implement asset disposal procedure based on performance of assets.	Shire's Environmental Health Officer to implement by 2010
	There is a replacement strategy for assets	Shire replace as and when required. Shire to develop and stipulate its strategy, with special reference to mechanical and electrical equipment.	Create and implement replacement strategy for assets and include in AMP.	Shire's Environmental Health Officer to implement by 2010
Environmental Analysis	Opportunities and threats in the system environment are assessed	A SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis is included in the AMP. Shire to review and update.	Create and document a review procedure for the SWOT in the AMP.	Shire's Environmental Health Officer to implement by 2010
	Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved	All properties are provided with connections, the pump station and WWTP handles the volumes, overflows during power failures provided for by contacting a tanker service, storage volume adequate, etc. Shire to indicate in the process or plan the required capacity vs the provided capacity.	Identify and document performance requirements for all assets including availability of service and capacity. Include in AMP.	Shire's Environmental Health Officer to implement by 2010



Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
Asset Operations	Operational policies and procedures are documented and linked to service levels required	Not documented. Shire to document links between operational policies and procedures and levels of service.	Create, document and implement operational policies and procedures and link to service levels required. Include in AMP.	Shire's Environmental Health Officer to implement by 2010
	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	Good. The Shire can expand and improve on the asset register and provide updated data and to provide information on the condition of assets and any accounting data.	Expand asset register to include asset's condition and accounting data. Create and implement an update process for the assets register and include in AMP.	Shire's Environmental Health Officer to implement by 2010
	Staff receive training commensurate with their responsibilities	Mainly regarding safety – chlorine, hygiene, etc. It could be advantageous to provide training to staff to expand on their knowledge and skills, eg optimisation management.	Identify training required by Shire staff and implement training program.	Shire's Environmental Health Officer to implement by 2010
Asset Maintenance	Maintenance policies and procedures are documented and linked to service levels required	No policies, but procedures are documented in the AMP. Shire to develop and implement policies linked to the procedures regarding maintenance and to be linked to the defined levels of service.	Create and document policies linked to maintenance procedures and service levels for assets.	Shire's Environmental Health Officer to implement by 2010



Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
	Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule	Maintained as required, schedule created, to be implemented.	Identify and document maintenance requirements (emergency, corrective and preventative) for assets and create and implement maintenance plans. Include in AMP.	Shire's Environmental Health Officer to implement by 2010
	Failures are analysed and operational/maintenance plans adjusted where necessary	Informally analysed. Perform required corrective work.	Create, document and regularly review a maintenance plan for assets including emergency, corrective and preventative measures.	Shire's Environmental Health Officer to implement by 2010
	Risk management is applied to prioritise maintenance tasks	Good. To be implemented.	Undertake risk analysis of maintenance tasks and prioritise maintenance plan based on risk assessment.	Shire's Environmental Health Officer to implement by 2010
Asset Management Information System	Adequate system documentation for users and IT operators	No AMIS in place, but processes performed informally	Purchase / Develop Asset Management software and roll over all asset data to one system.	Shire's Environmental Health Officer to implement by 2010
	Input controls include appropriate verification and validation of data entered into the system	No AMIS in place, but processes performed informally	Create data verification procedure for updating asset data in Asset Management software.	Shire's Environmental Health Officer to implement by 2010



Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
	Logical security access controls appear adequate, such as passwords	No AMIS in place	Ensure Asset Management Information System can only be accessed by authorised persons.	Shire's Environmental Health Officer to implement by 2010
	Physical security access controls appear adequate	No AMIS in place	Ensure adequate physical security access controls such as swipe cards are implemented.	Shire's Environmental Health Officer to implement by 2010
	Data backup procedures appear adequate	No AMIS in place	Create and implement backup procedure for asset data.	Shire's Environmental Health Officer to implement by 2010
	Key computations related to licensee performance reporting are materially accurate	No AMIS in place	Create and implement procedures for producing regular reports to monitor assets and link to licence obligations.	Shire's Environmental Health Officer to implement by 2010
	Management reports appear adequate for the licensee to monitor licence obligations	Only annual Schedule 3 reporting. Shire to develop and implement reports to ensure licence obligations are monitored.	Create and implement procedures for producing regular reports to monitor assets and link to licence obligations.	Shire's Environmental Health Officer to implement by 2010
Risk Management	Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system	Risk evaluated - No specific policies or procedures regarding the sewerage system.	Identify risks and create risk management procedures and policies. Include in AMP.	Shire's Environmental Health Officer to implement by 2010



Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
	The probability and consequences of asset failure are regularly assessed	Informally, performed. Shire to document the probability and consequence of asset failures.	Create and document risk register including the treatment and consequences of asset failure. Include in AMP.	Shire's Environmental Health Officer to implement by 2010
Contingency Planning	Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks	Good. Emergency Procedures documented in AMP.	Create and implement a review procedure for the Contingency Plan and include in AMP.	Shire's Environmental Health Officer to implement by 2010
Financial Planning	Significant variances in actual/budget income and expenses are identified and corrective action taken where necessary	Indicated in budget and variances accounted for.	Create and implement a review procedure for the Financial Plan and include in AMP.	Shire's Environmental Health Officer to implement by 2010
Capital Expenditure Planning	There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates	Good. Documented in the AMP. Shire to revise and expand to provide actions, responsibilities and dates.	Expand Capital Expenditure Plan to include actions, responsibilities and dates.	Shire's Environmental Health Officer to implement by 2010
	The plan provide reasons for capital expenditure and timing of expenditure	Good. Documented in the AMP. To be updated annually as new information becomes available.	Create and implement a review procedure for the Capital Expenditure Plan.	Shire's Environmental Health Officer to implement by 2010
	The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	Good. Documented in the AMP. Shire to expand and update providing asset life and condition.	Modify Capital Expenditure Plan to account for asset life and condition.	Shire's Environmental Health Officer to implement by 2010



Asset Management Process	Effectiveness Criteria	Non-Compliance Issue	Recommended Action	Post Audit Action Plan
	There is an adequate process to ensure that the capital expenditure plan is regularly updated and actioned	Good. Documented in the AMP. Shire to ensure a procedure is in place for regular updating and actioned.	Create and implement a review procedure for the Capital Expenditure Plan.	Shire's Environmental Health Officer to implement by 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	AMP updated regularly in the past. AMP forms part of the AMS. Some components in the AMP are also processes of the AMS. Shire to develop all other processes of an AMS and the Shire to implement a review process/procedure to ensure the AMP and AMS are kept current.	Create asset management review procedure to ensure system is reviewed regularly.	Shire's Environmental Health Officer to implement by 2010
	Independent reviews (eg internal audit) are performed of the asset management system	Asset Management System not independently reviewed. Some components of an AMS are in place. Shire to develop and implement all processes of an AMS. Shire to provide for an independent review of the system, once in place.	Create and implement independent review policy for Asset Management Plan and System.	Shire's Environmental Health Officer to implement by 2009



The Shire can improve its control environment by introducing schedules, capture data and analyse the data towards further optimising various components of the Water Services system.

Generally, the reporting of the Shire to the Authority and other statutory organisations are good. The Shire must endeavour to operate and maintain the Water Services components to prevent incidents and ensure to report incidents should they occur and to continue to submit reports as required.

Overall the Shire's operation of the Water Services Licence is compliant with minor or material recommendations 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 management systems, review of plans and systems and asset management software. The AMP also requires additional policies and procedures for asset operations and maintenance and requires updating regularly.



### 1. Introduction

This Operating Licence audit and Asset Management System review was carried out on the water services (sewerage) for the Shire of Brookton (the Shire) for the period between 1<sup>st</sup> December 2005 and 30<sup>th</sup> 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.

Brookton is a small town located inland, 146km south-east of Perth. The town has 213 properties (176 residential and 27 Business) and provides the following Water Services:

- ▶ The operation, maintenance and expansion of approximately 4.7kms of sewer collection system for the Shire of Brookton including a pump station and pressure main;
- Wastewater Treatment Plant (WWTP) which collects and treats approximately 40ML 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 of Brookton's Operating Licence, Licence Registration Number IL/12, Licence Version 4 dated 30 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 System, 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/12, Licence Version 4 dated 30 November 2004
- Asset Management Plan
- Customer Services Charter Approved 12 February 2009
- Relevant correspondence between the Shire and the ERA
- Reports (Schedules 3 forms)



#### 1.3 Risk Assessment

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

- Asset Management System;
- Specified information to be provided; and
- Customer Service Charter.

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; and
- 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 Peter Ibbott
  - Principal Works Supervisor Geoff Forward

#### 1.6 Previous Audit

The Audit report of January 2006, which was for the period 1 December 2002 to 30 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
Not Applicable	NA	Not Applicable to the licensee's Operating Licence

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 AMS Review	4 hrs
3.	Prepare Final Report and Submit	14 hrs
4.	Amend Final Report as per ERA's direction	14 hrs
5.	Total	42 hrs



## 2. Previous Audit

The status of the recommendations from the January 2006 Audit Report by SMEC 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. 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, with particular emphasis on the Asset Register, and forwarded to the Authority. The Authority should also be formally notified of the sewerage extension and the effluent reuse system.	AMP updated – Final 19/03/2008. Sewer extension and reuse system still under review. Shire to forward the updated AMP to the ERA.			
The Asset Management Plan sighted was the July 1999 edition. The AMP is out of date and must be updated immediately. As part of this, a maintenance schedule and register should be prepared and implemented. This should be done by the EHO in conjunction with the Principal Works Supervisor.	AMP updated – Maintenance Schedules and registers created. Shire to implement the Registers/Schedules.			
Technical Standards (Clause 8)				
Government Gazette website subscription has been lapsed for about a month. This should be renewed.	Subscription renewed. No formal Technical Standards on file.			
Specific Information to be	e Provided (Clause 14)			
Schedule 3 forms to be submitted within 30 days of the end of the financial year.	Schedule 3 forms – Submitted.			
Performance of functions I	by Licensee (Clause 15)			
The Education Department should be annually notified about the non-potable water they are supplied to irrigate their oval.				
Performance Standards (Clause 15) – Responsiveness to Customer Complaints				
No Complaints have been received, but assume response would be within limits set by the licence.	No complaints, thus no record of response.			



Previous Audit Recommendation	Progress / Further Action Required	
Obligations to public authorities a	and other Licensees (Clause 17)	
As part of the annual licence from DEC, Shire is required to undertake some sampling of the effluent discharging into the Avon River. Some of this sampling has not been done, but the DEC is aware of this.	The Shire has implemented a sampling program as required. Note: Shire appointed a consultant to design a flow measurement device.	

## 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.	Updated – Final AMP dated 19/03/2008.			
Environmen	ntal Analysis			
The Schedule 3 for 2004/05 financial year should be completed and submitted to the Authority.	Schedule 3 forms – Submitted.			
Asset Managemen	nt 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.	AMP updated – Maintenance Schedules and registers created. Shire to implement schedules and registers.			
Risk Analysis and C	ontingency 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.	Risk analysis in AMP, Emergency procedures in AMP.			
Financia	Planning			
As part of the AMP review, the financial planning needs to be updated.	Updated in AMP.			



<b>Previous Audit Recommendation</b>	Progress / Further Action Required
Capital Expo	enditure 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.	Updated in AMP.
Re	view
The AMP should be reviewed and updated as soon as possible. The AMP and Charter should be reviewed every 12 months at the same time as the annual budget, and updated as necessary. They should be updated within every 36 months, thus the Charter is due to be updated next year.	AMP reviewed and updated.  Customer Service Charter has been updated, however outside of the current audit period.



## 3. Operating Licence Audit

#### 3.1 Operational 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:

- Pump Station and pressure main;
- Reticulation (4686m);
- ▶ Wastewater Treatment Plant (WWTP) Single oxidation pond; and
- Disinfection system & pumping system to pump reuse water to the oval.

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. Also though the Shire has a log book to record all complaints, it does not have a documented compliant resolution procedure.

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

The following information, evidence and inspections were audited:



Table 5 Operational Audit Checklist

Licence Clause or Schedule	The Licence Obligation	System Established by The Licensee to Comply with Obligations of Licence	Compliance Scale
Operating Area Clause 2(b)- Schedule 1	(b) The Licence permits the provision of Water Services within the Operating Areas described in Schedule 1 subject to compliance with the requirements of the Licence.	Drawing OWR-OA-035 (B) in order.	5
General duty to provide	The Licensee is to –		5
services - Clause 4.	(a) provide the Water Services; and	Shire is providing an effective and reliable Water Service	
	(b) undertake, maintain and operate any Water Services Works, specified in the Licence.	Shire undertakes, maintain and operate the Works, as specified in the licence.	5
Regulations prescribing standards of service - Clause 5.	The Licensee shall comply with Regulations prescribing standards of service made under section 61 of the Act.	The Shire complies with all regulations prescribing the standard of service.	5
Asset management system - Clause 6.	(a) The Licensee is to:		
	(i) provide for an asset management system in respect of the Licensee's Water Service Assets;	Some components of the required processes are in place and contained in the Asset Management Plan. Shire to develop an AMS containing all the processes.	2
	(ii) notify details of the system and any changes to it to the Authority, and	No changes have occurred during the period.	5



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 January 2006 submitted to the Economic Regulation Authority.	5
	(b) The asset management system is to set out the measures to be taken by the Licensee for the proper maintenance of Assets used in the provision of Water Services and for the undertaking, maintenance and operation of Water Services works.	The general requirements for maintaining the system are documented in the Asset Management Plan (March 2004), but the schedules and registers need to be implemented by the Shire. AMS not yet in place.	2
	(c) The Licensee is to undertake, maintain and operate its Water Services Works in accordance with the processes set out in the asset management system.	Routine and planned maintenance tasks are performed, but the shire needs to document it. AMS not yet in place.	2
	(d) The scope of the asset management system report under paragraph (a) (iii) will be set by the Economic Regulation Authority.	Noted.	
Operational Audit - Clause 7.	(a) The Licensee is to, not less than once in every period of 36 months (or such longer period as the Economic Regulation Authority allows), provide the Economic Regulation Authority with an Operational Audit conducted by an independent expert acceptable to the Economic Regulation Authority.	The last Water Services audited and Asset Management System reviewed by SMEC for the period 1 December 2002 to 30 November 2005.	5



Licence Clause or Schedule	The Licence Obligation	System Established by The Licensee to Comply with Obligations of Licence	Compliance Scale
Technical Standards - Clause 8	The Licensee is to comply with the technical standards for the provision of Water Services; and the undertaking, maintenance and operation of Water Services works; published by the Authority in the Government Gazette.	The Shire has access to the Government Gazette online, and need to stipulate it in the AMP and demonstrate it by keeping records.	3
Industry codes Clause 9.	The Licensee shall observe the Sewerage Code of Australia WSA 02 1999 in the design and construction of sewerage systems.	Design of systems complies. Original designs unchanged from Dept of Works Specifications. New works will be in accordance with the code.	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, Annual reports up to date	5
Prices or charges- Clause 11.	In setting prices or charges for services to Customers the Licensee shall comply with the relevant provisions and regulations of the Health Act 1911 and the Local Government Act 1995	Prices and Charges are being set in accordance with the requirements of the Local Government Act.	5
Methods or principles to be applied in the provision of Water Services - Clause 12.	(a) Notwithstanding the engagement of any person or persons to provide Water Services on its behalf, the Licensee remains responsible to ensure those services comply with the terms and conditions of the Licence and with the relevant legislation.	Shire staff understand their own responsibilities. Where a contractor, like a pump supplier 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	Application forms have not been prepared. Town is so small that personal approach to the Shire is all	5



Licence Clause or Schedule	The Licence Obligation	System Established by The Licensee to Comply with Obligations of Licence	Compliance Scale
	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	that is required.	
	with the conditions of Connection are an essential requirement of gaining approval to connect to the Licensee's schemes.	The processes are documented in the Customer Services Charter.	
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
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.	5
	(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



Licence Clause or Schedule	The Licence Obligation	System Established by The Licensee to Comply with Obligations of Licence	Compliance Scale
	(c) The Licensee shall implement an emergency telephone system so a Customer can report an emergency and receive advice within one hour of the action to be taken by the Licensee. An emergency is an event, which causes, or threatens to cause, harm to people, the environment or property.	Emergency and after hours phone services are established and published in local phone book, and Customer Charter, but no policy exist. The Shire to develop and implement a policy in order to adhere to the one hour rule.	4
	(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.	Based on the daily volume, the WWTP is registered with the former DoE, now DEC.	5
Consumer consultation Clause 18.	(a) Prior to making major changes to the operation of a water service, such as the construction of a new wastewater treatment works or significant expansion of the sewerage network, the licensee will;		



Licence Clause or Schedule	The Licence Obligation	System Established by The Licensee to Comply with Obligations of Licence	Compliance Scale
	(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 was approved by the ERA on 7 July 2004. The Charter was due for review in 2007, but not approved until 12 Feb 2009.	4
	(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.	IL12 – Version 4 refers. CSC was reviewed and updated and approval by ERA on 12 Feb 2009.	4
	(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
	(e) The Licensee shall review the Customer Service Charter not less	Customer Service Charter last	2



Licence Clause or Schedule	The Licence Obligation	System Established by The Licensee to Comply with Obligations of Licence	Compliance Scale
	than once in every period of 36 months.	reviewed in July 2004. Next review was due in July 2007, but was not been completed until 2009	
	(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:	Copies are available on request at the Reception counter.	2
	(i) by prominently displaying it in those parts of the Licensee's offices to which Customers regularly have access;	Customers not advised of the availability and not displayed prominently.	
	<ul><li>(ii) by providing a copy, upon request, and at no charge, to a Customer; and</li><li>(iii) by advising Customers of the availability of the Customer Service Charter on an annual basis.</li></ul>	Customers not notified of the Customer Service Charter on an annual basis.	
	(h) It is a condition of the Licence that the Licensee provides services in a way that is materially consistent with its Customer Service Charter.	The Shire do provide services consistent with its CSC.	5
Dispute resolution Clause 20.	(a) The Licensee shall establish a system for recording, managing and resolving within 21 days Complaints by Customers regarding a provided or requested water service, or for matters which must be considered by Council, within 7 days after the first ordinary Council meeting following the expiry of the 21 day period.	Log Book available at Reception.	5
	(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.	5		
	(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				
subclause (a). as possible. The Shire is required develop and adopt a policy and	resolve complaints in as short a time as possible. The Shire is required to develop and adopt a policy and develop a procedure in this regard	3			
	(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

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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)	Com (Ref ratin deta	npliand er to t ig sca ils)	he 5-բ	ooint	1 for
						1	2	3	4	5
Operating Area Schedule 1	Cl 2(b)	1	С	L	S					Х
General duty to provide services	Cl 4 (a & b)	2	С	М	S					Х
Regulations prescribing standards of services	CI 5	2	С	M	S					Х
Asset Management System	CI 6 (a – d)	2	Α	Н	W			Χ		
Operational Audit	Cl 7 (a – c)	2	С	М	S					Χ
Technical Standards	CI 8	1	С	L	W			Х		
Industry Codes	CI 9	1	С	L	W					Χ
Accounting Records	CI 10	2	С	М	S					Х
Prices or charges	CI 11	2	С	М	S					Χ
Methods or principles to be applied in the provision of Water Services	Cl 12 (a – b)	2	В	М	S					Х
Amendment, revocation or surrender	CI 13	NA	NA	NA	NA	NA	NA	NA	NA	NA
Specified information to be provided	Cl 14 (a – c) Schedule 3	2	А	Н	W					Х



Operating area	Operating Licence reference (CI.=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)	(Ref		he 5-p	_	1 for
						1	2	3	4	5
Performance of functions by the Licensee Performance Standards –	CI 15 Schedule 2	2	В	M	S					Х
Sewerage Services										
Terms and conditions of Customer Contracts	Cl 16 (a -b)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Obligations to public authorities and other Licensees	Cl 17	2	В	M	S					X
Consumer consultation	Cl 18 (a – b)	1	С	L	S					Х
Customer Service Charter	Cl 19 (a – h)	2	Α	Н	M			Х		
Dispute resolution	Cl 20 (a – g)	1	С	Low	S					Χ
Customer Surveys	Cl 21	NA	NA	NA	NA	NA	NA	NA	NA	NA



## 4. Asset Management System Review

#### 4.1 Asset Management System Review

The Shire's Asset Management System is reasonably basic and understood by the staff and generally suitable for the scheme, however its Asset Management Plan is quite comprehensive including the asset register, drawings, maintenance plans and schedule.

The Shire does not have an Asset Management Software System and past activities are not recorded in the central repository. The works depot records the in-house staff time used on operations and maintenance of the scheme.

The WWTP and the main pump station require additional documented detail on their operations and maintenance.

While the current systems 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 not been comprehensively documented and the level of equipment detail for most assets is limited.

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	Asset planning not addressed in the AMP. To be addressed by the Shire. Informally performed.
Service levels are defined	5	Levels of service described in the AMP and practiced
Non-asset options (e.g. demand management) are considered	1	Non-Asset options like demand management not addressed in the AMP. To be addressed by the Shire.
Lifecycle costs of owning and operating assets are assessed	1	Life-cycle costing not in AMP. To be addressed by the Shire.
Funding options are evaluated	5	Grants and income addressed in AMP.
Costs are justified and cost drivers identified	2	Costs to be analysed and addressed in AMP by the Shire.
Likelihood and consequences of asset failure are predicted	4	Risks are addressed in AMP.



1 Asset Planning	Rating	Comments
Plans are regularly reviewed and updated	2	The AMP needs to be updated by the Shire to contain the required information.

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	Shire to perform an analysis as part of the process to provide life-cycle costs of various infrastructure components.
Projects reflect sound engineering and business decisions	1	Consultants would be used. Suppliers approached for equivalent replacement.
Commissioning tests are documented and complete	1	Will be, when required, to be documented as strategy/requirement.
Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood	1	Part of Shire's requirements, policies, strategies.

3 Asset Disposal	Rating	Comments
Under-utilised and under-performing assets are identified as part of a regular systematic review process	1	As observed during maintenance or repeated repairs – hardly any at this stage. The Shire to develop and implement a process (recording info) towards optimisation.
The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	1	As and when required – very few assets.
Disposal alternatives are evaluated	1	Normally old pumps taken by supplier.
There is a replacement strategy for assets	1	Shire replace as and when required. Shire to develop and stipulate its strategy, with special reference to mechanical and electrical equipment.



4 Environmental Analysis	Rating	Comments
Opportunities and threats in the system environment are assessed	4	A SWOT analysis is included in the AMP. Shire to review and update.
Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved	4	All properties are provided with connections, the pump station and WWTP handles the volumes, overflows during power failures provided for by contacting a tanker service, storage volume adequate, etc. Shire to indicate in the process or plan the required capacity vs the provided capacity.
Compliance with statutory and regulatory requirements	4	The Shire generally does comply, but the Shire need to list/stipulate the requirements as part of the process.
Achievement of customer service levels	4	Hardly any complaints – Good. Shire has had no blockages or overflows during the audit period.

5 Asset Operations	Rating	Comments
Operational policies and procedures are documented and linked to service levels required	0	Not documented. Shire to document links between operational policies and procedures and levels of service.
Risk management is applied to prioritise operations tasks	4	Good. Risk Management is documented in 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	4	Good. The Shire can expand and improve on the asset register and provide updated data and to provide information on the condition of assets and any accounting data.
Operational costs are measured and monitored	4	Budget vs Actual
Staff receive training commensurate with their responsibilities	4	Mainly regarding safety – chlorine, hygiene, etc. It could be advantageous to provide training to staff to expand on their knowledge and skills, eg optimisation management.



6 Asset Maintenance	Rating	Comments
Maintenance policies and procedures are documented and linked to service levels required	3	No policies, but procedures are documented in the AMP. Shire to develop and implement policies linked to the procedures regarding maintenance and to be linked to the defined levels of service.
Regular inspections are undertaken of asset performance and condition	5	Inspect, clean or maintain as applicable, but no record kept. Shire to document inspections performed.
Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule	1	Maintain as required, schedule created, to be implemented.
Failures are analysed and operational/maintenance plans adjusted where necessary	1	Informally analysed. Perform required corrective work.
Risk management is applied to prioritise maintenance tasks	2	Good. To be implemented.
Maintenance costs are measured and monitored	3	Budget vs Actual

7 Asset Management Information System	Rating	Comments
Adequate system documentation for users and IT operators	1	No AMIS in place, but processes performed informally
Input controls include appropriate verification and validation of data entered into the system	1	No AMIS in place, but processes 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	0	Only annual Schedule 3 reporting. Shire to develop and implement reports to ensure licence obligations are monitored.



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	3	Risk evaluated - No specific policies or procedures regarding the sewerage system.
Risks are documented in a risk register and treatment plans are actioned and monitored	3	Risks are documented in the AMP – To be actioned
The probability and consequences of asset failure are regularly assessed	3	Informally, general feel of it. Shire to document the probability and consequence of asset failures.

9 Contingency Planning	Rating	Comments
Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks	4	Good. Emergency Procedures documented in AMP.

10 Financial Planning	Rating	Comments
The financial plan states the financial objectives and strategies and actions to achieve the objectives	4	Generally good. Documented in the AMP.
The financial plan identifies the source of funds for capital expenditure and recurrent costs	5	Indicated in budget.
The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets)		
The financial plan provide firm predictions on income for the next five years and reasonable indicative predictions beyond this period	4	Good. Documented in the AMP.
The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services	4	Good. Documented in 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	Good. Documented in the AMP. Shire to revise and expand to provide actions, responsibilities and dates.
The plan provide reasons for capital expenditure and timing of expenditure	nd 4 Good. Documented in AMP. To be updated a as new information becavailable.	
The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	4	Good. Documented in the AMP. Shire to expand and update providing asset life and condition.
There is an adequate process to ensure that the capital expenditure plan is regularly updated and actioned	4	Good. Documented in the AMP. Shire to ensure a procedure is in place for regular updating and actioned.

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	2	AMP updated regularly in the past. AMP forms part of the AMS. Some components in the AMP are also processes of the AMS. Shire to develop all other processes of an AMS and the Shire to implement a review process/procedure to ensure the AMP and AMS are kept current.
Independent reviews (eg internal audit) are performed of the asset management system	0	Asset Management System not independently reviewed. Some components of an AMS are in place. Shire to develop and implement all processes of an AMS. Shire to provide for an independent review of the system, once in place.



# 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 Information System	X					
Risk management				Х		
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. Some components of an Asset Management System are contained in the Asset Management Plan, but the Shire need to develop an AMS with all the processes.

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.

### 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	2	Some components of the required processes	Shire to develop an AMS containing all the
(a) The Licensee is to:	·	are in place and processes. contained in the Asset Management Plan.	processes.
(i) provide for an asset management system in respect of the Licensee's Water Service Assets;			
(b) The asset management system is to set out the measures to be taken by the Licensee for the proper maintenance of Assets used in the provision of Water Services and for the undertaking, maintenance and operation of Water Services works.	2	The general requirements for maintaining the system are documented in the Asset Management Plan (March 2004).	Schedules and registers need to be implemented by the Shire.
(c) The Licensee is to undertake, maintain and operate its Water Services Works in accordance with the processes set out in the asset management system.	2	Routine and planned maintenance tasks are performed, without documenting anything.	Shire needs to document operations, repairs and maintenance activities.



Licence Condition	Compliance Rating	Non-compliance issue	Recommended action
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	3	The Shire has access to the Government Gazette online, but it is not mentioned anywhere.	Shire need to stipulated it in the AMP and demonstrate it by keeping records.
Performance of functions by the Licensee - Clause 15.  (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.	4	Emergency and after hours phone services are established and published in local phone book, and Customer Charter, but no policy regarding the matter exist.	The Shire to develop and implement a policy in order to adhere to the one hour rule.
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.	2	Copies are available on request at the Reception counter.  Customers not advised of the availability and not displayed prominently.  Customers not notified of the Customer Service Charter on an annual basis.	Shire to: Prominently display the CSC; And notify customers annually of the CSC.
(e) The Licensee shall review the Customer Service Charter not less than once in every period of 36 months.	2	Customer Service Charter last reviewed in July 2003. Next review was due in July 2006 and has not been completed.	Create and implement a review policy and procedure for the Customer Service Charter.



Licence Condition	Compliance Rating	Non-compliance issue	Recommended action
Dispute resolution - Clause 20 (iii) make such arrangements as are necessary to ensure that if possible Complaints can be resolved in the timeframes set out in subclause (a).	3	The Shire is required to develop and adopt a policy and develop a procedure in this regard and implement it.	Shire to create and implement dispute resolution policy with the aim to resolve complaints within the timeframe set out in Clause 20(a).

# 5.2 Asset Management System Review

The following improvements are recommended for the Asset Management System:



Table 9 Improvement Recommendations

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	Informally performed. Asset planning not addressed in the AMP.	Create and interment planning process that reflects the needs of the licence stakeholders. Include planning process in AMP.
	Non-asset options (e.g. demand management) are considered	1	Non-Asset options like demand management not addressed in the AMP. To be addressed by the Shire.	Identify non-asset options to manage demand and include in AMP.
	Lifecycle costs of owning and operating assets are assessed	1	Life-cycle costing not in AMP.	Identify and document asset objectives and lifecycle costs for all assets and include in AMP.
	Costs are justified and cost drivers identified	2	Costs to be analysed and addressed in AMP by the Shire.	Critically analyse costs, identify drivers and include in AMP.
	Plans are regularly reviewed and updated	2	The AMP needs to be updated by the Shire to contain the required information.	Create and document a review procedure for the AMP.



Asset Management Process	Effectiveness Criteria	Compliance Rating	Non-Compliance Issue	Recommended Action
Asset Creation/ Acquisition	Evaluations include all life-cycle costs	1	Shire to perform an analysis as part of the process to provide life-cycle costs of various infrastructure components.	Identify and document asset objectives and lifecycle costs for all assets and include in AMP.
	Projects reflect sound engineering and business decisions	1	Consultants would be used. Suppliers approached for equivalent replacement.	Create and document a project review process to ensure projects are reviewed by an appropriate employee or professional before initiating.
	Commissioning tests are documented and complete	1	Will be, when required, to be documented as strategy/requirement.	Create and interment commissioning process for assets and include in the AMP.
	Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood	1	Part of Shire's requirements, policies, strategies.	Identify and document the legal/environmental/safety obligations that apply to the licence and assign processes for each obligation. Include in AMP.
Asset Disposal	Under-utilised and under-performing assets are identified as part of a regular systematic review process	1	As observed during maintenance or repeated repairs – hardly any at this stage. The Shire to develop and implement a process (recording info) towards optimisation.	Create and implement a process for identifying capacity of assets and recording past performance. Include in AMP.



Asset Management Process	Effectiveness Criteria	Compliance Rating	Non-Compliance Issue	Recommended Action
	The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken	1	As and when required – very few assets.	Create and implement a review process for when under or poor performing assets are identified and include in AMP.
	Disposal alternatives are evaluated	1	Normally old pumps taken by supplier.	Create and implement asset disposal procedure based on performance of assets.
	There is a replacement strategy for assets	1	Shire replace as and when required. Shire to develop and stipulate its strategy, with special reference to mechanical and electrical equipment.	Create and implement replacement strategy for assets and include in AMP.
Environmental Analysis	Opportunities and threats in the system environment are assessed	4	A SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis is included in the AMP. Shire to review and update.	Create and document a review procedure for the SWOT in the AMP.



Asset Management Process	Effectiveness Criteria	Compliance Rating	Non-Compliance Issue	Recommended Action
	Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved	4	All properties are provided with connections, the pump station and WWTP handles the volumes, overflows during power failures provided for by contacting a tanker service, storage volume adequate, etc. Shire to indicate in the process or plan the required capacity vs the provided capacity.	Identify and document performance requirements for all assets including availability of service and capacity. Include in AMP.
Asset Operations	Operational policies and procedures are documented and linked to service levels required	0	Not documented. Shire to document links between operational policies and procedures and levels of service.	Create, document and implement operational policies and procedures and link to service levels required. Include in 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	4	Good. The Shire can expand and improve on the asset register and provide updated data and to provide information on the condition of assets and any accounting data.	Expand asset register to include asset's condition and accounting data. Create and implement an update process for the assets register and include in AMP.



Asset Management Process	Effectiveness Criteria	Compliance Rating	Non-Compliance Issue	Recommended Action
	Staff receive training commensurate with their responsibilities	4	Mainly regarding safety – chlorine, hygiene, etc. It could be advantageous to provide training to staff to expand on their knowledge and skills, eg optimisation management.	Identify training required by Shire staff and implement training program.
Asset Maintenance	Maintenance policies and procedures are documented and linked to service levels required	3	No policies, but procedures are documented in the AMP. Shire to develop and implement policies linked to the procedures regarding maintenance and to be linked to the defined levels of service.	Create and document policies linked to maintenance procedures and service levels for assets.
	Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule	1	Maintained as required, schedule created, to be implemented.	Identify and document maintenance requirements (emergency, corrective and preventative) for assets and create and implement maintenance plans. Include in AMP.
	Failures are analysed and operational/maintenance plans adjusted where necessary	1	Informally analysed. Perform required corrective work.	Create, 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
	Risk management is applied to prioritise maintenance tasks	2	Good. To be implemented.	Undertake risk analysis of maintenance tasks and prioritise maintenance plan based on risk assessment.
Asset Management Information System	Adequate system documentation for users and IT operators	1	No AMIS in place, but processes 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	1	No AMIS in place, but processes 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	0	Only annual Schedule 3 reporting. Shire to develop and implement reports to ensure licence obligations are monitored.	Create and implement procedures for producing regular reports to monitor assets and link to licence obligations.
Risk Management	Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system	3	Risk evaluated - No specific policies or procedures regarding the sewerage system.	Identify risks and create risk management procedures and policies. Include in AMP.
	The probability and consequences of asset failure are regularly assessed	3	Informally, performed. Shire to document the probability and consequence of asset failures.	Create and document risk register including the treatment and consequences of asset failure. Include in AMP.
Contingency Planning	Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks	4	Good. Emergency Procedures documented in AMP.	Create and implement a review procedure for the Contingency Plan and include in AMP.
Financial Planning	Significant variances in actual/budget income and expenses are identified and corrective action taken where necessary	4	Indicated in budget and variances accounted for.	Create and implement a review procedure for the Financial Plan and include in AMP.



Asset Management Process	Effectiveness Criteria	Compliance Rating	Non-Compliance Issue	Recommended Action
Capital Expenditure Planning	There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates	4	Good. Documented in the AMP. Shire to revise and expand to provide actions, responsibilities and dates.	Expand Capital Expenditure Plan to include actions, responsibilities and dates.
	The plan provide reasons for capital expenditure and timing of expenditure	4	Good. Documented in the AMP. To be updated annually as new information becomes available.	Create and implement a review procedure for the Capital Expenditure Plan.
	The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan	4	Good. Documented in the AMP. Shire to expand and update providing asset life and condition.	Modify Capital Expenditure Plan to account for asset life and condition.
	There is an adequate process to ensure that the capital expenditure plan is regularly updated and actioned	4	Good. Documented in the AMP. Shire to ensure a procedure is in place for regular updating and actioned.	Create and implement a review procedure for the Capital Expenditure Plan.



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 updated regularly in the past. AMP forms part of the AMS. Some components in the AMP are also processes of the AMS. Shire to develop all other processes of an AMS and the Shire to implement a review process/procedure to ensure the AMP and AMS are kept current.	Create asset management review procedure to ensure system is reviewed regularly.
	Independent reviews (eg internal audit) are performed of the asset management system	0	Asset Management System not independently reviewed. Some components of an AMS are in place. Shire to develop and implement all processes of an AMS. Shire to provide for an independent review of the system, once in place.	Create and implement independent review policy for Asset Management Plan and System.



#### 5.3 Conclusion

The Shire's wastewater services system is 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 of James Alexander.

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

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



# 6. Post-Audit Implementation Plan

# 6.1 Operational Post-Audit Implementation Plan

Clause	Recommended Action	Responsible Position	Date Action to be Completed
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;	Shire to develop an AMS containing all the processes.	Environmental Health Officer	31 December 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.	Schedules and registers need to be implemented by the Shire.	Environmental Health Officer	31 December 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 December 2010
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	Shire need to stipulated it in the AMP and demonstrate it by keeping records.	Environmental Health Officer	31 December 2010
Performance of functions by the Licensee - Clause 15.  (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.	The Shire to develop and implement a policy in order to adhere to the one hour rule.	Environmental Health Officer	31 December 2010



Clause	Recommended Action	Responsible Position	Date Action to be Completed
Customer Service Charter – Clause 19	Shire to:	Environmental Health Officer	Immediately
(g) The Licensee must make the Customer Service Charter available to its Customers in the following ways:	Prominently display the CSC;	Prominently display the CSC; And notify customer	
(i) by prominently displaying it in those parts of the Licensee's offices to which Customers regularly have access;	customer annually of the		
(ii) by providing a copy, upon request, and at no charge, to a Customer; and	CSC.		
(iii) by advising Customers of the availability of the Customer Service Charter on an annual basis.			
(e) The Licensee shall review the Customer Service Charter not less than once in every period of 36 months.	Create and implement a review policy and procedure for the Customer Service Charter.	Environmental Health Officer	31 December 2010
Dispute resolution - Clause 20 (iii) make such arrangements as are necessary to ensure that if possible Complaints can be resolved in the timeframes set out in subclause (a).	Shire to create and implement dispute resolution policy with the aim to resolve complaints within the timeframe set out in Clause 20(a).	Environmental Health Officer	31 December 2010

# 6.2 Asset Management System Post-Audit Implementation Plan

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



Asset Management Process	Recommended Action	Responsible position	Date action to be completed
	Identify and document asset objectives and lifecycle costs for all assets and include in AMP.	_	
	Critically analyse costs, identify drivers and include in AMP.	_	
	Create and document a review procedure for the AMP.		
Asset Creation/ Acquisition	Identify and document asset objectives and lifecycle costs for all assets and include in AMP.	Environmental Health Officer	31 December 2010
	Create and document a project review process to ensure projects are reviewed by an appropriate employee or professional before initiating.	_	
	Create and interment commissioning process for assets and include in the AMP.	_	
	Identify and document the legal/environmental/safety obligations that apply to the licence and assign processes for each obligation. Include in AMP.		
Asset Disposal	Create and implement a process for identifying capacity of assets and recording past performance. Include in AMP.	Environmental Health Officer	31 December 2010
	Create and implement a review process for when under or poor performing assets are identified and include in AMP.	_	
	Create and implement asset disposal procedure based on performance of assets.		
	Create and implement replacement strategy for assets and include in AMP.		
Environmental Analysis	Create and document a review procedure for the SWOT in the AMP.	Environmental Health Officer	31 December 2010
	Identify and document performance requirements for all assets including availability of service and capacity. Include in AMP.		



Asset Management Process	Recommended Action	Responsible position	Date action to be completed		
Asset Operations	Create, document and implement operational policies and procedures and link to service levels required. Include in AMP.	Environmental Health Officer	31 December 2010		
	Expand asset register to include asset's condition and accounting data. Create and implement an update process for the asset register and include in AMP.	_			
	Identify training required by Shire staff and implement training program.	_			
Asset Maintenance	Create and document policies linked to maintenance procedures and service levels for assets.	Environmental Health Officer	31 December 2010		
	Identify and document maintenance requirements (emergency, corrective and preventative) for assets and create and implement maintenance plans. Include in AMP.	_			
	Create, document and regularly review a maintenance plan for assets including emergency, corrective and preventative measures.				
	Undertake risk analysis of maintenance tasks and prioritise maintenance plan based on risk assessment.				
Asset Management Information	Purchase / Develop Asset Management software and roll over all asset data to one system.	Environmental Health Officer	31 December 2010		
System	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.	-			



Asset Management Process	Recommended Action	Responsible position	Date action to be completed
	Create and implement procedures for producing regular reports to monitor assets and link to licence obligations.	_	
	Create and implement procedures for producing regular reports to monitor assets and link to licence obligations.		
Risk Management	Identify risks and create risk management procedures and policies. Include in AMP.	Environmental Health Officer	31 December 2010
	Create and document risk register including the treatment and consequences of asset failure. Include in AMP.	-	
Contingency Planning	Create and implement a review procedure for the Contingency Plan and include in AMP.	Environmental Health Officer	31 December 2010
Financial Planning	Create and implement a review procedure for the Financial Plan and include in AMP.	Environmental Health Officer	31 December 2010
Capital Expenditure Planning	Expand Capital Expenditure Plan to include actions, responsibilities and dates.	Environmental Health Officer	31 December 2009
	Create and implement a review procedure for the Capital Expenditure Plan.		
	Modify Capital Expenditure Plan to account for asset life and condition.	_	
	Create and implement a review procedure for the Capital Expenditure Plan.		
Review of AMS	Create asset management review procedure to ensure system is reviewed regularly.	Environmental Health Officer	31 December 2010
	Create and implement independent review policy for Asset Management Plan and System.		

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



# Appendix B

# Asset Management System Risk Assessment



 Table 11
 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
	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					
Asset planning	Are lifecycle costs of owning and operating assets assessed	2	В	Medium	Moderate	4
	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					
	Are full project evaluations undertaken for new assets, including comparative assessment of non-asset solution					
	Do evaluations include all life-cycle costs					
Asset creation/ acquisition	Do projects reflect sound engineering and business decisions	2	В	Medium	Weak	3
<b></b>	Are commissioning tests are documented and complete					
	Are ongoing legal/ environmental/ safety obligations of the asset owner assigned and understood					



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



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
	Are maintenance policies and procedures documented and linked to service levels required					
	Are regular inspections undertaken of asset performance and condition					
Asset maintenance	Are maintenance plans (emergency, corrective and preventative) documented and completed on schedule	2	В	Medium	Weak	3
mamtenance	Are failures analysed and operational/maintenance plans adjusted where necessary					
	Is risk management applied to prioritise maintenance tasks					
	Are maintenance costs measured and monitored					
	Is system documentation for users and IT operators adequate					
	Are input controls in place, which include appropriate verification and validation of data entered into the system					
Asset	Do logical security access controls appear adequate, such as passwords					
Management	Do physical security access controls appear adequate	2	В	Medium	Weak	3
Information System	Do data backup procedures appear adequate	_		modium	rroan	· ·
<b>.,</b>	Are key computations related to licensee performance reporting materially accurate					
	Do management reports appear adequate for the licensee to monitor licence obligations					



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	Do risk management policies and procedures exist and are they applied to minimise internal and external risks associated with the asset management system	2	D			3
management	Are risks documented in a risk register and treatment plans are actioned and monitored	2 B		Medium	Weak	S
	Are the probability and consequences of asset failure regularly assessed					
Contingency planning	Are contingency plans documented, understood and tested to confirm their operability and to cover higher risks	3	В	High	Weak	1
	Does the financial plan state the financial objectives and strategies and actions to achieve the objectives					
	Does the financial plan identify the source of funds for capital expenditure and recurrent costs					
Financial	Does the financial plan provide projections of operating statements (profit and loss) and statement of financial position (balance sheets)	2	D	B Medium	Wook	3
planning	Does the financial plan provide firm predictions on income for the next five years and reasonable indicative predictions beyond this period	2	Ь		Weak	3
	Does the financial plan provide for the operations and maintenance, administration and capital expenditure requirements of the services					
	Are significant variances in actual/budget income and expenses identified and corrective action taken where necessary					



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
	Is there a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates			High	Weak	
Capital	Does the plan provide reasons for capital expenditure and timing of expenditure	2	В			4
expenditure planning	Is the capital expenditure plan consistent with the asset life and condition identified in the asset management plan	3				1
	Is there an adequate process to ensure that the capital expenditure plan is regularly updated and actioned					
Deview of AMC	Is a review process in place to ensure that the asset management plan and the asset management system described therein are kept current	-	^	High	Weak	4
Review of AMS	Are independent reviews (eg internal audit) performed of the asset management system	2	A			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; and
- Monitoring.



# Appendix C

# Risk Assessment Tables



As per the ERA's Audit Guidelines – September 2006

Table 12 Consequence Ratings

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

Table 13 Likelihood Ratings

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



Table 14 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 15 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 16 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

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



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2	J Alexander	M Bourhill	M Bourhill	S Henderson	5 Henderson	25/08/2009
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