

SHIRE OF BROOKTON

REPORT

2012 ASSET MANAGEMENT REVIEW

OF

**BROOKTON SEWERAGE & NON-POTABLE WATER
SUPPLY SERVICES,**

(FINAL – 20th March 2013)

EXECUTIVE SUMMARY

TABLE OF CONTENTS

	Page No.
Introduction	2
Objectives and Scope	2
Time Frame and date of Asset Management Review	2
Summary of Conclusions	2
Previous Review – February 2012	4
Reviewer’s Effectiveness Table	6

EXECUTIVE SUMMARY

INTRODUCTION

The Shire of Brookton (The Shire) operates the Brookton Sewerage & Non-Potable Water Supply under the provisions of Water Services Operating Licence No. 12 Version OL2, dated 15th May 2009. The Licence is issued by the Economic Regulation Authority of Western Australia (ERA) - in accordance with the provisions of the Water Services Licensing Act 1995.

Section 36 of the Act and Clause 17 of the licence require that the Licensee provides and maintains an Asset Management System for the ongoing operations, maintenance, monitoring the condition of and future replacement of its assets. Also, an independent review of the asset management system is required to be undertaken not less than once in 24 months, or such longer period allowed by the Economic Regulation Authority.

OBJECTIVES AND SCOPE

The Water Services Licensing Act 1995 requires that the Shire provide for and maintain an asset management system. The system should set out the processes to be taken by the Shire to ensure the proper planning, operation, financing, maintenance, repair and renewal of its assets and for monitoring of its water services. The Act requires the Shire to provide the ERA with a report by an independent expert on the effectiveness of the system.

This review will provide the Authority with an independent opinion on whether or not the Shire has in place the appropriate systems for the planning, construction, operation and maintenance of its water services assets.

A detailed description of the scope of the asset management review investigations is given in the main report.

TIME FRAME AND DATE OF ASSET MANAGEMENT REVIEW

The Asset Management Review covers the period from 1st December 2011 to 30th November 2012.

The review was undertaken during a field visit to Brookton on 3rd and 4th February 2013

The previous review (by Quantum) covered the period 1st December 2008 to 30th November 2011

SUMMARY OF CONCLUSIONS

The Asset Management Review concluded that the recommendations of the 1st December 2008 to 30th November 2011 review of its Asset Management System have (in the main) not been implemented. This failure to implement the recommendations has been exacerbated by the May 2012 departure of Council's Environmental Health Officer – who had responsibility for the management of the sewerage and non-potable water services and who had commenced preparation of significant documentation in response to the 2011 review. This documentation - which is listed in Item 12 of Table D of this

report, should be completed and included in the AMP to satisfy many of the negative findings of both the; 1st December 2008 to 30th November 2011 review; and this 2012 review

The Shire commissioned a cctv screening of all its sewer reticulation system in 2011/2012, and has since commenced a program of progressive relining of damaged Asbestos Cement pipes with pvc material.

Based on the screening results and prior to his departure, the former EHO commenced preparation of the abovementioned documentation - including an asset and condition register and maintenance plans together with financial and capital expenditure plans for the period 2011 to 2016 – both of which has been included in the 2012/2013 budget.

The EHO has not been replaced, consequently, the Shire currently has no officer responsible for the management, of the water services, the coordination of their operations and maintenance or review and updating of the AMP.

It is apparent that the Asset Management Plan prepared for the Shire by consultants in 2008, has never been implemented or reviewed. As the AMP has not been reviewed, updated and implemented as recommended in the report of the 2011 review, the process ratings of this current (2012) review are generally more severe.

The Senior Works Supervisor coordinates relining of pipes and ad hoc repairs to the system. He is also responsible for operation of the disposal of treated effluent to irrigate the town oval.

Due to its basic simplicity, Brookton sewerage and non-potable water services systems are achieving their basic requirements, ie, the collection and treatment of discharge from individual septic tanks and disposal of effluent.

Much needs to be done to address the requirements associated with review and upgrading of the AMP and its implementation – particularly operation and maintenance instructions and training, flow and water quality monitoring and reporting requirements of its licensing Authorities – ie, the Economic Regulation Authority (ERA), Department of Environment & Conservation (DEC).

It is noted that although the Shire is not licensed by the Department of Health (DOH) to dispose of treated effluent to irrigate the town oval; the Shire does have written DOH approval to do so. Relevant monitoring and water quality standards required by the DOH approval are generally achieved.

Reviewer considers the Shire should appoint an EHO or other qualified person to undertake the management, administration and coordination of the operations of the Sewerage and Potable water services including all reporting, review and upgrading of the AMP. Also, an appointment should be made to the Works Management staff of an Operator to undertake the daily operations and maintenance of the system, including undertaking / coordinating flow and water quality measurement, testing and all reporting to management.

This review is unfavourable in many areas and the large number of recommendations set out in Table D of this report result mainly from the Shire's failure to implement its AMP and the recommendations of the previous review. As a consequence, the system and its operation is at risk of disruption due to

former inadequacies in the areas of asset condition assessment and maintenance; and the lack of coordination and training in the areas of operations maintenance, monitoring and reporting.

PREVIOUS REVIEW - 2011

The recommendations of the 1st December 2008 to 30th November 2011 review and subsequent actions are as follows. The sub-item numbers refer to Clause 4.3 in the previous review report (by Quantum)

1 - Asset Planning

1.4 - Revise the Asset Management Plan, including life cycle costs of all assets.

Partly Resolved

1.6 - As for Item 1.4 above

Partly Resolved

1.7 - As for recommendation Item 8.3 – Risk Management

Unresolved

1.8 - Revise the AMP and implement a procedure to review/update the Plan on an annual basis, or if major changes occur and full revision and re-issue every five years

Unresolved

2 - Asset Creation / Acquisition

2.2 - As for Item 1.4

Unresolved

2.8 - As for Item 4.3

Unresolved

3 - Asset Disposal

3.1 - Implement a procedure for regular review (such as annually) of the condition of all assets for the scheme and to record this information in an Asset Management Information System (such as the spread sheets available from the Authority)

Partly Resolved

3.4 - The capital investment plan in the AMP needs to be reviewed and updated

Partly Resolved

4 - Environmental Analysis

4.1 - Update the AMP to include a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis for the assets and operations of the scheme, including meeting the service and performance standards per the operating licence from the Authority

Partly Resolved

4.3 - Revise the Legislative Requirements section of the AMP for the 2009 Operating Licence from the Authority and any other changes since 2008

Unresolved

5 - Asset Operations

5.1 - Document the operating policies and procedures for the scheme's assets. **Unresolved**

5.3 - Implement an Asset Management Information System (such as the asset spread sheets available from the Authority)to record the location, age, replacement costs, inspection date ,condition assessment etc **In hand-Partly Resolved**

5.5 - Update the resources section of the AMP to include training needs for each position relevant to the scheme and how training records will be kept **Unresolved**

6 – Asset Maintenance

6.1 - Document the maintenance procedures and Annual Maintenance Plan for the scheme such that maintenance work is recorded in the Shire's work program and the plan is updated as maintenance is completed. **Partly Resolved**

6.2 - Implement a procedure for regular review (such as annually) of the condition of all assets for the scheme **Unresolved**

7 - Asset Management Information System

7.1 - Refer to Item 5.3 Recommendation **Unresolved**

7.7 - As part of implementing a new AMIS document the management reports to be provided, recipient and purpose, including on performance standards to the Authority (eg blockages)

Unresolved

8 - Risk Management

8.1 - As part of implementing a new AMIS, document in a risk register, the risk of failure of individual asset components and any other events that may result in a non-compliance with Licence obligations, including treatment plans for higher risks

Existing considered adequate for the assets being managed

8.3 - Review and update the risk assessment in the AMP. See also the Item 8.1 recommendation **Unresolved**

9 - Contingency Planning

9.1 - Review and fully document the contingency plans. **Unresolved**

Review and test the contingency plans on an annual basis or whenever major changes are required to the plans to ensure they are operable and that appropriate persons are aware of their responsibilities in cases of emergency. This could be a desk top review of the plans by the main participants, unless there are significant individual risks that require more extensive testing **Unresolved**

10 - Financial Planning

10.1 - Review and update the financial plan in the AMP **Partly Resolved**

11 - Capital Expenditure Planning

11.4 - Review and update the Capital Expenditure Plan in the AMP **Partly Resolved**

12 - Review of AMS

Update the Asset Management Plan for the requirement to notify the Authority of any changes to the asset management system within 10 business days. **Unresolved**

Implement a compliance schedule and note the required time frame of 10 business days for notification of asset management system changes to the Authority **Partly Resolved**

Modify the document status table to include a brief description of changes to the document from the previous version. **Unresolved**

REVIEWER’S EFFECTIVENESS TABLE

Tables 5 & 6 of ERA’s “Audit Guidelines”, August 2010, provided the basis of assessment of the effectiveness rating levels associated with Process and Policy Definition and Asset Management Performance during the Asset Management Review

The Reviewer’s assessment, (based on the above tables) of the effectiveness of the Shire’s Asset Management System for Brookton Sewerage and Non-Potable Water Services is summarised (overleaf) in Table A - Reviewer’s Effectiveness Summary. A summary key to the assessment is provided at the foot of the table.

TABLE A –REVIEWER’S EFFECTIVENESS SUMMARY

Asset Management System	Asset Management Process & Policy Definition Adequacy Rating	Asset Management Performance Rating
1 - Asset Planning	C	2
2 - Asset creation / acquisition	C	N/A
3 - Asset Disposal	B	2
4 - Environmental Analysis	C	3
5 - Asset Operations	C	3
6 - Asset Maintenance	C	4
7 - Asset Management Information System	D	3
8 - Risk Management	C	2
9 - Contingency Planning	B	3
10 - Financial Planning	B	1
11 - Capital Expenditure Planning	B	2
12 - Review of Asset Management Plan	C	3

Process & Policy Definition Key **A** = adequately defined. **B** = requires some improvement.

C = requires significant improvement **D** = inadequate

Performance Ratings Key **1** = performing effectively **2** = opportunity for improvement.

3 = corrective action required **4** = serious action required

SHIRE OF BROOKTON

REPORT

ON

2012 ASSET MANAGEMENT REVIEW

FOR

BROOKTON SEWERAGE & NON-POTABLE WATER

SUPPLY SERVICES

TABLE OF CONTENTS

1.1 – Introduction	Page	1
1.2 –Objectives and Scope		1
1.3- Key Documents Inspected During the Review		2
1.4 – Review Period and Date of Review		3
1.5 – Key Review Participants		4
1.6 – Review of Recommendations from Previous Review		4
1.7 – Asset Management Review - Effectiveness Criteria		7
1.8 – Asset Management Review - Effectiveness Summary		8
1.9 - Reviewer’s General Comments		9
1.10 - General Conclusions & Recommendations Resulting from the Asset Management Review		20
1.11 – Reviewer Professional Time Input		23
1.12 – Post Review Implementation Plan		23

APPENDIX A – POST REVIEW IMPLEMENTATION PLAN

SHIRE OF BROOKTON
REPORT ON THE 2012 ASSET MANAGEMENT
REVIEW
BROOKTON SEWERAGE & NON-POTABLE WATER SUPPLY SERVICES

1.1 – INTRODUCTION

Under Licence No.13 issued by the Economic Regulation Authority of Western Australia, the Shire of Brookton (the Shire) operates and maintains the Sewerage and Non-Potable Water Services for the town of Brookton.

John Seabrook settled in the area in 1846 – naming his property “Brookton House”. During the 1860s and 1870s more settlers moved into the area, engaging in wheat and sheep farming and sandalwood cutting. When the Great Southern Railway was constructed in 1889, Brookton was one of the stations and became a centre for the area’s isolated farms. The government gazetted the town as Seabrook in 1895, but the name was changed to Brookton in 1899.

In 1906 the Brookton Roads Board was formed. The board became the Shire of Brookton in 1961.

The town of Brookton is situated on the Brookton Highway, some 140 km east south east of Perth and is a key centre for the surrounding agricultural area. The resident population at the 2006 census was recorded as 576 persons

The town’s sewerage system was established in 1976. The system accepts effluent from septic tanks within private and commercial properties in the town site. All sewage is conveyed to a pumping station, from which it is discharged to the treatment plant. The annual sewage flow to the treatment lagoon is approximately 40,000 kl.

The length of gravity sewers is 4740 metres. The rising main from the pumping station to the treatment plant is 640 metres in length

The WWTP is comprised of a single pond. Effluent from the pond is flocculated, clarified and chlorinated before pumping to either the enclosed irrigation storage tank at the town oval, or to the 50 mgl storage dam which forms part of the town site water utilization scheme

In addition to its water services licence issued by ERA, the Shire holds a Department of Environment and Conservation Licence No. Licence No.L7994/2003/3 for the WWTP

1.2 - OBJECTIVES AND SCOPE

The Water Services Licensing Act 1995 requires that the Shire provide for and maintain an asset management system. The system should set out the processes to be taken by the Shire to ensure the proper planning, operation, financing, maintenance, repair and renewal of its assets and for monitoring of its water services. The Act requires the Shire to provide the ERA with a report by an independent expert on the effectiveness of the system.

Such a review provides ERA with an independent opinion on whether or not the Shire has in place appropriate systems for the planning, construction, operation and maintenance of its water services assets

This review therefore examined;

- The adequacy or otherwise of the outputs of the system - including documentation of performance standards and statutory requirements, system opportunities and threats, preparation of operations manuals, maintenance schedules and action records, registers of the location, condition, age etc of assets.
- The extent to which the risks associated with the system environment and / or unexpected system failures have been assessed, quantified, documented as contingency plans and reduced by specific practices - such as stocking selected spare parts or, equipment items subject to extended delivery or repair periods, additional storage etc
- The existence and effectiveness of systems implemented for the assessment, planning, financing and construction of new, replacement and major maintenance works and disposal of redundant assets.
- Whether or not the system has been subject to regular internal review; with systems in place to ensure that plans are regularly updated to current status, provide for prior identification of new or replacement assets, their implementation; and initiatives to improve the overall effectiveness of the asset management system.
- The Shire's response to the recommendations made in previous reviews.

The review also identifies any aspects of the asset management system, which are considered to require correction, amendment, or improvement.

1.3 - KEY DOCUMENTS INSPECTED / RECEIVED DURING THE REVIEW

Shire of Brookton's Water Services Operating Licence No.12 for the Brookton Sewerage & Non-Potable Water Services, issued by the Economic Regulation Authority of Western Australia (ERA)

ERA letter to Shire of Brookton dated 14th June 2012 advising revised review period

ERA letter to Shire of Brookton dated 10th October 2012 - acknowledgement of receipt of the above compliance report –

ERA letter to Shire of Brookton dated 27th December 2012 - reminding of 2012 review requirements and timing

ERA letter to Shire of Brookton dated 9th January 2013 acknowledging receipt of revised post audit and post review management plans

Department of Environment and Conservation – Licence No.L7994/2003/3 – Brookton Wastewater Treatment Plant

Shire of Brookton letter dated 7th February 2012, replying to DCE field note advising non-compliance with licence conditions.

Shire of Brookton Annual Compliance Report to ERA for the period 1st July 2011 to 30th June 2012. – dated 3rd October 2012

Proposed Budget of income and expenditure (capital works, maintenance, labour etc) for the 2012/13 financial year

Shire of Brookton – Forward Capital Works Plan – Infrastructure – 1st July 2011 to 30th June 2016

Shire of Brookton - Asset Management Plan - Brookton Town Sewerage Scheme – March 2008. This document has not been reviewed or updated.

Shire of Brookton - Operational Audit and Asset Management Review 2011 - *Final Report dated May 2012*

Pathwest – report on chemical analysis of effluent / irrigation water at town oval - April and May 2012

Department of Health – Approval letter and conditions for the initial water re-use scheme. 23 July 2003

Shire of Brookton – 2012 Draft Asset Management documents

- *Financial Plan 2013 to 2023*
- *Five year Capital Expenditure Plan*
- *Asset Register and Asset Condition spread sheets*
- *Maintenance schedule and completed works sign-off schedule*
- *Schedule of timing for sampling and testing, flow meter readings and, recording of results*
- *Schedule of timing, dates for reviews of AM system and reporting to ERA DCE and Dept. Health*
- *Asset Register*
- *Asset Condition*
- *Asset Life, value and replacement cost estimates*

1.4 - REVIEW PERIOD AND DATE OF REVIEW

This Asset Management Review covers the period from 1st December 2011 to 30th November 2012.

The review was undertaken during visits to the Shire’s offices at Brookton 4th & 5th February 2013.

1.5 - KEY REVIEW PARTICIPANTS

The review was undertaken by Barry Robbins – of Barry Robbins Engineering & Project Management, with the assistance of the following staff of Shire of Brookton

Mr K O'Connor – Chief Executive Officer, **Ms. J Oliver** – Deputy CEO and Senior Finance Officer, **Mr A Ramsay** – Former Environmental Health Officer and **Mr G Forward** – Principal Works Supervisor

1.6 - REVIEW OF RECOMMENDATIONS FROM THE PREVIOUS REVIEW

Recommendations from the 1st December 2008 to 30th November 2011 review and comment by this (2012) reviewer are set out in Table B below.

TABLE B - REVIEW OF RECOMMENDATIONS FROM THE PREVIOUS REVIEW

Item	Recommendation	Action Taken	Further Action Required	Resolved/ Unresolved
1 - Asset Planning	<p>1.4 - <i>Revise the Asset Management Plan, including life cycle costs of all assets.</i></p> <p>1.6 - <i>As for Item 1.4 above</i></p> <p>1.7 - <i>As for recommendation Item 8.3 – Risk Management</i></p> <p>1.8 - <i>Revise the AMP and implement a procedure to review/update the Plan on an annual basis, or if major changes occur and full revision and re-issue every five years</i></p>	<p>Partly revised</p> <p>As above</p> <p>None</p> <p>None</p>	All as per 2011 Review Recommendations	<p>Partly Resolved</p> <p>As above</p> <p>Unresolved</p> <p>Unresolved</p>
2 – Asset Creation / Acquisition	<p>2.2 - <i>As for Item 1.4</i></p> <p>2.8 - <i>As for Item 4.3</i></p>	<p>None</p> <p>None</p>	Both as per 2011 Review Recommendations	Unresolved
3 – Asset Disposal	<p>3.1 - <i>Implement a procedure for regular review (such as annually)of the condition of all assets for the scheme and to record this information in an Asset Management Information System (such as the spread sheets available from the Authority)</i></p> <p>3.4 - <i>The capital investment plan in the AMP needs to be reviewed and updated</i></p>	<p>None</p> <p>None</p>	Both as per 2011 Review Recommendations	<p>Partly Resolved</p> <p>Partly Resolved</p>

<p>4 – Environmental Analysis</p>	<p>4.1 - Update the AMP to include a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis for the assets and operations of the scheme, including meeting the service and performance standards per the operating licence from the Authority</p> <p>4.3 - Revise the Legislative Requirements section of the AMP for the 2009 Operating Licence from the Authority and any other changes since 2008</p>	<p>A SWOT analysis is included in the existing AMP within Section 3 - Risk Management. However, the analysis (as for the AMP generally) has not been reviewed</p> <p>None</p>	<p>Review the SWOT analysis in line with the 2011 Review Recommendation</p>	<p>Partly Resolved</p> <p>Unresolved</p>
<p>5 – Asset Operations</p>	<p>5.1 - Document the operating policies and procedures for the scheme's assets.</p> <p>5.3 - Implement an Asset Management Information System (such as the asset spread sheets available from the Authority) to record the location, age, replacement costs, inspection date, condition assessment etc</p> <p>5.5 - Update the resources section of the AMP to include training needs for each position relevant to the scheme and how training records will be kept</p>	<p>Section 4 of the AMP contains adequate operation procedures and staff responsibilities. As for the AMP generally, these procedures require review and also need to be supported by training in their implementation</p> <p>Spread sheets have been obtained by the Shire and significant input relevant to the asset register and condition recorded.</p> <p>None</p>	<p>Review Section 4 and introduce appropriate training</p> <p>All as per 2011 Review Recommendations</p> <p>All as per 2011 Review Recommendations</p>	<p>Unresolved</p> <p>Partly Resolved</p> <p>Unresolved</p>
<p>6 – Asset Maintenance</p>	<p>6.1 - Document the maintenance procedures and Annual Maintenance Plan for the scheme such that maintenance work is recorded in the Shire's work program and the plan is updated as maintenance is completed.</p> <p>6.2 - Implement a procedure for regular review (such as annually) of the condition of all assets for the scheme</p>	<p>The AMP contains details of weekly, monthly and annual maintenance requirements. These are supported by a spread sheet of the maintenance tasks against an annual timeline. The spread sheet has provision for recording task completion. The maintenance description and spread sheet require further detail and should be supported by training in implementation</p> <p>Included in the above</p>	<p>Review and update the maintenance documentation</p> <p>All as per 2011 Review Recommendations</p>	<p>Partly Resolved</p> <p>Unresolved</p>
<p>7 – Asset Management Information System</p>	<p>7.1 - Refer to Item 5.3 Recommendation</p> <p>7.7 - As part of implementing a new AMIS document the management reports to be provided, recipient and purpose, including on performance standards to the Authority (eg blockages)</p>	<p>Spread sheets have been obtained by the Shire and some input relevant to the asset register and condition recorded.</p> <p>None</p>	<p>Both as per 2011 Review Recommendations</p>	<p>Unresolved</p> <p>Unresolved</p>

<p>8 – Risk Management</p>	<p>8.1 - As part of implementing a new AMIS, document in a risk register, the risk of failure of individual asset components and any other events that may result in a non-compliance with Licence obligations, including treatment plans for higher risks</p> <p>8.3 - Review and update the risk assessment in the AMP. See also the Item 8.1 recommendation</p>	<p>Section 3 – Risk Management of the AMP contains a twenty five risk assessments for the Water Services licence – including Economic, Environmental, Quality and Operational aspects of the service. Control measures are identified</p> <p>None</p>	<p>Review and update the Risk Management section of the AMP</p> <p>As above</p>	<p>Partly Resolved</p> <p>Partly resolved</p>
<p>9 – Contingency Planning</p>	<p>9.1 - Review and fully document the contingency plans.</p> <p>Review and test the contingency plans on an annual basis or whenever major changes are required to the plans to ensure they are operable and that appropriate persons are aware of their responsibilities in cases of emergency This could be a desk top review of the plans by the main participants, unless there are significant individual risks that require more extensive testing</p>	<p>None</p> <p>Section 3.4 – Emergency Procedure in the AMP detail what are actually Contingency Plans. Staff responsibilities, action statements and contact details are provided. The plans need to be reviewed and supported by a training regime</p>	<p>Both as per 2011 Review Recommendations</p>	<p>Unresolved</p> <p>Unresolved</p>
<p>10 – Financial Planning</p>	<p>10.1 - Review and update the financial plan in the AMP</p>	<p>An update has been prepared but is not included in the AMP.</p>	<p>All as per 2011 Review Recommendations</p>	<p>Partly Resolved</p>
<p>11 – Capital Expenditure Planning</p>	<p>11.4 - Review and update the Capital Expenditure Plan in the AMP</p>	<p>A capital expenditure plan has been prepared for all Infrastructure – including sewerage, for the period 2011 to2016. The document has not been extended to 2017. Estimates are included in the 2012/2013 Capital Expenditure budget</p>	<p>Up date the existing plan to 2017</p>	<p>Partly Resolved</p>
<p>12 – Review of AMS</p>	<p>Update the Asset Management Plan for the requirement to notify the Authority of any changes to the asset management system within 10 business days.</p> <p>Implement a compliance schedule and note the required time frame of 10 business days for notification of asset management system changes to the Authority</p> <p>Modify the document status table to include a brief description of changes to the document from the previous version.</p>	<p>None</p> <p>A compliance schedule has been prepared but is not included in the AMP</p> <p>None</p>	<p>As per 2011 Review Recommendations</p> <p>Include the schedule in the AMP</p>	<p>Unresolved</p> <p>Partly Resolved</p>

1.7 - ASSET MANAGEMENT REVIEW – EFFECTIVENESS CRITERIA

The effectiveness ratings assigned to each aspect of the review are set out in the following two Tables (overleaf) - taken from ERA’s “Audit Guidelines: Electricity, Gas and Water Licences – August 2010”

Asset Management Process and Policy Definition Adequacy Ratings

(ERA Guidelines - August 2010, Table No.5)

Rating	Description	Criteria
A	Adequately Defined	<p>Process policies are documented</p> <p>Process & policies adequately document the required performance of assets</p> <p>Processes and policies are subject to regular reviews and updated where necessary.</p> <p>The asset management information systems(s) are adequate in relation to the assets managed</p>
B	Requires some improvement	<p>Process & policy documentation requires improvement.</p> <p>Processes & policies do not adequately document the required performance of assets.</p> <p>Reviews of process & policies are not conducted regularly enough.</p> <p>The asset management information system(s) require minor improvements (considering the assets being managed)</p>
C	Requires significant improvement	<p>Process & policy documentation is incomplete or requires significant improvement.</p> <p>Processes do not document the required performance of the assets.</p> <p>Processes & policies are significantly out of date.</p> <p>The asset management information system(s) require significant improvements (considering the assets managed)</p>
D	Inadequate	<p>Processes & policies are not documented.</p> <p>The asset management system(s) is not fit for purpose (considering the assets managed)</p>

Asset Management Performance Ratings
(ERA Guidelines - August 2010, Table No.6)

Rating	Description	Criteria
1	Performing Effectively	The performance of the process meets or exceeds the required levels of performance. Process effectiveness is regularly assessed and corrective action taken where necessary
2	Opportunity for Improvement	The performance of the process requires some improvement to meet the required level. Process effectiveness reviews are not performed regularly enough.. Process improvement opportunities are not actioned.
3	Corrective action required	The performance of the process requires significant improvement to meet the required level. Process effectiveness reviews are performed irregularly, or not at all. Process improvement opportunities are not actioned
4	Serious action required	Process is not performed, or the performance is so poor that the process is considered ineffective.

1.8 – EFFECTIVENESS SUMMARY

Based on the criteria set out in ERA Guidelines Tables 5 and 6 above, the Table C (overleaf) summarises the reviewer’s effectiveness ratings of the various areas of The Shire’s asset management system

Table C –REVIEWER’S EFFECTIVENESS SUMMARY

ASSET MANAGEMENT SYSTEM	Asset Management Process & Policy Definition Adequacy Rating	Asset Management Performance Rating
1 - Asset Planning	C	2
2 - Asset creation / acquisition	C	N/A
3 - Asset Disposal	B	2
4 - Environmental Analysis	C	3
5 - Asset Operations	C	3
6 - Asset Maintenance	C	4
7 - Asset Management Information System	D	3
8 - Risk Management	C	2
9 - Contingency Planning	B	3
10 - Financial Planning	B	1
11 - Capital Expenditure Planning	B	2
12 - Review of Asset Management Plan	C	3

1.9 – REVIEWER’S GENERAL COMMENTS

Table D (overleaf) sets out the Reviewer’s comments, recommendations for each aspect of the Shire’s Asset Management Plan.

Table D – REVIEWER’S COMMENTS ON SHIRE OF BROOKTON ASSET MANAGEMENT SYSTEM

Key Processes & General Requirements	Reviewer’s Comments	Recommendations	Process & Policy Definition Adequacy Rating	Performance Rating
<p>1 Asset Planning</p> <p>Asset planning strategies should focus on meeting customer needs in an effective and efficient manner. (delivering the right service at the right price)</p>	<p>The AMP was prepared in 2008 but was not implemented and, has not been reviewed or updated. The AMP contains no asset register, asset life expectation, or condition. Consequently, formal planning for ongoing development or replacement of assets has not been undertaken. Financial planning associated with operations, maintenance and replacement processes have been based on previous expenditure and obvious short term requirements rather than an ongoing plan</p> <p>Following a cctv inspection of the collection system an ongoing plan has been prepared (and implementation commenced) for inspection and re-lining of pipes and pumpset replacement. An asset and condition register has been drafted. These works are included in the 2012/2013 capital expenditure plan</p>	<p><i>The 2008 AMP should be updated as a matter of urgency. Specific attention should be given to completing the asset register, (including asset life expectancy and condition) commenced by the former EHO and its inclusion in the AMP – and implementation of a procedure for regular, say two yearly, assessment of the condition of all assets and updating of the asset register</i></p>	<p>C</p>	<p>2</p>
<p>2 Asset Creation & Acquisition</p>	<p>No new assets were created during the review period. The Shire complies with the requirements of the Local Government Act regarding purchase /acquisition of goods</p>		<p>C</p>	<p>N/A</p>

<p>The provision or improvement of an asset where the outlay can be expected to provide benefits beyond the year of outlay</p>	<p>and services.</p> <p>As for Item 1 above – as the AMP has no asset register, life cycle data or asset condition, the assessment of the requirement for asset creation is hampered in terms of timing and comparison of options</p> <p>The AMP contains pro forma sheets for option assessment and life cycle cost comparison for Asset Planning and Creation, these have not been implemented. Some construction of a longer term project to collect, store and re-use stormwater is ongoing. Consultant and Department of Agriculture reports on the project were noted. However the reasons for selection of the proposal being implemented and the identity of the Shire officer directing the project are unclear. This apparent dearth of information is possibly due to the Shire’s CEO only being in his position for three months and also that the Shire currently does not retain an EHO.</p> <p>As for the previous reviewer’s comment ,it is noted that the Regulatory Requirement of Section 2.2 of the AMP refer to licenses and other requirements current at 2008.</p>	<p><i>The 2008 AMP should be updated as a matter of urgency. Specific attention should be given to completing the asset register,(including asset life expectancy and condition) commenced by the former EHO and its inclusion in the AMP.</i></p> <p><i>The AMP should include a basic flow path for the evaluation of options and a proforma document for evaluations similar to those already provided</i></p> <p><i>Update the AMP to the 2013 status of Licenses and requirements</i></p>		
<p>3 Asset Disposal</p> <p>Effective asset disposal frameworks incorporate consideration of alternatives for the disposal of surplus, obsolete, under-performing or unserviceable assets. Alternatives are evaluated in cost-benefit terms</p>	<p>The Shire is bound by Local Government requirements for asset sale.</p> <p>The water services system is basic in concept and operation. It is unlikely that changing conditions will render any assets redundant. Replacement of any assets in the future will be due to failure, or end of life. Those assets replaced (mostly buried pipes, manholes, or worn out pumps) are unlikely to have any second hand market value – and would normally be left in ground or disposed of to landfill</p> <p>Although it has recently undertaken a cctv inspection of its collection system pipework and commenced the</p>	<p><i>As recommended for Item 1 – Asset Planning and Item 2 – Asset Creation and Acquisition, a procedure should be implemented for regular, say two yearly, assessment of the condition of all assets.</i></p>	<p>B</p>	<p>2</p>

	<p>implementation of a replacement program, the Shire has no formal procedure for assessment of the condition of all of its assets, including pumping and treatment facilities. Such a program should be implemented in conjunction with the recommendation for Items 1 and 2 above related to completing the asset register,(including asset life expectancy and condition)</p>			
<p>4 Environmental Analysis</p> <p>examines the asset system environment and assesses all external factors affecting the asset system</p>	<p>Section 1 of the AMP describes the Community, Climatic and Regulatory environment associated with the system. These include details of ERA and DOC licenses and relevant health and safety requirements – as of 2008. These should be revised for 2013</p> <p>Section 2 of the AMP describes the levels of service to be achieved by the system. These include performance levels for Availability, Capacity, Continuity, Odour Control, Emergency response and Blockages.</p> <p>The Shire’s report to ERA indicate that performance standards were met for the 2011/2012 year</p> <p>A very basic SWAT analysis is included in Section 3.2 of the AMP. This analysis requires expanding.</p>	<p><i>The material described should be reviewed and updated in the AMP. In particular, the text relevant to Environmental Analysis should be transferred from the various sections of the existing AMP and consolidated under the heading “Environmental Analysis” in the reviewed document</i></p> <p><i>The existing SWAT analysis should be expanded and consolidated (as above) in the reviewed document</i></p>	C	3
<p>5 Asset Operations</p> <p>Operations functions relate to the day to day running of assets and directly affect service levels and costs</p>	<p>Section 4.2 of the AMP has an overview of the various processes of the system. The collection system and treatment pond are operated by gravity and the pumping station is operated automatically – with provision for manual operation.</p> <p>The treatment plant effluent removal and associated clarification and disinfection processes prior to discharge of effluent to either the town oval irrigation system or the storage dam are a little more complex and require more experienced input from the Operator.</p> <p>The Shire’s Senior Works Manager (SWM) has a good working knowledge of the systems.</p>	<p><i>Prepare a simple operation manual - including daily operation checks and flow measurement etc. for the system to be used primarily to support training</i></p> <p><i>Appoint an Operator to, the Works Manager’s staff, with responsibility for day to day operation of the systems including visual checks, flow measurement, pumping station operations.</i></p> <p><i>Appoint a suitably qualified Officer to have administrative responsibility for the management and coordination of the water systems and the setting up and implementation of an appropriate Asset Management System on the Shire’s computer system</i></p>	C	3

	<p>Reviewer considers that a simple operation manual - including daily operation checks and flow measurement for these systems should be prepared and used primarily to support a training program for the systems.</p> <p>There is no training regime for the water services.</p> <p>An Operator appointed to, or recruited from, the Works Manager's staff, together with the Administrative Officer responsible for the management and coordination of the overall system should receive the above Training</p> <p>The flow meter on the inlet to the treatment plant does not function. The flow meter from the chlorination plant are apparently serviceable but are not read. Consequently, the Shire has no reliable knowledge of the sewage flows daily, monthly, annually, or how these flows vary during wet or dry weather</p> <p>The treatment lagoon has a hydraulic retention time of around two months, which should allow an appropriate level of biological stabilization of the wastewater - and also maximise the reduction of coliform bacteria. The surface loading based on septic effluent Biological Oxygen Demand (BOD) of 240 mg /l is in the order of 6 grams /M² /day.</p> <p>The original design and operation of the pond involved the sewage entering the pond at one corner and treated effluent exiting at the diagonally opposite corner. ie the flow travelled the full 95 m diagonal length of the pond, ensuring the maximum detention period.</p> <p>The original outlet has been replaced by a floating pumped offtake (to the clarification and chlorination unit) located on the same side as the inlet and - only some 30 metres distant. This implies that inlet flows will short circuit to the outlet pump and reduce the level of treatment. This situation could result in an increased useage of both flocculant and chlorine.</p>	<p><i>Provide the Operator and Administration Officer with training in the operation and Maintenance of the water services and Contingency Plans</i></p> <p><i>Implement a training program</i></p> <p><i>The flow meter at the treatment plant should be removed and sent for repair, or replaced with a new unit. Both this meter and that on the chlorination plant should be read concurrently at least weekly</i></p> <p><i>Take comparative water samples to determine the difference in quality (BOD and Suspended Solids) at a depth of 600 mm at the floating pump location and the diagonally opposite end of the lagoon. If the difference is significant consideration should be given to relocating the offtake pump at the far end of the pond to reduce short circuiting within the treatment lagoon.</i></p>		
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	<p>Comparative water samples should be taken to determine the difference in quality (BOD and Suspended Solids) at a depth of 600 mm at the floating pump location and the diagonally opposite end of the lagoon. If the difference is significant consideration should be given to relocating the offtake pump at the far end</p> <p>An efficiently operating septic tank will retain some 50 % of settleable solids and reduce BOD of the effluent by around 40%. However the settled solid material will eventually fill the base of the tank – with the result that raw sewage will flow straight through the tank receiving no reduction of either BOD or Settleable Solids If this occurs, the load on the treatment pond will increase by a factor in the order of 100%.</p> <p>Reviewer was advised that the Shire does not monitor the condition of septic tanks contributing the sewerage system. In view of the above comments it may be prudent to encourage regular pump out of all septic tanks contributing to the Scheme.</p>	<p><i>The Shire should consider the practicability and means by which customers could be encouraged to have their septic tanks pumped out on a regular basis</i></p>		
<p>6 .Asset Maintenance</p> <p>Maintenance functions relate to the up keep of assets and directly affect service levels and costs</p>	<p>Section 4.3 of the AMP contains a basic description of the maintenance requirements for the Reticulation pipes and Manholes, the pumping Station and Rising Main to the treatment lagoon.</p> <p>The above description is supported by a Table indicating the maintenance requirement and frequency for each element of the water services over a twelve months period. Whilst the description and maintenance Table are essentially generic, they require only minor review and correction to apply to the Brookton system.</p> <p>As stated previously, the AMP has not been implemented. Therefore any maintenance has essentially been unplanned and mainly associated with repairs.</p> <p>The Shire’s decision to conduct a cctv inspection of the collection pipe system - and the consequent identification of several sections for urgent and ongoing re-lining and</p>	<p><i>That the existing maintenance description and table be reviewed, upgraded and used in conjunction with the Operations Manual for training of the Operator and Administration Officer as in Item 5 above.</i></p> <p><i>The upgraded maintenance should be incorporated in the AMP as an Appendix</i></p> <p><i>The Shire should immediately implement the maintenance procedures of the 2008 AMP – particularly items associated with the pumping station.</i></p>	<p>C</p>	<p>4</p>

	<p>cleaning programs is applauded. However, many of the maintenance items in the AMP have never been undertaken, including flushing of the collection system. The most significant oversight, is maintenance of the pumping station. The walls, pumps and level control switches or probes have apparently never been hosed clean, or the wet well cleared of accumulated grit. In addition the covers of the pump station well have been sealed with a silicone filler – presumably to prevent the escape of odours. Over time a thick layer of grease and scum can accumulate on walls, level control switches and pumps. Unless remove regularly, say fortnightly, the layer will become septic, malodourous and generate an atmosphere corrosive to the walls and steel access covers. Also the grease build up can interfere with the operation of level control switches. An accumulation of grit in the well can precipitate significant wear on the pumps.</p>			
<p>7. Asset Management Information Systems (MIS)</p> <p>A combination of processes, data and software that support the asset management functions.</p>	<p>There is no formal asset management system. Hard copies of incoming and outgoing correspondence, reports complaints etc are contained within the Shire’s paper copy filing system. Some material is placed on computer files eg the AMP. As a whole, collection of data and management and administration of the assets is scattered and time consuming. As the scheme is extremely basic the installation of a simple asset management package such as those advertised on the internet should be considered. Alternatively as the Shire needs to appoint an Administration Manager for the water services, such a person should be able to commence (and slowly develop) a simple asset management system on the Shire’s computer system. The series of spread sheets, (including an asset register) available in generic format from ERA have already been substantially developed on the Shire’s computer system by the former EHO. These could be readily extended in due course to include regular updating of the asset register and asset condition (as recommended in Item 1 Asset Planning), maintenance programs and sign-off</p>	<p><i>The Shire should install a basic computerised asset management system - either by purchasing a standard product or by further in house addition to the generic spread sheets already installed on the Shire’s computer system. As recommended for Item 1 – Asset Planning, the system should include an asset register and a procedure for regular updating of the register and the condition of the registered assets</i></p> <p><i>Whichever system is installed, it should be subject to the existing password and other backup and security systems currently in place in the Shire’s office.</i></p>	<p>D</p>	<p>3</p>

	documentation, summaries of flow measurement and water quality results, reports etc			
<p>8. Risk Management</p> <p>involves the identification of risks and their management within an acceptable level of risk</p>	<p>Section 3 of the AMP contains twenty five assessments of risk for the Water Services – including Licence Breaches, Economic, Environmental, Quality and Operational aspects of the service. Some of the risk items identified may no longer apply – or should be renamed.eg chlorinator failure – chlorine gas disinfection has been replaced by hypochlorite injection.</p> <p>Levels of residual risk are identified and control measures listed.</p> <p>Control measures should be more specific.</p> <p>The range of risks should be reviewed ie overflow onto private property resulting from a pipe blockage or pump station failure would not be sufficiently controlled by a pump station alarm as currently implied</p> <p>Given the uncomplicated nature of the assets managed, the risk assessment and register once reviewed and updated should be appropriate.</p>	<p><i>Review and update the risk management table to match any equipment changes. Provide more detail for control measures where these are currently dealt with by implication.</i></p> <p><i>Review and update the range of risks.</i></p>	C	2
<p>9. Contingency Planning</p> <p>Contingency plans document the steps to deal with the unexpected failure of an asset</p>	<p>Section 3.4 – “Emergency Procedures” in the AMP detail what are essentially Contingency Plans.</p> <p>Staff responsibilities, action statements and contact details are provided and should be reviewed and amended as appropriate</p> <p>The plans need to be reviewed and updated and if necessary extended, particularly where review of the extent of risks identify areas where existing controls are not appropriate eg overflows onto private property as discussed above.</p>	<p><i>Contingency plans should be prepared from the results of the risk assessment review, using the existing “Emergency Procedures” as a baseline.</i></p> <p><i>The plans should include and or update action to be taken in each instance, details of Shire staff responsibilities and contact information, together with details and contact information for relevant public authorities and specialist contractors and suppliers with service agreements with the Shire.</i></p>	B	3

<p>10. Financial Planning</p> <p>The financial planning component of the asset management plan brings together elements of the service delivery to ensure its financial viability over the long term.</p>	<p>The AMP contains an income and expenditure plan for sewerage and water services for the period 2007/8 to 20016/17 - predicting a surplus for each year . A plan of input and expenditure for the sewerage is provided for the same period.</p> <p>These plans have now been reviewed and updated for the 2012/2013 year and each subsequent year. The reserve plan includes an improved assessment of capital expenditure arising from the recent assessment of the condition of water services assets and the works required over the next five t years period and beyond.</p> <p>Although not included in the AMP, the updated plans are included in the 2012/2013 budget</p> <p>The annual budget provides a statement of planned expenditure and income, together with funding sources as required by the WA Local Government Act. Expenditure is monitored against budget on a monthly basis.</p> <p>The Shire is preparing its first ten year predictive financial plan for inclusion in its 2013/2014 budget</p>	<p><i>Review and update the financial planning documents for the current 2012/2013 financial year and annually for subsequent years.</i></p>	<p>B</p>	<p>1</p>
<p>11. Capital Expenditure Planning</p> <p>The capital expenditure plan provides a schedule of new works, rehabilitation and replacement works, together with estimated annual expenditure on each over the next five or more years.</p>	<p>The AMP has a Capital Works plan for the period 2007/2008 to 2016/2017 which is clearly out of date</p> <p>In 2011 a capital works plan was prepared for all the Shire’s infrastructure assets (including the sewerage and potable water services) for the five year period 2011/2012 to 2015/2016</p> <p>The current sewerage capital expenditure budget (2012/2013) was taken from the five year plan. It includes re-lining of pipes in the collection system and replacement of pumps at the pumping station.</p> <p>As the five year plan for all infrastructure assets has not been updated, the Capital Expenditure plan for the</p>	<p><i>Extend the existing capital works plan to encompass a five years period. Maintain the five years period for each subsequent year</i></p>	<p>B</p>	<p>2</p>

	<p>sewerage assets is currently for a four year period, rather than a five years period required by the Shire's Water Services Licence.</p> <p>An estimate of capital expenditure for the fifth year is required and should be included in each subsequent year's Capital expenditure plan</p>			
<p>12. Review of Asset Management System</p> <p>The asset management system is regularly reviewed and up-dated.</p>	<p>As stated in Item 7 above, the Shire has no formal Asset Management Information system in place and the overall management of the assets (reporting, maintenance, compliance assessment etc.) has been reactive rather than proactive.</p> <p>Reviews of the system have been undertaken only by independent reviewers as required by the Shire's Water Services Licence. The Shire has not undertaken its own reviews as prescribed by the licence.</p> <p>Reviewer notes that the former EHO of the Shire produced the following documents before his departure in May 2012</p> <ul style="list-style-type: none"> • Financial Plan 2013 to 2023 • Five year Capital Expenditure Plan • Asset Register and Asset Condition spread sheets • Maintenance schedule and completed works sign-off schedule • Schedule of timing for sampling and testing, flow meter readings and, recording of results • Schedule of timing, dates for reviews of AM system and reporting to ERA DCE and Dept. Health • Asset Register 	<p><i>The Shire should:</i></p> <ul style="list-style-type: none"> • <i>review and update its AMP as stated throughout this report The updated AMP should include the documents listed in the "Reviewer's Comments" column of this Item 12 as appendices.</i> • <i>install an Asset Management Information system as recommended for Item 7 above.</i> <p><i>The Asset Management system created by the above recommendations should be reviewed at intervals of two years, or in the event of significant changes to the assets or the operating mode of the water services.</i></p> <p><i>The reviewer will sign off on the review on the face sheet of the AMP, noting the review date and information regarding additions or amendments.</i></p>	<p>C</p>	<p>3</p>

	<ul style="list-style-type: none">• Asset Condition• Asset Life, value and replacement cost estimates <p>These documents should be reviewed ,completed where appropriate and incorporated in the Shire's AMP / AMS</p>			
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FINAL

1.10- CONCLUSIONS & RECOMMENDATIONS RESULTING FROM THE ASSET MANAGEMENT REVIEW

(a) – Conclusions

The Asset Management Review concluded that the recommendations of the 2011 review of its Asset Management System have (in the main) not been implemented. This failure to implement the recommendations has been exacerbated by the May 2012 departure of Council's Environmental Health Officer – who had responsibility for the management of the sewerage and non-potable water services and who had commenced preparation of significant documentation in response to the 2011 review. This documentation - which is listed in Item 12 of Table D of this report, should be completed and included in the AMP to satisfy many of the negative findings of the 2011; and this 2012 review

The Shire commissioned a cctv screening of all its sewer reticulation system in 2011/2012, and has since commenced a program of progressive relining of damaged Asbestos Cement pipes with pvc material.

Based on the screening results and prior to his departure, the former EHO commenced preparation of the abovementioned documentation - including an asset and condition register and maintenance plans together with financial and capital expenditure plans for the period 2011 to 2016 – both of which has been included in the 2012/2013 budget.

The EHO has not been replaced. Consequently, the Shire currently has no officer responsible for the management, of the water services, the coordination of their operations and maintenance or review and updating of the AMP.

It is apparent that the Asset Management Plan prepared for the Shire by consultants in 2008, has never been implemented or reviewed. As the AMP has not been reviewed, updated and implemented as recommended in the report of the 2011 review, the process ratings of this current (2012) review are generally more severe.

The Senior Works Supervisor coordinates relining of pipes and ad hoc repairs to the system. He is also responsible for operation of the disposal of treated effluent to irrigate the town oval.

Due to its basic simplicity, Brookton sewerage and non-potable water services systems are achieving their basic requirements, ie, the collection and treatment of discharge from individual septic tanks and disposal of effluent.

Much needs to be done to address the requirements associated with review and upgrading of the AMP and its implementation – particularly operation and maintenance instructions and training, flow and water quality monitoring and reporting requirements of its licensing Authorities – ie, the Economic Regulation Authority (ERA), Department of Environment & Conservation (DEC) In addition,

It is noted that although the Shire is not licensed by the Department of Health (DOH) to dispose of treated effluent to irrigate the town oval; the Shire does have written DOH approval to do so. Relevant monitoring and water quality standards required by the DOH approval are generally achieved.

Reviewer considers the Shire should appoint an EHO or other qualified person to undertake the management, administration and coordination of the operations of the Sewerage and Potable water services including all reporting, review and upgrading of the AMP. Also, an appointment should be made to the Works Management staff of an Operator to undertake the daily operations and maintenance of the system, including undertaking / coordinating flow and water quality measurement, testing and all reporting to management.

This review is unfavourable in many areas and the large number of recommendations set out in Table D of this report result mainly from the Shire's failure to implement its AMP and the recommendations of the previous review. As a consequence, the system and its operation is at risk of disruption due to former inadequacies in the areas of asset condition assessment and maintenance; and the lack of coordination and training in the areas of operations maintenance, monitoring and reporting.

(b) - Recommendations

The Reviewer's comments and recommendations are set out in foregoing Table D. Due to the inter-relationship of the key processes reviewed, many of the recommendations overlap one another. The recommendations for each process are set out in the following:

1 – Asset Planning

The 2008 AMP should be updated as a matter of urgency. Specific attention should be given to completing the asset register,(including asset life expectancy and condition) commenced by the former EHO and its inclusion in the AMP. and implementation of a procedure for regular, say two yearly, assessment of the condition of all assets and updating of the asset register

2 - Asset Creation and Acquisition

The 2008 AMP should be updated as a matter of urgency. Specific attention should be given to completing the asset register,(including asset life expectancy and condition) commenced by the former EHO and its inclusion in the AMP.

The AMP should include a basic flow path for the evaluation of options and a proforma document for evaluations similar to those already provided

3 – Asset Disposal

As recommended for Item 1 – Asset Planning and Item 2 – Asset Creation and Acquisition, a procedure should be implemented for regular, say two yearly, assessment of the condition of all assets.

4 – Environmental Analysis

The material described should be reviewed and updated in the AMP. In particular, the text relevant to Environmental Analysis should be transferred from the various sections of the existing AMP and consolidated under the heading “Environmental Analysis” in the reviewed document

The existing SWAT analysis should be expanded and consolidated (as above) in the reviewed document

5 – Asset Operations

Prepare a simple operation manual - including daily operation checks and flow measurement etc. for the system to be used primarily to support training

Appoint an Operator to, the Works Manager's staff, with responsibility for day to day operation of the systems including visual checks, flow measurement, pumping station operations.

Appoint a suitably qualified Officer to have administrative responsibility for the management and coordination of the water systems and the setting up and implementation of an appropriate Asset Management System on the Shire's computer system

Provide the Operator and Administration Officer with training in the operation and Maintenance of the water services and Contingency Plans

Take comparative water samples to determine the difference in quality (BOD and Suspended Solids) at a depth of 600 mm at the floating pump location and the diagonally opposite end of the lagoon. If the difference is significant consideration should be given to relocating the offtake pump at the far end of the pond to reduce short circuiting within the treatment lagoon.

The Shire should consider the practicability and means by which customers could be encouraged to have their septic tanks pumped out on a regular basis

6 – Asset Maintenance

That the existing maintenance description and table be reviewed, upgraded and used in conjunction with the Operations Manual for training of the Operator and Administration Officer as in Item 5 above.

The upgraded maintenance should be incorporated in the AMP as an Appendix

The Shire should immediately implement the maintenance procedures of the 2008 AMP – particularly items associated with the pumping station.

7 – Asset Management Information System

The Shire should install a basic computerised asset management system - either by purchasing a standard product or by further in house addition to the generic spread sheets already installed on the Shire's computer system. As recommended for Item 1 – Asset Planning, the system should include an asset register and a procedure for regular updating of the register and the condition of the registered assets

Whichever system is installed, it should be subject to the existing password and other backup and security systems currently in place in the Shire's office.

8 – Risk Management

Review and update the risk management table to match any equipment changes. Provide more detail for control measures where these are currently dealt with by implication.

Review and update the range of risks.

9 – Contingency Planning

Contingency plans should be prepared from the results of the risk assessment review, using the existing “Emergency Procedures” as a baseline.

The plans should include and or update action to be taken in each instance, details of Shire staff responsibilities and contact information, together with details and contact information for relevant public authorities and specialist contractors and suppliers with service agreements with the Shire.

10 - Financial Planning

Review and update the financial planning documents for the current 2012/2013 financial year and annually for subsequent years.

11 – Capital Expenditure Planning

Extend the existing capital works plan to encompass a five years period. Maintain the five years period for each subsequent year

12 – Review of AMS

The Shire should:

- *review and update its AMP as stated throughout this report The updated AMP should include the documents listed in the “Reviewer’s Comments” column of this Item 12 as appendices.*
- *install an Asset Management Information system as recommended for Item 7 above.*

The Asset Management system created by the above recommendations should be reviewed at intervals of two years, or in the event of significant changes to the assets or the operating mode of the water services.

The reviewer will sign off on the review on the face sheet of the AMP, noting the review date and information regarding additions or amendments.

1.11 – REVIEWER’S PROFESSIONAL TIME INPUT

Barry Robbins spent 40 hours preparing for, and conducting this review and preparing the report document

1.12 – POST REVIEW IMPLEMENTATION PLAN

A post review implementation plan prepared by the Shire is attached as Appendix A.

APPENDIX A

POST REVIEW IMPLEMENTATION PLAN

REVIEW ITEM	RECOMMENDATION	POST REVIEW IMPLEMENTATION PLAN ACTION	SHIRE OFFICER RESPONSIBLE / DATE OF IMPLEMENTATION	DUE DATE
1 – Asset Planning	<i>The 2008 AMP should be updated as a matter of urgency. Specific attention should be given to completing the asset register,(including asset life expectancy and condition) commenced by the former EHO and its inclusion in the AMP – and implementation of a procedure for regular, say two yearly, assessment of the condition of all assets and updating of the asset register</i>	Reviewing AMP based on the 2008 AMP in the process of gathering info from the asset register.	EHO, David Wills and Associated. (In Progress)	June 2013
2 – Asset Creation & Acquisition	<i>The 2008 AMP should be updated as a matter of urgency. Specific attention should be given to completing the asset register,(including asset life expectancy and condition) commenced by the former EHO and its inclusion in the AMP. The AMP should include a basic flow path for the evaluation of options and a proforma document for evaluations similar to those already provided</i>	Reviewing AMP based on the 2008 AMP in the process of gathering info from the asset register.	EHO, David Wills and Associated. (In Progress)	June 2013
3 - Asset Disposal	<i>As recommended for Item 1 – Asset Planning and Item 2 – Asset Creation and Acquisition, a procedure should be implemented for regular, say two yearly, assessment of the condition of all assets.</i>	To be placed in the Shire Budget and the asset register of the AMP.	EHO, David Wills and Associated. (In Progress)	June 2013

<p>4 – Environmental Analysis</p>	<p><i>The material described should be reviewed and updated in the AMP. In particular, the text relevant to Environmental Analysis should be transferred from the various sections of the existing AMP and consolidated under the heading “Environmental Analysis” in the reviewed document</i></p> <p><i>The existing SWAT analysis should be expanded and consolidated (as above) in the reviewed document</i></p>	<p>Updating the AMP based on the 2008 AMP.</p>	<p>EHO, David Wills and Associated. (In Progress)</p>	<p>June 2013</p>
<p>5 – Asset Operations</p>	<p><i>Prepare a simple operation manual - including daily operation checks and flow measurement etc. for the system to be used primarily to support training</i></p> <p><i>Appoint an Operator to, the Works Manager’s staff, with responsibility for day to day operation of the systems including visual checks, flow measurement, pumping station operations.</i></p> <p><i>Appoint a suitably qualified Officer to have administrative responsibility for the management and coordination of the water systems and the setting up and implementation of an appropriate Asset Management System on the Shire’s computer system</i></p> <p><i>Provide the Operator and Administration Officer with training in the operation and Maintenance of the water services and Contingency Plans</i></p> <p><i>Take comparative water samples to determine the difference in quality (BOD and Suspended Solids) at a depth of 600 mm at the floating pump location and the diagonally opposite end of the lagoon. If the difference is significant consideration should be given to relocating the offtake pump at the far end of the pond to reduce short circuiting within the treatment lagoon.</i></p> <p><i>The Shire should consider the practicability and means by which customers could be encouraged to have their septic tanks pumped out on a regular basis</i></p>	<p>Final tuning it and commenced operating it.</p> <p>“ “</p> <p>“ “</p> <p>“ “</p> <p>“ “</p> <p>Taken samples and waiting for results.</p> <p>To be determined.</p>	<p>EHO, Works Management CEO</p> <p>“ “</p> <p>EHO and Admin Officer</p> <p>“ “</p> <p>EHO</p> <p>“ “</p>	<p>April 2013</p> <p>April 2013</p> <p>March 2013</p> <p>May 2013</p> <p>March 2013</p> <p>July 2013</p>

<p>6 – Asset Maintenance</p>	<p><i>That the existing maintenance description and table be reviewed, upgraded and used in conjunction with the Operations Manual for training of the Operator and Administration Officer as in Item 5 above.</i></p> <p><i>The upgraded maintenance should be incorporated in the AMP as an Appendix</i></p> <p><i>The Shire should immediately implement the maintenance procedures of the 2008 AMP – particularly items associated with the pumping station.</i></p>	<p>In progress.</p> <p>“ “</p> <p>“ “</p>	<p>EHO</p> <p>EHO and David Wills and Associates</p> <p>EHO and Works supervisor</p>	<p>April 2013</p> <p>May 2013</p> <p>April 2013</p>
<p>7- Asset Management Information System</p>	<p><i>The Shire should install a basic computerised asset management system - either by purchasing a standard product or by further in house addition to the generic spread sheets already installed on the Shire’s computer system. As recommended for Item 1 – Asset Planning, the system should include an asset register and a procedure for regular updating of the register and the condition of the registered assets</i></p> <p><i>Whichever system is installed, it should be subject to the existing password and other backup and security systems currently in place in the Shire’s office.</i></p>	<p>In progress.</p> <p>Shire standard practice for back up not yet for password.</p>	<p>EHO and David Wills and Associates.</p> <p>EHO and Admin Officer</p>	<p>June 2013</p> <p>April 2013</p>
<p>8 – Risk Management</p>	<p><i>Review and update the risk management table to match any equipment changes. Provide more detail for control measures where these are currently dealt with by implication.</i></p> <p><i>Review and update the range of risks.</i></p>	<p>In progress.</p>	<p>EHO, Admin officer and David Wills and Associates</p>	<p>April 2013</p>
<p>9 – Contingency Planning</p>	<p><i>Contingency plans should be prepared from the results of the risk assessment review, using the existing “Emergency Procedures” as a baseline.</i></p> <p><i>The plans should include and or update action to be taken in each instance, details of Shire staff responsibilities and contact information, together with details and contact information for relevant public authorities and specialist contractors and</i></p>	<p>Not yet. Will be in AMP</p> <p>“ “</p>	<p>EHO, and David Wills and Associates.</p> <p>EHO</p>	<p>June 2013</p> <p>June 2013</p>

	<i>suppliers with service agreements with the Shire.</i>			
10 – Financial Planning	<i>Review and update the financial planning documents for the current 2012/2013 financial year and annually for subsequent years.</i>	In progress.	EHO and David Willis and Associates	June 2013
11 – Capital Expenditure Planning	<i>Extend the existing capital works plan to encompass a five years period. Maintain the five years period for each subsequent year</i>	In progress.	EHO and David Willis and Associates	June 2013
12 – Review of Asset Management System	<p><i>The Shire should:</i></p> <ul style="list-style-type: none"> <i>review and update its AMP as stated throughout this report The updated AMP should include the documents listed in the “Reviewer’s Comments” column of this Item 12 as appendices.</i> <i>install an Asset Management Information system as recommended for Item 7 above.</i> <p><i>The Asset Management system created by the above recommendations should be reviewed at intervals of two years, or in the event of significant changes to the assets or the operating mode of the water services.</i></p> <p><i>The reviewer will sign off on the review on the face sheet of the AMP, noting the review date and information regarding additions or amendments.</i></p>	<p>In progress</p> <p>Fine tuning current draft</p> <p>To be put in AMP</p> <p>Noted</p>	<p>EHO and David Willis and Associates.</p> <p>“ “</p> <p>“ “</p> <p>“ “</p>	<p>June 2013</p>