

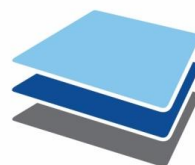


Bogan Shire Council

Water Supply and Sewerage Business: Financial Plan

Version 1.1

March 2017



Brearley & Hansen
Excellence in Asset Management Services

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Executive Summary

This Financial Plan documents the outcomes of financial modelling of Bogan Shire Council's water supply and sewerage 30 year capital works plans using the FINMOD software. It is compliant with the financial planning section of the Department of Primary Industries, Office of Water: "Water Supply and Sewerage Strategic Business Planning and Financial Planning Checklist – July 2014". It includes all foreseeable costs and income and achieves the lowest uniform level of stable typical residential bill to meet the levels of service required.

For the **Water Supply Fund**, Council has developed a comprehensive 30 capital works plan that meets the renewal needs of water assets. Council will renew critical elements of its water treatment plant over the next three years, which will extend the life of the plant. Structural replacement of the plant is planned in 20 years' time (2037). The capital works plan also includes a 700ML storage to improve water security, which is fully grant funded.

The typical residential bill (TRB) for water fund is currently \$1,169 per year, one of the highest in NSW. **Financial modelling indicates that the tariffs can be held at their current value, allowing inflation to discount its future value.**

There are a number of assumptions made in the water financial plan, including the growth rate, accounting for renewals, accounting for residential and non-residential income, and cost attribution (noting that Bogan Shire Council is responsible for only 32% of the ongoing cost of water security infrastructure).

This financial plan also assesses the impact of proposed water security infrastructure, which is documented in the Nyngan Cobar Water Security Business Case Version 2. The priority for the infrastructure aligns with Council's resolution of 27 September 2016. A summary of the various scenarios tested and the impact on the TRB are as follows:

Financial Modelling Scenario	Description	Median TRB (2016/17 dollars)
A	Water Capex 2016 base case including Storage 1a	\$1,004
B	Scenario A + Storage 1b	\$1,030
C	Scenario B + Storage 1c	\$1,083
D	Scenario B + APC Pipeline	\$1,125
E	Scenario C + APC Pipeline + Borefield Investigation	\$1,169

The water security infrastructure imposes additional operation, maintenance and depreciation costs, which are 32% attributable to Bogan Shire Council. If the full range of water security infrastructure is constructed, the current TRB can be maintained in real terms – i.e. only inflation-based increases are required.

For the **Sewerage Fund**, Council has developed a comprehensive 30 capital works plan that meets the renewal needs of sewer assets. Council is in the fortunate position that many assets were renewed following the 1990 flood, and major renewal expenditure is not forecast during the life of the plan.

Currently, the typical residential bill for sewer fund is \$602 per year. **Financial modelling indicates that the tariffs can be held at their current value, allowing inflation to discount its future value.**

Both the water and sewerage businesses are capable of funding the new and replacement assets needed to provide the current level of service to its customers and the broader community. Council will undertake periodic reviews of the Financial Plan, noting the assumptions upon which the financial modelling is base. In particular, the timing and cost of water fund capital works will be reviewed as progress is made in constructing the water security infrastructure.

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1 Introduction

1.1 Purpose of Report

This document provides a financial strategy for Council's water supply and sewerage business to achieve long term financial sustainability, and complies with the NSW DPI Water July 2014 checklist for the preparation of a Financial Plan.

Section 2 contains a review of the renewal needs and capital works planning for Bogan Shire Council's water and sewerage businesses. Section 3 contains the Financial Plan. Appendix A contains the checklist and demonstrates compliance with the requirements for a Financial Plan.

The plan also analyses the impact of proposed water security infrastructure as proposed in "Nyngan and Cobar Water Security Project: Business Case Version 2" (February 2017).

1.2 Acknowledgements

This Financial Plan has been prepared by Mike Brearley, Jacqui Hansen and Mike Cuthbert of Brearley and Hansen, and MC Environmental Consulting. The development of this plan has relied on the invaluable input of the staff of Bogan Shire Council, particularly Graeme Bourke, Jayantha Ediriweera and Trevor Waterhouse.

1.3 Disclaimer

This document has been prepared for a particular purpose, using information made available by the client in accordance with the client's instructions. Users of this document should note the assumptions and approximations used. Any use of the document outside of the stated purpose is at the user's risk.

2 Capital Works Planning

2.1 Background

The Capital Works Plan identifies the future projects Council intends to undertake to maintain the agreed level of service to the Bogan Shire community. It is the foundation of financial planning and budgeting.

In preparing the Capital Works Plan, the following considerations have been taken into account:

- The management of water supply and sewerage schemes is a long term investment
- Council's Capital Works plan must be regularly updated to recognise any changes in circumstance
- Analysis of alternative options can include the "do nothing" option
- Acceptance of proposed projects and their associated costs.

2.2 Valuation of Water and Sewer Assets 2012

CPE Associates undertook a revaluation of the water supply and sewerage assets in 2012. The valuation has been completed in accordance with "Fair Valuation" principles. For these classes of assets, the principles lead to valuations being made on the basis of a depreciated replacement cost, using standard unit rates.

The valuation considers:

- The nature of the assets;
- The current condition of the assets; and
- Strategic considerations which could influence asset life.

A summary of the revaluation is shown in Table 1. The current replacement cost and the written down current cost are used in the financial modelling in place of the figures shown in Council's Financial statements. Council will be undertaking a fresh valuation prior to 30 June 2017.

The 2012 valuation has been used to inform the renewal needs in the capital works plan.

Table 1 – Summary of Asset Valuation 2016

SystemType	Current Replacement Cost	Annual Depreciation	Written Down Current Cost	End of life value	Mean Useful Life	Mean Residual Life
Sewer	\$11,000,000	\$120,000	\$6,900,000	\$4,100,000	66	23
Water	\$30,000,000	\$350,000	\$14,000,000	\$1,500,000	75	35

2.3 Growth Forecasts

Renewal planning and income projections are informed by growth projections. Information is extracted from both Council's financial records and Australian Bureau of Statistics (ABS) data.

Records extracted from the Financial Statements show significant growth in the number of assessments

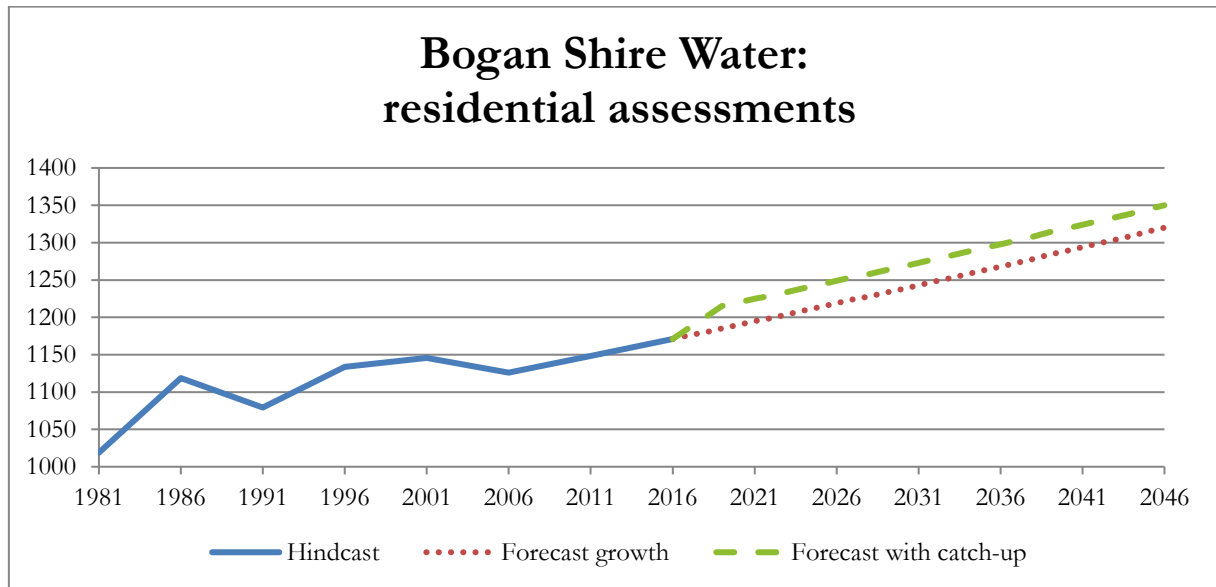
Table 2 – Numbers of assessments (extracted from financial statements)

Financial Statements Year ending 30 June	Water Fund assessments Special Schedule 3	Sewer Fund assessments Special Schedule 5
2014	1124	928
2015	1180	983
2016	1403	1197

Council is currently undertaking a review of connections and assessments, which has led to a significant growth in assessments over the past 3 years. This “catch up” will not continue for the life of the plan. Growth figures from 1981 through to 2011 from ABS data indicates a dwelling growth rate of 0.4%pa.

- Growth projections are based on historical census counts from 1981 through to 2011.
- Figure 1 shows the projected growth in connected dwellings for the Bogan Shire Water business, with the historical number of dwellings presented as a hindcast for comparison purposes.
- While the population of Bogan Shire has declined since 1981, there has been growth in the number of dwellings as a result of a general movement from rural settlements to urban settlements. The period 1981 to 2011 exhibited a growth rate of 0.4% per annum in dwellings.
- Additional assessments being discovered as a result of rating database reviews has been assumed at 10 assessments per annum for 3 years, for water supply only.
- Growth has been applied as an absolute increase in the number of assessments- with the same increase applied for both water supply and sewerage.

Figure 1 - Historical and projected assessments for the Bogan Shire Water business



2.4 Water Supply Fund Asset Renewals Plan

2.4.1 Albert Priest Channel

The town of Nyngan receives its water supply from the Albert Priest Channel. Water from the channel is stored in Nyngan at the weir pool. Water is then pumped further west by the Cobar Water Board to supply the town of Cobar. The Cobar Water Board therefore shares the cost of renewing the Albert Priest Channel with Council by funding 68% of the renewal expenditure.

The Albert Priest Channel requires on-going maintenance and renewal expenditure to convey the raw water. Council's 30 year Capital Works Plan includes \$100,000 per year for removal of silt from the channel and \$80,000 per year for renewal of the channel structure.

2.4.2 Water Mains Renewals Plan

Council's 30 year Capital Works Plan includes \$1.1M for water main renewal, with an expenditure of \$80,000 per year for the first six years. The annual expenditure reduces incrementally to \$25,000 in 2024/25 and beyond as by this stage the older water main network has largely been renewed. It is expected that the older water mains, specifically those constructed in the 1950s, will be replaced in the first five years of the Capital Works Plan. The remaining water mains were laid in the late 1970's and later. These mains are not expected to require replacement over the next 30 years. Council will monitor their condition and the on-going budget for water main renewal will enable Council to replace any localised water main failures as required.

Council will allocate \$20,000 per year to maintain water supply to the villages and hamlets (Coolabah, Hermidale and Girilambone), and will monitor the level of service provided to these settlements.

2.4.3 Water Pumping Station Renewals Plan

Council intends to renew the Bogan River raw water pumping station in five years (2021/22) with a planned expenditure of \$150,000. This may involve replacement of pumps if required. Similarly, the treated water high lift pump station will be renewed the following year (2022/23) with a planned expenditure of \$200,000. Council will try to source grant funds for these projects whenever possible. The Capital Works Plan does not include grant funding for this renewal.

2.4.4 Water Treatment Plant Renewals Plan

Replacement or refurbishment of the Nyngan Water Treatment Plant is required to provide a compliant, reliable and safe water treatment facility into the future. No substantial upgrades or funding has been applied to this facility for many years. The WTP requires significant investment to maintain levels of service to the community into the future. In particular, the electrical and control system upgrades will align the Nyngan WTP with modern risk management practice to ensure failsafe operation. Planned renewal projects are as follows:

Table 3 – Water Treatment Plant Renewals planned for the next 5 years

Works proposed	Cost	Timing	Comment
New fluoridation plant	\$145,000	2016/17	Assumed to be fully grant funded
Stage 1 Refurbishment - Replace the existing switchboard and install a new SCADA system	\$900,000	2016/17, 2017/18	
Stage 1 Refurbishment – Automation of valves	\$400,000	2017/18, 2018/19	
New liquid alum system	\$175,000	2017/18, 2018/19	
Replacement hypochloride system	\$200,000	2017/18, 2018/19	
Filter optimisation	\$250,000	2019/20	Council will try to source grant funds for this. The Capital Works Plan does not include grant funding for this renewal
Sludge rake replacement	\$200,000	2017/18, 2018/19	

By undertaking these works in the short to medium term, Council will extend the life of the Nyngan Water Treatment Plant (WTP) by 20 years. The plan allows for the structural replacement of the WTP around 2037/38.

Figure 2 – Nyngan Water Treatment Plant Sedimentation Tank



2.4.5 Water Reservoirs

Council intends to paint the Girilambone overhead tank in 2016/17 at a cost of \$25,000. The Nyngan water reservoir standpipe will require painting in 10 years at an estimated cost of \$100,000.

2.4.6 Water Meter Replacement

Many existing water meters are in need of replacement as they have passed their useful life and are no longer reliable. Failing to replace water meters presents a revenue risk to Council and can lead to costs being unfairly distributed across the community. Council has planned program of water meter replacement with an ongoing budget of \$10,000 per year.

2.5 Water Security Upgrades

A proposal for water security upgrades is documented in “Nyngan and Cobar Water Security – Business Case” Draft Version 2.0 (February 2017). This business case recommends a staged approach to water security as summarised below:

Table 4 – Summary of Proposed Water Security Upgrades

Stages (in order of priority)	Water Security Infrastructure	Current Status	Approximate Capital Cost (2016 \$)
1a	Storage 1a - 700 MI off-line storage at Nyngan	<ul style="list-style-type: none"> • Design and documentation complete, • Tenders late 2016 • Construction 2017 	\$10 M

Stages (in order of priority)	Water Security Infrastructure	Current Status	Approximate Capital Cost (2016 \$)
1b	Storage 1b - Additional 700 ML off-line storage at Nyngan on adjacent site to Storage 1a	<ul style="list-style-type: none"> Environmental studies late 2016 Tender mid 2017 Construction 2018 	\$6 M
1c	Storage 3 - Additional 3000 ML off-line storage on a site to be determined	<ul style="list-style-type: none"> Stage 3 (borefield) is preferred Investigations scheduled for 2018 	Capital cost not determined. Allowance of \$30M used for business case
2	Piping of the Albert Priest Channel	<ul style="list-style-type: none"> Options report complete Funding approval anticipated early 2017 7 year project timeline 	\$75 M
3	Emergency bore supply at Warren and connection to pipeline	<ul style="list-style-type: none"> Yields and locations not determined Investigations scheduled for 2017 	Capital cost not determined. \$0.5M requested for investigation and preconstruction activities

For the purposes of financial modelling, five scenarios are modelled, as shown in Table 5. These modelling scenarios reflect the resolution of Bogan Shire Council dated 27 October 2017, which prioritised the construction of an additional 700 ML off-line storage adjacent to the first storage, and an additional 3000 ML off-line storage on a site to be determined above the construction of a pipeline.

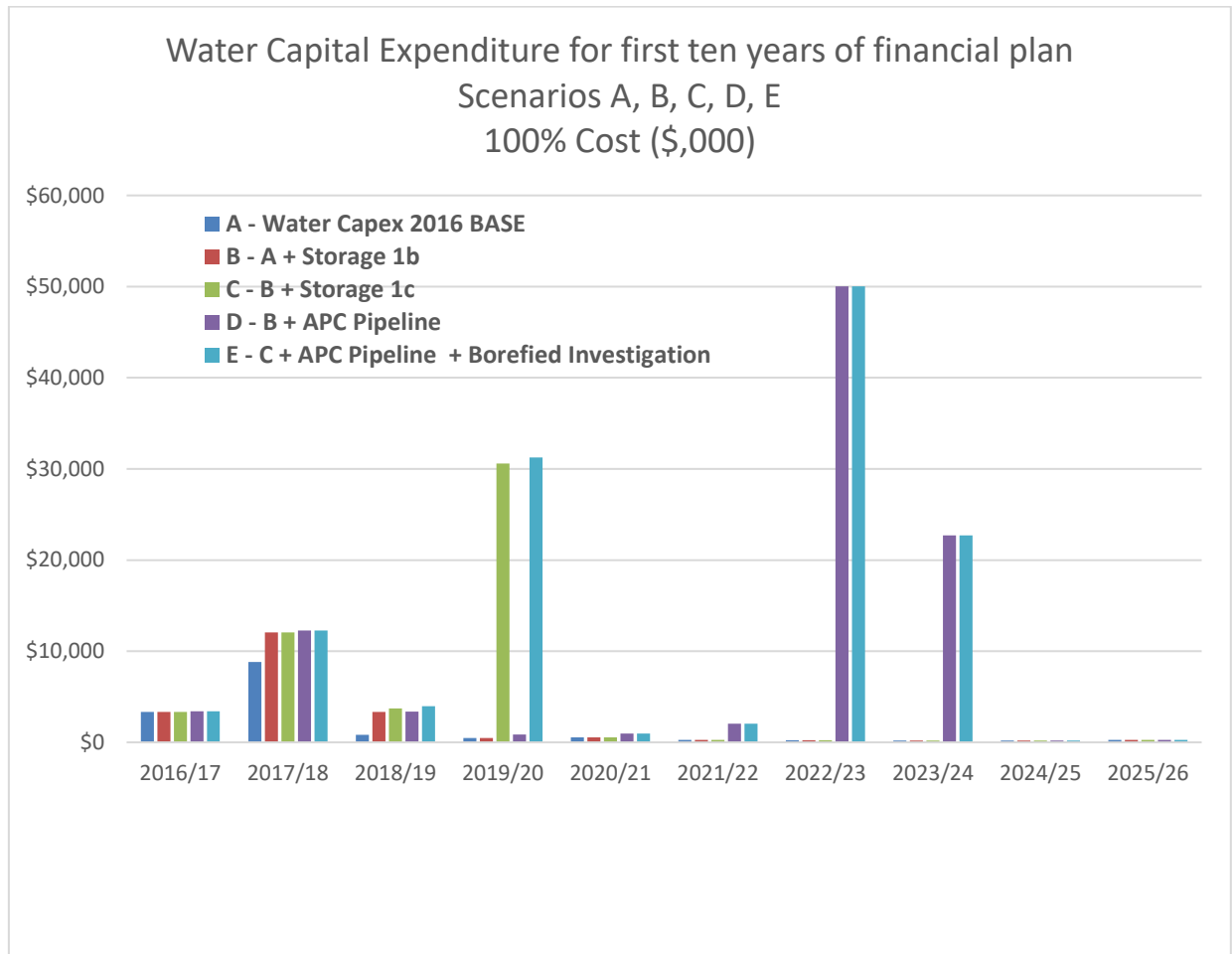
Table 5 – Financial Modelling Scenarios

Financial Modelling Scenario	Description
A	2016 Water Fund Capital Plan including Storage 1a (BASE Model)
B	A + Storage 1b
C	B + Storage 1c
D	B + APC Pipeline
E	C + APC Pipeline + Borefield Investigation

The initial cash flow calculations for the water security infrastructure is shown as **Appendix B**.

The first ten years of expenditure are shown graphically in Figure 3. Detailed Capital Works spreadsheets are reprinted as **Appendix C**.

Figure 3 – Bogan Water Fund Capital Expenditure Scenarios A, B, C, D, E



It is assumed that all capital works associated with the water security upgrades are fully grant funded. The ongoing operation, maintenance and administration costs associated with the projects will be shared between the project users in accordance with a proposed user agreement.

This financial plan analyses Bogan Shire Council’s water fund both with and without the water security infrastructure, noting that Stage 1a is fully funded and is scheduled for construction in 2017. There is no commitment to the remaining stages.

2.6 Sewer Fund Asset Renewals Plan

2.6.1 Sewer Gravity Mains Renewals Plan

Council intends to spend \$200,000 every 5 years on sewer main renewals commencing in 2021/22. Over 30 years, expenditure on sewer main renewals will total \$1M.

2.6.2 Sewage Pumping Stations Renewals Plan

Council’s sewer pumping stations were all replaced after the 1990 flood and they will not be requiring renewal in the 30 years of the Capital Works Plan.

Council's 30 year Capital Works Plan includes \$25,000 every two years for the inspection of pipes and pump stations, and any remedial works identified during the inspection.

2.6.3 Sewage Treatment Plant Renewals Plan

The Nyngan Sewage Treatment Plant (STP) is an oxidation lagoon system constructed in 1991 after the 1990 flood. As the STP is more than 25 years old, it is timely that it undergoes a process review, to determine what modifications could be made to treatment processes to ensure ongoing compliance with its Environment Protection licence (EPA Licence 3298). Council intends to spend \$50,000 in 2017/18 on a process review by a specialist consultant. The outcomes of this review will shape Council's future Capital Works Plan for the sewerage fund.

It may be necessary for Council to install a chlorinator on the reuse outlet line. Council has planned to spend \$50,000 in 2018/19 on this installation and the associated approval process. The need for additional treatment of effluent before reuse will be confirmed in the process review.

To keep the STP functioning, sludge must be removed from the primary and secondary lagoons. Council's Capital Works Plan includes \$100,000 for sludge removal from the primary lagoon in 2018/19 and \$100,000 for sludge removal from the secondary lagoon in 2030/31.

Table 6 – Sewage Treatment Plant Renewals planned for the next 5 years

Works Proposed	Cost	Timing
Process review	\$50,000	2017/18
Addition of a chlorinator on the reuse outlet line	\$50,000	2018/19
Removal of sludge from the primary lagoon	\$100,000	2018/19
Removal of sludge from the secondary lagoon	\$100,000	2018/19
Purchase of high volume low lift pumps for better draining of ponds	\$50,000	2018/19
Construction of high volume low lift pumps for better draining of ponds	\$50,000	2018/19

Figure 4 – Nyngan Sewage Treatment Plant



2.7 New Works Plan

For the water supply fund, the following works are proposed:

- To improve water quality, Council will be installing a new fluoridation plant in 2016/17 at a cost of \$145,000, fully grant funded.
- To improve the security of water supply, Council will be constructing at 700ML single storage at Nyngan using grant funds. This is discussed further in Section 2.6 below.

No new works are proposed for the sewer fund.

2.8 Disposal Plan

In general, assets are planned to remain in service until life-expired or no longer required for provision of service by users. The nature of the assets means that there is almost no sale value in the assets once they reach life expiry as the cost of recovery exceeds the potential revenue.

3 Financial Plan

3.1 The purpose of financial planning

Water supply and sewerage businesses are characterised by large variations in annual expenditure as capital assets are progressively purchased, maintained, rehabilitated and replaced. The long life cycle of these assets inevitably means that most water utilities will need to go through cycles of funds accumulation, spending and debt servicing.

The primary objective of financial planning is to model the costs of each of the preferred service options and to determine appropriate funding strategies to ensure that the services remain affordable in the long term. From the customer's perspective, it is important that the cost of service is kept as stable as possible. If the cost of service is consistent (in real terms) over the life cycle of the asset base, both current and future customers are treated in an equitable manner.

Bogan Shire Council is preparing this financial plan to ensure that the water and sewerage business are financially sustainable and serviced are priced in a manner that maintains intergenerational equity.

The capital works planning is documented in Section 2 of this report. All costs are expressed in 2016/17 prices.

This Financial Plan seeks to meet the following objectives to support Council's water and sewerage business:

- The business is capable of funding new and replacement assets needed to provide the current level of service to its customers and the broader community.
- Over the long term, customer charges are kept as low and as stable as possible.

Input data for the model is sourced from the following areas:

- Special schedules 5 and 6, representing a summary of current operating costs and financial performance for the sewerage business, adjusted as per the notes below;
- The Capital Works Plan outlined in this report; and
- A growth forecast, based on review of historic census data for the town of Nyngan.

3.2 Modelling Objectives

The FINMOD modelling differs from the modelling undertaken for the Water Security Business Case. The business case includes a 125 year long run financial model, which determines the long run price of raw water, funding the full renewal of assets, with compound interest from invested reserves contributing a significant proportion of the required funds. As such, it applies to the water security infrastructure only and does not consider the total water business. The FINMOD model is a holistic look at the full water supply business over a 30 year modelling timeframe.

The modelling tasks include:

- Prepare a base model that models the water supply business including Storage 1a, and calculate a typical residential bill (TRB).
- Assess the impact of various scenarios for water security infrastructure, and their impact on the TRBs for Bogan Shire Council.
- Achieve a positive Economic Real Rate of Return (ERRR) in at least 50% of years modelled for all scenarios.
- Integration with long run pricing models used in the Business Case.
 - Note that long run pricing models do not provide operating surpluses until 37 years after pipeline commissioning, although cash is being accumulated over this period. After 37 years operating surpluses are delivered as a result of reserves attracting enough interest income to offset asset depreciation.
 - Year 30 in the Bogan Shire Water financial model corresponds to Year 22 in the pipeline and storage long run financial model. In Year 22, the components of the long run financial model attributable to Bogan Shire Council are as follows:
 - Cash reserves of \$2.375m
 - Operating result -\$79,300
 - Return on assets -0.1%
 - These scenarios did not achieve a favourable ERRR and were not adopted as the base case.
- Where it is possible to reduce TRBs, reductions are applied by annual 2.5% decreases in tariffs *in real terms* ie absolute tariffs don't change, but inflation is allowed to discount its future value.

3.3 Key financial modelling assumptions

All models require a number of assumptions. These assumptions can have a significant impact on the model results. Because of this, the modelling process includes various sensitivity tests to identify which assumptions have a significant impact on the outcomes for the business. Key assumptions and sensitivity tests are provided in Table 7.

Table 7 - Financial model key assumptions

Parameter	Assumed value 2016-2046 (average)	Sensitivity tests
Inflation (general)	2.5%pa ¹	
Inflation (capital works)	2.5%pa	2000-2015 average of 3.5% ²
Interest rate for new borrowings	6.5%pa ³	8%pa
Interest rate for investments	5.5%pa	4%pa

¹ 2000-2015 average of 2.6%

² Annualised increase in the producer price index for roads and bridges construction for Australia (ABS Catalogue 6427.0)

Parameter	Assumed value 2016-2046 (average)	Sensitivity tests
Capital works programme	As per section 2.4, 2.5 & 2.6	Five scenarios tested for water security options-
Operating cost adjustments	FINMOD defaults Discretionary spending superimposed as per capital works schedules	
Growth	Average of ten additional assessments per year for the first 10 year in Water Fund and 0.4% growth in all other cases (See Section 3.4.1)	Zero growth scenario
Developer charges income	NIL	-
Vacant assessments	Vacancy rate is constant. An availability charge is assumed for vacant lots in Water Fund at 45% of the Typical Residential Bill.	-

3.3.1 Additional Modelling Assumptions

A number of important additional assumptions have been made in this model:

- **Renewals** - The majority of works undertaken at the Water Treatment Plant are classified as renewals. This is because the works will not increase the overall treatment capacity of the plant, and have been scheduled to replace existing assets at life expiry.
- **Revenue Adjustments** – Special Schedule 3 does not report income for the non-residential portion of the business for the 2015/16 financial year. For the purposes of modelling, the rates and charges revenue has been apportioned to match the reported Typical Residential Bill of \$1169 per annum. This results in non-residential access revenue of \$123,299 and usage revenue of \$132,186
- **Cost Attribution** - The modelling reflects the current funding arrangements where Bogan Shire Council effectively receives a 68% contribution from other sources for the ongoing operation, administration, maintenance *and renewal* costs associated with the water security infrastructure. *The financial modelling therefore attributes only 32% of these costs to Bogan Shire Council, including the capital cost of these assets.*
- **Pipeline Options** (Scenarios D&E) - For options including a pipeline, maintenance and renewal works on the Albert Priest Channel cease once the pipeline is complete. Additional operations and maintenance expenses are attributed based on a total delivery of 7.2GL/a by primarily by gravity, reduced to the 32% attributable to Bogan Shire Council.

3.4 Modelling results – Water business

The key modelling results are summarised in Table 1 and Table 9 below and, and are shown graphically in Figure 2 on the following page..

Table 8 - Summary of modelling scenarios , Water business, 2016-2046

Capital works item	Scenario A	Scenario B	Scenario C	Scenario D	Scenario E
2016 Water Fund Capital Works Plan including Stage 1a - 700 ML Storage 1a	x	x	x	x	x
Stage 1b - 700 ML Storage 1b - adjacent to Storage 1a		x	x	x	x
Stage 1c - 3000ML Storage 1c			x		x
Stage 2 - Piping of Albert Priest Channel				x	x
Stage 3 - Warren Borefield Investigation					x
TRB required for ERRR positive in at least 50% of years	\$1004	\$1030	\$1083	\$1125	\$1169

Table 9 - Summary of financial performance, Water business, 2016-2046

Financial Modelling Scenario	Description	Median Residential (2016/17 \$)	Typical Bill	Median ERRR	2045/46 Cash & Investments (\$'000)	FINMOD Case Reference
A	Water Capex 2016 base case including Storage 1a	Reduce to \$1,004 terms over a period of 6 years		1%	\$10,269	100
B	Scenario A + Storage 1b	Reduce to \$1,030 over a period of 5 years		0.2%	\$11,288	200
C	Scenario B + Storage 1c	Reduce to \$1,083 terms over a period of 3 years		0.1%	\$9,678	300
D	Scenario B + APC Pipeline	Reduce to \$1,125 over a period of 2 years		0.2%	\$14,710	400
E	Scenario C + APC Pipeline + Borefield Investigation	Maintain at \$1,169		0.2%	\$18,643	500

3.4.1 Typical residential bill - Base Case – Scenario A.

Currently, the typical residential bill for water fund is \$1169 (Ref Table 6 of “2014-15 NSW Water Supply and Sewerage Benchmarking Report”). **For the base case, financial modelling indicates that the tariffs can be held at their current value, allowing inflation to discount its future value.**

3.4.2 Loan funds required

There are currently no loans in the water fund. Borrowings of up to \$500,000 will be required over the next 3 years to undertake the renewal works planned for the water treatment plant. Given the reserve funds available in the sewerage fund, these borrowings could take the form of an internal loan.

Figure 5 - Scenario A modelling outcomes for Water Fund

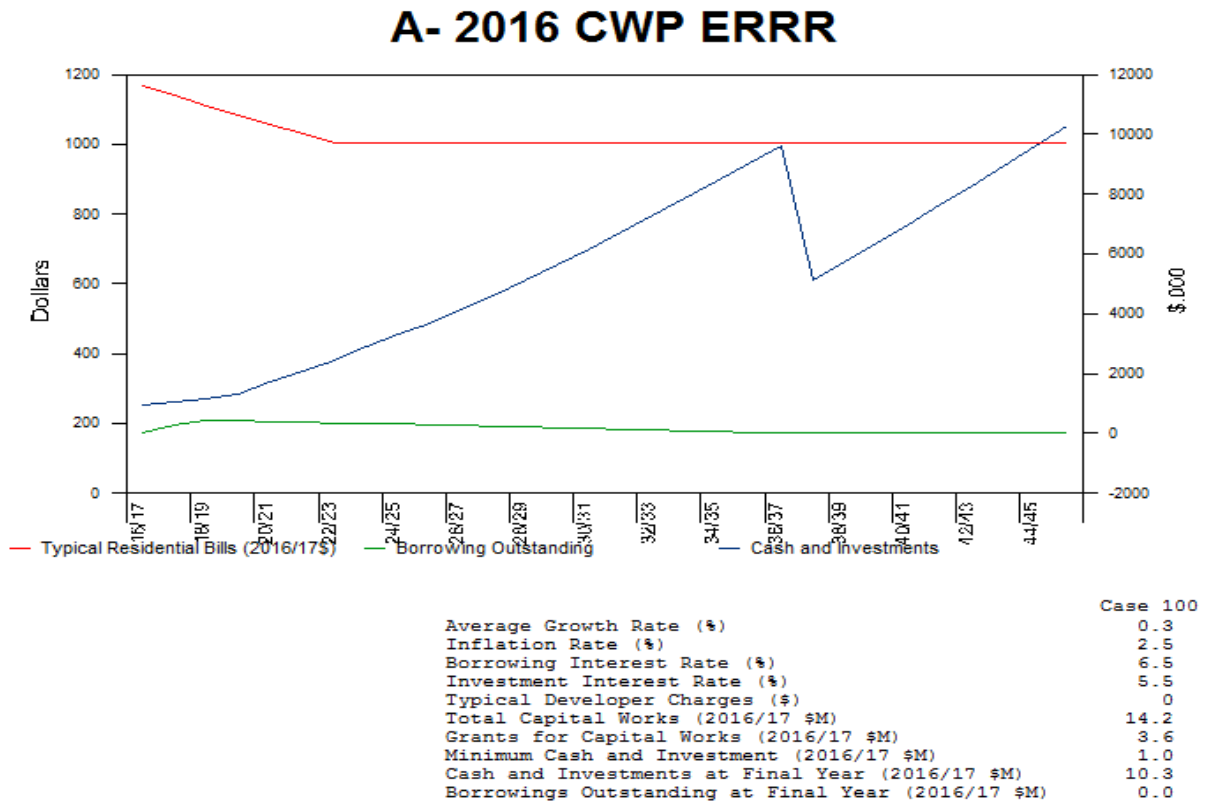
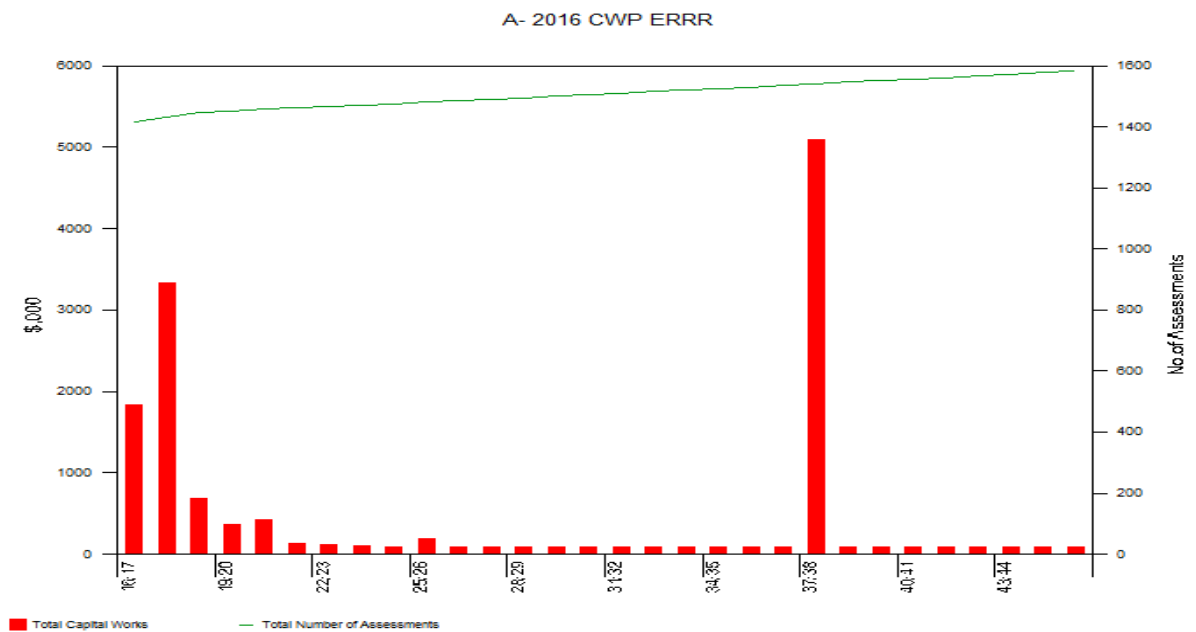


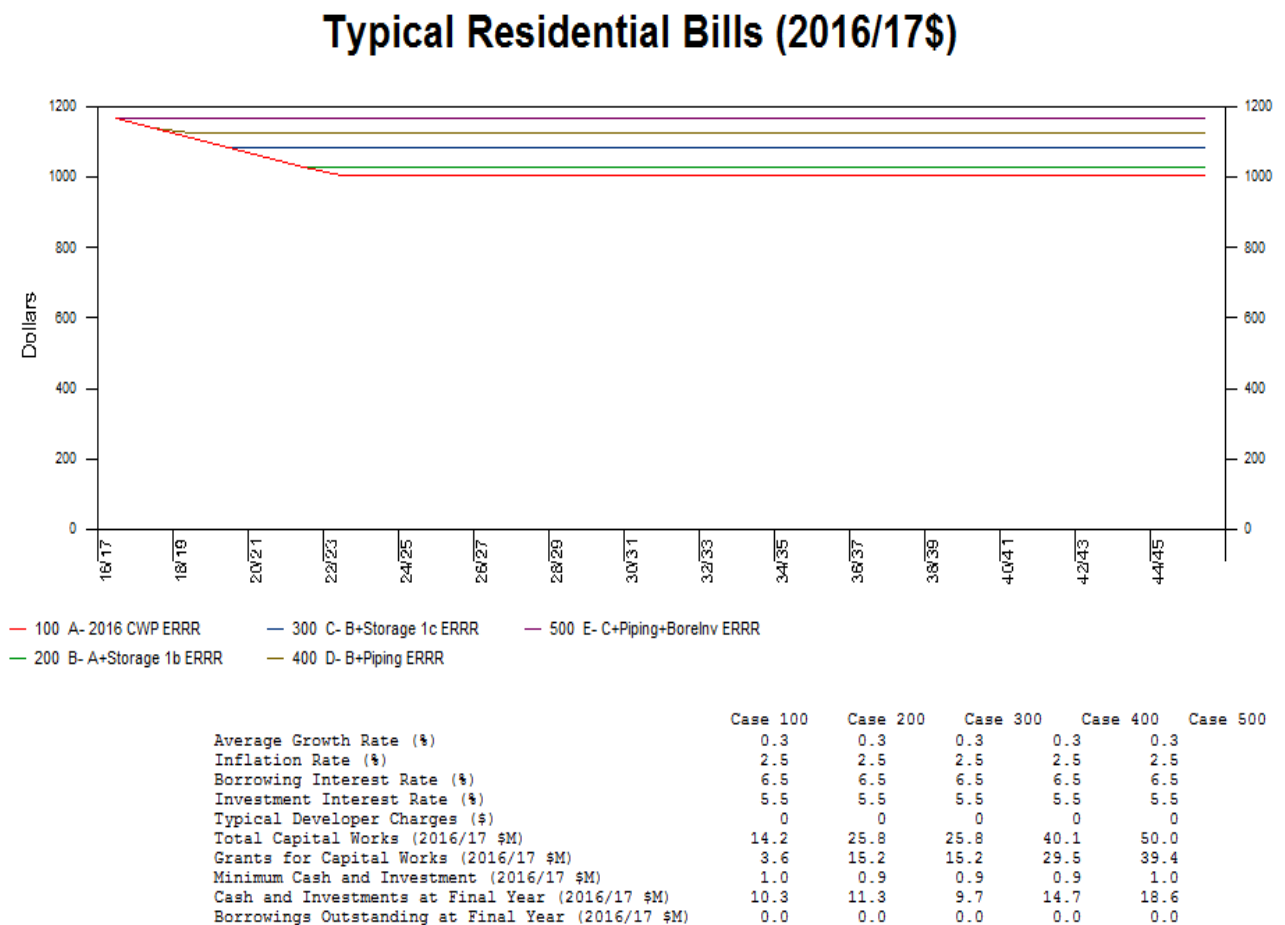
Figure 6 – Capital Works Plan and assessments for water fund



3.4.3 Impact of Water Security Infrastructure

The outcomes of the financial modelling for the five water security scenarios is shown in Table 8 and Table 9, and is shown graphically in Figure 7. The water security infrastructure imposes additional operation, maintenance and depreciation costs, which are 32% attributable to Bogan Shire Council. If the full range of water security infrastructure is constructed, the current TRB can be maintained in real terms – i.e. only inflation-based increases are required.

Figure 7 – Comparison of TRB's for water security modelling scenarios



3.5 Modelling results - Sewerage business

The key modelling results are summarised in Table 4, and are shown graphically on the following page. The results indicate that the sewer TRB can be reduced in real terms.

Table 10 - Summary of financial performance of base case, Sewerage business, 2016-2046

Scenario	Median Typical Residential Bill (2016/17 \$)	New Loans	Median ERRR	2045/46 Cash & Investments (\$'000)
Base Case	Reducing to \$411 over a period of 7 years	\$0	0.2%	\$6,593

3.5.1 Forecast typical residential bills

Currently, the typical residential bill for sewerage fund is \$540 (Ref Table 7 of “2014-15 NSW Water Supply and Sewerage Benchmarking Report”). **The financial modelling indicates that the tariffs can be held at their current value, allowing inflation to discount its future value.**

Council is in a fortunate position that many of its sewerage assets were upgraded following the 1990 flood using grant funding. Accordingly, the renewal timeframe for many assets is outside the 30 year planning timeframe, and the 30 year capital works plan is light. The modelling includes the accumulation of cash and investments to reflect the long renewal timeframes required. Figure 10 shows the increase in total equity and decrease in the value of property, plant & equipment over the 30 year life of the plan.

Figure 8 – Scenario 1 modelling outcomes for sewer fund

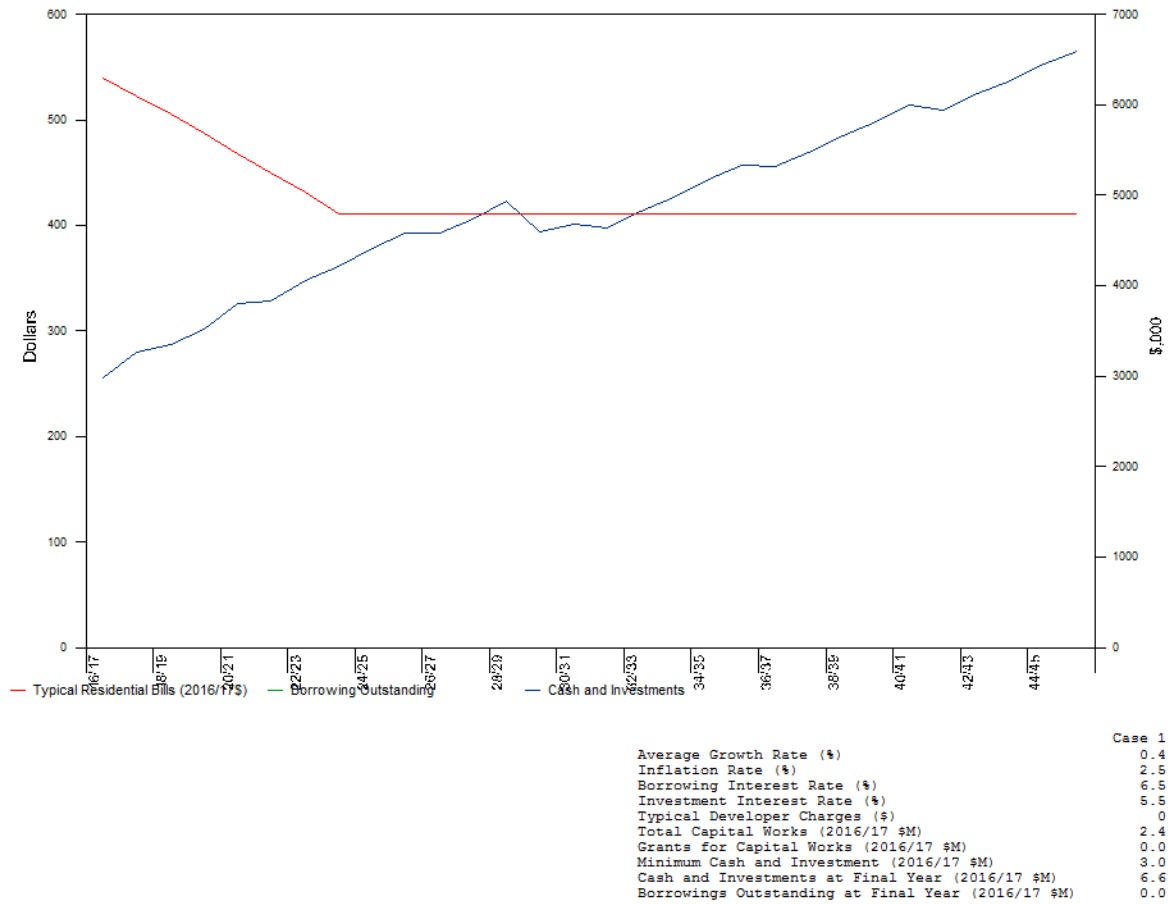


Figure 9 – Capital Works Program and Assessments for Sewer Fund

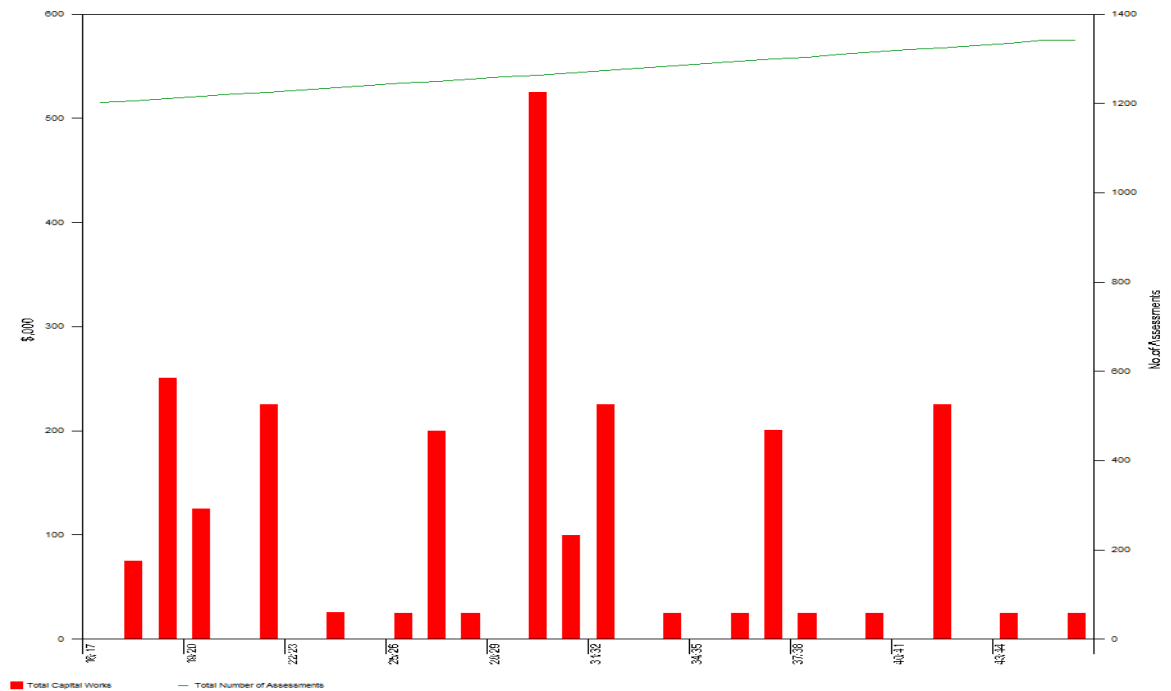
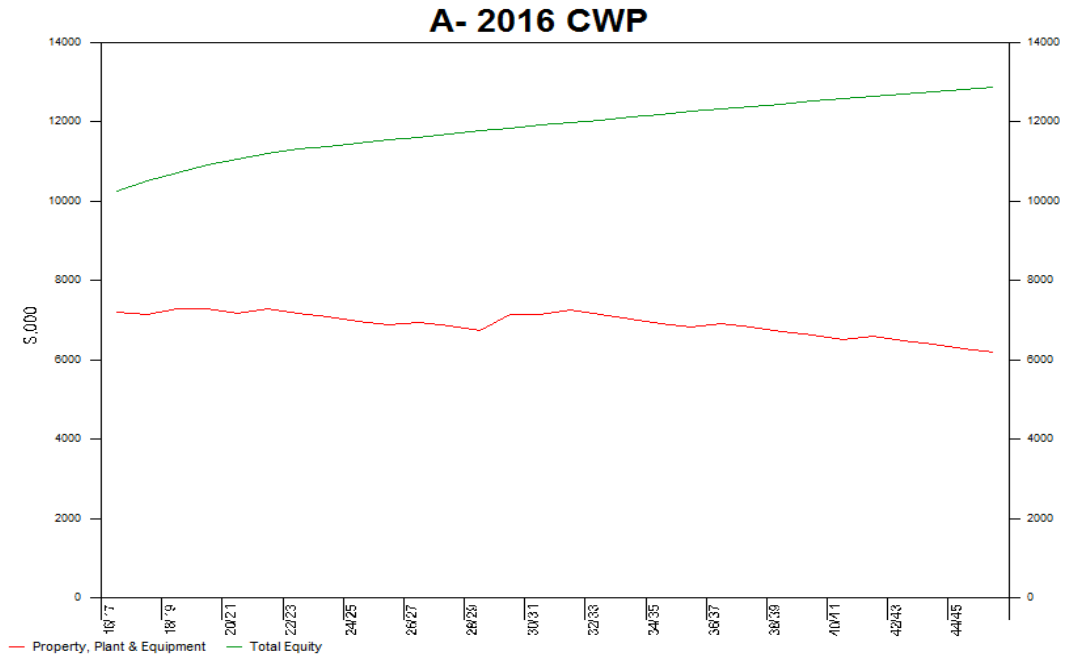


Figure 10 – Bogan Sewerage Fund – Plot of total equity, & property, plant & equipment



3.6 Sensitivity analysis

A sensitivity analysis was conducted on the Base Case by varying various financial and growth parameters in the model. The purpose of this analysis was to identify how vulnerable the business is to variations to input parameters.

The options tested consisted of:

- Increase in capital works inflation by 1%
- Decrease in interest rate for investments by 1.5%.
- Increase in borrowing rate by 1.5%
- Reduction in growth rate to zero%

The results of the sensitivity analysis are summarised below:

Table 11 - Sensitivity analysis results – Water business

Scenario	Median Typical Residential Bill (2016/17 \$)	Median ERR	2046/47 Net Cash (\$'000)	FINMOD Case reference
Base case (Scenario A)	\$1,004	1%	\$10,269	100
Sensitivity: Increase capital works inflation + 1%	\$1,030	0.8%	\$9,682	101
Sensitivity: Investments -1.5%pa	\$1,020	1%	\$9,375	102
Sensitivity: Borrowing rate +1.5%pa	\$1,004	1%	\$10,168	103
Sensitivity: Zero Growth rate	\$1,100	1%	\$9,481	104

Table 12- Sensitivity analysis results – Sewerage business

Scenario	Median Typical Residential Bill (2016/17 \$)	Median ERR	2046/47 Net Cash (\$'000)	FINMOD Case reference
Base case (Scenario A)	\$411	0.2%	\$6,593	1
Sensitivity: Increase capital works inflation + 1%	\$420	0.1%	\$6,643	101
Sensitivity: Investments -1.5%pa	\$411	0.2%	\$6,593	102
Sensitivity: Borrowing rate +1.5%pa	\$415	0.2%	\$5,263	103
Sensitivity: Zero Growth rate	\$440	0.2%	\$6,812	104

The sensitivity analysis shows that both the water and sewerage businesses are most vulnerable to growth. The pattern of underfunding that results from zero growth forces rates and charges to be increased. If the predicted growth is not achieved, the ERRR metric quickly falls to negative, and additional income is required to achieve financial sustainability. Council will monitor actual growth and revise the modelling if growth in assessments is significantly lower than forecast

Other sensitivity tests degrade financial results to some extent, and will require minor variations to typical residential bills to maintain financial sustainability.

3.7 Financial action plan

Table 13 - Financial Action Plan

	Objectives	Proposed measures	Provider, cost	Target date
Water Fund	The business is capable of funding new and replacement assets needed to provide the current level of service to its customers and the broader community.	Financial modelling indicates that the tariffs can be held at their current value, allowing inflation to discount its future value.	Council	2017/18 Financial year
	Over the long term, customer charges are kept as low and as stable as possible.	Review the Financial Plan annually in conjunction with Capital Works Plan reviews. Monitor the cost and timing of water security infrastructure work, the growth rate and external economic influences.	Council	Annual
Sewer Fund	The business is capable of funding new and replacement assets needed to provide the current level of service to its customers and the broader community.	Financial modelling indicates that the tariffs can be held at their current value, allowing inflation to discount its future value.	Council	2017/18 Financial year
	Over the long term, customer charges are kept as low and as stable as possible.	Review the Financial Plan annually in conjunction with Capital Works Plan reviews. Monitor the estimated cost of the replacement of the sewage treatment plant, the growth rate and external economic influences.	Council	Annual

4 References

CPE Associates “Valuation of Water Supply and Sewerage Assets to 30 June 2012: Valuation Report”, June 2012

Mike Brearley & Associates Pty Ltd - “Nyngan and Cobar Water Security – Business Case” Draft Version 2.0 (February 2017)

CPE Associates, “Nyngan and Cobar Raw Water Security Business Case” Version 1.3, February 2013

NSW Urban Water Services Pty Ltd “Nyngan and Cobar Water Security Project – Water Supply System Modelling” Report No 14009, May 2016

NSW Public Works “Albert Priest Channel Replacement Pipeline: Options Report” Report No 16015, May 2016.

NSW DPI Water – Strategic Business Planning Checklist – July 2014

NSW Office of Water - NSW Water and Sewerage Strategic Business Planning Guidelines - 2011

Appendix A Compliance with the Department of Primary Industries, Office of Water: “Water Supply and Sewerage Strategic Business Planning and Financial Planning Check List – July 2014”

Capital Works Planning Checklist (Extract from SBP Checklist)

Topic	Outcome Achieved	Comments
7. Total Asset Management Plan (TAMP) – Capital Works and Renewals Planning	F Review and update the existing TAMP in your IWCM Strategy/SBP. New TAMP to show your LWU's 30-year capital works program which nominates each proposed project and its annual capital expenditure, including an evidence based cost-effective asset renewals plan ¹⁰ . TAMP is integrated with the strategic business plan to meet the target levels of service. Template is available from NOW. Disclosure of the funding required for each of growth, improved standards and renewals is required for each project	Yes – Section 2
7. Total Asset Management Plan – Footnote	Note 10 A LWU must analyse renewals needs to develop a sound 30-year renewals plan for its existing assets as part of the strategic business planning process, but only 'proven' renewals should be included in the first 5 years of the TAMP. These should be based on documented evidence and 'value for money' (TBL) analysis, which should be reported in the SBP. The evidence basis and 'value for money' analysis should be supported by information collected from preventative maintenance monitoring programs, performance monitoring data, your complaints register, site audits, etc., together with levels of service compliance data and business risks and costs. While it is important to renew existing assets when they have demonstrably exceeded their economic service life, prematurely replacing assets such as water mains, simply because they are over 80 years old would be wasteful 'gold plating', which would unnecessarily increase your TRBs.	Yes – Section 2

Financial Plan - Checklist

Topic	Outcome Achieved	Comments
10. Financial Plan Objective	A The financial plan includes all foreseeable costs and income and achieves the lowest uniform level of stable typical residential bill (in Year 2\$) to meet the levels of service negotiated with the community.	Yes – Section 3
	B Long-term financial sustainability is demonstrated to comply with National Competition Policy and the National Water Initiative.	Yes - Long Term Financial Sustainability demonstrated through a positive Economic Real Rate of Return on over 50% of years modelled
11. Financial Model	LWUs using the FINMOD software for their financial plan have used the latest version (FINMOD 2.1 or FINMOD 4.0).	Yes – Section 3
12. Timeframe	The financial plan covers a period of 30 years in accordance with the IWCM Strategy.	Yes – Section 3

13. Growth and Assessments	A Input accurate numbers of existing residential and non-residential assessments ,from the water cycle analysis and projection	Yes – Section 2.3. Number of assessments based on historical information and growth projections
	B New assessments for backlog water supply or sewerage projects are included in the growth projections	Yes
	C Growth projection input into your LWU's financial planning is consistent with the demographic and water cycle analysis and projections and SBP document.	Yes – Section 2.3. Growth projections consistent with strategic planning
14 Interest Rates	Appropriate values have been used. Such rates in July 2014 were: Inflation 2.5% pa Investment 5.5% pa Borrowing 6.5% pa	Key assumptions documented in Section 3.3
15 Grants	No capital works grants under the CTWSS program are assumed after about 2016/17.	Yes. The base case includes no grants under the CTWSS. The plan does include possible water security grants.
16. Forecast Data	A Forecast data, such as future operation, maintenance and administration (OMA) costs and the income split (between the annual residential revenue and the annual non-residential revenue), have been carefully considered as part of the LWU's total asset management	Yes – Future residential and non-residential considered
	Common errors are Neglecting to include increases in operation and maintenance costs associated with proposed capital works such as backlog sewerage or new water and sewage treatment works. Neglecting to make appropriate provision for dividend and tax-equivalent payments (excluding income tax). Neglecting to include future increases in non-residential water supply and sewerage income as a result of removing existing cross-subsidies. Neglecting to include future increases in trade waste income from introducing appropriate trade waste fees and charges for all liquid trade waste dischargers. Neglecting to include reduction in revenue from non-compliance trade waste usage charges and non-compliance excess mass charges mainly due to the installation of appropriate pre-treatment equipment by non-complying trade waste dischargers. • Neglecting to include future commercial developer charges. Neglecting to include the cost of actions in the SBP. Neglecting to exclude from your OMA expenses for activities undertaken on behalf of the Aboriginal Communities Water and Sewerage Program and income received from that Program	All issues addressed
	B Increases or reductions to OMA costs have been discussed in the SBP document.	Yes – Future Operating Costs will remain constant
17 Residential Bills	The financial plan must provide a 30-year projection of Typical Residential Bills in Year 2016\$.	Yes – Section 3
18. Results	The input data, key output graphs and the full projected results and the annual financial statements (ie. Income Statement, Balance Sheet and Cash Flow Statement) are included for the preferred case. Results are presented in Year 2XXX dollars (ie. not in inflated dollars).	Yes – Appendix D

19. Sensitivity Analysis	A	Sensitivity Analysis (section 8.3 of the FINMOD User Manual) has been carried out and results are included.	Yes – Section 3.6
	B	A description of the cases analysed, and the reasons for their selection have been included in the document.	Yes – Section 3.6
20 Financial Plan Report and Price Path	A	Financial Plan Report prepared to document your financial planning (example report provided in Appendix E of the FINMOD User Manual - Reference 2). A copy of Appendix E is available on request.	To be advised
	B	Price path adopted for the typical residential bill over the next 4 years in Year 2016\$. This provides some price certainty to your LWU's customers.	Yes – Section 3.7
21 Annual Update of Financial Plan	A	Following the annual review of your TBL Performance Report you should review and update your total asset management plan and your long-term financial plan.	Yes – A review of capital works planning is included as Section 2
	B	Prepare a brief report to Council on your update of the financial plan	To be advised
22 Publication of the SBP and FP		LWU should publish the adopted Strategic Business Plan and Financial Plan on its website.	Subject to Council and DPI Water approval of the Financial Plan

Appendix B Draft Timeline and Cashflow for Water Security Projects

Appendix C Capital Works Plans – Refer to Excel spreadsheets

BOGAN SHIRE COUNCIL - WATER FUND SCENARIO A																																					
WATER - Capital Works Program																																					
CAPITAL WORKS IN 2016\$('000)																																					
Current Year 2016/17						Capital Cost Factor 1																															
Attributable	SUBSIDY	ILOS	GROWTH	RENEW	Total	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46		
Maintenance & Renewals						Note: Capital costs to be entered at full value (no adjustment for attribution)																															
Water main renewal	100%			100%	1065	80	80	80	80	80	50	40	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25		
Household Meter Replacement	100%			100%	300	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
APC Channel desilting (68% funded by Cobar Water Board)	32%		0%	100%	960	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
APC Annual Channel Structures Renewal program (68% funded by CWB)	32%		0%	100%	328	80	80	80	80	80	80	50	35	30	30	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20		
Nyngan WTP Refurbishment																																					
New flouridation Plant (100% grant)	100%	100%	100%		145	145																															
Stage 1 2016/17 - Switchboard & Scada	100%		0%	100%	900	850	50																														
Stage 2 2017/18 - Automation of valves	100%		25%	75%	400		300	100																													
New Liquid Alum system	100%		0%	100%	175		100	75																													
Replacement Hypochloride system	100%		0%	100%	200		100	100																													
Filter Optimisation (anticipated grant)	100%	100%	100%		250					250																											
Sludge rake replacement	100%			100%	300		100	100																													
WTP Replacement	100%		0%	100%	5000																						5,000										
Pump Stations																																					
Raw Water Pumping Station - Pump Renewal	100%			100%	150			150																													
Treated Water High Lift Pump Station	100%			100%	200				200																												
Water Security Capital Works																																					
Stage 1a - 700 ML Storage 1a	32%	100%	100%		3172	2043	7869																														
Stage 1b - 700 ML Storage 1b - adjacent to Storage 1a	32%	100%	100%																																		
Stage 1c - 3000ML Storage 1c	32%	100%	100%																																		
Stage 2 - Piping of Albert Priest Channel	32%	100%	100%																																		
Stage 3 - Warren Borefield Investigation	32%	100%	100%																																		
Coolabah, Girilambone, Hermsdale Non Potable Supplies																																					
Do minimum - operate to end of life	100%			100%	600	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	
Reservoirs																																					
Paint Girilambone overhead tank	100%			100%	25	25																															
Paint Nyngan water reservoir standpipe	100%			100%	100										100																						
GRAND TOTAL						14170	1841	3336	693	368	418	138	118	98	97	197	93	93	93	93	93	93	93	93	93	93	93	93	5093	93	93	93	93	93	93	93	
Expected Subsidy on Projects						3567	799	2518	0	0	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
INPUT TO FINMOD MODEL:																																					
IMPROVED LEVELS OF SERVICE (ILOS)						3667	799	2593	25	0	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NEW ASSETS FOR GROWTH						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RENEWAL/ REPLACEMENT						10503	1043	743	668	368	168	138	118	98	97	197	93	93	93	93	93	93	93	93	93	93	93	93	93	5093	93	93	93	93	93	93	93
GRAND TOTAL						14170	1841	3336	693	368	418	138	118	98	97	197	93	93	93	93	93	93	93	93	93	93	93	93	5093	93	93	93	93	93	93	93	

Bogan Shire Council
 Water Supply and Sewerage Business: Financial Plan
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BOGAN SHIRE COUNCIL - WATER FUND SCENARIO C (SCENARIO B + STORAGE 1c)			Current Year	2016/17	Capital Cost Factor	1																															
WATER - Capital Works Program																																					
CAPITAL WORKS IN 2016\$('000)																																					
Attributable	SUBSIDY	ILOS	GROWTH	RENEW	Total	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46		
Note: Capital costs to be entered at full value (no adjustment for attribution)																																					
Maintenance & Renewals					1065	80	80	80	80	80	50	40	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25			
Water main renewal	100%			100%																																	
Household Meter Replacement	100%			100%	300	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
APC Channel desilting (68% funded by Cobar Water Board)	32%	0%		100%	960	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
APC Annual Channel Structures Renewal program (68% funded by CWB)	32%	0%		100%	328	80	80	80	80	80	80	50	35	30	30	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20		
Nyngan WTP Refurbishment	100%				145	145																															
New foundation Plant (100% grant)	100%	100%			900	850	50																														
Stage 1 2016/17 - Switchboard & Scada	100%	0%		100%																																	
Stage 2 2017/18 - Automation of valves	100%	25%		75%	400		300	100																													
New Liquid Alum system	100%	0%		100%	175		100	75																													
Replacement Hypochloride system	100%	0%		100%	200		100	100																													
Filter Optimisation (anticipated grant)	100%	100%		100%	250					250																											
Sludge rake replacement	100%	0%		100%	200		100	100																													
WTP Replacement	100%	0%		100%	5000																					5,000											
Pump Stations	100%				150			150																													
Raw Water Pumping Station - Pump Renewal	100%			100%	150			150																													
Treated Water High Lift Pump Station	100%			100%	200				200																												
Water Security Capital Works	32%				3172	2043	7869																														
Stage 1a - 700 ML Storage 1a	32%	100%	100%																																		
Stage 1b - 700 ML Storage 1b - adjacent to Storage 1a	32%	100%	100%		1846		3249	2521																													
Stage 1c - 3000ML Storage 1c	32%	100%	100%		9760			400	30100																												
Stage 2 - Piping of Albert Priest Channel	32%	100%	100%																																		
Stage 3 - Warren Borefield Investigation	32%	100%	100%																																		
Coolabah, Girilambone, Hermidale Non Potable Supplies	100%				600	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
Do minimum - operate to end of life	100%			100%																																	
Reservoirs	100%				25	25																															
Paint Girilambone overhead tank	100%			100%																																	
Paint Nyngan water reservoir standpipe	100%			100%	100										100																						
GRAND TOTAL					25776	1841	4375	1627	10000	418	138	118	98	97	197	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	
Expected Subsidy on Projects					15173	798.65	3557.9	934.64	9632	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
INPUT TO FINMOD MODEL:																																					
IMPROVED LEVELS OF SERVICE (ILOS)																																					
NEW ASSETS FOR GROWTH																																					
RENEWAL/REPLACEMENT																																					
GRAND TOTAL																																					

Bogan Shire Council

Water Supply and Sewerage Business: Financial Plan

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BOGAN SHIRE COUNCIL - WATER FUND SCENARIO D (SCENRAIO B + APC PIPELINE)																																																
WATER - Capital Works Program																																																
CAPITAL WORKS IN 2016\$('000)																																																
Current Year																																																
2016/17																																																
Capital Cost Factor										1																																						
Attributable										0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30								
Total										2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46									
Maintenance & Renewals										Note: Capital costs to be entered at full value (no adjustment for attribution)																																						
Water main renewal	100%			100%	1065	80	80	80	80	80	50	40	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25											
Household Meter Replacement	100%			100%	300	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10										
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WTP Replacement	100%	0%		100%	5000																																											
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Stage 1b - 700 ML Storage 1b - adjacent to Storage 1a	32%	100%		100%	1846		3249	2521																																								
Stage 1c - 3000ML Storage 1c	32%	100%		100%																																												
Stage 2 - Piping of Albert Priest Channel	32%	100%		100%	24066	50	215	25	374	439	1773	49798	22532																																			
Stage 3 - Warren Borefield Investigation	32%	100%		100%																																												
Coolabah, Girilimbone, Hermdale Non Potable Supplies																																																
Do minimum - operate to end of life	100%			100%	600	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20											
Reservoirs																																																
Paint Girilimbone overhead tank	100%			100%	25	25																																										
Paint Nyngan water reservoir standpipe	100%			100%	100							100																																				
GRAND TOTAL					40083	1857	4444	1507	487	558	705	16053	7309	97	197	93	93	93	93	93	93	93	93	93	93	93	93	93	93	5093	93	93	93	93	93	93												
Expected Subsidy on Projects					29480	815	3627	815	120	391	567	15935	7210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										
INPUT TO FINMOD MODEL:																																																
IMPROVED LEVELS OF SERVICE (ILOS)										29580	815	3702	840	120	391	567	15935	7210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
NEW ASSETS FOR GROWTH										0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RENEWAL/REPLACEMENT										10503	1043	743	668	368	168	138	118	98	97	197	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93
GRAND TOTAL					40083	1857	4444	1507	487	558	705	16053	7309	97	197	93	93	93	93	93	93	93	93	93	93	93	93	93	93	5093	93	93	93	93	93	93	93											

Bogan Shire Council
 Water Supply and Sewerage Business: Financial Plan
 Version 1.1, March 2017

BOGAN SHIRE COUNCIL - WATER FUND SCENARIO E (SCENARIO C + APC PIPELINE + BOREFIELD INVESTIGATION)																																												
WATER - Capital Works Program			Current Year	2016/17	Capital Cost Factor	1																																						
CAPITAL WORKS IN 2016\$('000)			Attributable	SUBSIDY	ILOS	GROWTH	RENEW	Total	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46						
Maintenance & Renewals									Note: Capital costs to be entered at full value (no adjustment for attribution)																																			
Water main renewal	100%			100%	1065	80	80	80	80	80	80	80	50	40	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25								
Household Meter Replacement	100%			100%	300	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10							
APC Channel desilting (68% funded by Cobar Water Board)	32%		0%	100%	960	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100							
APC Annual Channel Structures Renewal program (68% funded by CWB)	32%		0%	100%	328	80	80	80	80	80	80	80	50	35	30	30	30	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20								
Nyngan WTP Refurbishment																																												
New foundation Plant (100% grant)	100%	100%			145	145																																						
Stage 1 2016/17 - Switchboard & Scada	100%		0%	100%	900	850	50																																					
Stage 2 2017/18 - Automation of valves	100%		0%	75%	400		300	100																																				
New Liquid Alarm system	100%		0%	100%	175		100	75																																				
Replacement Hypochloride system	100%		0%	100%	200		100	100																																				
Filter Optimisation (anticipated grant)	100%	100%			250				250																																			
Sludge rake replacement	100%			100%	200		100	100																																				
WTP Replacement	100%		0%	100%	5000																																							
Pump Stations																																												
Raw Water Pumping Station - Pump Renewal	100%			100%	150			150																																				
Treated Water High Lift Pump Station	100%			100%	200				200																																			
Water Security Capital Works																																												
Stage 1a - 700 ML Storage 1a	32%	100%	100%		3172	2043	7869																																					
Stage 1b - 700 ML Storage 1b - adjacent to Storage 1a	32%	100%	100%		1846		3249	2521																																				
Stage 1c - 3000ML Storage 1c	32%	100%	100%		9760		400	30100																																				
Stage 2 - Piping of Albert Priest Channel	32%	100%	100%		24066	50	215	25	374	439	1773	49798	22532																															
Stage 3 - Warren Borefield Investigation	32%	100%	100%		160			200	300																																			
Coolabah, Girilambone, Hermdale Non Potable Supplies																																												
Do minimum - operate to end of life	100%			100%	600	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20							
Reservoirs																																												
Paint Girilambone overhead tank	100%			100%	25	25																																						
Paint Nyngan water reservoir standpipe	100%			100%	100																																							
GRAND TOTAL									50003	1857	4444	1699	10215	558	705	16053	7309	97	197	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93				
Expected Subsidy on Projects									39400	815	3627	1007	9848	391	567	15935	7210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
INPUT TO FINMOD MODEL:																																												
IMPROVED LEVELS OF SERVICE (ILOS)									39500	815	3702	1032	9848	391	567	15935	7210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
NEW ASSETS FOR GROWTH									0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
RENEWAL/REPLACEMENT									10503	1043	743	668	368	168	138	118	98	97	197	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93
GRAND TOTAL									50003	1857	4444	1699	10215	558	705	16053	7309	97	197	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93

Appendix D FINMOD data for water fund base case

Bogan Water Water Security Runs : A- 2016 CWP ERRR Operating Statement

FINMOD
 Bogan Shire Council

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
EXPENSES																									
Management Expenses	641	642	642	644	643	643	642	643	643	643	643	643	642	643	643	643	643	643	643	643	643	643	644	644	644
Administration	138	139	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140	141	141	141
Engineering and Supervision	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503
Operation and Maintenance Expenses	1515	1517	1521	1520	1521	1521	1520	1521	1521	1521	1521	1522	1521	1521	1521	1521	1521	1521	1521	1521	1521	1521	1521	1521	1521
Operation Expenses	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896	896
Maintenance Expenses	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409	409
Energy Costs	55	56	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57
Chemical Costs	81	82	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
Purchase of Water	74	75	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
Depreciation	422	455	455	455	458	457	457	457	456	456	456	456	456	456	455	455	455	455	456	456	456	457	457	457	457
System Assets	422	455	455	455	458	457	457	456	456	456	456	456	456	456	455	455	455	455	456	456	456	457	457	457	457
Plant & Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Expenses	0	20	30	29	27	26	23	22	21	20	18	16	15	14	11	10	9	7	5	3	2	1	0	0	0
Other Expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL EXPENSES	2578	2633	2649	2647	2649	2646	2643	2642	2642	2641	2638	2637	2634	2633	2631	2629	2628	2625	2625	2623	2622	2621	2622	2622	2622
REVENUES																									
Rates & Service Availability Charges	735	727	718	703	688	673	659	662	665	669	671	674	677	680	684	686	689	692	695	697	701	703	707	710	713
Residential	615	609	601	589	576	564	552	554	557	561	562	565	567	570	573	575	578	581	583	585	588	591	594	597	599
Non-Residential	120	118	117	114	111	110	107	108	108	108	109	109	109	110	110	110	111	111	112	112	113	113	113	113	114
User Charges	1022	1010	996	975	955	933	915	918	923	926	930	934	938	942	946	950	953	958	962	966	969	973	978	983	986
Sales of Water : Residential	625	618	609	596	584	571	560	562	565	568	571	573	576	578	581	584	586	589	592	595	597	600	602	606	608
Sales of Water : Non-Residential	397	392	386	379	371	362	354	356	357	359	359	360	362	363	364	366	367	369	370	371	372	373	375	377	378
Extra Charges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Income	61	54	57	63	76	93	109	125	140	155	169	185	201	217	232	247	262	277	290	304	317	193	179	195	210
Other Revenues	803	811	820	823	826	828	831	834	837	840	843	845	848	851	854	857	860	863	866	869	872	875	878	881	884
Grants	808	2527	9	8	258	8	8	8	7	7	8	8	7	7	7	7	7	7	6	6	6	6	6	6	6
Grants for Acquisition of Assets	799	2518	0	0	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pensioner Rebate Subsidy	9	9	9	8	8	8	8	8	7	7	8	8	7	7	7	7	7	7	6	6	6	6	6	6	6
Other Grants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contributions	236	238	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262
Developer Charges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer Provided Assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Contributions	236	238	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262
TOTAL REVENUES	3665	5366	2839	2814	3045	2779	2765	2790	2818	2843	2869	2895	2920	2947	2975	2999	3025	3051	3076	3099	3123	3009	3009	3036	3060
OPERATING RESULT	1087	2733	190	166	396	133	122	148	176	203	230	258	286	314	344	371	397	425	451	477	502	388	387	414	438
OPERATING RESULT (less Grants for Acq of Assets)	288	215	190	166	146	133	122	148	176	203	230	258	286	314	344	371	397	425	451	477	502	388	387	414	438

Bogan Water Security Runs : A- 2016 CWP ERRR Cashflow Statement

FINMOD
 Bogan Shire Council

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
Cashflow From Operating Activities																									
<u>Receipts</u>																									
Rates and Charges	1757	1737	1713	1678	1642	1607	1574	1580	1587	1595	1601	1607	1614	1621	1629	1636	1642	1650	1657	1663	1670	1676	1685	1693	1699
Interest Income	61	54	57	63	76	93	109	125	140	155	169	185	201	217	232	247	262	277	290	304	317	193	179	195	210
Other Revenues	803	811	820	823	826	828	831	834	837	840	843	845	848	851	854	857	860	863	866	869	872	875	878	881	884
Grants	808	2527	9	8	258	6	8	8	7	7	8	8	7	7	7	7	7	7	6	6	6	6	6	6	6
Contributions	236	238	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262
Total Receipts from Operations	3665	5366	2839	2814	3045	2779	2765	2790	2818	2843	2869	2895	2920	2947	2975	2999	3025	3051	3076	3099	3123	3009	3009	3036	3060
<u>Payments</u>																									
Management	641	642	642	644	643	643	642	643	643	643	643	643	642	643	643	643	643	643	643	643	643	643	644	644	644
Operations (plus WC Inc)	1533	1535	1539	1535	1536	1535	1535	1536	1536	1537	1537	1537	1537	1536	1537	1537	1537	1537	1537	1537	1537	1537	1538	1537	1537
Interest Expenses	0	20	30	29	27	26	23	22	21	20	18	16	15	14	11	10	9	7	5	3	2	1	0	0	0
Other Expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Payments from Operations	2174	2196	2212	2207	2206	2203	2201	2201	2200	2200	2198	2197	2194	2193	2191	2189	2189	2186	2185	2183	2181	2180	2182	2181	2181
Net Cash from Operations	1491	3170	627	606	839	575	565	590	618	644	671	698	726	754	783	810	837	865	891	916	942	829	827	855	879
Cashflow from Capital Activities																									
<u>Receipts</u>																									
Proceeds from Disposal of Assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>Payments</u>																									
Acquisition of Assets	1842	3337	693	368	418	138	118	98	97	197	93	93	93	93	93	93	93	93	93	93	93	5093	93	93	93
Net Cash from Capital Activities	-1842	-3337	-693	-368	-418	-138	-118	-98	-97	-197	-93	-93	-93	-93	-93	-93	-93	-93	-93	-93	-93	-5093	-93	-93	-93
Cashflow from Financing Activities																									
<u>Receipts</u>																									
New Loans Required	0	303	178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>Payments</u>																									
Principal Loan Payments	0	8	11	13	14	14	15	15	16	17	17	18	19	20	20	21	22	22	24	24	26	10	0	0	0
Net Cash from Financing Activities	0	296	167	-13	-14	-14	-15	-15	-16	-17	-17	-18	-19	-20	-20	-21	-22	-22	-24	-24	-26	-10	0	0	0
TOTAL NET CASH	-351	129	101	226	407	423	432	477	506	430	561	588	614	642	671	695	721	749	773	799	824	-4274	734	762	786
Current Year Cash	-351	129	101	226	407	423	432	477	506	430	561	588	614	642	671	695	721	749	773	799	824	-4274	734	762	786
Cash & Investments @ Year Start	1304	930	1033	1106	1299	1664	2037	2409	2815	3240	3580	4040	4515	5004	5508	6028	6560	7104	7661	8229	8807	9396	4998	5592	6199
Cash & Investments @ Year End	953	1059	1134	1332	1706	2088	2469	2886	3321	3670	4141	4628	5129	5646	6179	6724	7281	7853	8435	9028	9631	5123	5732	6354	6985
Capital Works Funding:																									
<u>Internal Funding for New Works (\$'000)</u>																									
Internal Funding for Renewals	1043	440	490	368	168	138	118	98	97	197	93	93	93	93	93	93	93	93	93	93	93	5093	93	93	93
New Loans	0	303	178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	799	2518	0	0	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Capital Works	1842	3337	693	368	418	138	118	98	97	197	93	93	93	93	93	93	93	93	93	93	5093	93	93	93	93

Bogan Water Security Runs : A- 2016 CWP ERRR
Statement of Financial Position

FINMOD
 Bogan Shire Council

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
Cash and Investments	953	1059	1134	1332	1706	2088	2469	2896	3321	3670	4141	4628	5129	5646	6179	6724	7281	7853	8435	9028	9631	5123	5732	6354	6985
Receivables	581	586	592	594	596	597	599	602	603	605	608	610	612	614	616	618	620	622	624	626	628	630	633	635	637
Inventories	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Property, Plant & Equipment	14741	17623	17861	17773	17734	17415	17076	16718	16358	16099	15736	15373	15010	14648	14285	13924	13562	13200	12837	12474	12110	16746	16382	16018	15655
System Assets (1)	14741	17623	17861	17773	17734	17415	17076	16718	16358	16099	15736	15373	15010	14648	14285	13924	13562	13200	12837	12474	12110	16746	16382	16018	15655
Plant & Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ASSETS	16275	19268	19586	19699	20036	20100	20144	20205	20282	20375	20485	20611	20751	20907	21080	21266	21463	21674	21895	22127	22369	22498	22747	23007	23277
LIABILITIES																									
Bank Overdraft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Creditors	50	51	51	52	53	53	53	54	54	54	55	55	55	55	55	55	55	55	55	55	55	55	56	56	56
Borrowings	0	296	455	431	406	382	358	334	310	286	262	238	213	189	164	139	113	88	62	36	9	-1	-1	-1	-1
Provisions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LIABILITIES	50	346	506	483	458	435	411	388	364	340	316	293	268	244	219	194	168	143	117	91	64	55	55	56	56
NET ASSETS COMMITTED	16225	18922	19080	19216	19578	19665	19733	19817	19918	20034	20169	20318	20483	20664	20861	21072	21295	21531	21778	22037	22305	22444	22691	22951	23221
EQUITY																									
Accumulated Operating Result	7518	10067	10012	9934	10088	9974	9853	9761	9700	9666	9660	9682	9732	9808	9913	10042	10194	10371	10568	10787	11026	11144	11259	11399	11559
Asset Revaluation Reserve	8707	9076	9527	9996	10475	10964	11457	11953	12450	12949	13452	13955	14459	14964	15469	15974	16479	16982	17484	17984	18482	18978	19681	20386	21093
TOTAL EQUITY	16225	18922	19080	19216	19578	19665	19733	19817	19918	20034	20169	20318	20483	20664	20861	21072	21295	21531	21778	22037	22305	22444	22691	22951	23221
(1) Notes to System Assets																									
Current Replacement Cost	31919	34512	34537	34536	34787	34787	34787	34787	34787	34788	34788	34787	34787	34788	34788	34788	34788	34788	34788	34787	34787	34787	34787	34787	34787
Less: Accumulated Depreciation	17178	16889	16676	16763	17053	17372	17711	18070	18429	18688	19051	19414	19777	20140	20502	20864	21226	21588	21951	22314	22678	18041	18405	18769	19133
Written Down Current Cost	14741	17623	17861	17773	17734	17415	17076	16718	16358	16099	15736	15373	15010	14648	14285	13924	13562	13200	12837	12474	12110	16746	16382	16018	15655

Bogan Water Water Security Runs : A- 2016 CWP ERRR Performance Indicators

FINMOD
 Bogan Shire Council

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
Typical Residential Bills	1169	1140	1111	1083	1056	1030	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004	1004
Average Residential Bills (2016/17\$)	1046	1022	996	971	948	924	901	901	903	903	904	905	905	905	907	907	907	908	909	910	909	910	911	912	912
Mgmt Cost / Assessment (2016/17\$)	452	448	444	443	441	440	438	437	436	434	433	431	430	429	427	426	424	423	422	420	419	417	416	415	414
OMA Cost per Assessment (2016/17\$)	1468	1456	1443	1437	1433	1429	1424	1419	1415	1410	1405	1402	1396	1392	1388	1383	1378	1373	1369	1365	1360	1356	1352	1347	1343
Operating Sales Margin (%)	8.09	6.46	5.88	4.79	3.57	2.44	1.40	1.70	2.15	2.53	2.95	3.26	3.66	4.06	4.49	4.84	5.19	5.59	5.94	6.29	6.63	6.93	7.33	7.70	8.03
Economic Real Rate of Return (%)	1.54	1.02	0.92	0.74	0.55	0.38	0.22	0.27	0.35	0.42	0.51	0.58	0.66	0.76	0.86	0.96	1.06	1.18	1.29	1.41	1.54	1.17	1.27	1.37	1.46
Debt Service Ratio	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
Debt/Equity Ratio	0.00	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest Cover	0.00	12.00	7.25	6.77	6.37	6.17	6.26	7.77	9.27	11.12	13.83	17.10	20.20	23.79	31.38	39.36	46.31	65.70	88.88	153.40	275.00	652.00	0.00	0.00	0.00
Return on capital (%)	1.77	1.53	1.13	0.99	0.98	0.79	0.72	0.84	0.98	1.09	1.21	1.33	1.45	1.57	1.69	1.79	1.89	1.99	2.08	2.17	2.25	1.73	1.70	1.80	1.88
Cash and Investments (2016/17\$'000)	953	1059	1134	1332	1706	2088	2469	2886	3321	3670	4141	4628	5129	5646	6179	6724	7281	7853	8435	9028	9631	5123	5732	6354	6985
Debt outstanding (2016/17\$'000)	0	296	455	431	406	382	358	334	310	286	262	238	213	189	164	139	113	88	62	36	9	-1	-1	-1	-1
Net Debt (2016/17\$'000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Bogan Water Water Security Runs : A- 2016 CWP ERRR Historical Operating Statement

FINMOD
 Bogan Shire Council

	2014/15*	2015/16*
EXPENSES		
Management Expenses	604	622
Administration	115	133
Engineering and Supervision	489	489
Operation and Maintenance Expenses	1283	1471
Operation Expenses	556	871
Maintenance Expenses	527	398
Energy Costs	80	53
Chemical Costs	120	78
Purchase of Water	0	71
Depreciation	427	402
System Assets	427	402
Plant & Equipment		
Interest Expenses		
Other Expenses	5	
TOTAL EXPENSES	2319	2495
REVENUES		
Rates & Service Availability Charges	726	753
Residential	607	630
Non-Residential	119	123
User Charges	966	1091
Sales of Water : Residential	589	666
Sales of Water : Non-Residential	377	425
Extra Charges		
Interest Income	39	35
Other Revenues	294	775
Grants	9	9
Grants for Acquisition of Assets		
Pensioner Rebate Subsidy	9	9
Other Grants		
Contributions	233	228
Developer Charges		
Developer Provided Assets		
Other Contributions	233	228
TOTAL REVENUES	2267	2891
OPERATING RESULT	-52	396
OPERATING RESULT (less Grants for Acq of Assets)	-52	396

Bogan Water Water Security Runs : A- 2016 CWP ERRR
Historical Statement of Financial Position

FINMOD
 Bogan Shire Council

	2014/15*	2015/16*
Cash and Investments	1304	1304
Receivables	342	561
Inventories		0
Property, Plant & Equipment	13763	12996
System Assets (1)	13763	12996
Plant & Equipment		
Other Assets		
TOTAL ASSETS	15409	14861
LIABILITIES		
Bank Overdraft		
Creditors	46	48
Borrowings		
Provisions		
TOTAL LIABILITIES	46	48
NET ASSETS COMMITTED	15363	14813
EQUITY		
Accumulated Operating Result	6063	6431
Asset Revaluation Reserve	9300	8382
TOTAL EQUITY	15363	14813
(1) Notes to System Assets		
Current Replacement Cost	32375	30361
Less: Accumulated Depreciation	18612	17365
Written Down Current Cost	13763	12996

Bogan Water Security Runs : A- 2016 CWP ERRR Base Forecast Data

FINMOD
 Bogan Shire Council

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
Financial Data																									
Inflation Rate - General (%)	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Inflation Rate - Capital Works (%)	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Borrowing Interest Rate for New Loans (%)	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Investment Interest Rate (%)	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50
Number of Assessments																									
Growth Rate (%)																									
Residential Assessments	1.28	1.18	1.25	0.41	0.41	0.33	0.41	0.41	0.40	0.40	0.40	0.32	0.40	0.40	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.38	0.46	0.38	0.38
Non-Residential Assessments	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Assessments	1.07	0.99	1.05	0.35	0.34	0.27	0.34	0.34	0.34	0.34	0.34	0.27	0.34	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.39	0.32	0.32	
Number of New Assessments																									
Residential	15	14	15	5	5	4	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	6	5	5
Non-Residential	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Assessments	15	14	15	5	5	4	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	6	5	5
Projected Number of Assessments																									
Residential	1186	1200	1215	1220	1225	1229	1234	1239	1244	1249	1254	1258	1263	1268	1273	1278	1283	1288	1293	1298	1303	1308	1314	1319	1324
Non-Residential	232	232	232	232	232	232	232	232	232	232	232	232	232	232	232	232	232	232	232	232	232	232	232	232	232
Total Projected Assessments	1418	1432	1447	1452	1457	1461	1466	1471	1476	1481	1486	1490	1495	1500	1505	1510	1515	1520	1525	1530	1535	1540	1546	1551	1556
Backlog Assessments																									
Residential	10	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Residential	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Backlog Assessments	10	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer Charges / Vacant Assessments (Values in 2016/17 \$)																									
Developer Charges \$/Assessment																									
Residential	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Residential	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Vacant Residential Assessments	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206	206
Average Charge of Vacant Assessments	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46
% of Occupied Assessments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depreciation of Existing Plant and Equipment (Values in 2016/17 \$'000)																									
Current Replacement Cost of System Assets	31120																								
Override																									
Written Down Current Cost of System Assets	13321																								
Override																									
Annual Depreciation of Existing System Assets	412																								
Override																									
Written Down Value of Plant and Equipment	0																								
Override																									
Annual Depreciation of Existing Plant and Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Bogan Water Water Security Runs : A- 2016 CWP ERRR Base Forecast Data

FINMOD
 Bogan Shire Council

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
Existing Loan Payments (Values in Inflated \$'000)																									
Existing Loan Payments : Principal (Total:0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Loan Payments : Interest (Total:0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Capital Works Program (Values in 2016/17 \$'000)																									
Subsidised Scheme (Total:3667)	799	2593	25	0	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other New System Assets (Total:0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Renewals (Total:10498)	1043	743	668	368	168	138	118	98	97	197	93	93	93	93	93	93	93	93	93	93	93	5093	93	93	
Total Capital Works (Total:14165)	1842	3336	693	368	418	138	118	98	97	197	93	93	93	93	93	93	93	93	93	93	5093	93	93		
Grant For Acquisition of Assets (% of Subsidised Scheme)	100.00	97.11	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Grant For Acquisition of Assets (\$) (Total:3567)	799	2518	0	0	250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Developer Provided Assets (Total:0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Plant and Equipment Expenditure / Asset Disposal (Values in 2016/17 \$'000)																									
Plant and Equipment Expenditure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Proceeds from Disposal of Plant and Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Written Down Value of Plant and Equipment Disposed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gain/Loss on Disposal of Plant and Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Proceeds from Disposal of Assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Written Down Value of Assets Disposed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Gain/Loss on Disposal of System Assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Appendix E FINMOD data for sewer fund base case

Bogan Sewerage : A- 2016 CWP Operating Statement

FINMOD
 Bogan Shire Council

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
EXPENSES																									
Management Expenses	309	310	310	312	313	314	315	315	317	318	320	320	321	322	323	324	325	326	327	328	329	330	331	332	333
Administration	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
Engineering and Supervision	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288
Operation and Maintenance Expenses	237	236	238	238	237	237	237	237	237	237	237	237	236	237	237	237	237	237	237	237	237	237	238	238	238
Operation Expenses	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99
Maintenance Expenses	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	113	114	114	114
Energy Costs	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Chemical Costs	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
Depreciation	116	116	116	117	117	117	116	116	116	116	116	117	117	117	117	117	117	116	116	116	117	117	117	117	117
System Assets	116	116	116	117	117	117	116	116	116	116	116	117	117	117	117	117	117	116	116	116	117	117	117	117	117
Plant & Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL EXPENSES	662	662	664	667	668	667	668	669	670	671	673	674	674	676	677	677	679	680	680	681	682	684	685	686	687
REVENUES																									
Rates & Service Availability Charges	823	798	776	750	725	699	673	646	648	651	655	658	663	667	670	673	676	680	683	687	690	694	699	702	705
Residential	521	505	491	475	458	443	427	409	410	412	415	417	419	422	424	426	428	430	433	435	437	439	443	444	447
Non-Residential	302	293	285	276	266	256	247	237	238	239	240	242	243	244	246	246	248	249	251	252	253	254	256	257	259
Trade Waste Charges	5	5	5	5	5	4	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Other Sales and Charges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extra Charges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Income	148	166	170	174	181	183	185	189	194	197	195	194	197	186	179	175	175	177	180	181	177	177	178	180	181
Other Revenues	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Grants	8	8	8	7	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5
Grants for Acquisition of Assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pensioner Rebate Subsidy	8	8	8	7	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5
Other Grants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contributions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer Charges	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer Provided Assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Contributions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL REVENUES	986	979	960	938	920	895	871	847	854	860	862	865	871	864	861	860	864	869	875	879	878	882	888	893	897
OPERATING RESULT	324	316	296	271	252	228	203	178	184	189	188	191	197	188	183	182	185	189	195	198	196	198	203	206	210
OPERATING RESULT (less Grants for Acq of Assets)	324	316	296	271	252	228	203	178	184	189	188	191	197	188	183	182	185	189	195	198	196	198	203	206	210

Bogan Sewerage : A- 2016 CWP Cashflow Statement

FINMOD
 Bogan Shire Council

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
Cashflow From Operating Activities																									
<u>Receipts</u>																									
Rates and Charges	828	803	780	755	729	704	677	649	652	655	659	662	666	670	673	677	680	683	687	691	694	698	703	706	709
Interest Income	148	166	170	174	181	183	185	189	194	197	195	194	197	186	179	175	175	177	180	181	177	178	180	181	181
Other Revenues	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Grants	8	8	8	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5
Contributions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Receipts from Operations	986	979	960	938	920	895	871	847	854	860	862	865	871	864	861	860	864	869	875	879	878	882	888	893	897
<u>Payments</u>																									
Management	309	310	310	312	313	314	315	315	317	318	320	320	321	322	323	324	325	326	327	328	329	330	331	332	333
Operations (plus WC Inc)	240	239	241	241	240	240	240	240	240	239	240	239	239	240	240	240	240	240	239	240	239	240	240	241	241
Interest Expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Expenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Payments from Operations	549	549	551	553	554	553	554	555	556	557	559	559	561	562	563	563	565	566	567	568	570	571	572	573	573
Net Cash from Operations	437	429	409	385	366	342	316	292	297	303	302	306	311	302	297	296	298	303	308	312	310	311	317	320	324
Cashflow from Capital Activities																									
<u>Receipts</u>																									
Proceeds from Disposal of Assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>Payments</u>																									
Acquisition of Assets	0	75	250	125	0	225	0	25	0	25	200	25	0	525	100	225	0	25	0	25	200	25	0	25	0
Net Cash from Capital Activities	0	-75	-250	-125	0	-225	0	-25	0	-25	-200	-25	0	-525	-100	-225	0	-25	0	-25	-200	-25	0	-25	0
CashFlow from Financing Activities																									
<u>Receipts</u>																									
New Loans Required	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<u>Payments</u>																									
Principal Loan Payments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Cash from Financing Activities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL NET CASH	437	354	159	260	366	117	316	267	297	278	102	280	311	-223	197	71	298	278	308	287	110	286	317	295	324
Current Year Cash	437	354	159	260	366	117	316	267	297	278	102	280	311	-223	197	71	298	278	308	287	110	286	317	295	324
Cash & Investments @ Year Start	2548	2912	3187	3264	3438	3711	3735	3952	4116	4306	4472	4462	4627	4818	4482	4565	4523	4704	4861	5043	5200	5180	5333	5513	5666
Cash & Investments @ Year End	2985	3266	3346	3524	3804	3828	4051	4219	4413	4583	4574	4743	4938	4594	4679	4636	4822	4982	5169	5330	5310	5467	5651	5808	5990
Capital Works Funding:																									
Internal Funding for New Works (\$'000)	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Internal Funding for Renewals	0	75	250	25	0	225	0	25	0	25	200	25	0	525	100	225	0	25	0	25	200	25	0	25	0
New Loans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Capital Works	0	75	250	125	0	225	0	25	0	25	200	25	0	525	100	225	0	25	0	25	200	25	0	25	0

Bogan Sewerage : A- 2016 CWP
Statement of Financial Position

FINMOD
 Bogan Shire Council

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
Cash and Investments	2985	3266	3346	3524	3804	3828	4051	4219	4413	4583	4574	4743	4938	4594	4679	4636	4822	4982	5169	5330	5310	5467	5651	5808	5990
Receivables	90	91	91	92	92	93	93	93	94	94	94	94	94	95	96	96	96	97	97	97	97	98	98	99	99
Inventories	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Property, Plant & Equipment	7187	7146	7280	7289	7172	7280	7164	7073	6957	6866	6950	6858	6741	7150	7132	7241	7124	7033	6918	6826	6909	6818	6701	6609	6492
System Assets (1)	7187	7146	7280	7289	7172	7280	7164	7073	6957	6866	6950	6858	6741	7150	7132	7241	7124	7033	6918	6826	6909	6818	6701	6609	6492
Plant & Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL ASSETS	10262	10503	10717	10905	11068	11201	11308	11385	11464	11543	11617	11694	11773	11839	11908	11973	12042	12112	12183	12253	12316	12382	12450	12516	12582
LIABILITIES																									
Bank Overdraft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Creditors	6	6	6	6	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	3	3	3
Borrowings	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Provisions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL LIABILITIES	6	6	6	6	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	3	3	3	3
NET ASSETS COMMITTED	10256	10498	10712	10899	11063	11196	11303	11380	11459	11538	11613	11690	11769	11835	11903	11969	12038	12108	12180	12249	12313	12379	12446	12512	12578
EQUITY																									
Accumulated Operating Result	7814	7940	8042	8117	8171	8200	8202	8180	8165	8155	8144	8137	8135	8125	8110	8094	8081	8074	8072	8073	8072	8073	8079	8088	8101
Asset Revaluation Reserve	2442	2558	2670	2782	2892	2996	3101	3199	3294	3384	3469	3553	3634	3710	3793	3875	3957	4035	4108	4176	4241	4306	4367	4424	4477
TOTAL EQUITY	10256	10498	10712	10899	11063	11196	11303	11380	11459	11538	11613	11690	11769	11835	11903	11969	12038	12108	12180	12249	12313	12379	12446	12512	12578
(1) Notes to System Assets																									
Current Replacement Cost	11427	11427	11427	11528	11527	11527	11527	11527	11527	11527	11527	11527	11527	11528	11527	11527	11527	11527	11528	11527	11527	11527	11527	11527	11527
Less: Accumulated Depreciation	4240	4281	4147	4239	4356	4247	4363	4454	4570	4661	4578	4670	4786	4378	4395	4286	4403	4494	4610	4701	4618	4710	4826	4918	5035
Written Down Current Cost	7187	7146	7280	7289	7172	7280	7164	7073	6957	6866	6950	6858	6741	7150	7132	7241	7124	7033	6918	6826	6909	6818	6701	6609	6492

Bogan Sewerage : A- 2016 CWP
Performance Indicators

FINMOD
 Bogan Shire Council

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
Typical Residential Bills	540	522	505	487	468	450	431	411	411	411	411	411	411	411	411	411	411	411	411	411	411	411	411	411	411
Average Residential Bills (2016/17\$)	526	508	491	472	454	437	419	400	398	399	399	399	400	401	401	400	401	401	401	402	402	402	403	402	403
Mgmt Cost / Assessment (2016/17\$)	257	256	256	256	256	256	256	256	255	255	255	255	255	255	255	254	255	254	254	253	253	254	252	252	252
OMA Cost per Assessment (2016/17\$)	454	453	453	452	451	450	448	448	446	446	445	444	443	443	442	440	440	438	437	437	436	435	434	433	432
Operating Sales Margin (%)	21.00	18.49	15.90	12.76	9.57	6.33	2.52	-1.66	-1.49	-1.21	-0.94	-0.45	0.00	0.32	0.62	1.11	1.37	1.71	2.21	2.51	2.70	2.96	3.52	3.74	4.09
Economic Real Rate of Return (%)	2.45	2.10	1.73	1.34	0.99	0.62	0.24	-0.15	-0.14	-0.12	-0.09	-0.04	0.00	0.03	0.06	0.10	0.13	0.17	0.22	0.26	0.27	0.31	0.37	0.40	0.45
Debt Service Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debt/Equity Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest Cover	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Return on capital (%)	3.16	3.01	2.76	2.49	2.28	2.04	1.79	1.57	1.60	1.64	1.62	1.64	1.67	1.59	1.54	1.52	1.53	1.56	1.60	1.62	1.59	1.60	1.63	1.65	1.67
Cash and Investments (2016/17\$'000)	2985	3266	3346	3524	3804	3828	4051	4219	4413	4583	4574	4743	4938	4594	4679	4636	4822	4982	5169	5330	5310	5467	5651	5808	5990
Debt outstanding (2016/17\$'000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Debt (2016/17\$'000)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Bogan Sewerage : A- 2016 CWP
Historical Operating Statement

FINMOD
 Bogan Shire Council

	2014/15*	2015/16*
EXPENSES		
Management Expenses	270	300
Administration	14	44
Engineering and Supervision	256	256
Operation and Maintenance Expenses	168	231
Operation Expenses	76	96
Maintenance Expenses	76	110
Energy Costs	9	10
Chemical Costs	7	15
Depreciation	85	113
System Assets	85	113
Plant & Equipment		
Interest Expenses		
Other Expenses		
TOTAL EXPENSES	523	644
REVENUES		
Rates & Service Availability Charges	776	630
Residential	445	444
Non-Residential	331	186
Trade Waste Charges	4	4
Other Sales and Charges		
Extra Charges		
Interest Income	68	64
Other Revenues	1	2
Grants	8	8
Grants for Acquisition of Assets		
Pensioner Rebate Subsidy	8	8
Other Grants		
Contributions	0	0
Developer Charges		
Developer Provided Assets		
Other Contributions		
TOTAL REVENUES	857	708
OPERATING RESULT	334	64
OPERATING RESULT (less Grants for Acq of Assets)	334	64

Bogan Sewerage : A- 2016 CWP
Historical Statement of Financial Position

FINMOD
 Bogan Shire Council

	2014/15*	2015/16*
Cash and Investments	2444	2548
Receivables	105	87
Inventories		
Property, Plant & Equipment	7143	7125
System Assets (1)	7143	7125
Plant & Equipment		
Other Assets		
TOTAL ASSETS	9692	9760
LIABILITIES		
Bank Overdraft		
Creditors	2	6
Borrowings		
Provisions		
TOTAL LIABILITIES	2	6
NET ASSETS COMMITTED	9690	9754
EQUITY		
Accumulated Operating Result	7426	7490
Asset Revaluation Reserve	2264	2264
TOTAL EQUITY	9690	9754
(1) Notes to System Assets		
Current Replacement Cost		11148
Less: Accumulated Depreciation	-7143	4023
Written Down Current Cost	7143	7125

Bogan Sewerage : A- 2016 CWP Base Forecast Data

FINMOD
 Bogan Shire Council

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
Financial Data																									
Inflation Rate - General (%)	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Inflation Rate - Capital Works (%)	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
Borrowing Interest Rate for New Loans (%)																									
Borrowing Interest Rate for New Loans (%)	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Investment Interest Rate (%)	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50	5.50
Number of Assessments																									
Growth Rate (%)																									
Residential Assessments	0.51	0.40	0.50	0.50	0.50	0.40	0.49	0.49	0.49	0.49	0.48	0.38	0.48	0.48	0.47	0.47	0.47	0.47	0.47	0.46	0.46	0.46	0.55	0.45	0.45
Non-Residential Assessments	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Total Assessments	0.42	0.33	0.41	0.41	0.41	0.33	0.41	0.41	0.41	0.40	0.40	0.32	0.40	0.40	0.40	0.39	0.39	0.39	0.39	0.39	0.39	0.38	0.46	0.38	0.38
Number of New Assessments																									
Residential	5	4	5	5	5	4	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	6	5	5
Non-Residential	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Assessments	5	4	5	5	5	4	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	6	5	5
Projected Number of Assessments																									
Residential	991	995	1000	1005	1010	1014	1019	1024	1029	1034	1039	1043	1048	1053	1058	1063	1068	1073	1078	1083	1088	1093	1099	1104	1109
Non-Residential	211	211	211	211	211	211	211	211	211	211	211	211	211	211	211	211	211	211	211	211	211	211	211	211	211
Total Projected Assessments	1202	1206	1211	1216	1221	1225	1230	1235	1240	1245	1250	1254	1259	1264	1269	1274	1279	1284	1289	1294	1299	1304	1310	1315	1320
Backlog Assessments																									
Residential	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Residential	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Backlog Assessments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer Charges / Vacant Assessments (Values in 2016/17 \$)																									
Developer Charges \$/Assessment																									
Residential	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Residential	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of Vacant Residential Assessments																									
Average Charge of Vacant Assessments	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
% of Occupied Assessments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Depreciation of Existing Plant and Equipment (Values in 2016/17 \$'000)																									
Current Replacement Cost of System Assets	11427																								
Override																									
Written Down Current Cost of System Assets	7303																								
Override																									
Annual Depreciation of Existing System Assets	116																								
Override																									
Written Down Value of Plant and Equipment																									
Override	0																								
Annual Depreciation of Existing Plant and Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Bogan Sewerage : A- 2016 CWP
Base Forecast Data

FINMOD
 Bogan Shire Council

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41
Existing Loan Payments (Values in Inflated \$'000)																									
Existing Loan Payments : Principal (Total:0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Loan Payments : Interest (Total:0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Capital Works Program (Values in 2016/17 \$'000)																									
Subsidised Scheme (Total:100)	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other New System Assets (Total:0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Renewals (Total:2275)	0	75	250	25	0	225	0	25	0	25	200	25	0	525	100	225	0	25	0	25	200	25	0	25	0
Total Capital Works (Total:2375)	0	75	250	125	0	225	0	25	0	25	200	25	0	525	100	225	0	25	0	25	200	25	0	25	0
Grant For Acquisition of Assets (% of Subsidised Scheme)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grant For Acquisition of Assets (\$) (Total:0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Developer Provided Assets (Total:0)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant and Equipment Expenditure / Asset Disposal (Values in 2016/17 \$'000)																									
Plant and Equipment Expenditure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proceeds from Disposal of Plant and Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Written Down Value of Plant and Equipment Disposed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gain/Loss on Disposal of Plant and Equipment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proceeds from Disposal of Assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Written Down Value of Assets Disposed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gain/Loss on Disposal of System Assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0